UNITED STATES DEPARTMENT OF LABOR

+ + + + +

ADVISORY BOARD ON TOXIC SUBSTANCES

AND WORKER HEALTH

+ + + + +

MEETING

+ + + + +

THURSDAY

APRIL 28, 2016

+ + + + +

The Advisory Board met at the Department of Labor, 200 Constitution Ave, N.W., Washington, D.C., at 8:30 a.m., Steven Markowitz, Chair, presiding.

MEMBERS

SCIENTIFIC COMMUNITY:

JOHN M. DEMENT MARK GRIFFON KENNETH Z. SILVER GEORGE FRIEDMAN-JIMENEZ LESLIE I. BODEN

MEDICAL COMMUNITY:

STEVEN MARKOWITZ, Chair LAURA S. WELCH ROSEMARY K. SOKAS CARRIE A. REDLICH VICTORIA A. CASSANO

CLAIMANT COMMUNITY:

DURONDA M. POPE KIRK D. DOMINA GARRY M. WHITLEY JAMES H. TURNER FAYE VLIEGER

DESIGNATED FEDERAL OFFICIAL:

ANTONIO RIOS

PRESENTERS

JEFF KOTSCH, Senior Health Physicist and Unit

Chief, Medical and Health Science

RACHEL LEITON, Director, DEEOIC

TABLE OF CONTENTS

ITEM					ł	PAGE
Welcome/Introductions	•	•	•	•	•	. 4
Recommendations for Dept. of Labor	•	•	•	•	•	. 8
Proposed Rule Changes	•	•	•	•	•	103
Draft Recommendation	•	•	•	•	•	105
Item 11/Contractor Employee Definition	•	•	•	•	•	150
Public Comment	•	•	•	•	•	163
Proposed Rule Changes	•	•	•	•	•	196
Administrative Matters	•	•	•	•	•	260

	II
1	P-R-O-C-E-E-D-I-N-G-S
2	8:44 a.m.
3	CHAIR MARKOWITZ: So, let's get
4	started. Ms. Gibson, in the back? Ms. Gibson,
5	can you hear me? Okay, thank you. I was just
6	checking the mic.
7	Welcome. This is the third day of the
8	Advisory Board on Toxic Substances and Worker
9	Health. Sorry for the delay. We had a little
10	problem with the WebEx.
11	For those of you who are participating
12	remotely, you can still reach us on through
13	the phone. If you want to see the PowerPoint
14	presentations, or otherwise participate, you will
15	need to send us an email, and then we will give
16	you instructions on how to connect with us. Is
17	that right, Tony?
18	MR. RIOS: Yes.
19	CHAIR MARKOWITZ: Thank you. Today is
20	Worker's Memorial Day. So, we recognize the many
21	thousands of workers who actually, each year
22	over 4,000 workers who die from traumatic

Neal R. Gross and Co., Inc. Washington DC

fatalities, and some multiple of that who die 1 2 from chronic occupational illnesses. We will do that by 10:30, between 3 4 10:30, which is our scheduled break, it will --5 we'll prolong it until 11:00. There is a ceremony and some speakers downstairs. 6 Ms. 7 Duronda Pope is going to speak, our Board Member. So, we will break at 10:30, and those 8 9 of you who wish to attend that, where it -- do 10 you know where it is exactly? 11 MR. RIOS: The Great Hall. 12 CHAIR MARKOWITZ: The Great Hall, 13 wherever that is, okay, but we'll -- must -we'll find it. 14 15 So, let's quickly do introductions, 16 and then we'll proceed from there. Dr. Laura 17 Welch. 18 MEMBER WELCH: Laurie Welch. I'm the 19 medical director of the Building Trades Medical 20 Screening Program, which is one of the DOE funded 21 former worker programs, and I'm an Occupational 22 Medicine Physician.

Neal R. Gross and Co., Inc. Washington DC

1	MEMBER TURNER: James Turner from the
2	Rocky Flats Nuclear Weapons Plant, near Denver,
3	Colorado, diagnosed with chronic beryllium
4	disease in 1990.
5	MEMBER POPE: Duronda Pope, United
6	Steel Workers, also a former 25 years Rocky Flats
7	former worker.
8	MEMBER WHITLEY: Garry Whitley, a
9	former worker from Y-12 National Security
10	Complex.
11	MEMBER DOMINA: I'm Kirk Domina. I'm
12	the employee advocate for the Hanford Atomic
13	Metal Trades Council in Richland, Washington.
14	MEMBER VLIEGER: Faye Vlieger, former
15	Hanford worker, injured worker claimant.
16	MEMBER SOKAS: Rosemary Sokas.
17	Occupational Physician, Professor and Chair of
18	Human Science at Georgetown University School of
19	Nursing and Health Studies.
20	CHAIR MARKOWITZ: Steven Markowitz,
21	Professor at City University of New York,
22	Occupational Medicine, Physician and

Neal R. Gross and Co., Inc. Washington DC

Epidemiologist.

1

MEMBER SILVER: Ken Silver, Associate
Professor of Environmental Health in the College
of Public Health at East Tennessee State
University.
MEMBER CASSANO: Victoria Cassano,

Occupational Physician, former Naval Under Sea
Medical Officer, Radiation Health Officer and
former VA head of radiation physical exposures
and environmental health service.

MEMBER BODEN: Les Boden. I'm a
Professor in the Department of Environmental
Health at Boston University School of Public
Health.

15 John Dement, Professor MEMBER DEMENT: 16 at Division of Occupational and Environmental 17 Medicine, Duke University Medical Center. 18 MEMBER GRIFFON: Mark Griffon, 19 Occupational Safety and Health Consultant. 20 MEMBER REDLICH: Carrie Redlich. I'm 21 an Occupational Medicine and Pulmonary Physician 22 and Professor of Medicine and Director of the

1	Yale Occupational Environmental Medicine Program.
2	MEMBER FRIEDMAN-JIMENEZ: George
3	Friedman-Jimenez. I'm an Occupational Medicine
4	Physician and an Epidemiologist at Bellevue/NYU
5	Occupational Environmental Medicine Clinic.
6	MR. RIOS: And I'm Tony Rios. I am the
7	Designated Federal Officer for the Advisory
8	Board.
9	Also for those folks that are on the
10	phone that did want to join us through WebEx, the
11	Chair asked that you email us. I just wanted to
12	give you our email address.
13	That's energyadvisoryboard@dol.gov.
14	That's located on our website, but I just wanted
15	to make sure everyone had it.
16	CHAIR MARKOWITZ: So, next we're going
17	to discuss the fourth area that Department of
18	Labor has asked us to provide recommendations on,
19	as a Board, and I'd just like to read from our
20	charter what the assignment is before we begin
21	the session.
22	"The Board shall advise the Secretary

of Labor, with respect to the work of industrial 1 2 hygienists and staff physicians and consulting 3 physicians of the Department, and reports of such 4 hygienists and physicians to ensure quality, 5 objectivity and consistency." So, with that, I'd like to invite Mr. 6 7 Jeff Kotsch, who is a Senior Health Physicist and Unit Chief of the Medical and Health Science to 8 9 come and present. Welcome. 10 I'd also like to welcome back Ms. 11 Leiton. 12 MR. KOTSCH: Up front, I'll apologize. 13 I'm suffering through allergy season. I don't 14 know if anybody else has that affliction, but 15 anyway. So, if you see me sniffling up here, 16 that's what it is. 17 I think we are -- is it audible now or 18 -- okay. 19 I think they've all started, all our 20 previous presenters have started with an 21 introduction of their background. Unfortunately, 22 I haven't been with DOL as long as most of these

Neal R. Gross and Co., Inc. Washington DC

people. I only started a little bit after the
 program started. You know, I started in August
 of 2001.

Out of graduate school, I went to work 4 5 with the Nuclear Regulatory Commission. That was back in '78, and ended up in a group, a licensing 6 group that actually did uranium milling 7 licensing, which was interesting and actually, 8 9 has come back in the loop because one of the 10 things that we cover is uranium milling, milling, 11 mining and ore transporting, as part of Section 5 12 of the RECA.

When TMI came around, I got drafted because there weren't that many -- interestingly enough, there weren't that many health physicists in the NRC as you would have expected.

So, I got drafted into the emergency
response center and then continued from there,
working on reactor related things, until '81,
when I left, and joined a commercial nuclear
power plant in Southern New Jersey and headed up
the Central Radiological Protection Support Group

for that, through the 80's, essentially. 1 2 In the early 90's, I joined a small consulting firm in the D.C. area. We did a lot 3 of DOL and some NRC work, I mean, sorry, DOE, and 4 5 I was fortunate to probably visit all of the -major DOE facilities, as well as a number of the 6 7 minor ones, doing nuclear safety assessments for what was then the defense programs and also 8 9 later, the environment safety and health group. 10 So, I got to go to Rocky -- one of the 11 first things I did was, I went to Rocky Flats and 12 participated in the review for the startup of the 13 707 Building where they did plutonium pit 14 production. 15 Unfortunately, that facility was never 16 allowed to go into operation. It did similar 17 things for K reactor at Savannah River, the 18 replacement tritium facility done there, and a 19 bunch of other -- they call them vulnerability 20 assessments throughout the DOE complex for 21 uranium and plutonium, and that gets me to the 22 point of where I joined DOL in August of 2001.

(202) 234-4433

1	Since then, initially, obviously I
2	came in as a health physicist for the Part B
3	program, when they took over Part E, or when Part
4	E implemented, they added staff. We added
5	well, the members of our staff include a
6	toxicologist, actually with a PhD, but she also
7	likes to say that she's an occupational
8	epidemiologist, because she has an MPH in that.
9	We had, sadly passed away, our medical
10	director last early last year, and so, we rely
11	now on a the OWCP medical director, as we hire
12	a new medical director, and I think the intention
13	is to have that core group sit in OWCP, but to be
14	available to us, and certainly the OWCP medical
15	director is, and has always been, very accessible
16	to us for, you know, questions that we have.
17	The latter half of the presentation
18	will get into, you know, the CMC contract, but
19	the first part will be the IH, and the industrial
20	hygiene portion, and we have and don't let me
21	let me just start with the presentation.
22	I think you have it or the talking

Neal R. Gross and Co., Inc. Washington DC

points. Actually, I was tempted, since we've 1 2 actually discussed, I think, most of the things I'm going to discuss through Rachel's and John's 3 4 and Rhonda's presentations. I was almost tempted 5 to just say let's go straight to questions, but I'm sure I'm not going to get away with that. 6 7 So, anyway, we'll just step through this. We can probably step through it a little 8 9 more quickly. I have a couple things that you may 10 not have seen, and go on from there. 11 But anyway, as it says in the 12 overview, basically, we're to establish -- the 13 overview provides the basis of what -- you know, 14 the activities for the industrial hygiene, and 15 actual -- actually, the medical reviews 16 encompasses. 17 To show evidence of potential or 18 plausible exposure of toxic substances, evidence 19 of covered DOE along with evidence of covered DOE 20 contractor, subcontractor or employment under the 21 RECA Act, which is what we've talked about 22 before.

1	The regulatory requirements there, the
2	first one comes from 20 CFR Part 30.23 or
3	231(d), and it talks about establishing
4	employment-related exposure to a toxic substance.
5	So, proof of exposure to the toxic
6	substance, that that is present, and then it
7	talks about the site exposure matrix matrices
8	being used as a basis for determining the
9	presence of the toxins, and the second portion of
10	that is the same citation except that the the
11	second I'm sorry, 20 CFR 20.231(d)(2) and it
12	talks about essentially, what goes into a review
13	for toxic substance, the nature, frequency and
14	duration of the exposure, evidence of the
15	carcinogenic or pathogenic properties, the
16	opinion as a qualified physician, and other demo
17	other evidence that demonstrates the
18	relationship to a particular toxic substance and
19	the claimed illness.
20	The industrial hygiene process.
21	Currently, we have three industrial a
22	certified industrial hygienist. Two are Feds

are Federal employees, one is a contractor 1 2 employee, and the CIH's review and evaluate the historical occupational safety and health data, 3 4 which may or may not include, and often doesn't, 5 specific -- employee specific industrial hygiene monitoring data, along with the application of 6 7 the specialized knowledge that they bring to -to the review, relating to the field of 8 9 industrial hygiene. 10 The process, and I think we've done 11 this before, the process starts with the claims 12 examiner in the field, obviously, identifying 13 that an exposure issue is present. 14 The CE basically formulates the 15 question as far as the potential for the 16 exposure, using the site exposure -- exposure 17 matrix, or matrices, the SEM and the case file 18 that frames -- and the information in the case 19 file to frame the question, and there are sub-20 bullets there including obviously, the things 21 that they -- they need to address, the facility 22 exposure records, the DAR request from DOE, which may or may not contain a number of things, which
 we may get into later, and some of the things
 that show up here.

Obviously, one of the things they're looking for is employment information, but sometimes they will find, not related to the E side, but to the B side, obviously records for dosimetry, which NIOSH also gets, because they do similar requests on their side, for the B side.

10 Sometimes we're lucky and, especially 11 at Savannah River site and the Rocky Flats Plant, 12 where we get actual documents that reference the 13 employee by name and discuss their -- their --14 yes, their employment activities as a maintenance 15 mechanic or a laborer, or whatever it is, or if 16 there are multiple positions, it discusses those, 17 their acts -- their work activities, the types of 18 things they're exposed to, heavy metals or 19 whatever solvents or whatever it is.

20That is actually useful, especially21since it's specific to the individual.

The occupational health questionnaire,

Neal R. Gross and Co., Inc. Washington DC

which it comes from the resource center
 interviews, again which are conducted either in person or via the phone.

4 Those are useful because if you're 5 talking obviously to the worker, because you -because you're getting their input. 6 Yes, obviously if it's a survivor situation, whether 7 it's the spouse or the children, that information 8 9 is generally of less value, simply because they 10 were not aware of all the things that their 11 father or mother did at the facility and because 12 of the security restrictions, a lot of those 13 things, you know, they may never have talked 14 about those things at home anyway.

15 Obviously, the employee records, the 16 verified affidavits of coworkers and other 17 people, the former -- DOE former worker program 18 screening records, if they're available, the 19 NIOSH site profiles, which generally, they don't 20 get into, but do provide some information, since 21 they're created for the B side, occasionally has 22 some information.

Any evidence that the employee 1 2 submits. Sometimes they do indeed submit supplemental information, you know, to describe 3 their work, or they may submit it after they've 4 5 had the interview, if they've thought of something else or if the CE perhaps asks for 6 7 additional information, to expand on something they said in their OHQ, and any other information 8 9 that they might submit, as it -- concerning toxic 10 exposures at the site. 11 All this gets rolled into what they 12 call the Statement of Accepted Facts, so, which 13 we'll go through. I'll hand out one in a few 14 minutes and we can just run through that quick, 15 and you'll see what information that contains. 16 So, that comes in. It's reviewed by 17 -- and we -- we have quite a few of those. It's 18 reviewed by our lead industrial hygienist, to 19 make sure the quality of it is what we need to 20 perform the review that we -- we don't need the -21 - that the question is properly posed and things 22 like that.

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

Initially, when the review is 1 2 performed, the -- they'll -- whoever is doing -whichever the industrial hygienist that's doing 3 4 the review, assuming that the question is --5 appears to be appropriate for the medical condition and things like that, they'll re-run 6 7 the SEM, check, you know, to make sure that that's properly done. Often, that is done fairly 8 9 early, even before it's transmitted to the other 10 IH's to review, and to ensure that we've got the 11 proper toxins that are identified for the medical 12 condition. 13 The SOAF is an area that MS. LEITON:

14 we constantly are reviewing because that's -- as 15 we've talked about earlier in the week, that's an 16 -- that's something that is reviewed by the IH. 17 It's reviewed by the CMC.

So, we've tailored it. In some ways, we'll tailor it to a referral to an IH versus a referral to a CMC, and it's something that we're currently still looking at and working with our district offices to see if there is like -- if

there is maybe a formulaic process for referring 1 2 cases to our IH. That would -- because it's still kind of a struggle I think for -- since we 3 4 have so many different claims examiners, to 5 ensure consistency with this. So, we're trying more and more every 6 year to make it as consistent as possible, with 7 regard to what we include in the information that 8 9 goes to the IH, what information that the claims 10 examiners claim, but also, what is attached to 11 it. 12 So, just wanted to let you know, 13 that's something that's ongoing. I mean, it's been a constant and it's -- but it's -- we do 14 15 evaluate it regularly to make sure that it's 16 still consistent with what we need to be using it 17 for. 18 MR. KOTSCH: And even format-wise, I mean you'll see, actually one format, but it's 19 20 not even the common format that we use when I 21 hand out the example, but we are, I think in a 22 current effort to actually overhaul the OHQ, so

any input you could provide -- yes, would be 1 2 useful. I'm sorry, that was the OHQ, but even 3 4 the SOAF's, you know, we're always looking at 5 those things too. The SOAF is used obviously, to 6 transmit information for -- it could be for a 7 medical review. Obviously, it's a different one 8 9 than you'll see today, which is an IH one, 10 they're also used to transmit requests for 11 toxicology reviews or even health physics reviews 12 on the B side. 13 So, that -- it's a common mechanism 14 that is used for basically all the inputs to the 15 specialists in our group. 16 So, anyway, basically now that they've 17 redone -- they've done a SEM run again, to check 18 that and talk with the CE if they need to. We 19 have no direct interaction with the claimants. 20 If there were any, that would go through the CE. 21 We tap in sometimes occasionally to the folks 22 that support the SEM contract, some of their

health -- industrial hygienists, if we need some 1 2 specific information that might have been in SEM, or we think that is in SEM, or should be in SEM. 3 4 Obviously, sometimes there are 5 deficiencies in SEM that we can find, that we'll identify and transmit over to them, and sometimes 6 7 they'll see things that we've missed. So, anyway, the IH renders an expert 8 9 opinion in the form of a memorandum, which we'll 10 see a copy of, that addresses the issues as 11 specifically as possible. It addresses the specific question which is posed by the CE, just 12 13 as for a medical one, you address the specific 14 question -- the CMC addresses the specific 15 question, and employs their specialized training 16 to make findings, based on the evidence in the 17 file, and there you see the things. 18 You know, you address obviously, the 19 toxic substance -- I'm sorry, toxic substance, 20 employee history, the medical condition and then 21 apply that in a -- hopefully, and communicate --22 or I'm sorry, communicate that in a clearly

understandable, written narrative. 1 2 So, at this point, I want to do two things. We can hand out the -- Carrie is not 3 4 here, okay. 5 We can hand out the copies of the -it's in that brown folder, just for the examples, 6 7 and the other thing we can do is have -- do you want to talk now? And to have Doug Pennington 8 9 talk about our new IH contract. 10 MR. PENNINGTON: Good morning, 11 everyone. Again, my name is Douglas Pennington. 12 I am the Deputy Director of the Energy Program. 13 I've spoken to you briefly before, and I 14 appreciate the opportunity to do it again. 15 I am going to give you a very brief, 16 unlike everyone else, I've been with the Energy 17 Program and OWCP since July of 2015. So, I am 18 exceptionally new. 19 I came here though with 20 years of 20 experience in the insurance industry, as a state 21 insurance regulator, and working for CMS for the 22 last five years, and so, I bring a variety of

1

experience.

2	I am here to basically tell you that
3	we're very excited to announce that effective
4	3:00 p.m. yesterday, we executed a contract with
5	Banda International Group to perform certified
6	industrial hygienist work on our behalf. They
7	will be supporting the three industrial
8	hygienists that Jeff was mentioning previously,
9	our two staff and one contractor.
10	Their primary role will be supporting
11	all of these referrals that our claims examiners
12	have been making, and so, as previously mentioned
13	in the week, we do currently have a back-log that
14	they will be working towards eliminating as
15	quickly as possible, while also taking on new
16	industrial hygiene referrals.
17	So, since this contract was literally
18	executed yesterday afternoon, we will be in the
19	process of implementing and training and getting
20	all of that up to date over the next couple of
21	weeks. But we wanted to let you know that this
22	was something we were very excited about.

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

1	Banda, just so that you know, brings
2	years of experience in industrial hygiene
3	activities, working for the National Nuclear
4	Security Administration, the Department of
5	Energy, various subcontractors of the Department
6	of Energy, and various private nuclear
7	facilities.
8	So, these this organization is and
9	provides a great deal of industrial hygiene
10	expertise in the nuclear facility world, which is
11	obviously something that excites us greatly. So,
12	it should hopefully reduce the training curve
13	that they're going to have to suffer through.
14	So, thank you very much, and have a
15	good day.
16	MR. KOTSCH: Thank you.
17	MS. LEITON: So, I think the timing of
18	this is really good, in terms of, we're
19	establishing the board and the guidance that you
20	provide, we can also relay to them. I think it's
21	a good starting point. So, I'm going to turn it
22	back over to Jeff.

Neal R. Gross and Co., Inc. Washington DC

MR. KOTSCH: Okay, so, what I've 1 2 handed out has three parts to it. The first two parts are, in essence, I tried to hopefully 3 4 redact it completely, and maybe over-redacted in 5 some cases, but just to protect the innocent or 6 whatever. 7 The first two parts that are stapled together are basically what we get -- or in this 8 9 example, what we received from the CE. 10 Now, this can -- this is a little bit 11 more than we normally receive, but sometimes a 12 little bit less. 13 Like I mentioned, when we have 14 Savannah River site cases or Rocky Flats cases, 15 we often get those additional documents about 16 employment -- you know, work activity 17 descriptions, employment descriptions for, you 18 know, if it's a maintenance mechanic or a welder 19 or laborer, or whatever it is, you know, which 20 again, we find useful. 21 Unfortunately, I was trying to look at 22 this particular file and see if I could find the

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

medical -- the SOAF that went to the CMC, but I 1 2 couldn't find it. I don't think I actually -because of the dates on this thing it was 3 4 developed yet, but I was trying to -- I was 5 hoping I could get, you know, the complete flowthrough, the question that they pose and the SOAF 6 7 to the CMC, but I failed on that one, but I think 8 ultimately, we can -- yes, we can get copies of 9 those kinds of things.

10 So, anyway, the first one, which is 11 the two pages is basically the -- it's called the IH referral, but it really, in essence, is what 12 13 we also call the SOAF. This one has a little 14 different format than many of the other ones you 15 see, which are primarily in the more of a textual 16 format, but it gives you the essence of what --17 you know, what's contained in what we call an IH 18 referral or a SOAF or an IH review.

19 It starts with the demographic
20 information on the employee, medical information,
21 employment information, including, you know,
22 obviously dates of employment, position, work

1

position.

2	The number four is the the list of
3	toxins, and you'll notice in this one, initially
4	they came up with a long list, a longer list than
5	the three questions or the three toxins that
6	they ultimately requested to be reviewed, and in
7	the next package, you'll see that but we'll
8	get to that in a second.
9	I just included the email that they
10	sent to one of our industrial hygienists, on how
11	they whittled that down.
12	So, they present the three toxins and
13	then basically present the question, and then on
14	the following pages is just the it's basically
15	a summary of the employment again, and the right-
16	most column, the potential toxic exposures comes
17	from their assessment in SEM. They put the
18	the facility and the labor category and the
19	medical condition, and then they start coming up
20	with conditions.
21	So, anyway, in the second package, the
22	first thing is just what they submitted, was

1	actually a couple of emails on how the how the
2	longer list of 13 was basically reduced down to,
3	I guess is it three or four? So, I think it's
4	three. So. Sure.
5	MEMBER WELCH: So, you know, I was
6	saying, well, is this a claims examiner or is
7	this a supervisor or is this a
8	MR. KOTSCH: No.
9	MEMBER WELCH: because it's sort of
10	like I'd recommend that your IH referral ask
11	for exposure evaluation.
12	So, just to it helps me understand
13	the process.
14	MR. KOTSCH: This email?
15	MEMBER WELCH: Yes.
16	MR. KOTSCH: I'm sorry, yes. This
17	the top one is from our industrial hygienist.
18	Actually, our contractor industrial hygienist,
19	back to the to the CE.
20	Yes, the well, it has CE well,
21	I'm sorry. You know how emails go? They go back
22	to front kind of thing.

1 So, the --2 MEMBER WELCH: Oh, okay. -- I guess my redacting 3 MR. KOTSCH: 4 5 MEMBER WELCH: Okay. MR. KOTSCH: -- the top of the second 6 7 page was essentially the email from the CE to the industrial hygienist, you know, the one with --8 9 MEMBER WELCH: Asking him to narrow 10 down --11 MR. KOTSCH: -- asking him to narrow 12 down the 13, the 13 toxins, and then the top one, 13 I guess by over-redacting it, it loses something, 14 and then top one is then the recommendation back 15 from the industrial hygienist, back to the claims 16 examiner. 17 MEMBER REDLICH: So, somebody is 18 asking -- so someone is -- thinks that it will be 19 helpful to know which of these is the major 20 exposure or what is the --21 MR. KOTSCH: Yes. 22 MEMBER REDLICH: -- question?

Yes, we have a -- one of 1 MR. KOTSCH: 2 the -- just because we get so many of these in, until we had the contractors yesterday, we get so 3 4 many referrals, we've kind of said, try to limit 5 it to no more than seven for each particular job 6 category. 7 So, when they come up with 10 or 15 toxins or something, it may be a result of the 8 9 fact that they didn't properly do the SEM surge, 10 or it may just be a fact that there is 11 potentially, you know, 10 or 15 toxins in there. 12 So, then we ask them to talk to our 13 industrial hygienists and see if they can whittle 14 it down to some lesser number. 15 Now, if that's not possible, we will 16 -- it -- we will, you know, run all of those 17 toxins. But if we can reasonably limit it down 18 to the more -- you know, essentially the more 19 important ones, that's the goal. 20 MEMBER REDLICH: So, as an 21 occupational pulmonary specialist who does mainly 22 diagnosing things, like work-related COPD, having

five specific toxins versus more general 1 2 information, the type of work processes, we don't diagnosis occupational COPD based on like 3 4 measurements of phosgene. 5 The literature is -- that supports the association is for exposures to fumes, dust, 6 7 vapors, and it's not one specific substance. So, I'm not sure what that effort 8 9 accomplishes by making it a shorter list. 10 MS. LEITON: So, when we refer the --11 we used to have -- if you look in the SEM, you'll 12 see this broad list of possible things people 13 could be exposed to, and when we refer it to an 14 IH, what we do is, we explain to the IH, what we 15 believe that the person's potential exposure may 16 have been and ask them to tell us the root and 17 nature of exposure, so that we can then go to the 18 physician with that information in mind. 19 So, that's the way that when we refer 20 it to an IH, we're asking them to opine on that 21 particular -- this person was in this job. We 22 narrow it down because we're not going to give

them 25 different toxic substances, especially if 1 2 they've talked to an IH, talked about the job categories, talked about the length of 3 4 employment, the IH is really -- these other ones 5 are not going to be as relevant. So, these are the four that you would 6 want to have us focus on. 7 That's the way our referral process works. 8 9 CHAIR MARKOWITZ: Dr. Dement? 10 MEMBER DEMENT: I guess what's missing 11 for me on this process is what the worker 12 actually gave you on their occupational history. 13 MR. KOTSCH: I'm sorry, this is coming 14 up then. 15 MEMBER DEMENT: Okay. So, none of 16 these things are in what was said to the -- IH, 17 well, we'll come to that. 18 MR. KOTSCH: Yes, it's attached. It's 19 just coming up in the -- behind a document. Ι 20 just happen to put this -- this email in there 21 first. 22 So, anyway, so, after the email, which was the first three pages, comes the SEM run, and this is for an electrician, which he -- and that's just a printout of it. That's what the CE submitted in support of the -- and then they submitted another one for a welder. This particular individual, I think welded for like four months of the -- of his employment.

Then where it says -- where it says --8 9 I'm sorry, and then there is one page where it 10 says EEOICPA party DAR requisition. That is -- a 11 lot of times, that -- the first page of the --12 whatever the document dump that comes in, and 13 that basically is a report back from DOE as to 14 what they found or couldn't find, and not all 15 those records may be attached to what comes into 16 the IH.

MS. LEITON: If there is anything
substandard in the records, it would be included.
MR. KOTSCH: Yes, so, at this point,
if there were -- if it was a more recent
employment and there was -- and they were able to
find monitoring data, say in the 90's or 2000's,

that would be submitted too. 1 2 That is a rare event that we don't often see any kind of monitoring data. It comes 3 in with the SOAF. 4 5 So, then the page after that --6 CHAIR MARKOWITZ: I'm sorry, which 7 page are we on? Okay, now, we're at --8 MR. KOTSCH: 9 I'm sorry, I should have probably numbered these 10 guys. This page? I'm sorry, I should have 11 numbered these pages. 12 So, we're probably about what? Eight 13 or nine pages in. It's titled 'Energy Employees 14 Occupational Illness Compensation Program, 15 Occupational History Interview', or often called 16 the Occupational Questionnaire. 17 So, anyway, this is the first page of 18 what's often called the OHQ or the OHI, the 19 occupational history interview, or the 20 questionnaire. 21 This is -- I know there is an effort 22 in the policy branch, to review this -- to either

review and revise this document too. 1 2 This is the information that's basically taken in at the resource center, again, 3 4 either in person or over the phone. 5 So, it starts off with basically the name of the employee and whoever the interviewee 6 It could be this -- it could be the actual 7 was. worker or it could be, you know, one of the 8 9 survivors. 10 It goes through Section 2, which is a 11 health history, tobacco and alcohol use, non-DOE 12 work history. This is the second page of that. 13 Section 5 is now the third page, 14 beginning to talk about DOE work employment, and 15 listing out the facility -- I mean, the 16 contractors or subcontractors and the years of 17 employment. 18 The B section of that, which starts at 19 the bottom is basically the -- if they 20 participated in a former worker screening 21 program. 22 The next page is Section 5C, the labor

1	category. There is an extensive list that runs
2	on for well, at least two pages, that talks
3	about, you know, the different categories and the
4	labor years of employment.
5	So, those, as appropriate, are
6	checked, if not, you know, something else is
7	added at the end, if the particular title doesn't
8	show up.
9	The next page is Section 5D, again,
10	just giving the union affiliation. Section 6,
11	which is the work areas, which is important for
12	us as or important for the industrial
13	hygienists.
14	You'll note at the top it talks about
15	the frequency box and assigns numbers from one to
16	five, five being the most basically, daily
17	employment, one being essentially doing an
18	activity or presence in that building for a month
19	or less.
20	Then the box in the lower you know,
21	basically lists the facilities, PUREX and PFP and
22	East and West K areas and things like that, the

different buildings, and we'll go on tank farms 1 2 and can be amended if it's even longer than that. If there is any additional information 3 4 that the interviewee wants to add, they add that 5 at the bottom of that section. Section 7 is the PPE, protection -- personal protective equipment. 6 7 That's used or supplied and those things are checked off accordingly, and then they can 8 9 describe other things there, or add additional 10 comments, if they want. 11 Section 8 is the exposure information, 12 and then now they start to get into possible 13 lists of toxins, and you see the ones that are 14 checked -- checked off there, at least as 15 suspected of being potentially exposed. 16 There is a section on high explosives, 17 which we usually don't see much of, unless we're 18 down at the Pantech or something. 19 The next section is radiological. 20 Now, we flip the page again, and this section 21 talks about any major accidents or incidents that 22 there might have been in -- and these things are

actually more B related, Part B related, you
 know, whether they were monitored for radiation
 exposure or had to do bioassay or something like
 that.

5 The middle section discusses plastics 6 and adhesive resins, dusts and fibers are at the 7 bottom, and in the last page of -- is the other 8 toxic substances.

9 MS. LEITON: So, this was developed, 10 I think I might have mentioned, back when we 11 first got Part D, and we based it off of some of 12 the questionnaires that were used by Department 13 of Energy at the time, when they were doing the 14 Part D assessments.

15 So, that's why currently, we're 16 looking at it, and you know, rather than asking 17 them, going through a list of toxins, which 18 usually is not a very productive exercise, we're 19 trying to look for ways to modify this form, so 20 that it will actually be more useful and solicit 21 -- elicit the information that we need the most 22 from the claimants, when we're obtaining this

1

information.

2 So, again, any input from the Board on that area would probably be helpful. 3 So, that -- well, again, MR. KOTSCH: 4 5 that second portion and the first portion, which is the SOAF is, in this case, what was provided 6 7 by the CE to the industrial hygienist for review. Then the last three pages, or this 8 9 last three page stapled document is the -- in 10 essence, the industrial hygiene review. 11 Again, it states the question, in the 12 middle of the first page, that the CE posed, as 13 far as the potential exposures, cites the -- just summarizes the background, as far as -- I'm 14 15 sorry, we're on this one? 16 So, cites the background and 17 summarizes the employment, and then gets into the 18 discussion, essentially toxin by toxin. So, 19 there is three of them there, cement, diesel 20 engine exhaust and then welding fume. 21 It assigns -- this person was employed 22 primarily as an electrician from '77 through

2015, but I think -- yes, they're intermittent. 1 2 So, anyway, the way they do their assessments, obviously Part E side is much more 3 qualitative than the Part B side, where we have 4 5 at least dosimetry and monitoring data and things So, it's a little more quantitative 6 like that. 7 than the Part E side, where due to the lack of a lot of environmental -- or not environmental, 8 9 industrial hygiene monitoring, either individual 10 or area, it has, by nature, had to be a little 11 more qualitative. So, essentially, they assigned at 12 13 levels of either low, medium or high, very 14 qualitative or essentially, incidental exposure, 15 which I don't think we have on this one, and then 16 at some points and more frequent time, they might 17 say at levels not exceeding regulatory standards, 18 which doesn't mean that there wasn't some 19 exposure, but that that exposure was considered 20 to be controlled by whatever regulations were in 21 place below the PELs and things like that. 22 The other thing it provides for each

toxin is some estimate or some of what -- what we 1 2 think the exposure is, or what the industrial hygienist thinks the exposure frequency was, 3 4 whether it was daily or weekly or monthly, and 5 tries, usually to assign it to some -- some activity that we can glean from the SOAF or the 6 SEM or some other provided information that the -7 - you know, for work at that site, and then the -8 9 - conclusion is just a summary of those things, 10 and then the references are there attached. 11 Are there any questions on -- this is 12 basically, like I said, the submittal of a - - of a referral to the industrial -- hygienist, and 13 14 then the review. 15 Mr. Domina? CHAIR MARKOWITZ: 16 MEMBER DOMINA: I just got a couple of 17 questions, because I -- I know the guy marked 18 beryllium in the back, and he is an electrician, 19 and it doesn't list as beryllium being in the 20 SEM, because everybody knows that electricians 21 are exposed to beryllium because it's used for 22 non-sparking stuff.

www.nealrgross.com

You probably have beryllium on that 1 2 elevator panel out there, where you push the buttons. We found it all over the place like 3 4 that, and then the other part, this guy spent 5 time in 222S which all of our high level samples, and there is nasty chemicals and everything in 6 7 there, and I think -- because I have a lot of energy on this IH stuff, because unless you are 8 9 at the site or know stuff, what goes on there 10 individually, you have no idea what these people are exposed to, and it's just an injustice, in my 11 12 opinion, that -- because I've spent 33 years at 13 Hanford, that when you have, it looks like that 14 this SEM was updated November 5th of 2015, and 15 you don't even have beryllium listed for an 16 electrician.

17 Then like I said, working at 222S, 18 there is a toxic soup of chemicals there each and 19 every day that the chem techs, to me, they should 20 have listed the chem tech category, because those 21 guys crawl all over that building, you know, 22 whether they're fixing hoods, re-running new

equipment.

1

I mean, it's just -- to me, it's a
terrible injustice.

MS. LEITON: So, this is as -- as we tried to talk about the SEM earlier this week, it's not complete. We haven't been able to go to every site and talk to people at all of the 300+ facilities that we have there.

9 But we're always looking to get ideas 10 for how we might be able to get more site 11 specific information that could be added to the 12 SEM.

 13
 CHAIR MARKOWITZ: Dr. Friedman

 14
 Jimenez?

15 MEMBER FRIEDMAN-JIMENEZ: To put it in 16 more scientific terminology, what Mr. Domina 17 said, my question is, have these questions in the 18 questionnaire ever been validated?

In other words, if someone says, "I
was exposed to plutonium," what's the probability
that they were exposed to plutonium, or more
importantly maybe, if they say they were not

exposed to plutonium, what's the probability that 1 2 they were not exposed to plutonium? Has that ever been measured in any 3 4 validation study? Do we know what the -- how 5 well these questions actually reflect the reality of exposure? 6 MR. KOTSCH: Well, if it were 7 plutonium, it would be a little more 8 9 straightforward, because there would be bioassay 10 data cited, you know, in that particular example. 11 But or there would at least be a lot more monitoring data, beyond -- obviously, you 12 13 would get the other kinds of chemical toxins. 14 MEMBER FRIEDMAN-JIMENEZ: So, it could 15 be validated against that as opposed to just --16 MR. KOTSCH: Right, and you know, 17 again, we don't have a lot of IH sampling data, 18 so it's hard to validate some of those things. 19 Obviously, these things are present. There have 20 been reviews at the sites and things like that, 21 as far as the -- we know the -- may not know --22 we know what things are present at the sites, or

least that's what SEM tells us, and it's 1 2 incorporated into that. But I don't know, that's a --3 4 MEMBER FRIEDMAN-JIMENEZ: That's not 5 really my question, it's has there ever been any validation done? Do we know how well or how 6 7 poorly these questions perform, in terms of the actual exposure, either using bioassay data or IH 8 9 data, or some other measurement as a gold 10 standard? 11 Yes, I think the answer MR. KOTSCH: 12 to that would be no. Yes, right. 13 CHAIR MARKOWITZ: Dr. Cassano? 14 MEMBER CASSANO: I am still a little 15 bit confused on how things get whittled down from 16 the CE to what you see. 17 I presume that you see all of this. 18 So, let's take COPD off the table for a second, 19 because that's got its own little special 20 problems and I'm not a pulmonologist. 21 But let's go to something that may be 22 a little bit more straightforward, like lung

1	cancer, okay.
2	So, you get this thing from the CE
3	that says asbestos and cement dust or whatever
4	the things are.
5	Do you actually look through all of
6	this and go, "Gee, SEM has cadmium in here, and
7	the CE didn't ask me to evaluate cadmium."
8	Do you then do you look at that and
9	then say, "I really need to evaluate cadmium," or
10	not?
11	MR. KOTSCH: Yes, in that case, like
12	I said, we do do the SEM run again, and we will -
13	- if they've missed something that we think that
14	should or not be, but the industrial hygienists
15	look at something and say, "Gee, this is
16	missing," or they're like in your case,
17	cadmium or something else is missing, then they
18	usually talk back check back with the CE and
19	say, "You know, we think we ought to add this to
20	it," and we'll just either add it to it, or ask
21	them to just add it to the question and resubmit
22	it.

1 MEMBER CASSANO: Okay. 2 MR. KOTSCH: But we will address it. So, you do look MEMBER CASSANO: 3 through all of the evidence? 4 5 MR. KOTSCH: Yes. 6 MEMBER CASSANO: Okay. Thank you. CHAIR MARKOWITZ: Dr. Dement? 7 MEMBER DEMENT: Well, I am an 8 9 industrial hygienist, and frankly, I think a lot 10 of this is pure fantasy. 11 There are -- these workers faced a 12 very complex situation, and frankly, this 13 probably would be better off to have been triaged 14 to saying this was an electrician there 25 years, 15 has COPD, just don't bother going to the 16 industrial hygienist because this assessment, you 17 know, he's done the best he can, but he basically 18 has very little data to deal with. 19 So, this sensitivity specificity of 20 this process is just not there. 21 MS. LEITON: So, the reason we had the 22 industrial hygienists review them is because we

1	have so very little specificity. We don't have
2	records that are submitted, that are monitoring
3	for these types of toxic substances.
4	So, our solution was well, since there
5	is rather than just say, "Claimant, please
6	provide us with whatever exposure you have and
7	we'll send it to a doctor," and they say, "I
8	don't know what I was exposed to."
9	We send it to a doctor where they're
10	treating and they don't know. Nobody knows.
11	So, you know, it would be there
12	would be a lot more denials if we didn't have
13	something.
14	So, we developed this process so we
15	would have something to give to a doctor. Most
16	doctors, as we've talked about earlier this week,
17	aren't willing to just say, "Yes, I believe it's
18	related to their," well, they'll say, "I believe
19	it could be possibly related to their work," but
20	we have very little specificity, and the doctor
21	doesn't know where the rationale is coming from,
22	because there is nothing that we gave the doctor

(202) 234-4433

1

to actually evaluate with regard to that.

2 Now, you know, if what you're saying is, if we just tell them that he worked as a 3 4 welder for, you know, during these periods of 5 times, and we've talked about doing that, and saying, "We're just going to go to the doctor 6 7 without that," and we've actually consulted with physicians and saying, "If we were to just go to 8 9 you and say this person worked at Hanford as a 10 welder during this period of time, can you tell 11 us if it was at least as likely as not he was 12 exposed to toxic substances," and related that 13 these exposures to toxic substances, whatever 14 they may be, is related to their job -- related 15 to their condition.

So, that's where the doctors are like, "Well, if you tell me -- you asked me if his job might have been related, sure, maybe," but then we have -- you know, that's where the catch 22 comes in, because you're right, we don't have specifics, and yes, the IH has to base it on what the IH can discover without records, and if we do

> Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

have specific records specific to Hanford or K-25 1 2 or any of the other facilities, that's great and we can use that, we can send that to the doctor. 3 4 But if we don't, then the question is, 5 what do we do? Do we just send it to a doctor without any assessment, and have the doctor 6 7 hopefully figure it out, especially since you're saying at Hanford, there was specific, you know, 8 9 very detailed exposures they may have had. 10 We don't have that information because 11 we don't have, you know, expertise in every 12 single facility, providing us this information. 13 So, in lieu of that, this is what 14 we've come up with. If we can get a better 15 process or we can get -- you know, we don't have 16 the resources to have experts in every facilities 17 providing us with the type of detail as Mr. 18 Domina talked about over here. 19 So, that's where the struggle is, and 20 this has been the best -- as you said, the best 21 we can do without that level of specificity. 22 CHAIR MARKOWITZ: Ms. Vlieger?

MEMBER VLIEGER: I think one of the 1 2 most telling things on this particular OHQ is under the reported PPE, the worker said that he 3 4 did not wear respiratory protection. It's not 5 checked, not even any of the qualifiers are checked. 6 7 Yet the reported exposures that he gave during the OHQ were not included in the 8 9 referral to the IH, and that ends up being a 10 problem a number of ways. 11 So, the veracity of the employer is 12 questioned in their OHQ and it's not even 13 provided to the IH. 14 CHAIR MARKOWITZ: Dr. Welch? 15 MEMBER WELCH: I have a comment on what you were asking, if you allow me to talk 16 17 about my experience. 18 I mean, one thing to remember is that 19 Mark, how many special exposure cohorts are there 20 now? Hundred and something? 21 CHAIR MARKOWITZ: Hundred. 22 MEMBER WELCH: One hundred fifteen,

and those are circumstances where the Radiation 1 2 Advisory Board has decided that the radiation data is insufficient to do dose reconstruction. 3 4 Radiation data is -- there is probably 5 much more radiation data than there is toxic exposure data. So, I think that gets you like, a 6 7 real snapshot the kind of information these guys are dealing with. 8 9 So, then my question -- I have a 10 question, which is that -- I may be the only one 11 who noticed, the statement of accepted facts has 12 an end date of 1995 in the IH, but you didn't put 13 in the -- what went from the claims examiner to 14 the IH. 15 I mean, I understand that memo, which 16 is in our book. Then the IH didn't actually use 17 that time frame because he talked about his whole 18 exposure, which is fine with me. 19 I understand that, but I was 20 interested in -- then that's what made me realize 21 that the actual like transmission memos we have 22 in here, from the claims examiner to the IH,

don't mention that, but he puts it in the 1 2 statement of accepted facts. So, there must be some -- one other 3 4 piece of paper he or she -- piece of paper that 5 we -- that we didn't see. MR. KOTSCH: Yes, there is a circular 6 7 that --8 MEMBER WELCH: So, they -- so, he 9 knows it automatically? 10 MR. KOTSCH: Yes. 11 MEMBER WELCH: Without the --12 MR. KOTSCH: Yes. 13 MEMBER WELCH: -- claims examiner 14 having to say --15 MR. KOTSCH: Yes. MEMBER WELCH: -- limit it to this 16 17 period of time, okay. Okay, that helps me. 18 Then my last question was, when you 19 were doing your intro, before you got into our 20 handout, it looked as if in every claim, you're 21 going to need a physician opinion, even if it's -22 - you know, it could be the treating physician's

<pre>1 opinion, it could be something that comes from 2 the claimant, and if not, does every claim go to 3 a CMC for a written opinion? 4 MS. LEITON: Not every claim will go 5 to a CMC. It depends on the information we have 6 I mean, as I I believe you know 7 some cases will be denied, based on what we have 8 if we don't have enough information. 9 But if there is any indication, most</pre>	
3 a CMC for a written opinion? 4 MS. LEITON: Not every claim will go 5 to a CMC. It depends on the information we have 6 I mean, as I I believe you know 7 some cases will be denied, based on what we have 8 if we don't have enough information.	
MS. LEITON: Not every claim will go to a CMC. It depends on the information we have I mean, as I I believe you know some cases will be denied, based on what we have if we don't have enough information.	
5 to a CMC. It depends on the information we have 6 I mean, as I I believe you know 7 some cases will be denied, based on what we have 8 if we don't have enough information.	
6 I mean, as I I believe you known 7 some cases will be denied, based on what we have 8 if we don't have enough information.	
<pre>7 some cases will be denied, based on what we have 8 if we don't have enough information.</pre>	
8 if we don't have enough information.	7,
9 But if there is any indication, most	
10 a lot of cases will go to a CMC, if we have as	L
11 opinion, but it's an opinion that's not very	
12 strong or it's clear the doctor just didn't	
13 really have the expertise, then we would refer i	:
14 to a CMC to get more of a clarification or a	
15 better opinion or opinion, based on the	
16 experience from that doctor.	
17 MEMBER WELCH: And I guess the	
18 question I had asked this before, but within	
19 the system as it currently sits, a claims	
20 examiner could make an award without having to	
21 send it to the	
22 MS. LEITON: Yes, absolutely, and we	

encourage that when we can. The struggle is, as we discussed earlier in the week, having the appropriate -- you know, the doctor providing us with a report that fits -- that actually is well rationalized when we get them, and we use them whenever we can.

Again, with the circulars that we're trying to use presumptions which would avoid the need to go back to a doctor, because we would be able to say they were here, they have these exposures, we're assuming that their COPD was related, or whatever it may be.

MEMBER WELCH: Okay, thanks.
CHAIR MARKOWITZ: Dr. Silver?
MEMBER SILVER: I've been trying to a
draw a line through this that would make it well

17 rationalized, right to the bottom line, where it 18 concludes that his exposures for four months in 19 '77 would have been frequent and ranged from low 20 to moderate levels.

The occupational health questionnaire says he had -- it was in the job classification

> Neal R. Gross and Co., Inc. Washington DC

1

2

3

4

5

6

1	of welder for from '77 to '79, so, I don't
2	know where the four months comes from.
3	Then low to moderate, I could make,
4	you know, a work sociology argument that a 19
5	year old right out of his apprentice program
6	MR. KOTSCH: The SOAF in between
7	there, we have to assume that the CE
8	communicated, because we don't have that
9	information, you know, communicated with the
10	employer, to somehow refine that to provide the
11	information in the SOAF, which is basically their
12	summary of what
13	MEMBER SILVER: But low to moderate,
14	where does that come from?
15	MR. KOTSCH: That's just based on the
16	judgment of the industrial hygienist.
17	MEMBER SILVER: Well, show us
18	something. I mean, you demand a whole lot more
19	detail when a physician is putting something in
20	writing, and here it falls far short of the
21	standard that others are held to when they're
22	outside the DOL.

1 CHAIR MARKOWITZ: Doctor, is there a 2 particular follow up to this, and I would say, in terms of discussing this individual case, to the 3 4 extent that it reflects larger issues, let's 5 discuss it, otherwise, let's not get it -- it's not a criticism, Dr. Silver, but let's not get 6 7 into the particulars of this case, only to the extent that it reflects more general issues. 8 9 I would note that we've got 50 minutes 10 left and you still have the medical section to go 11 through. 12 So, I -- we will continue --13 MR. KOTSCH: If you'd like, we can 14 take any more questions or I can move onto the 15 medical. 16 CHAIR MARKOWITZ: Well, how long --17 roughly, how long will the medical presentation -18 19 Shouldn't take very long. MR. KOTSCH: 20 CHAIR MARKOWITZ: Okay, so, let's --21 MR. KOTSCH: We've gone through most 22 of this, and you know, it's really -- what I was

going to present was just a summary of, I think 1 2 what you've already heard over the past two days. 3 CHAIR MARKOWITZ: Okay. 4 MR. KOTSCH: So, we could actually --5 CHAIR MARKOWITZ: So, this back and forth is extremely valuable to us, so, we'll 6 7 continue this, but we want to be cognizant of the time. 8 9 So, I'm not sure --10 MR. KOTSCH: I mean, what I provided 11 in this packet --12 CHAIR MARKOWITZ: Okay. 13 MR. KOTSCH: -- I just provided it 14 more as an example. Now, obviously, we know have issues 15 16 with, you know --17 CHAIR MARKOWITZ: Okay, Dr. Sokas? 18 MEMBER SOKAS: So, I have two 19 One is -- and this has to do with the questions. 20 idea of synergy and different exposures. 21 This person -- well, so, this person 22 checked off that he had, in fact, had urine tests

done for radiologic exposures, and I don't see 1 2 any -- I don't know whether or not that was pursued and there was some actual data that was 3 collected. I don't know if it would be through 4 5 DAR or through some other mechanism. Similarly, the fact that he worked in 6 7 certain areas where there were concerns about large levels of exposures, were there any -- was 8 9 there monitoring done? Did DOE have any records 10 of exposures in those areas that would have 11 supported some of this other? 12 So, the one -- that's one question, 13 and then I have one quick one afterwards. 14 MR. KOTSCH: Well, as far as the 15 bioassay, we don't normally get those 16 measurements, especially if they're on the 17 radiological side, and they would have been --18 they would have been through radionuclides 19 anyway, as far as that goes. Is that what your 20 question was? 21 MEMBER SOKAS: So, additional data, 22 both radio nuclides and --

Yes, I'm sorry, yes. 1 MR. KOTSCH: 2 MEMBER SOKAS: -- and so, there isn't a look at whether any of his current exposures 3 4 could have interacted with potential radiation So, that is not happening. 5 exposures. 6 MR. KOTSCH: No, I mean, that's a 7 question we would pose to see if you --8 MEMBER SOKAS: Okay. MR. KOTSCH: -- guys could enlighten 9 10 I know there's not a whole lot of us more. 11 literature on that, other than --12 MEMBER SOKAS: Okay. 13 MR. KOTSCH: -- the obvious one, which 14 is like the radon and smoke and things like that. 15 MEMBER SOKAS: And then the DAR did 16 not include actual exposure assessment for any of 17 the places that it was --18 MR. KOTSCH: No, it was -- no, like I 19 said, we -- we normally do not receive much in 20 the way of industrial hygiene monitoring data. 21 MEMBER SOKAS: Okay. 22 MR. KOTSCH: And certainly not in this

case.

1

2	MEMBER SOKAS: So, my final question
3	is that conclusion, who has to interpret that
4	conclusion and how would a claimant would it
5	be a claims examiner? Would it be a physician,
6	the treating physician gets that conclusion,
7	because it's kind of un-interpretable right now.
8	MR. KOTSCH: Well, the review goes
9	back to the CE, but then it goes on to the
10	physician.
11	MEMBER SOKAS: Okay, okay.
12	MR. KOTSCH: And we've found that the
13	physicians you know, sometimes when they don't
14	get an industrial hygiene review, someone will
15	ask, you know, and they'll send it back and say,
16	"Can we please get their input?"
17	Other people, even if they don't have
18	an industrial hygiene review, think they know
19	about a particular facility and exposure, that
20	they'll go ahead and make their decision based on
21	that.
22	But for the most part, you know, it's

1	our policy to try to send them something, at
2	least some estimate of what we
3	MEMBER SOKAS: So, can you tell us in
4	this case, how what was interpreted and what
5	happened?
6	MR. KOTSCH: The final outcome?
7	MEMBER SOKAS: Yes.
8	MR. KOTSCH: I don't know that.
9	MEMBER SOKAS: Okay.
10	MR. KOTSCH: Because this is fairly
11	recent. Actually, I grabbed a fairly recent one.
12	Like I said, I was looking for yes, I was
13	looking for the
14	MEMBER SOKAS: Okay.
15	MR. KOTSCH: the SOAF that actually
16	referred it to the medical to the physician,
17	so I could show you, you know, that next step of
18	it too, but that hasn't, as far as I could tell,
19	at least from the system
20	MS. LEITON: I don't mean to.
21	MR. KOTSCH: I wasn't done yet.
22	MS. LEITON: I was just thinking, I

mean, you know, when you break into sub-groups, 1 2 there is probably more information we can give 3 you, like for examples, the whole package, and then not only -- but just jumping over to the SEM 4 5 side, we could also give you a demonstration or a -- have a conversation with the contractor who 6 7 puts together the SEM documents, who can tell you what goes behind it. He can give you a lot more 8 9 detail than we can. 10 So, when you break into sub-groups, 11 please let us know if you want that sort of 12 information. 13 CHAIR MARKOWITZ: Mr. Whitley? 14 MEMBER WHITLEY: Garry Whitley. A 15 couple of things. 16 Whoever wrote this article, it says 17 that -- the circular, that says that after 1995, 18 it's not likely that they were -- would be 19 exposed to the chemicals, obviously has never 20 been to the sites, since 1995. 21 Second of all, what you really told me 22 in this case is that as good as the CM is, it's

almost like the Bible that you all use. You do 1 2 use a little bit of other data, but it's -- I know it's the best you've got, but it is very 3 4 incomplete, and obviously about five times in 5 here, you talked about the SEM and what you've got off the SEM. 6 7 I mean, we know it's all you've got, 8 but it's not very good. 9 CHAIR MARKOWITZ: We appreciate going 10 over an average case, rather than a perfect or 11 So, others? Dr. Redlich? ideal case. 12 MEMBER REDLICH: If the claimant is 13 still alive, is there an opportunity to get on 14 the telephone and for the industrial hygienist to 15 interview and talk to the person? 16 MS. LEITON: The issue is that we have 17 a lot -- we've got thousands and thousands of 18 claimants. 19 So, we don't have a CATI like they do 20 at NIOSH, where they have individual interviews 21 with the -- even those aren't with the 22 scientists.

1	So, it would require a scientist, the
2	two and a half industrial hygienists we have,
3	calling all of these claimants. We just we
4	don't have the resources for that at this point.
5	MEMBER REDLICH: But how much time is
6	spent producing
7	MS. LEITON: That's about two hours
8	for the occupational history questionnaire, for
9	the research. There's two to four hours,
10	depending on the complexity
11	MEMBER REDLICH: The industrial
12	hygienist spends two to four hours
13	MS. LEITON: Okay, so, when you're
14	talking about the questionnaire, when you're
15	talking to the claimant, that takes about two
16	hours for those people to do that.
17	So, the industrial hygienist doesn't
18	have the time to call every claimant and ask them
19	questions. At this point, our researchers don't
20	allow for it.
21	MEMBER REDLICH: No, no, but on the
22	ones that took time for the industrial hygienist

to do this analysis and write this report. 1 2 MS. LEITON: It varies. I don't know exactly how much time it takes him per case. 3 4 MR. KOTSCH: It obviously varies by 5 the -- you know, the number of -- well, if you want to talk about the complexity of SEM run or 6 7 the facility or the number of toxins, but it could range anywhere from two to four to six 8 9 hours. 10 It depends. You know, everything total, you know, the review of the --11 12 MEMBER REDLICH: Well, two to four to 13 six hours, you know, maybe 20 minutes on the 14 telephone might actually be more illuminating. 15 MR. KOTSCH: I agree. I think that 16 would be the ideal. 17 Yes, it would be. MEMBER REDLICH: 18 CHAIR MARKOWITZ: Dr. Boden? 19 MEMBER REDLICH: And it might save 20 time on the four to six hours spent on the 21 report. 22 But and then the questionnaire, do

they fill this out on their own or is there help 1 2 filling it out? MR. KOTSCH: The resource centers fill 3 4 it out, and in fact, the --5 MEMBER REDLICH: So, this is actually filled out by --6 7 MR. KOTSCH: Essentially there is 8 someone --9 CHAIR MARKOWITZ: It's administered --10 it's an administered questionnaire. 11 MEMBER REDLICH: It's administered? 12 MR. KOTSCH: That doesn't interview. 13 MEMBER REDLICH: Okay, because there are lots of areas where there is either 14 15 inconsistency or things are checked like 'yes' 16 exposure to things, but then not filled in like 17 approximate number of years. 18 CHAIR MARKOWITZ: Sure, and I --19 MEMBER REDLICH: So --20 CHAIR MARKOWITZ: -- heard an 21 invitation for us to provide input to improve it. 22 MEMBER REDLICH: Okay, so, I didn't

realize. So, this is a okay, so, there's
opportunity, since it's self not self-
administered, okay, thank you. That was you
answered
CHAIR MARKOWITZ: Dr. Dement?
MEMBER DEMENT: My questions were
reflective of that and
CHAIR MARKOWITZ: Okay, all right, Dr.
Boden?
MEMBER BODEN: So, first of all even
though I think we're generally concerned about
the quality of the data that you have to work
with, I think that we also appreciate that you
need to do something more, since the burden is on
the claimants to prove their cases, and I think -
- I hope that over the next period of time, we
can help you make that more effective.
I have a question, actually, either
for you or for other people who are still
currently on the former worker projects.
Back in 15 or 20 years ago, I was
involved in the Nevada Test Site former worker

project, and we did make attempts to use the --1 2 the collective intelligence of the people who we interviewed to draw a picture of what exposures 3 4 looked like at the various sites that they 5 worked, and that seemed to me, to be a really good idea and something that would be useful for 6 7 you, and I just don't know if there is a connection there, whether other former worker 8 9 surveillance projects also did things that were 10 sort of like job exposure --11 CHAIR MARKOWITZ: So, I can answer 12 that --13 MEMBER BODEN: -- or matrices --14 CHAIR MARKOWITZ: Steve Markowitz. 15 MEMBER BODEN: Yes. 16 CHAIR MARKOWITZ: All the programs, 17 all the former worker programs at each site did a 18 site profile, and those were published. I mean, 19 they're not published in the literature, but 20 available online, and I'm sure the Department of 21 Labor has been -- you can confirm this, but I 22 believe that you've integrated that into your

work, those site profiles. 1 2 MR. KOTSCH: Yes, we'll need to 3 double-check. 4 CHAIR MARKOWITZ: Okay, okay. Well, 5 anyway, they are readily available from the Department of Energy. Dr. Cassano? 6 7 MEMBER CASSANO: Well, I wanted to first -- first of all, congratulations on your 8 9 new contract, but I was sort of interested in 10 learning what kind of training these contracted industrial hygienists are going to get on the 11 12 various sites and the different exposures that 13 may have been there. 14 MR. PENNINGTON: This is Doug 15 Pennington again. 16 So, most of the contractors actually 17 already have experience with the sites. It's one 18 of the things that was very exciting for us, is 19 that they have experience with virtually all --20 according to the contractor, virtually all of the 21 DOE sites. 22 So, what we're going to predominantly

be working on is our process and training them, 1 2 as to how -- what we're looking for, how we're looking for it, the mode and modality by which 3 4 we're getting the information. But as far as the actual information 5 about the site, obviously, they'll be using the 6 7 SEM like the rest of us, but we're also hoping that they'll be providing their own information 8 9 and background and knowledge, to help augment our 10 existing database, as well. 11 So, does that answer your question? 12 MEMBER CASSANO: Thank you. Yes. 13 CHAIR MARKOWITZ: We have time to take 14 a couple last questions, and then we'll move on. 15 Dr. Redlich? 16 MEMBER REDLICH: I appreciate how 17 challenging this is. Just to follow up on what 18 Leslie Boden said, as far as sort of the 19 collective knowledge. 20 We have an industrial hygienist who sees patients, when we see them, and the 21 22 information she provides is qualitative in

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

nature, but extremely helpful, because she has 1 2 the knowledge, you know, and if she doesn't, she'll ask someone else with the types of 3 4 industries and processes, the workers. 5 So, frequently, her sort of succinct qualitative assessment of the level of exposures 6 and the -- is extremely helpful, and it's based 7 on her -- when you mentioned, your sort of 8 9 collective knowledge of the industries in the 10 area over time, or what she's able to get. 11 It seems that that would be a very 12 helpful --13 MS. LEITON: Is this -- so, the 14 physician is doing this? 15 There is a --MEMBER REDLICH: 16 MS. LEITON: You said an industrial 17 hygienist. 18 MEMBER REDLICH: -- trained industrial 19 hygienist who also, when we take a history, also 20 takes an occupational history, and you know, is 21 able to better interpret what five years of 22 welding at, you know, this particular site means,

or under what -- or an electrician, you know, the 1 2 typical electrician at 'x' site did in that time frame, that is extremely helpful. 3 I think all our MR. KOTSCH: 4 5 industrial hygienists would love to be able to have the time and the opportunity to do that. 6 7 I didn't include an example in here, but sometimes we do actually get, you know, 8 9 written pages from a particular worker, that will 10 say, in detail, you know, "This is what I did," 11 nitty-gritty-wise, and they will be putting in 12 there, all kinds of toxins and chemicals and work 13 activities that they did, which gives the 14 industrial hygienist a really clear picture of 15 what -- you know, what that actual interview --16 interviewee, or you know, the worker was doing, 17 which is unfortunately, a rarer event than the 18 norm, kind of thing. 19 But it would be akin to that, being 20 able to actually physically speak with them. 21 CHAIR MARKOWITZ: So, one last 22 question or comment from Dr. Dement, and then

1	we'll move on, and Board Members, if you could
2	put your name card in a horizontal position, if
3	you don't have a question, that would help.
4	MEMBER DEMENT: Just one comment
5	CHAIR MARKOWITZ: There's just too
6	many questions.
7	MEMBER DEMENT: and it has to do
8	back to this, and I think it's an excellent
9	point.
10	From an industrial hygiene
11	perspective, the real driver of the exposure is
12	not the job title, it's not necessarily the
13	building that they're doing it in, or that some
14	complex chemicals can be there, or other
15	exposures for the workers.
16	It's the task that's being done, and
17	so, the more you can have this questionnaire
18	that's being developed, really get down to task
19	and the narrative part is useful, but you can
20	you can drive that by having specific tasks that
21	we we already know are important for many
22	different trades, and have those as part of it.

1 But the more you can get to tasks, we 2 found over and over again, that that's a driver of exposure. We get often, based on frequency of 3 4 doing tasks, generate a qualitative assessment of 5 their -- of the magnitude of life time exposure, that's useful for predicting health effects. 6 7 MR. KOTSCH: I think our folks would I mean, one of things with SEM is that it 8 agree. 9 will list the building, it may list the toxins, 10 but there could be a huge building, it could be 11 all kinds of toxins in there, whether the actual 12 worker, in his work activity, encountered those 13 things, you know, is a question and --14 MS. LEITON: The revisions to OHO 15 hopefully can capture that better, and more 16 succinctly and asking the right questions is a 17 huge piece of it, I'm sure. 18 CHAIR MARKOWITZ: Dr. Friedman-Jimenez 19 has a very short question. Very quickly. 20 MEMBER FRIEDMAN-JIMENEZ: Just adding 21 onto what Dr. Redlich said. 22 We also have an industrial hygienist

in our clinic, and I would say that maybe 10 or
20 percent of our patients, where there is a real
question about exposure, she will talk to the
patient and get more details. It saves a lot of
time for the physician, and it really improves
diagnosis.

7 I would say that you probably won't
8 need to do this in the great majority of people,
9 but those for which there is a question, I think
10 it's extremely helpful.

11 MS. LEITON: Yes, I think it would be 12 fantastic. Maybe we can just get all the 13 physicians to hire industrial hygienists, and we 14 can refer all our cases there. I think that 15 would really help our process.

16 CHAIR MARKOWITZ: Now, Mr. Kotsch, if17 you could continue.

18 MS. LEITON: So, I'd just -- about the
19 CMC process and the medical referral.

20 Most, if I'm looking at the bullets 21 that we have, I think pretty much, we've covered 22 it, and I just don't want to -- in the interest

of time, I thought I'd just let you know that we 1 2 talk about the CMC, what they look at. We've talked about this before. 3 4 Diagnosis, causation, impairment, 5 sometimes the date of diagnosis, consequential injuries, treatment and clarification. 6 7 Those are the main reasons we refer cases, and I think we kind of covered that 8 9 earlier this week, and you know, sometimes 10 they're essential. We use them when we can't get 11 enough information from the treating. Again, I 12 think we've pretty much covered that. 13 So, rather than belabor this, I guess 14 we'd rather use the time to take questions about 15 anything regarding our medical reviews, unless 16 you'd rather -- if something particular you'd 17 like us to go over. 18 CHAIR MARKOWITZ: Well, if you could 19 go over where you -- where, on the screen there, 20 national office reviews and accountability 21 reviews, just describe a little bit of that, how 22 that works.

MR. KOTSCH: 1 Okay. So, then the page 2 after that, which talks about the national office's reviews, there was a review in February 3 4 of 2015. The CMC and second opinion and medical 5 specialist audit, basically as indicated there, reviewed the quality of the district office 6 7 inputs to the physicians, and then the quality of the medical review and the opinion. 8 9 Again, this was performed by the --10 couple of members of the policy -- the larger 11 policy group, and overall, they found that in the 12 essence of things, they found that the results 13 were satisfactory, as far as both the input and 14 the return from the physician. 15 I know one of the issues that they had 16 with the referrals essentially was, sometimes 17 they were not rigorous, always rigorously 18 approached, you know, where they could have maybe 19 resolved the issue, the CE could have resolved 20 that issue before they sent it to the physician. 21 So, maybe some of those were -- you 22 know, were sent without complete, but this often

happened, you know, you completely work through 1 2 the system, and generally, the referrals that come back from the -- not the referrals, the 3 4 reports that come back from the physicians are in 5 compliance, essentially, with the elements of the contract, as well as when we had our physician 6 7 here, they were all usually well-written and not a problem. 8 9 When they are identified as a problem, 10 they will recycle back through the contractor, to 11 correct the problem. 12 But a lot of times, or not a lot of 13 times, but sometimes, if there was an issue, it 14 might have been -- maybe a reference wasn't cited 15 -- or references weren't cited, the physician 16 just made the opinion without citing anything, 17 you know, as far as a reference, which we prefer 18 and is required by the contract, at least they 19 try to provide some references, as to why -- you 20 know, why they made the particular decision. 21 The account -- the annual 22 accountability reviews do like as mentioned in

there, do contain a component, but that just 1 2 touches on the CM report -- CMC reports and does the case record demonstrate appropriate use of 3 4 the opinion of the treating physician, CMC or the 5 specialist, meaning the industrial hygienist or the toxicologist. 6 Again, that was considered to be a 7 satisfactory finding, and I think that's it for 8 9 that section, right? 10 MS. LEITON: Questions? 11 MR. KOTSCH: I'm sorry, I meant, then 12 there is just the -- the performance, 13 essentially, contract performance types reviews 14 that are conducted. 15 CHAIR MARKOWITZ: So, can I request that we receive a copy of the QTC contract? Not 16 17 -- again, not interested so much is the 18 administrative or financial aspects, but in the 19 scope of work and the requirements of the people 20 who work under that contract. 21 MS. LEITON: Yes, I've written that 22 down.

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

1	CHAIR MARKOWITZ: And also a copy of
2	the 2015 audit?
3	MS. LEITON: Yes, I've got that
4	CHAIR MARKOWITZ: And that process.
5	MS. LEITON: written down, as well.
6	CHAIR MARKOWITZ: Okay.
7	MS. LEITON: We'll get back to you.
8	PARTICIPANT: And the annual
9	accountability review.
10	CHAIR MARKOWITZ: And the annual
11	accountability reviews. In essence
12	PARTICIPANT: Is that the same thing?
13	MS. LEITON: No.
14	CHAIR MARKOWITZ: And any other
15	relevant material that the Board might deem
16	necessary.
17	MS. LEITON: Sure.
18	CHAIR MARKOWITZ: And I don't think
19	you can argue with that language. Comments or
20	questions? Dr. Friedman-Jimenez?
21	MEMBER FRIEDMAN-JIMENEZ: In your
22	audit, how often did you find that the CMC or the

SECOP got a case established that would have 1 2 otherwise been denied, because the treating physician wrote a weak letter or said that this 3 4 may be related, or the probability of causation 5 was judged low? In what percent of the cases would 6 7 those denials be overturned and made into established cases by the secondary -- second 8 9 opinion or CMC? 10 MS. LEITON: So, we don't have that 11 percentage. We would have -- I don't know if we 12 can even run a report on that. I can see if we 13 can run a report on it. 14 But I -- you know, we do review these 15 for that, to make sure they're not all denials or 16 all acceptances, you know, like one doctor does a 17 particular thing. 18 We do find that -- often, we find that 19 the CMC will find in the favor of the claimant, 20 and we'll be able to accept that case. 21 Again, in terms of percentage, I don't 22 have one, but I would say it's pretty balanced.

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

In some of the analysis we've done, I don't think 1 2 it's really high, one way or the other. CHAIR MARKOWITZ: Dr. Welch? 3 4 MEMBER WELCH: I actually -- I think 5 that audit is available on your website or somehow I've -- the 2015 audit, because I think I 6 7 saw the -- I had a link to it from somewhere, no? I don't know. 8 MS. LEITON: 9 MEMBER WELCH: Maybe it's a prior one 10 There is -- I think -then. 11 MS. LEITON: There might be something 12 up there. 13 So, it's a prior --MEMBER WELCH: 14 MS. LEITON: I'll find out. 15 I think I read a prior MEMBER WELCH: 16 audit that looked at, you know, did the CMC's 17 form -- do they get the right questions and are 18 they actually answering the questions of the 19 claims examiner? 20 MS. LEITON: We'll look for it. Thank 21 you. MEMBER WELCH: But we'll see them 22

where we see one, and in terms of your question, 1 2 isn't it the case, Rachel, you're not -- the claims examiners aren't saying, "Well, we're 3 4 going to deny this, but we'll send it to the 5 They're saying, "We don't have enough CMC." information, so we're sending it to the CMC." 6 7 So, that -- so, you can't really answer that question of how many would have been 8 9 a denial in the absence of the CMC, because they 10 don't complete the case, if they don't have that 11 information. 12 MS. LEITON: Right. The question we 13 could answer possibly would be after we go to the 14 CMC, how many are accepted. 15 The problem with that is, it could be 16 other factors. The reason for acceptance could 17 have been, we got more information or something 18 else. 19 So, it's really hard -- it would be 20 difficult to actually be able to pin it to the 21 actual report that came from a CMC. You know, 22 the other way would be to look at all the CMC

reports and see how many times they said 'yes'. 1 2 That would be a pretty daunting task. 3 I'm not sure we could do it, but we'll look at 4 it. 5 CHAIR MARKOWITZ: So, can I suggest to 6 the Board Members that they look at page six and 7 seven of the handout --8 MS. LEITON: Yes, I was just going to 9 10 CHAIR MARKOWITZ: -- because these are 11 12 MS. LEITON: -- go through those if 13 you want to. 14 CHAIR MARKOWITZ: These are on the --15 beginning on the screen, there is a lengthy list 16 of areas in which the Department is requesting 17 our assistance or our input. 18 I don't think we should necessarily go 19 through all of them. Some of them are quite 20 obvious or self-explaining. This is in the 21 handout. PARTICIPANT: This is in Tab --22

1 CHAIR MARKOWITZ: I'm sorry. 2 MS. LEITON: Last two pages of the handout. 3 4 CHAIR MARKOWITZ: Section 9. 5 MS. LEITON: It says advice and assistance. 6 PARTICIPANT: It should be the last 7 page in the briefing book. 8 9 MS. LEITON: Well, the last two pages. 10 CHAIR MARKOWITZ: So, let me start 11 this off. The issue of presumptions, you have 12 come to agreement on some presumptions, and those 13 aren't right -- statutory -- I mean, those aren't 14 statutory or for that matter, regulatory. Those 15 are the level of policy, okay, and that is an acceptable route in the future, as we think about 16 17 presumptions. 18 MS. LEITON: Correct. 19 CHAIR MARKOWITZ: Okay, the -- one of 20 the items you have here is the matrix of 21 consequential illnesses. That seems like a small 22 task, but it's probably quite large.

Do you have any such matrix at present 1 2 that you use? MS. LEITON: We have something in the 3 4 procedure manual that they refer to, when they're 5 looking at -- is this the -- this is for consequentials? 6 7 CHAIR MARKOWITZ: Right, right. MS. LEITON: Oh, no. I'll show you 8 9 what we have. I'll point it out. 10 We have some things, like related to 11 CBD and certain things you can assume if they 12 have CBD, that you would probably be paying for, 13 things like that. 14 So, I'll provide you with the link to 15 that, to those specific assumptions we've got in 16 there, or at least guidance that we have in 17 there. 18 CHAIR MARKOWITZ: And have you 19 encountered repeatedly with other common 20 diagnoses? 21 MS. LEITON: Yes. There are -- yes, 22 we've found that there are other -- the answer is

yes.

1

2	CHAIR MARKOWITZ: Okay, thank you.
3	MS. LEITON: I would like to point out
4	on this advice and assistance, I forgot, we were
5	going to we should have we were going to
6	walk through it, but I know that we're running
7	short on time, and most of it is self-
8	explanatory.
9	I think the last one is the big one,
10	and we may have discussed this earlier in the
11	week.
12	But the circulars, they've been a
13	question or a source of consternation for a while
14	since we've published them, and so, I'd really
15	like the opinion of the Board on the relevance of
16	these circulars.
17	You know, we do have a program
18	memorandum that explains one of them, I believe
19	it explains the Circular 1506. So, we'll make
20	sure that's available. It's on our website, but
21	I think it's our only program memoranda that
22	talks about why we came up with this, how we came

up with this. 1 2 It's my understanding from many 3 conversations we've had, that while it may be 4 true, what we're saying, that there may be 5 circumstances within the DOE complex, where it shouldn't apply or wouldn't apply. 6 7 So, you know, we're open to suggestions on both of these circulars, whether -8 9 - you know, what we should do with them, whether 10 we should have them there at all, whether they 11 should be revised or whatever. 12 So, you know, I know it's a big issue 13 and it's something that's important to us, and 14 we're willing to take whatever comments and 15 thoughts you have on it. I know Mr. Whitley 16 mentioned them earlier. 17 MR. RIOS: Just FYI, I'd be -- the 18 Circular 1506 and program memoranda are in 19 Section 8 of your briefing book. 20 MS. LEITON: Thank you, and if you --21 as you go through these and once you have your

committee, if you have questions about what we

Neal R. Gross and Co., Inc. Washington DC

22

meant by this, or if you have follow up, 1 2 obviously let us know. CHAIR MARKOWITZ: I'm not sure that 3 4 actually, the post 1995 circular issues belong, 5 necessarily in this committee, which is looking at the IH medical expertise. It may belong 6 7 elsewhere, but we'll figure that out. I have a question actually about the 8 9 item just above that. 10 The generalization of prior IH and CMC 11 findings, depending adjudication actions. Are 12 you talking about using your own data, your own 13 decisions, as you go along in the program, in 14 order to be able to feed back into your future 15 decision making? Is that what that refers to? 16 MR. KOTSCH: Yes, and in fact, that 17 one ties to the bulleted item that's two above 18 it. They're kind of linked, to try to come to 19 some, you know, presumptive type analyses in 20 these kinds of things, if there are cases where we can better group these, you know, by 21 22 activities.

1 MS. LEITON: So, we did start looking 2 at trying to look where we've had the most -- you know, either acceptances or looking at -- can we 3 4 look at this particular type of welder or we can 5 look at this particular type of job category or process or something, and where can we actually 6 7 make some leaps, and based on the experience in the program, because we have been doing these for 8 9 10 years, I don't know -- you know, but 10 evaluating that sort of trend is what this is 11 about. 12 CHAIR MARKOWITZ: Dr. Welch? Okay. 13 MR. KOTSCH: Yes, I mean, the bulk of 14 our -- obviously, the bulk of our medical 15 conditions are -- the largest piece are lung-16 related to COPD's and things like that. The next 17 big chuck are the skin cancers, things like that, 18 and then we get into some of the renal diseases 19 and then it starts to tail off there, as far as 20 which one would come next. So, things that we can, you know, 21 22 presumptively associate with those things would

be helpful.

1

2	MS. LEITON: This actually goes to one
3	of the questions that was raised earlier this
4	week, about finding the biggest the cases that
5	we have the most of, like you were indicating
6	lung diseases.
7	If we look at lung diseases, how many
8	you know, what processes and job categories
9	could go with that? That would be we could
10	maybe make assumptions on.
11	Taking the largest chuck and going
12	down, because that's where the biggest impact
13	would be.
14	CHAIR MARKOWITZ: Dr. Cassano?
15	MEMBER CASSANO: Just a comment on
16	presumption, since I have a little bit of
17	experience dealing with them.
18	Presumptions are always a two-step
19	process. There is a presumption of exposure,
20	based on whether you what you did and/or where
21	you worked, and then there is a presumption that
22	if you are exposed to something, it is presumed

that your disease, if you have the proper
 disease, was caused or aggravated or whatever, by
 that exposure.

4 One -- failing one -- failing the 5 first part of that, i.e., there is no presumption of exposure, if you can prove exposure, then the 6 7 second part of the presumption should still stand, and what I see a lot of is that well, they 8 9 don't -- they fail the presumption of exposure, 10 so therefore, we cannot treat this as a 11 presumptive disease.

But you need to be able to accept exposure evidence that proves exposure outside of the presumption, to get to the second point. That's the only comment.

16 CHAIR MARKOWITZ: Dr. Welch? Dr.
17 Welch?
18 MEMBER WELCH: I'm thinking about the

19 four tasks that we have and in some ways it's -20 this is a -- this decision about what's work21 related under the law is a process that's not
22 easily divided into this, this, this and this.

So, we have one that's exposure
 assessment, one that's claims process, one that
 is the use of the consultants.

4 I just want to make sure that maybe 5 every group is addressing the question of the causal relationship, because it comes in, in some 6 7 ways it -- those are -- it's like the -- it's the mission, the goals and the objectives, and we're 8 9 kind of at the -- the tasks are sort of designed 10 at the objectives level, but I think we have to keep thinking that the goal is to help Department 11 12 of Labor determine work-relatedness, which 13 requires a diagnosis, exposure, exposure 14 relationship.

Because when I was looking at your -at these -- some of these tasks that you have here, they don't fall easily into any one particular group.

So, I think rather than each group think -- that's just my suggestion, each group thinking somebody else is dealing with that, I think if there is something that seems to

overlap, everybody should be talking about it, 1 2 because in the end, we're going to come together and talk about it as a Board, but that's 3 4 something -- you take that --5 CHAIR MARKOWITZ: All right, I agree. I agree and let me just say that when people here 6 7 discuss causation, what they really mean is aggravation, contribution and causation. That's 8 9 shorthand. 10 But the exposure disease connection is 11 -- actually, informs each of the tasks. So, yes, 12 each committee needs to keep that in mind, in 13 terms of addressing that. Dr. Dement? 14 MEMBER DEMENT: One quick question, 15 and it has to do with -- my question has to do 16 with the last case that we just reviewed. 17 Just opining about exposure, refer to 18 some specific task that these individuals would 19 have done. For example, electrician, they drill 20 concrete and they test diesel engines. 21 But those are not on the history form. 22 Did he just know that? Is there someplace -- is

there someplace -- it is in the SEM? Where would 1 2 you find this? MR. KOTSCH: Well, some of that I 3 4 think is just based on the fact that we've been 5 doing these things for 10 years and --MEMBER DEMENT: Yes, his personal 6 7 experience. Yes, experience as well 8 MR. KOTSCH: 9 as, you know, maybe there was information from a 10 -- in the reference that are attached to the -the review, but also, from -- maybe from some 11 12 other case, where you had an electrician doing 13 things and they figured it was probably -- you 14 know, they would be doing similar tasks, kind of 15 things. 16 MEMBER DEMENT: These are legitimate 17 tasks. 18 MR. KOTSCH: Yes. 19 MEMBER DEMENT: It's just that there 20 are many, many others. 21 MR. KOTSCH: Certainly, there is 22 always -- you know, you could -- you know, you

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

can't always list 10 or 15. It's just a couple. 1 2 I mean, it would be an attempt to just to try to associate it with some kind of -- you know, 3 4 something within a -- with a task. 5 So, what -- my question to CHAIR MARKOWITZ: the Board is, we do need to save a few minutes to 6 form a committee, and the question is, do we need 7 this further discussion or is it better to spend 8 9 the time asking guestions? Do we need further 10 discussion before we form a committee? Just 11 think about it for the moment, while Mr. Turner 12 asks his question. 13 MEMBER TURNER: I'm an electrician 14 also. I was looking and I didn't see anything on 15 there about PCB's, that he would have come into 16 contact with PCB's quite frequently. 17 CHAIR MARKOWITZ: Okay. 18 MS. LEITON: Yes, as I said, I mean, 19 we will look in the SEM for the exposures and any 20 other information we have a particular case file, 21 when we're adjudicating these. 22 CHAIR MARKOWITZ: So, Mr. Domina, yes.

MEMBER DOMINA: I just have a couple 1 2 of comments for the Board and for them on that Circular 1505 and 1506, because you look at the 3 time frame that this is -- this was done, and I 4 5 know money was short at that time, and so, we're in the middle of a contract. 6 The major 7 contractor was Westinghouse. So, any time you're going to put in a 8 9 program and say arbitrarily, everything is going 10 to get safer, they're going to ask for a request 11 for equitable adjustment from the Department of 12 Energy, for more money. 13 So, there should be flow down for 14 that, because maybe they did it on some DOE 15 sites, but I'll guarantee you, they didn't do it 16 at Hanford, and that's just my comment. 17 CHAIR MARKOWITZ: Okay, okay. So, are 18 there further comments, actually about this 19 particular area, this task or about the committee 20 work here? 21 So, do we have any volunteers for the 22 committee? Is this -- yes, this is Committee 4D.

1	Okay, let me just get this down. Let's see.
2	Kirk, Garry, I'm sorry, Mark, okay.
3	So, aside from here I have George and
4	Mark. Anybody else from this side of the table?
5	Okay, and I've got and any volunteers to
6	chair? Okay, okay, great, okay, Rosemary.
7	Okay, so, we have Rosemary Sokas, Faye
8	Vlieger, Kirk Domina, Garry Whitley, Mark Griffon
9	and George Friedman-Jimenez. Okay, good.
10	So, we can were there any
11	additional points you wanted to make? We have a
12	few minutes, actually. Any additional points in
13	this request for assistance that you wanted to
14	emphasize?
15	MS. LEITON: No, just that we are
16	you know, as you we do recognize that this is
17	complicated and there are holes. So, that's why
18	our list is so long, and I do also recognize that
19	this list can cross over your various sections.
20	But it this is the our biggest
21	struggle, and it always has been, in terms of how
22	best to make these determinations and so, the

biggest thing I would say is just, I think that 1 2 the discussions we've had are on point and I think that there are areas that we can really use 3 4 whatever guidance you can provide us, and we 5 would like to make sure that if you -- as you go along, if you -- you know, we're going to look at 6 7 this big list of tasks already, but we are willing to have like our SEM administrator, the 8 9 person who actually looks at the -- does the work 10 of inputting the SEM, come and do -- like a call 11 with you, or something like that, because I think 12 that might be really valuable.

So, if there are resources like that,
that we can provide or even maybe discussions
with our IH, those are things that we're willing
to offer.

17 So, thank you all very much. I think 18 this week has been really valuable and I think 19 that you've got a long task ahead of you, but 20 we're here to help, and we appreciate again, any 21 guidance that you provide to us, will benefit the 22 program, will help everybody help the claimants

and I think it would be a really good next few years. Thank you.

CHAIR MARKOWITZ: 3 Dr. Sokas? MEMBER SOKAS: Thank you, and I just 4 5 wanted to kind of repeat what Dr. Markowitz said, about anything we might possibly want, please 6 7 give it to us, but specifically, some redacted evaluations by physicians from different areas, 8 9 in addition to the actual reviews that have been 10 done, would be very helpful, as well as, if 11 you're in the process of revising any of the 12 materials, like the health questionnaire, that 13 any thoughts you have or drafts or things that 14 you would like us to consider, the more explicit 15 you can be with us, the better we can provide 16 thoughts and comments back. 17 So, thank you very CHAIR MARKOWITZ: 18 much, Mr. Kotsch and Ms. Leiton for this session.

So, we're going to -- we don't have a break for another 12 minutes. So, we're going to turn to the proposed rule changes, particularly since we're going to take an extra long break and

> Neal R. Gross and Co., Inc. Washington DC

1

2

1

lose 15 minutes to that process.

2	So, yesterday, just to refresh your
3	memory, we were discussing a particular item
4	number six, we're going to come back to the
5	we're going to go through the rest of the
6	proposed changes, discuss them and then we'll
7	come back to the ones that we did yesterday and
8	vote on them.
9	So, if we could look at number six and
10	this we were beginning to discuss this. This
11	is on page 55 of the proposed rule changes.
12	So, for anybody on the phone, I just
13	want to let you know that the proposed rule
14	changes are available on the website of the of
15	this Board, in case you're not able to connect
16	through WebEx. You could also you could find
17	it on our website.
18	So, we're at page 55 and we're looking
19	at Section 30.405, which deals with the issue of
20	the claimant's request to change physicians.
21	So, let me re-read the draft
22	recommendation, which is the Board notes that the

added language does not clarify what the 1 2 claimants need to produce, and finds it implausible that claimants can provide medical or 3 4 factual evidence in support of a request to 5 change physicians. The Board recommends that claimants be 6 permitted to change physicians without requesting 7 permission from OWCP. 8 9 So, I would just -- I guess we're open 10 for comments about this. I have just a -- start 11 off by saying a couple of things. 12 First of all, we really didn't 13 understand what was behind this proposed change, 14 what problem is being addressed by it, by 15 changing the criteria or the -- or requiring 16 additional clarification for the request for 17 changing physicians. 18 There is probably a specific problem 19 that this is addressing, and we thought that this 20 was very broad language to solve a specific 21 problem, and that solving that problem, that 22 specific problem would probably be better done by

addressing the specific issues of that problem,
 rather than creating broad language that would
 affect all claimants, really.

Secondly, there are many reasons 4 5 people change physicians and some of them may seem not so important. They don't -- they're not 6 7 a question of medicine. They're not a question of factual evidence. They're questions of 8 9 They're questions of being unable to preference. 10 communicate with the doctor or reach the doctor's 11 office or the like, or any number of issues that 12 probably arise fairly frequently in the 13 healthcare system.

So, then to go through a process where
you need to request a change of physician seems
quite burdensome actually.

So, the draft recommendation says that
basically that claimants should be permitted to
change without requesting change from OWCP.
Other comments? Dr. Boden?
MEMBER BODEN: So, since the prechange rule actually required requests as well,

and since our recommendation may not be fully 1 2 accepted, I think that we should also add something to the effect that the change requires 3 4 evidence that is inappropriate or that's too 5 narrow for changes to be -- for claimants to be That's not the right required to provide. 6 7 language, but I -- in other words, I think we should add something that says not only that we 8 9 think that the old rule was not too good, but 10 that the change makes it worse. 11 CHAIR MARKOWITZ: So, you're 12 essentially saying that if the -- a program 13 retains, as it does, it going to enable --14 retains the process of requesting permission to 15 change physicians, then that process should not 16 be made more burdensome? 17 MEMBER BODEN: Correct. 18 CHAIR MARKOWITZ: Okay. 19 MEMBER BODEN: Thank you. 20 CHAIR MARKOWITZ: Dr. Friedman-21 Jimenez? 22 MEMBER FRIEDMAN-JIMENEZ: I would be

in favor of just keeping it simple and saying 1 2 personal preference is a legitimate reason for changing physicians. The Board recommends that 3 4 the claimants be permitted to change without 5 requesting permission. Just say that it's legitimate, right 6 7 out. So, the language then 8 MEMBER CASSANO: 9 would be to keep sufficient and then to add a 10 statement that says that personal preference should be considered a sufficient reason for 11 12 changing treatment physician? 13 CHAIR MARKOWITZ: So, here we need to 14 -- we need to see the --15 MEMBER CASSANO: Yes. 16 CHAIR MARKOWITZ: -- go back to the 17 proposed rule, page 55. 18 MEMBER REDLICH: In the current era, 19 practices are -- physician's practices are being 20 brought up and moved around and they're group 21 practices and you know, the idea that you're 22 staying with one physician, even if you wanted

Neal R. Gross and Co., Inc.

Washington DC

to, and so, there is just so much changing of 1 2 doctors, and it's really hard from when you're outside, to even know if it's a new doctor or a 3 4 different doctor or just that doctor's partner, 5 who is covering, and I just think you're -- and even -- it isn't even clear. 6 Like as a referring doctor, I'm trying 7 to find out who referred me the patient, and I 8 9 can't even figure it out, and so, I mean, there's 10 just a lot more of switching doctors that is out 11 of people's control. 12 CHAIR MARKOWITZ: Yes, go ahead, Mr. 13 Whitley. 14 MEMBER WHITLEY: I think it's just 15 like she said about the CE's. They change CE's 16 all the time, not because DOL changes them. They 17 leave, they come, they go, they change. 18 I think you should be able to change 19 doctors and you should have to notify them you 20 changed it, and that's the end of it. 21 PARTICIPANT: See, that's what I was 22 thinking.

108

www.nealrgross.com

1 **PARTICIPANT:** Right. 2 CHAIR MARKOWITZ: Right, right, right. 3 So, go ahead, Dr. Welch. 4 MEMBER WELCH: Well, we were kind of 5 sticking with the concept that we either had to edit the changes or go back to the old language. 6 So, I think the suggestion, and I 7 can't remember if Tori made it or not, that we 8 9 eliminate all the changes and then under B, say 10 OWCP will approve the requests if it determines 11 the reasons submitted are sufficient, and 12 personal preference is a sufficient reason. 13 So, we're kind of editing that spot, 14 that had new language added, which seems like 15 something we can do. 16 PARTICIPANT: Yes, we're substituting 17 language for --18 MEMBER WELCH: For our current 19 language, and then we just reject all the other 20 changes. 21 CHAIR MARKOWITZ: Can we move that? 22 MEMBER WELCH: Yes, that -- I think

1 that may be the best we can do, given the 2 requirement and comment on the current proposed 3 changes. 4 CHAIR MARKOWITZ: Okay, go ahead, Dr. 5 Boden. MEMBER BODEN: I think we should 6 7 probably go down. I think it's worth our making the 8 9 statement of principle, that workers should be 10 allowed to change physicians without needing 11 approval, which can also be a long and daunting 12 process. 13 But then we should say that our 14 recommendation is to reject the change. 15 CHAIR MARKOWITZ: Dr. Cassano? 16 MEMBER CASSANO: The only other 17 comment I have is, I'm still a little bit 18 concerned about the use of referrals to multiple 19 specialists or sub-specialists, because there is 20 nothing in here that seems to -- it sounds like 21 you can only have one treating physician, and I'm 22 trying to figure out if we need language that

says, referrals are specifically exclude -- okay, 1 2 specifically -- or referrals from the treating physician to other -- any other specialists are, 3 4 you know, allowed, ad libitum almost under the 5 I don't know if we need that. statute. MEMBER FRIEDMAN-JIMENEZ: Are we 6 7 supposed to be there at 10:30? CHAIR MARKOWITZ: Yes, it's 10:27. 8 9 MEMBER CASSANO: Yes. 10 CHAIR MARKOWITZ: Yes, in one minute, 11 we'll close. Go ahead. 12 MEMBER VLIEGER: As a claimant, I can 13 tell you that I have my general practitioner, 14 kind of the umbrella doctor, and then I have the 15 specialists, and to date, I haven't had problems 16 changing when doctors have moved. 17 But they have required me to justify, 18 you know, that you're changing doctors and why. 19 So, as a claimant, I can tell you that 20 I have more than one treating physician, 21 depending on the body part involved. 22 CHAIR MARKOWITZ: We're going to take

1	a break now. We'll reconvene at 11:00. Thank
2	you.
3	(Whereupon, the above-entitled matter
4	went off the record at 10:30 a.m. and resumed at
5	11:00 a.m.)
6	CHAIR MARKOWITZ: We are going to
7	start again. Greg, can you hear me in the back?
8	Good, thank you. I don't mean to interrupt,
9	much.
10	Okay, we're reconvening the Board
11	meeting. We're missing a couple of members, but
12	we need to proceed. So, let's continue.
13	The WebEx, Mr. Rios has an
14	announcement about the status of the WebEx.
15	MR. RIOS: So, this morning, we had
16	we were notified that the link on our website was
17	broken for the WebEx. That has since been
18	repaired, and we also asked this morning that if
	you're still having trouble, although several
19	
19 20	people have logged on and confirmed that it's
	people have logged on and confirmed that it's working, but if you're still having trouble,

energyadvisorboard@dol.gov. Thank you. 1 2 CHAIR MARKOWITZ: So, if we could bring up the draft recommendation, we were 3 discussing changing the physicians, and I changed 4 5 the language at the break, I think to reflect the -- so, let's take a look at this. Let me read 6 7 it. "Board notes that the added language 8 9 does not clarify what the claimants need to 10 produce and finds it implausible that claimants 11 can provide medical or factual evidence in 12 support of a request to change physicians." 13 "The Board recommends that the 14 proposed changes be eliminated and be replaced by 15 the following." 16 "The claimant may cite personal 17 preference as a valid reason to change 18 physicians." 19 "The language of 30.405(c) should be 20 changed in accordance with this recommendation." 21 So, if you look at the -- look at the 22 book on the proposed changes, you'll see that

1	there's a B and there's a C, and they both have
2	parallel changes that are proposed.
3	So, additional comments, discussion
4	about this?
5	Okay, is there let me ask let me
6	raise a question.
7	We say that the Board finds it
8	implausible that claimants can provide medical or
9	factual evidence. Sometimes they can, but can
10	routinely provide? Should we add some qualifier
11	like that?
12	MEMBER CASSANO: We could say that it
13	places an undue burden.
14	CHAIR MARKOWITZ: No, well, that's
15	different that's different thought, actually.
16	Dr. Friedman-Jimenez?
17	MEMBER FRIEDMAN-JIMENEZ: Maybe
18	someone with more diplomatic skills than I can
19	suggest alternative language, but I would say
20	it's inappropriate to ask for medical and factual
21	evidence to support a request to change
22	physicians, but that obviously, isn't polite to

put in the document. 1 2 MEMBER FRIEDMAN-JIMENEZ: Well, whether it's polite or not, there are instances 3 4 at which it's plausibly appropriate. So, I 5 wouldn't endorse that language. Yes, Dr. Boden? So, this does not 6 MEMBER BODEN: 7 include something that says that claimants -that the Board believes that claimants should 8 9 generally be allowed to change physicians without 10 requesting permission from -- without requesting 11 permission. 12 CHAIR MARKOWITZ: So, the current 13 regulation requires --14 MEMBER BODEN: Yes. 15 CHAIR MARKOWITZ: -- requesting 16 permission. All right, so that sentiment then is 17 -- doesn't address the change. It addresses the 18 current regulation --19 MEMBER BODEN: Yes. 20 CHAIR MARKOWITZ: -- and I see your 21 point. So, at the end of the first sentence, we 22 could follow that with, this is our rationale

part, so to speak. We could add another 1 2 sentence, which would say what? MEMBER BODEN: The Board believes that 3 claimants should be able --4 5 CHAIR MARKOWITZ: I'm sorry, I'm sorry. Can we just go up to the previous 6 paragraph, and where it says -- you know, right 7 there, right, and --8 9 MEMBER BODEN: The Board believes that 10 claimants should be able to change physicians 11 without approval or -- period? Without approval 12 of OWCP or whatever. Just --13 CHAIR MARKOWITZ: Okay, so other 14 So, we have a motion? comments? 15 MEMBER BODEN: Yes, could I suggest 16 that that be the first sentence because the 17 second sentence is the one that the recommended 18 change follows from. 19 CHAIR MARKOWITZ: Sure. Sure, if we 20 could move that up. MEMBER FRIEDMAN-JIMENEZ: I move that 21 22 we accept this language.

1	CHAIR MARKOWITZ: Second? Okay, so,
2	discussion. Dr. Silver?
3	MEMBER SILVER: We may not get exactly
4	what we want, and I remember in our conference
5	call, one of the doctors had an impassioned
6	argument about changing oncologists on a timely
7	basis. Was that Dr. Cassano or Dr. Sokas, and I
8	am just wondering if a sentence underlying the
9	urgency of that specific issue would satisfy that
10	participant's concern, but if she's not here
11	CHAIR MARKOWITZ: Well, let me say
12	that if they really accepted our recommendation
13	that the personal preference was then it
14	should be a very expedited procedure.
15	MEMBER SILVER: Right.
16	CHAIR MARKOWITZ: And there shouldn't
17	be delays because there is very little to look,
18	once that request is recorded.
19	MEMBER SILVER: I agree, but like I
20	said, we may not get exactly what we want, and
21	then there is this exigent case that someone felt
22	impassioned about.

1	CHAIR MARKOWITZ: Okay, so you want to
2	propose a friendly amendment, in terms of
3	particular language addressing this point?
4	MEMBER CASSANO: There was some
5	language that was in our group, about the fact
6	that if it were not approved within two weeks,
7	that it would be automatic that it's
8	automatically approved.
9	MEMBER SILVER: And that is I'll
10	drop it, if the person who was the motive force
11	isn't here. So.
12	MEMBER BODEN: Yes, I think we should
13	keep it in.
14	CHAIR MARKOWITZ: Further discussion?
15	Yes?
16	MEMBER VLIEGER: You all may not be
17	aware of the time limits that DOL allows
18	themselves to answer letters in. Thirty days is
19	considered a timely response. That's pretty much
20	a standard under the program, 30 days is
21	considered a timely response.
22	CHAIR MARKOWITZ: Other comments? So,

1	we're going to take a vote. Do we need to read
2	this again for prior to taking a vote?
3	Okay, so, all those in favor of this
4	motion? Okay, all those opposed? Any
5	abstentions?
6	Okay, so, all members present voted in
7	favor. There were 13 members present. Okay, we
8	could move to the next proposed change.
9	Okay, so, here we're referring to, I
10	think it's page 30. It's Section 30.206(a).
11	It's page 31 at the top, and Dr. Cassano, if you
12	could just read.
13	MEMBER CASSANO: This is how a
14	claimant how a claimant proves that the
15	employee was a covered employee exposed to
16	beryllium dust particles or vapors in their
17	performance of duties?
18	Sub-paragraph A, proof of employment,
19	strike out 'at' or physical presence at a DOE
20	facility, or a and strike they struck out
21	'facility owned, operated or occupied by
22	beryllium vendor'.

1	So, it now reads, "Proof of employment
2	or physical presence at a DOE facility or a
3	beryllium vendor facility, as defined in 30.5(j),
4	and we should probably go back to that.
5	CHAIR MARKOWITZ: So, the 30 I just
6	I have it in front of me.
7	So, on page 14, 30.5(j) recommends
8	that new language that says, "Beryllium vendor
9	facility means a facility owned and operated by a
10	beryllium vendor."
11	Okay, so, let's turn to the
12	subcommittees for their committee comments on
13	this proposed change. Mark?
14	MEMBER GRIFFON: Yes, our subcommittee
15	basically said that we proposed the broader
16	definition of owned, operated or occupied by, as
17	the beryllium vendor.
18	CHAIR MARKOWITZ: Laurie?
19	MEMBER WELCH: We didn't really
20	understand the impact of the change, although I
21	think we did hear in the course of the meeting
22	today, that it would eliminate a lot of

1	facilities. So, I would defer to Mark's group,
2	who had more information.
3	CHAIR MARKOWITZ: Dr. Silver?
4	MEMBER SILVER: Ditto what Dr. Welch
5	just said. That was our sentiment.
6	CHAIR MARKOWITZ: So, any comments
7	from the Board members?
8	So, the draft recommendation reads,
9	"The Board is uncertain about the reason for the
10	apparent narrowing of beryllium-using sites and
11	is concerned that the change might unnecessarily
12	limit benefits to beryllium exposed workers who
13	should be eligible for the program." Comments?
14	So, I would take no we're not
15	unlike some of our other recommendations we're
16	talking about, we're not proposing language, and
17	we're not really we don't really make
18	regulations.
19	But in this case, we're expressing
20	concern and pointing making a particular
21	point, rather than suggesting particular
22	language, but that seems appropriate to me.

1	So, are there any other comments? So,
2	I need a motion. Dr. Boden? Okay, second? Dr.
3	Cassano.
4	So, any other discussion? Okay, so,
5	the motion I just read it, so I don't think I
6	need to re-read it, but all those in favor, if
7	you could raise your hand, and all those opposed?
8	Any abstentions?
9	So, the 13 present members of the
10	Board vote in favor of this recommendation.
11	We're going to move to the next
12	proposed change, which is on page 64. I'm sorry,
13	65, and this is Section 30.509(c) and
14	MEMBER CASSANO: Sorry. This is about
15	what addition of the AMA guidance was used.
16	OWCP only makes determinations based
17	on rationalized medical evidence in the case file
18	that is sufficiently detailed and meets the
19	various requirements for the many different types
20	of determinations possible under, strike out 'AMA
21	guides' and replace that with 'fifth edition of
22	the American Medical Association's guides to the

evaluation of permanent impairment (AMA's
 guides)'.

Therefore, the -- well, I don't need 3 4 to read this. Therefore, the OWCP will only make 5 a determination for a deceased covered Part E employee to the medical evidence or records, to 6 satisfy the pertinent requirements of the AMA 7 guides in Sub-Part J and its parts. 8 9 CHAIR MARKOWITZ: Excellent. Thank 10 So, essentially, it's specifying the fifth you. 11 edition of the guides, and the committee 12 comments, subcommittee comments? Dr. Silver? 13 MEMBER SILVER: Reflecting Les Boden's 14 amendment after the conference call, codifying 15 the fifth edition in the regulation may reflect -16 - may reduce OWCP's flexibility in using future 17 editions of the AMA guides. 18 The citation to the specific edition 19 of the guides belongs in the procedures manual, 20 and that will obviate the need for future Federal 21 Register notices for updates.

22

CHAIR MARKOWITZ: Mr. Griffon?

1	MEMBER GRIFFON: Yes, our group did not
2	comment on this section. We left it to others.
3	CHAIR MARKOWITZ: Okay, and Dr. Welch.
4	MEMBER WELCH: I think the sixth
5	edition is so detrimental to workers, that I'd
6	rather they be stuck with the fifth forever, than
7	have someone argue in court they should be using
8	the sixth. So, I like this language.
9	CHAIR MARKOWITZ: All right.
10	MEMBER WELCH: The fifth edition, as
11	you might know, Les, pretty much cuts impairment
12	in half for the same worker presenting evaluated
13	under the fifth and sixth.
14	So, maybe eventually there will be a
15	seventh but so, that was the comment from
16	our group was, we like this change.
17	CHAIR MARKOWITZ: Dr. Cassano?
18	MEMBER CASSANO: The only and I
19	recognize the whole issue with the sixth edition
20	and how draconian it sort of is.
21	The only reason I made that
22	recommendation was that if you really want to

move to the seventh or the eighth or the ninth 1 2 edition, it's going to take you about four years to get there because it requires the regulatory 3 change and all of that stuff. 4 So, if they can set some precedent in 5 procedure that says -- stipulates fifth edition, 6 7 but that the regulation says the -- the current issued approved by DOL, the current edition of 8 9 AMA guides approved DOL, that will allow them to 10 move to a future edition without having to go 11 through the rigmarole of a Federal Register 12 regulatory change. 13 That was the only point that I was 14 making. 15 Dr. Redlich? CHAIR MARKOWITZ: No? 16 Okay, any other comments? 17 So, the draft recommendation is the 18 Board notes that codifying fifth edition in a 19 regulation may reduce OWCP's flexibility in using 20 future editions of AMA guides, citation to a 21 specific edition of the AMA guides in the DEEOIC 22 procedures manual will obviate the need for new

regulations to adopt updated guides. 1 2 So, comments? **Revisions?** Just to clarify. 3 MEMBER BODEN: Ι 4 think we have two different positions here, 5 right? 6 So, we -- one position says we 7 shouldn't change --8 CHAIR MARKOWITZ: Right. 9 MEMBER BODEN: -- and the other 10 position says that we should. 11 So, we need to -- my comment is, I 12 think that we need to figure it out, and just 13 Laura, for you -- my comment that made a change, 14 the original one said something about -- that 15 sounded like we approved of the AMA guides, and 16 all of this. I don't --17 CHAIR MARKOWITZ: All right. 18 MEMBER WELCH: Well, I mean, I think 19 it's not a medical question. It's a strategic 20 question, and I think this statement is fine, and 21 then the agency can decide whether they want it 22 in the regulation or the procedure.

So, I mean, I'm fine with this, even 1 2 though it's not exactly what I would have said, because I think it's a -- it's pointing out that 3 4 there is a decision to be made. It doesn't sav 5 they shouldn't do it. It says may reduce their flexibility. That's fine with me. 6 So, I'd move to accept this language. 7 CHAIR MARKOWITZ: By the way, this is 8 9 just draft language. This can be changed by --10 very easily. Other comments? Ms. Vlieger? 11 MEMBER VLIEGER: My only concern would 12 be in a less favorable client, if we leave it 13 open to interpretation with the procedure, a 14 procedure is more easily changed than a 15 regulation. 16 So, I would rather have the stop-gap 17 of having an approval process, than allowing a 18 procedural change to readily change something 19 less favorable work environment. 20 MEMBER CASSANO: And I'm not married 21 to my position, so, I can -- I will not be hurt 22 if we just decide to trash it.

1 CHAIR MARKOWITZ: Ms. Vlieger, are you 2 saying that you would prefer to see it fixed in regulation, the use of the fifth guide? 3 4 MEMBER VLIEGER: That's correct. I 5 would prefer to see it fixed and then that -that's a back-stop for the workers, I think. 6 7 CHAIR MARKOWITZ: So, what should we do in terms of the language? Dr. Boden? 8 9 MEMBER BODEN: Fifth? So, I would 10 propose that we reject the -- the suggested 11 change. So, in other words, that we not offer 12 13 -- reject the one that's on the board, which says 14 that they shouldn't specify the fifth edition, 15 and let the -- and leave it as is, right. 16 CHAIR MARKOWITZ: So, just to clarify, 17 leave as is the proposed changes? 18 **PARTICIPANT:** Yes. 19 CHAIR MARKOWITZ: In other words to 20 essentially --21 MEMBER BODEN: To not make --To make the --22 CHAIR MARKOWITZ:

1	MEMBER BODEN: The Board make
2	CHAIR MARKOWITZ: Make no
3	recommendation about these
4	MEMBER BODEN: Correct, yes.
5	CHAIR MARKOWITZ: changes.
6	Comments? So, is there a so, we don't need to
7	I guess we would just strike this as a
8	recommendation. So, there is no new language for
9	us to look at.
10	So, if someone wants to make a motion
11	to that effect. Okay, Dr. Cassano makes the
12	motion and Dr. Boden seconds it.
13	So, discussion, and what's in play
14	here now is for us essentially, not to comment on
15	this proposed change.
16	No discussion? Let's take a vote.
17	All those in favor of
18	PARTICIPANT: No comment.
19	CHAIR MARKOWITZ: Actually, there is
20	no there is no vote, because we're choosing
21	not to make a recommendation, not make a
22	statement, so there is no vote needed.

1	But I would the sense of the group
2	seems to be in favor of this lack of
3	recommendation.
4	Okay, let's move to the next one,
5	okay. This is regarding wage loss benefits, and
6	I neglected to have done what Mr. Rios asked me,
7	which is to cite where in the Board's charter,
8	our address of these proposed changes falls
9	within our scope, and the wage loss benefit
10	really we're going to address, has to do with
11	really for the most part, the Cartier around
12	causation, and assembling the evidence and making
13	the link between exposure and disease, which
14	falls within certainly, within A and B of our
15	scope.
16	So, let's move to it's 30.806.
17	Okay, it's page 96.
18	The question is whether this is
19	it's a lot of new language here, it's a whole
20	it's a page really of new language, and the
21	question is whether we actually need to read this
22	out loud, in order to proceed. What's that, Mr.

Griffon? 1 2 MEMBER GRIFFON: Aren't we just talking about the 806 at the bottom of the page? 3 4 CHAIR MARKOWITZ: Right here, right? Eight-zero-five is 5 MEMBER GRIFFON: the one. 6 7 CHAIR MARKOWITZ: Okay, so, let's read 806, and we'll just confirm. 8 9 MEMBER CASSANO: Okay, 806. What kind 10 of medical evidence must the claimant submit to 11 prove that he or she lost wages due to covered 12 illness? 13 OWCP requires -- and this is all new 14 language, that is replacing it. 15 OWCP requires the submission of 16 rationalized medical evidence, of submission of probative value -- of sufficient probative value 17 18 to convince the fact finder that the covered Part 19 E employee experienced a loss of -- in wages, in 20 his or her trigger month, due to a covered 21 illness. It asks medical evidence based on a 22

physician's fully explained and reasoned 1 2 decision, see Section 30.805(a)(3). A loss in wages in the trigger month 3 4 due solely to non-covered illness matters, such 5 as a reduction in force or voluntary retirement is not proof of compensable wage loss under Part 6 7 Ε. CHAIR MARKOWITZ: So, if you could 8 9 also read 30.805(a)(3). 10 "What are the MEMBER CASSANO: 11 criteria for eligibility for wage loss benefits 12 under Part E?" 13 A Sub-3 says, "The wage loss in the 14 trigger month was caused by the covered Part E 15 employee's covered -- was covered -- Part E 16 employee's covered illness, i.e., that he or she 17 would have continued to earn wages in the trigger 18 month from that employment but for the covered 19 illness." 20 CHAIR MARKOWITZ: Okay, thank you. 21 So, comments from the committees? Mr. Griffon? 22 MEMBER GRIFFON: Yes, I said that our

committee was okay with that language. 1 But I 2 think it also -- I said that our committee was okay with the changed language, but also, prior 3 4 to this, we had commented on these questions of probative evidence, in our previous comments. 5 So, I don't think we repeated those concerns. 6 7 CHAIR MARKOWITZ: Dr. Welch? MEMBER WELCH: Our committee thought 8 9 it was important that the concept that the 10 covered illness could contribute to retirement, 11 as well as cause the retirement. There could be 12 multiple factors, and there needs to be some 13 assessment of the role of the covered illness, 14 and I actually think our comments are well 15 covered in what you've proposed there. 16 CHAIR MARKOWITZ: Dr. Silver? 17 MEMBER SILVER: We too ran out of 18 juice, but in written comments, subcommittee 19 members questioned what rationalized means, 20 suggested a simplification that OWCP require submission of medical evidence based on a 21 22 physician's fully explained and reasoned

decision, etcetera, etcetera, and also that the 1 2 work 'convince' is a bad word. It implies the fact finder a priori does not believe that there 3 is a sufficient disability to incur wage loss. 4 5 CHAIR MARKOWITZ: So, comments from Board members? Dr. Cassano? 6 7 MEMBER CASSANO: Yes, I think the idea about convince was basically to say instead of 8 9 convince, but of sufficient probative value for 10 the fact finder to determine that, rather than 11 the term 'convince'. 12 CHAIR MARKOWITZ: Okay, other 13 comments? So, hold that language for the moment, while we read the draft recommendation. 14 "The Board recommends that wage loss 15 should be compensated if the covered illness 16 17 contributed to retirement." 18 For example, a worker was told work 19 was no longer available, due to his covered 20 illness and that the worker took early 21 retirement. 22 The Board recommends that the phrases,

"Was caused," and "But for," in Sections 1 2 30.805(a)(3) be replaced by the spirit of the standard of "aggravated, contributed to or 3 4 caused", that appears in the EEOIC Act. That is, if the covered illness 5 aggravated, contributed to or caused the health 6 7 problems associated with wage loss in the trigger month, then the wage loss should qualify for 8 9 benefits. 10 The Board recommends that the phrase 11 that contains the term "rationalized" in line 12 three of 30.806 be simplified to, "OWCP requires 13 submissions of medical evidence based on a 14 physician's fully explained and reasoned 15 decision." 16 I'm not sure that's simplification, 17 but it's a brief re-statement. So, are there 18 comments? Dr. Cassano? 19 MEMBER CASSANO: I would just add --20 well, I don't know -- I'm okay with that, but I 21 would make an amendment to that, to actually 22 recommend changing the language of 'convince' to

what I said before. 1 2 CHAIR MARKOWITZ: I'm sorry? So, can 3 you then provide us some language --4 MEMBER CASSANO: Yes. 5 CHAIR MARKOWITZ: -- that we can use 6 and --7 MEMBER CASSANO: So, the language would be, OWCP requires the submission of 8 9 rationale or reasoned medical evidence, however 10 you want to say that, of sufficient probative for 11 the fact finder to determine that the covered 12 Part E employee's experience and loss in wages 13 with his or her true -- trigger month due to the 14 covered illness. 15 So, replace 'convince', 'to convince', 16 to 'convince the fact finder to probative value 17 for the fact finder to determine 'whether'. 18 CHAIR MARKOWITZ: Okay, so, Kevin if 19 20 MEMBER CASSANO: No. 21 CHAIR MARKOWITZ: No, yes, you needed 22 to specify to Kevin, exactly what the language

1 is. 2 MEMBER CASSANO: Okay. 3 CHAIR MARKOWITZ: So? 4 MEMBER CASSANO: Okay, so, OWCP 5 requires submission of reasonable and medical evidence based -- no, it's above that. 6 PARTICIPANT: Why don't you make it a 7 fourth paragraph? 8 9 MEMBER CASSANO: No, it's the first 10 part of that paragraph. 11 OWCP requires the submission of 12 reasoned medical evidence of sufficient probative 13 value --14 PARTICIPANT: Direct him on the page, 15 where you want him to put the cursor. 16 MEMBER CASSANO: Okay, the cursor goes 17 under -- to be simplified -- see, it doesn't work 18 with this new simplified language. 19 CHAIR MARKOWITZ: So, do you want to 20 just replace the word 'convinced' with 21 'determined', essentially? 22 MEMBER CASSANO: Value to -- value for

1	the fact finder to determine, is what I want, to
2	have in that first line.
3	But then it conflicts with what that
4	change is on the top.
5	CHAIR MARKOWITZ: Well, if the
6	significance of the proposed change is really
7	just to address the word 'convinced', convince
8	MEMBER CASSANO: Right.
9	CHAIR MARKOWITZ: and change it to
10	determined soften it to 'determined' then
11	MEMBER CASSANO: But then it's in the
12	wrong spot.
13	CHAIR MARKOWITZ: Well, then we don't
14	have to probably worry about it, if it if it
15	being in the wrong spot doesn't affect the
16	meaning, then we don't have to worry about that.
17	We can just say because we're not rewriting
18	the regulation proposed changes, right? So,
19	we're just making proposals.
20	MEMBER CASSANO: Okay.
21	CHAIR MARKOWITZ: So, we can simply
22	say that the Board recommends that the word
22	say that the board recommends that the word

'convince' be --1 2 MEMBER CASSANO: Changed. CHAIR MARKOWITZ: -- replaced by the 3 4 word 'determine' or whatever word you're -- so, 5 if we could just add that right there, that the Board recommends. Yes, that's correct. 6 7 So, the word 'convince'. The word 'determine'. 8 9 These are past tense. PARTICIPANT: 10 CHAIR MARKOWITZ: Right, right. 11 PARTICIPANT: Convinced and 12 determined. 13 MEMBER CASSANO: Or allow the fact 14 finder to determine. So, replace 'convince' with 15 'allow the fact finder to determine', that's 16 fine. 17 CHAIR MARKOWITZ: Yes. Okay, so, 18 before 'determine', just move it back -- just say 19 'allow' --MEMBER CASSANO: Allow the fact finder 20 21 to determine. 22 CHAIR MARKOWITZ: Right. Right, in

1 the quotes, right, allow. 2 MEMBER CASSANO: I'm getting lost. Allow the fact finder to determine. 3 4 MEMBER BODEN: So, you've got this --5 so, once you're done with that, if you go back to where it says 'convince'. 6 MEMBER CASSANO: It says 'convince the 7 fact finder'. 8 9 MEMBER BODEN: You want to say 10 'convince the fact finder'. 11 MEMBER CASSANO: Convince the fact 12 finder. Thank you. 13 MEMBER CASSANO: So, if we -- if we go 14 two paragraphs up to where the -- it says 'the 15 spirit of the standard', the spirit is not the 16 right word. Well, we could say intent. That's 17 better than spirit, but it's --18 MEMBER CASSANO: The language --19 CHAIR MARKOWITZ: -- the aggravated, 20 contributed cause is not the intent. That's the 21 22 That's the language. MEMBER CASSANO:

CHAIR MARKOWITZ: That's the language. 1 2 Right? Right. So, we could say by the language 3 of the --4 **PARTICIPANT:** Yes. 5 CHAIR MARKOWITZ: Now --This one right here? 6 PARTICIPANT: 7 MEMBER CASSANO: Yes. CHAIR MARKOWITZ: That's correct. 8 9 Okay, then the one line up, if you can just go 10 one line up, go to the left and remove DOL. 11 Comments? 12 I think -- someone want to read this 13 one last time, as the proposal then on this? Is 14 there a motion? 15 MEMBER SILVER: I'll make it, but 16 after one minor editing change. 17 The very last line, replace with the 18 phrase. 19 CHAIR MARKOWITZ: Yes, yes, okay. 20 MEMBER SILVER: I make a motion that 21 we accept this -- okay. 22 CHAIR MARKOWITZ: Okay.

Ready? Make a motion 1 MEMBER SILVER: 2 that we put forward this language in our 3 comments. 4 CHAIR MARKOWITZ: Second? So, can 5 someone read this, so that we hear it once again? MEMBER CASSANO: Designated reader 6 "The Board recommends that wage loss 7 here. should be compensated if covered illness 8 9 contributed to the retirement, e.g., a worker was 10 told work was no longer available due to his 11 covered illness and that the worker took early 12 retirement." 13 "The Board recommends that the phrases 14 'was caused' and 'but for' in Section 3.805(a)(3) 15 be replaced by the language of the standard of 16 aggravated, contributed to or caused, that 17 appears in the EEOIC Act." 18 "That is if the covered illness aggravated, contributed or caused the health 19 20 problems associated with wage loss in the trigger 21 month, then the wage loss should qualify for 22 benefits."

1"The Board recommends that the phrase2contains the term 'rationalized' in line three of330.806, be simplified to OWCP requires submission4of medical evidence based on the physician's5fully explained and reasoned decision of6sufficient probative value, to convince the the7 of sufficient probative value to allow the8fact finder to determine," and what that9eliminates in there is that parenthetical	
3 30.806, be simplified to OWCP requires submission 4 of medical evidence based on the physician's 5 fully explained and reasoned decision of 6 sufficient probative value, to convince the to 7 of sufficient probative value to allow the 8 fact finder to determine," and what that	e
4 of medical evidence based on the physician's 5 fully explained and reasoned decision of 6 sufficient probative value, to convince the to 7 of sufficient probative value to allow the 8 fact finder to determine," and what that	£
5 fully explained and reasoned decision of 6 sufficient probative value, to convince the to 7 of sufficient probative value to allow the 8 fact finder to determine," and what that	n
6 sufficient probative value, to convince the to 7 of sufficient probative value to allow the 8 fact finder to determine," and what that	
 7 of sufficient probative value to allow the 8 fact finder to determine," and what that 	
8 fact finder to determine," and what that	c
9 eliminates in there is that parenthetical	
10 statement that says, "Due to a covered illness,	
11 i.e., medical," blah, blah, blah, blah.	
12 MEMBER BODEN: So, the word	
13 'simplified' should be just changed?	
14 MEMBER CASSANO: Right.	
15 MEMBER BODEN: It's not simplified?	
16 MEMBER CASSANO: Well, yes, it is	
17 simplified because you you're repeating it and	f
18 then you have a parenthetical phrase, which come	5
19 out.	
20 CHAIR MARKOWITZ: Okay, so, you read	
21	
22 MEMBER CASSANO: Yes.	

1 CHAIR MARKOWITZ: -- the proposal, the 2 motion, right? Okay, comments? Dr. Silver? 3 MEMBER SILVER: The second paragraph, 4 sorry to be the English teacher, aggravated, 5 contributed to or caused. 6 MEMBER CASSANO: Okay. 7 CHAIR MARKOWITZ: I'm sorry, it says 8 9 PARTICIPANT: It should say 10 'contributed to' because the act actually says 'contributed to'. 11 12 MEMBER CASSANO: It is -- says 13 'contributed to'. 14 CHAIR MARKOWITZ: I see, it's in the 15 second line. 16 PARTICIPANT: Below that, below it. 17 CHAIR MARKOWITZ: All right. 18 MEMBER CASSANO: Okay, okay. I think 19 the read the 'to', which was the problem. 20 CHAIR MARKOWITZ: Okay, so, is there a proposal to change the word, in the third 21 22 paragraph, change the word 'simplified' to

'changed'? 1 2 PARTICIPANT: I think it's just 3 clearer that way. CHAIR MARKOWITZ: I think it is an 4 5 improvement. To change it. MEMBER CASSANO: 6 7 CHAIR MARKOWITZ: Yes, so, if you can 8 just change it. Okay, other comments or discussion? 9 10 MEMBER BODEN: I move that we accept 11 this. 12 CHAIR MARKOWITZ: Okay, so, we're 13 going to vote now. All those in favor of this 14 recommendation, raise your hand. All those 15 opposed? 16 Okay, the 14 -- there are 14 members 17 present and all voted in favor of the 18 recommendation. 19 Next we go to page 17. We are making 20 good progress, and this relates to Section 30.5(e)(e) under definitions, and the relevance 21 22 of our attention to this proposed change, in

relation to our scope is that this defines --1 2 this proposed change relates to who a physician is, what physicians would be included in the Act, 3 4 and this -- in relation, that are providing 5 medical guidance, which is Task B, and Task D, input into the use of medical experts, makes this 6 7 relevant to our discussion. 8 So, do you want to read, Dr. Cassano, 9 the proposed change? 10 MEMBER CASSANO: The proposed charge basically says changes -- includes, "Physicians," 11 12 'includes' was struck and 'means' was added. 13 "Surgeons, podiatrists, dentists, 14 clinical psychologists, optometrists, 15 chiropractors and osteopathic practitioners 16 within the scope of their practices defined by 17 state law." 18 Then 'the' and then the term 19 'physician includes', and then it -- so, it says, 20 "The services of chiropractors, only to the 21 extent that their reimbursable services," that 22 was all struck, "May be reimbursed to limit --

limited treatment consisting of manual 1 2 manipulation of the spine to correct the 3 subluxation as demonstrated by x-ray to exist." 4 Yes, I mean, it's hard to try to read 5 something --CHAIR MARKOWITZ: That's very nice. 6 7 Very nice. MEMBER CASSANO: 8 Thank you. 9 CHAIR MARKOWITZ: Reports from the 10 committees? Dr. Welch? 11 MEMBER WELCH: We thought this definition of physician was way too narrow and 12 13 needs to be expanded. It excludes most of the 14 physicians that would be used as consulting 15 medical providers or treating physicians for 16 these patients. 17 CHAIR MARKOWITZ: Mr. Griffon? 18 MEMBER GRIFFON: We agree with exactly 19 with those comments. We said it's -- should be 20 more inclusive of the -- those that treat 21 patients. 22 CHAIR MARKOWITZ: Dr. Silver?

1 MEMBER SILVER: We thought it should 2 be restored, so the definition reads, "Physician 3 includes surgeons." Medical doctors are 4 understood to be physicians. Later, someone else 5 raised the issue of psychiatrist, but that change 6 would satisfy the concern.

7 Then defining this non-MD provider 8 scope of practice under state law could mean that 9 each examiner will have to look of the scope of 10 practice in each state, in which the claimant is 11 being treated, said one of our doctors.

12 CHAIR MARKOWITZ: Comments from Board 13 members? Okay, so, let me read the draft 14 recommendation.

"The Board recommends that 'includes' should be restored to the definition," and read, "Physicians -- physician includes surgeons, etcetera," in order to be more inclusive of physicians who typically treat patients with work related illnesses (for example family practice physicians, internists, etcetera).

22

So, actually what this means is that

we are proposing that they not use the new 1 2 language, and -- right, okay. MEMBER CASSANO: In the first part. 3 CHAIR MARKOWITZ: In the first part, 4 5 The second part wasn't address by the draft yes. recommendation. I don't know whether there is any 6 7 desire to address that, but any comments? Dr. Welch? 8 9 MEMBER WELCH: You know, it's not 10 necessarily our call, but the English in that 11 sentence is -- it needs some editing. I mean, I know what the intent is, 12 13 intent is to limit the payment to chiropractors 14 to a specific service, but I'm just sort of 15 pointing that out for the record, and I'm sure 16 DOL can fix that, when they do the final. 17 CHAIR MARKOWITZ: Thank you. Other 18 comments? Okay, so, let's take a vote on this. 19 I don't think there's any need to re-read this. 20 All those in favor of this -- of our 21 recommendation, raise your hand. All those 22 opposed? Any abstentions?

ĺ	
1	So, there are 14 members of the Board
2	present, all of whom vote in favor of this
3	recommendation.
4	So, let's move to the next one, which
5	is Item Number 11, which is on page 16, and 16 is
6	part of of the definitions $30.5(x)(2)(3)$.
7	This is the where a definition of who a DOE
8	contractor employee is.
9	MEMBER CASSANO: Read? "A civilian
10	employee of a state or federal government agency,
11	if the agency employing that individual is found
12	to have entered into a contract with DOE for the
13	provision of one or more services it was not
14	statutorily obligated to perform, and DOE
15	compensated the agency for those services."
16	"The delivery or removal of goods from
17	the premises of a DOE facility does not
18	constitute a service for the purpose of
19	determining a worker's coverage under this
20	paragraph."
21	CHAIR MARKOWITZ: Okay. So, comments
22	from the various subcommittees? Mr. Griffon?

Yes, we basically 1 MEMBER GRIFFON: 2 were concerned about this being too restrictive, that some -- I think the intent was probably to 3 restrict vendors delivering Coke, I've heard that 4 5 used before. But this is overly restrictive of many 6 7 other delivery of goods or services -- you know, goods to the sites, including construction and 8 9 maintenance type work, and the areas where they 10 might be delivering to. 11 We did say, in our subcommittee, we said that the delivery or removal of goods from 12 13 the premises of the DOE facility does not 14 constitute a service, should be augmented with

15 the following phrase, "Unless a worker can 16 provide factual evidence of exposure to hazardous 17 substances while on the site."

18 I'm not sure -- reflecting on that,
19 I'm not sure I agree with our subcommittee
20 language, but that's what we said in the
21 subcommittee. So.

22

CHAIR MARKOWITZ: All right, that's

1 good. 2 MEMBER GRIFFON: I think that puts the pressure on the worker to -- you know, to prove 3 4 that they were delivering to an area with 5 hazardous substances, and I think that wasn't necessarily our intent. 6 7 CHAIR MARKOWITZ: Okay. MEMBER GRIFFON: But that's what we 8 9 said. 10 CHAIR MARKOWITZ: Dr. Welch? 11 MEMBER WELCH: Yes, I think our 12 committee came up with something similar, which 13 was if the -- if delivery of services or removing 14 the service entails exposure to a hazardous 15 substance, then they should be covered. 16 MEMBER GRIFFON: Right. 17 MEMBER WELCH: But I don't --18 MEMBER GRIFFON: But it shouldn't mean 19 the worker --20 MEMBER WELCH: But and so, that could 21 be dealt with by eliminating that sentence 22 because everybody has to demonstrate that

Neal R. Gross and Co., Inc. Washington DC 152

exposure to hazardous substance and this is a 1 2 presumption that delivery doesn't include that, and we don't agree with that. 3 4 So, I think the recommendation would 5 be -- well, we'll see what Steve had proposed, but we might just recommend deleting that 6 7 sentence. CHAIR MARKOWITZ: Okay, Dr. Fischer --8 9 Silver? 10 MEMBER SILVER: We concur and 11 underline, as someone pointed out, removal tasks 12 are often among the most dangerous, removing 13 hazardous materials. 14 CHAIR MARKOWITZ: Okay, so, comments 15 from the Board members? Yes, Dr. Boden? 16 MEMBER BODEN: Does the Board want to 17 recommend that this change be struck or and so, 18 this is -- looks like a preamble to a suggested 19 change. 20 So, the Board believes that workers 21 who were exposed to hazardous materials, blah, 22 blah, blah, should be included and therefore, the

sentence, "The delivery or removal of goods,"
blah, blah, blah should be struck from the
changes, right?
Therefore, the Board recommends that
that sentence be struck from the changes.
CHAIR MARKOWITZ: Comments?
MEMBER CASSANO: Yes, I think we might
add to our justification then that those that
delivery and removal of goods should be
evaluated, to determine whether there was
hazardous materials involved or exposure to
hazardous materials, and that is why we don't
want them to regulate on a regulatory basis,
remove all delivery and removal of goods, if you
follow what I'm saying.
CHAIR MARKOWITZ: Sure. I mean, the
draft recommendation says, "The Board recommends
that workers who were exposed to hazardous
materials in the course of delivery or removal of
goods or materials from a DOE facility should be
included in coverage under EEOICP."
MEMBER CASSANO: Yes.

1	CHAIR MARKOWITZ: So, it does try to
2	help define a class of workers, who deserve to be
3	included, but not all workers involved with
4	delivery or removal.
5	MEMBER CASSANO: But I think what
6	they still need to evaluate anyone that delivers
7	and removes, to determine whether it is a
8	hazardous materials were included, yes?
9	MEMBER DOMINA: My comment to that
10	would be no, for the simple reason is, if you're
11	inside like the fence at DOE, you're under one
12	standard, and then a lot of times, the standard
13	outside the fence is a lot different, which is a
14	lot less, and I don't believe it needs you
15	need to leave it alone.
16	I think the whole paragraph needs to
17	be stricken.
18	PARTICIPANT: The whole paragraph or
19	the whole sentence?
20	MEMBER REDLICH: I mean, I agree, I
21	don't think we need the second sentence, because
22	workers should be considered.

I agree that we don't need the second 1 2 sentence, because we should not be excluding those workers, but if someone could explain to 3 4 me, the first sentence, because I just don't 5 understand it, but I assume it's there for a 6 reason. 7 So, I don't want to approve something that I don't understand. 8 9 MEMBER CASSANO: I can take a stab at 10 it. I think what it's saying is, even if there 11 was -- if there was a contract, even if the 12 particular task was not included in that 13 statutory language, but the contract -- the 14 employee was paid to provide that service, then 15 they're going to compensate him, even if it 16 doesn't say, this is your particular -- this is 17 the job that this contract was meant to do. You 18 guys may have a better idea. 19 MEMBER VLIEGER: So, other 20 departmental employees are covered under this 21 program, if they are -- they were subcontracted 22 by DOE to perform a DOE function on the site.

An example would be if they belonged 1 2 to the Army Corp of Engineers, but they were removing artillery sites from Hanford, for say, 3 4 they would not be covered because that's an Army 5 Corp of Engineer project, yet they were inside the fence of Hanford and they were a federal 6 7 employee. There are some strange lines here and 8 9 they have to look at contracts, to see if they're 10 actually covered as a Federal employee. 11 So, the first part of this covers 12 other departmental employees and whether or not 13 they would be considered DOE and covered under 14 the program. 15 So, some of that language is there for 16 that reason, to define how they would and would 17 not be covered. 18 MEMBER REDLICH: So, it's being more 19 inclusive of who is covered or is it being less 20 inclusive? 21 MEMBER VLIEGER: This changes 22 slightly, the previous language to be more

(202) 234-4433

inclusive, but it's very much the same as the old
 language, than that first line, and the second
 line I have to object to.

There are only so many IH's on a site. There are only so many HPT's on a site. None of them follow truck drivers around. There is not going to be any monitoring data for these people. We're going to be lucky if they have a dosimeter.

9 So, excluding them based on them 10 trying to provide evidence under the statute, or 11 saying, "Well, because you were just a delivery 12 driver," I think is unfair.

13 CHAIR MARKOWITZ: So, it seems to me 14 there are two sentences to this Item Number 15 The first sentence, actually stands on three. 16 its own, and doesn't relate -- doesn't relate to 17 our scope, in terms of what we've been asked to 18 look at, whereas, number two, second sentence is 19 within our scope.

20 So, let's just focus then on the 21 second sentence, which is the delivery and 22 removal of goods. Other comments?

(202) 234-4433

1	So, one way we could address this is,
2	and what we're looking at on the board the
3	screen now, the Board recommends, replace
4	'recommends' with 'recognizes' or
5	PARTICIPANT: Yes.
6	CHAIR MARKOWITZ: and then follow
7	that with a sentence, at the end, which says
8	that, "The Board recommends that the sentence
9	beginning with 'the delivery or removal of
10	goods'", right, be eliminated.
11	PARTICIPANT: Good.
12	CHAIR MARKOWITZ: And actually, our
13	real sentiment on this is that this should be
14	that workers who deliver or remove goods, who
15	have hazard exposures should be included, and
16	those who don't, should not be included, all
17	right, okay.
18	Okay, welcome back, Ms. Pope. So,
19	just to orient you, we're on page 16. We're
20	discussing delivery and removal of goods from
21	and we're about to take a vote. So.
22	So, let me read this out the whole

thing out loud, in part, to try to bring Ms. Pope 1 2 up to -- okay. 3 So, yes, on page -- are you on page 4 16? Okay, yes, so on page 16, you'll see it in 5 the blue paragraph, the last three lines. I'm just waiting a moment until she -- that's okay. 6 Okay, so, we're looking at on page 16, 7 towards the top, Item Number 3, the last 8 9 sentence, which starts with 'the delivery or 10 removal of goods', and the motion is that -- is 11 the following. 12 The Board recognizes that workers who 13 were exposed to hazardous substances -- materials 14 in the course of delivery or removal of goods, or 15 materials from a DOE facility should be included 16 in coverage by EEOICP. 17 The Board recommends that the sentence 18 beginning with the delivery or removal of goods 19 be eliminated. 20 So, I've lost track a little bit. Do 21 we have a motion to accept this? 22 PARTICIPANT: So moved.

1	CHAIR MARKOWITZ: Okay, so, any
2	further comment on this issue?
3	So, all those in favor of this, raise
4	your hand please. Okay, and all those opposed?
5	Any abstentions?
6	So, there are 15 members present and
7	all voted in favor.
8	We're in a minute, we're going to
9	take a break for lunch. I would just say that the
10	Board recognizes that we are, in some instances,
11	recommending specific language for the proposed
12	changes, and that DOL needs to reconcile any
13	language that they might consider adopting from
14	what we've proposed, with language that they
15	already have in other parts of the regulations,
16	that some of which are pre-defined and so, we
17	recognize the need for some reconciliation of
18	that language.
19	We also recognize that there our
20	grammar may not be perfect in some of our
21	recommendations, so please forgive that.
22	Finally, that there are other parts of

the regulations that may pertain or replicate or 1 2 mirror the sections that we're looking at, and that we may not have caught every section of the 3 4 proposed regulations that replicate what we have 5 looked at, and we would hope that our recommendations would also apply to those other 6 7 sections of the proposed regulations. So, with this, we'll break for lunch 8 9 and we'll reconvene -- yes, Mark? 10 MEMBER GRIFFON: Just the process, 11 we're going to get back to those couple that we 12 left from last night, right? 13 CHAIR MARKOWITZ: That's right. 14 MEMBER GRIFFON: Okay. 15 CHAIR MARKOWITZ: So, this is -- this 16 is how the rest of the --17 MEMBER GRIFFON: After lunch? 18 CHAIR MARKOWITZ: This is the rest of 19 -- how the rest of the day will look. 20 We'll take a break. We'll have lunch, 21 and let's return at -- let's return at 12:45 22 p.m., actually, and we'll begin the work on that.

At 1:00 p.m., we have a public comment 1 2 period for 45 minutes, and then we have some additional time, we're going to work on the 3 4 proposed changes, and we are within our time. 5 We're in good shape, I think. Thank you very much. 6 7 (Whereupon, the above-entitled matter went off the record at 12:00 p.m. and resumed at 8 9 12:50 p.m.) 10 CHAIR MARKOWITZ: So, the public 11 comment period will begin shortly, and I just 12 have a message for the people on the phone 13 online. 14 To access the public comment period, 15 you will need to hang up and dial the following 16 number, 1-800-369-3381. 17 That number is 1-800-369-3381, and 18 then you'll need to enter the code 2470553. 19 Again, just to repeat that code, 20 2470553. Thank you. 21 Okay, apparently, we can't -- we're 22 not going to start for five more minutes, the

1	public comment period, because it has to be at
2	1:00 p.m., but we're almost there.
3	So, we're not going to discuss
4	anything substantive at the moment, but I would
5	like to begin to raise an issue that we're going
6	to have to deal with later today.
7	After the public comment period for 45
8	minutes, we're going to return to our
9	providing our recommendations of input into the
10	DOL proposed regulations. We've made excellent
11	progress, but we still have a little bit more to
12	go. So, we will do that immediate following the
13	public comment period.
14	Then we will begin to discuss
15	logistics around additional meetings in the
16	future.
17	The next meetings will be by the
18	subcommittee, and they will be in the next few
19	months. They will be scheduled by the chairs of
20	the subcommittees, and you need you should
21	then communicate with the members of the
22	subcommittee, and just make sure you copy those

and myself, so we know what's going on. 1 2 But once you decide on a time and a date for the subcommittee meeting, DOL needs 3 4 approximately seven weeks, in order to do what's 5 needed to get it into the Federal Register, 6 etcetera. So, tomorrow, when you go home and 7 begin to schedule these meetings, just think 8 9 about that seven week gap. The window begins 10 seven weeks from the dates that you're -- or the 11 window begins in relation to seven weeks from the 12 dates that you're looking at. So, just be aware 13 of that when you begin to schedule. 14 You can't -- you couldn't for 15 instance, schedule a meeting right now for May 16 30th, because that is not enough time, right, but 17 you could for probably June 15th. 18 MEMBER SOKAS: Just a question, and 19 we're talking about telephone meetings, right? Ι 20 mean, that's what we're talking about here. 21 CHAIR MARKOWITZ: That's correct. 22 MEMBER SOKAS: Okay.

1 CHAIR MARKOWITZ: For the 2 subcommittees, yes. Yes, Dr. Welch? 3 MEMBER WELCH: Previously, I 4 understand the plan was the communications to	
3 MEMBER WELCH: Previously, I	
4 understand the plan was the communications to	
n de la constante de	l
5 other members of the Board should be directed	
6 through the advisory website.	
7 Now, that we've decided our	
8 decision, I think, was to make the subcommitt	ees
9 public, so does that mean we need to do it th	at
10 way?	
11 MR. RIOS: When you say make the	
12 subcommittees public, we will post who is in	
13 which subcommittee, but are you talking about	
14 internal communications between the committee	ŧ
15 members?	
16 MEMBER WELCH: Well, I guess it w	rould
17 help for me to understand how the Chair shoul	.d
18 manage internal communications among the	
19 subcommittee members and manage the meetings,	
20 vis-a-vis public access.	
21 MR. RIOS: The members of the	
22 subcommittees, the chair of the subcommittee	can

1	communicate with the other members, with their
2	direct email address, as long as I'm copied on
3	every communication, as well as the Advisory
4	Board email.
5	MEMBER WELCH: Okay.
6	MR. RIOS: It just makes it easier,
7	especially if you're reaching out to your
8	subcommittee and trying to schedule the date.
9	MEMBER SOKAS: Do we have everybody's
10	email?
11	MEMBER WELCH: What's that?
12	CHAIR MARKOWITZ: I'm sorry, what's
13	the question?
14	MEMBER SOKAS: Do we have everybody's
15	email? Do we?
16	MR. RIOS: So, I'll provide the
17	subcommittee chairs with the email addresses for
18	the folks and their subcommittees.
19	MEMBER SOKAS: Okay, thank you.
20	CHAIR MARKOWITZ: But I would
21	encourage you to schedule those subcommittee
22	meetings as soon as possible, given the seven

week gap in time and given the fact that after 1 2 seven-plus weeks, we start to head into summer and people have different schedules during the 3 4 summer. 5 So, it would be best if you could meet, say in the second half of June, or aim to 6 7 meet there. Explore those dates. Any other questions about that? 8 9 Later, we'll discuss the -- our next 10 meeting in person. We won't pick a date here, 11 but we will circulate dates very soon. But I 12 would like to have a discussion a little bit 13 later about where we might like to meet, when we 14 meet in the Fall. 15 The aim is to have another meeting in 16 the Fall, hopefully not too late into the Fall, 17 so we can do our work. Any comments or 18 questions? 19 So, now, I'd like to begin the public 20 comment period. We have four people who have 21 requested time. Three are in person and one is 22 on the phone. We'll have the people in person

(202) 234-4433

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

come first, and I would like to welcome 1 2 Congressman Ed Perlmutter, Seventh District in Colorado. 3 Thank you. 4 CONGRESSMAN PERLMUTTER: Good 5 afternoon, everybody. It's great to see this Board convened. 6 7 My name is Ed Perlmutter. I'll be brief in my remarks, because I know that you've 8 9 already had a long week, and you still have a lot 10 of business to conduct. 11 I'm here today because I wanted to 12 come and thank you personally for taking the time 13 to deal with some very serious matters, that over 14 time, have not been addressed in the way I would 15 like to see them addressed, and I want to thank 16 you all for bringing your experience, your 17 knowledge, your expertise to this Board. It's 18 pretty much an all-star Board, and we're very 19 fortunate to have you considering these matters. 20 As some of you know, I represent the 21 northern and western suburbs of Denver. So, 22 everything between Denver and Boulder, Colorado,

which includes the Rocky Flats Plant, and now is a wildlife refuge.

Beginning in 1952, the Rocky Flats 3 Plant built the plutonium triggers, or PITS, for 4 5 our nuclear arsenal. The plant used thousands of chemicals and other materials, including uranium 6 7 and beryllium, and thousands of workers answered the call from the United States of America, to 8 9 work at the plant in its decades of operation. 10 I don't need to tell any of you, the 11 wide range of illnesses these and other workers 12 across the country have faced as a result of 13 their service to the country. 14 Congress passed the Energy Employees 15 Occupational Illness and Compensation Act as a 16 way to provide the healthcare and compensation these workers earned and deserved. 17 But it's an 18 understatement to say that the claims process has 19 not gone smoothly. 20 This Advisory Board was a result of 21 recommendations from the Government 22 Accountability Office and the Institutes of

1

2

1

Medicine.

2	I worked with Senators Mark Udall and
3	Lamar Alexander, as well as representatives Ed
4	Whitfield and Jared Polis to authorize this
5	Advisory Board to improve transparency and
6	provide more certainty for claimants.
7	This, I'm afraid to say, in this
8	Congress, is a very rare Bipartisan effort, but
9	it's because of the service that the men and
10	women at our nuclear plants provided, that both
11	parties came together on this particular Advisory
12	Board.
13	I can't tell you how proud I am that
14	this Board is meeting and considering these
15	difficult matters, and I'm looking forward to
16	your efforts to improve administration of this
17	very important program for our nuclear workers.
18	Last time I was in this building,
19	Hilda Solis was the Secretary of Labor, and now
20	it is Tom Perez, and I'm happy to see this
21	progress being made with this Advisory Committee.
22	You have some difficult matters to consider. I

thank you for taking the time and providing your 1 2 expertise and your experiences to make this something that I think will be worthwhile for so 3 4 many people. 5 I want to introduce Jeff O'Neil from my office, and I want to offer up our office as a 6 7 resource to you, if and when you feel that it's necessary. 8 9 But thank you for participating in 10 Thank you for being here, and I'm glad to this. 11 see you're convened, and you said you're almost 12 So, I'm glad that this kind of talent has done. 13 been brought to bear on this subject, because it 14 needs it. 15 So, unless you have any questions for 16 me, I just want to say thanks. 17 CHAIR MARKOWITZ: Thank you. 18 MEMBER GRIFFON: Okay, good afternoon and good luck. 19 20 CHAIR MARKOWITZ: Our next speaker is 21 Donna Hand, who has requested time to speak 22 today.

I would like to 1 MS. HAND: Long days. 2 briefly, you know, go through what we went through today. 3 OWCP will consider, okay, this doesn't 4 5 mean it's mandated and everything, the nature, frequency and duration, evidence of carcinogenic 6 7 or pathologic properties and an opinion of a qualified physician with expertise and any other 8 9 evidence that demonstrates the relationship 10 between a particular disease and a toxic 11 substance. 12 You can consider it, but you don't 13 have to have all of it. If one, two or three of 14 it is enough to get that case through, then that 15 should be it. 16 In the original gears in 2005, 2006, 17 2007, 2008 and 2009, the SEM would list all the 18 toxic substance at the site, and then it also 19 lists, let's just say pulmonary disease. I lists 20 -- I think in the very beginning it had 32 toxic 21 substances that had a known causal relationship 22 to COPD.

1 I called up Paragon, Mr. Stainaker, 2 and I said, "Okay, if it's in SEM and there is a toxic substance and it's linked to a pulmonary 3 4 disease, does it need to go any further?" He 5 said, "No. We have found the causal link." That's it. 6 7 We do not do aggravation. We do not do contributing to. That's it, and in the 8 9 beginning, the only time it went to a DMC at that 10 time was if you did not have a diagnosis. You 11 know, you couldn't read the medical reports. 12 That's the only time it went there. The case 13 examiners were making the decisions, and they --14 you know, so they were able to do it. 15 Now, there seems to be a micro-16 management type thing coming down, and the Site 17 Exposure Matrix now has gone into the advanced 18 Site Exposure Matrix, and you can go to a labor 19 category and it shows the toxic substance for 20 that and it shows also a building that that labor category worked in. 21 22 You go to that building where that

labor category worked in, there's more toxic substances. You go to that process that that labor category worked in, there's more toxic substances, that wasn't exposed underneath the labor category.

6 Remember, the statute said 'arose out 7 of and due to work-related'. It doesn't go to 8 just, you know, labor categories, and the labor 9 categories in this industries, which is the 10 nuclear weapons industry, is very, very unique.

11 They have expediters. What's an 12 He'll follow the product around, expediter? 13 making sure how much time do we have to do. They 14 had to write their own manuals, okay, how much 15 time can you spend a year? You know, now, can we 16 -- you know, quality assurance. Quality 17 assurance followed the whole product through the 18 whole thing, and even today, there's still 19 classified products and classified processes, 20 that cannot be told. 21 So, how can you have an IH say, "Okay,

22 yes, they were exposed to this, " when you don't

Neal R. Gross and Co., Inc. Washington DC

1

2

3

4

5

even know what it was? You know, and you can't -1 2 - even if they say, "Okay, we can tell you that uranium was involved in this classified process, 3 but we can't tell you the quantity." 4 We can tell you that plutonium is 5 involved in this process, but we can't tell you 6 7 the quantity. If you don't know the quantity, how do you know how much exposure? 8 9 As far as claimants are not notified 10 when their file is sent to an IH or a CMC, so, 11 therefore, they're not notified to add in 12 additional information. The only thing they get 13 is the development saying, "This information is not sufficient. We need more information." 14 15 I sent you my work records. I sent 16 you my medical. You know, so what more 17 information you need? 18 I had a case that was sent to an IH 19 that was from the Pinellas Plant, which closed in 20 1997. 21 Okay, and so, this worker was there, 22 two years at an IH because of that 1995 memo. Τ

had a fight to get it out of that IH. You don't 1 2 -- and you -- they admitted today, there is no IH DOE admits, we don't have IH records, 3 records. 4 and some of these facilities, similar to the 5 Kansas City Plant, they're tile floor wasn't tile It was wood. It was -- and they had to 6 floor. 7 creosote it every so often. It was all open. 8 Then now, you've got GSA workers, 9 specifically the maintenance workers, would come 10 in because the furnace was all on the DOE side 11 and they'd have to share fixing things. 12 So, you've got air filters, 13 conditioners, everything that's being crossed 14 over through, and plants, environmental plants, 15 especially close out tiger team report, 16 environmental reports, and then I would also go 17 to the Atomic Museum in Las Vegas look up records 18 there, at my own expense, and obtain employment 19 exposures, because this is what they had to do 20 for the neutron generator. This is what they had 21 to do for the neutron tube.

22

They had to blow their own glass.

They had steel beds for the milli-tritides. 1 They 2 metalized. You can look at pictures of a worker, the soldering. They're the Kansas City Plant, in 3 4 a little cubicle. Everything else was open. So, if this information is there, and 5 it's researched and an advocate usually has to 6 7 find it for the worker, and give it to Department of -- we can't -- we can't establish exposure. 8 9 We have to send it to an IH. 10 Then hypertension. I got one claimant approved for hypertension. She has a picture of 11 12 her working there with lead, soldering lead. All 13 the rest of the ones that are also working with 14 lead, and in fact, after a chelation has even 15 lead in their bodies still, denied. I had the same district office 16 17 consultant, or DMC, out of the Jacksonville 18 office state that a non-Hodgkin's lymphoma will 19 be caused by benzene for a male worker at the 20 Pinellas Plant and a male worker at the Savannah 21 River. 22 But the two female workers who were

also diagnosed with non-Hodgkin's, and also
 exposed to benzene are denied, and it's the same
 physician.

I have where, just because uranium caused kidney disease at Savannah River, doesn't mean it's going to cause kidney disease at Oak Ridge.

8 If you have trichloroethylene that 9 caused kidney cancer, doesn't mean it's going to 10 cause chronic kidney disease.

11 You know, you have Camp Lejeune people 12 just drinking the water for trichloroethylene, 13 where these workers bathed in it. You have, you 14 know, acute exposures from the World Trade 15 Centers, and you have presumptive diseases, and 16 that was acute exposures. We're talking about 17 chronic exposures.

I want to speak about the wage loss for medical evidence you needed to establish it. It doesn't make sense, if you're already accepted a covered illness, then you've accepted that he was exposed to a toxic substance that caused that

1

illness.

2	So, if you accepted that he caused
3	that illness, that person could no longer do that
4	same job and continue being exposed to that same
5	toxin. He would have to change jobs or he would
6	have had to quit, early retirement, because you
7	should not keep on exposing him to that same
8	toxic substance.
9	But yet, you want to have a trigger
10	month and you want to have medical evidence. I
11	even sat down with a physician. We did exactly
12	what Department of Labor wanted, and did the
13	medical evidence for wage loss. Still denied.
14	Spent \$3,000 of our own money to a
15	physician in Chicago. This doctor was a lawyer,
16	industrial hygienist, and also wrote four books
17	on heavy metal toxicity, so he was an OCC doctor.
18	Is there a link? Is there a substance
19	toxic substance that will aggravate,
20	contribute to or cause ulcerative colitis and
21	colon polyps?
22	He looked, researched. Inorganic

	-
1	solvents will, and there are several studies. He
2	included the studies. Ms. Leiton wrote back.
3	Even though his credentials are great, he wasn't
4	specific. So, we can't grant it.
5	I called up the doctor and I said
6	he said, "As a lawyer, no doctor is going to say
7	that." No doctor is going to tell you what
8	specific chemical will do it.
9	But as the medical doctor, I need more
10	money, because I'm going to do more research.
11	These claimants don't have it. You
12	know, so, we do need a as one suggested, a
13	triage. Okay, if it's this, this and this, go
14	ahead and give it to them. If it's more
15	difficult, then yes, give your complex cases to
16	the IH, to the CMC's. But if it's a very simple
17	and that's what Congress' intent was, timely,
18	uniform, Administrative Procedure Act, timely,
19	consistent, and that's not what we're having.
20	Here, what, ten years after the last
21	amendment. Two-thousand-six was our final
22	regulations for Part E, and 10 years, and we're

still having problems with it. It really doesn't make sense, and it's not fair to these workers, nor their families now, because we're running now, for Pinellas, we've got 600 workers passed away, and out of that 600, 350 of them filed claims and were denied. That's just one facility.

I have represented claimants all the 8 9 way across all the facilities, and we just -- you 10 know, thank you, thank you, thank you for being here, but again, simplified, uniform and I think 11 12 even during the Congressional Committee reports 13 at the very beginning of this program, there was 14 a -- either a representative or a Senator. He 15 said -- he's an Administrative Law Judge, he 16 said, "Working comp cases are very difficult." 17 Do not make that hurdle difficult for 18 these workers, and everyone agreed. A bipartisan 19 said, "We will not make this hurdle difficult." 20 So, if you're making the medical 21 evidence to be specific, you're making toxic

exposure specific, that's ridiculous, and the

Neal R. Gross and Co., Inc. Washington DC

22

1

2

3

4

5

6

Paper Reduction Act needs to come in there, 1 2 because you're making a lot of paperwork. The Federal Employee's Compensation 3 4 Act was just amended, the regulations were, and 5 they have a new form now too. There is CE -- CA-35, and it says, "Occupational disease or 6 7 illness," and they have a set check-off plant. The very first step is for the worker, 8 9 the claimant, to do a little history and it's 10 very -- and the very end of it, then after the 11 history, it goes to the doctor later on, and then 12 at the end it says, "The nature of exposure, was 13 it primary, secondary, intermittent or 14 environmental?" 15 Then the degree. Was it heavy, 16 medium, light or ambient, and the frequency, 17 hours per day. But you just check it off. Very 18 simple. 19 You know, so, why can't it be tweaked 20 to meet this program? You know, the occupational 21 history interview, I don't know. I don't know. 22 I tell all my claimants, "If you don't know, say

Neal R. Gross and Co., Inc. Washington DC

'unknown'," because believe it or not, those chemicals were there.

The two chemicals in Agent Orange, one 3 of them -- one of them though -- one tri-4 5 something or other, was in every single facility, and you got cadmium and cadmium compounds. You've 6 7 got cadmium-109, which is a radioactive compound. So, radiation needs to be addressed 8 9 under Part E, as well, because the site exposure 10 matrix lists radiation as a toxic substance. The 11 12th Federal report of carcinogens lists 12 radiation, ionizing radiation as a carcinogen, as 13 a toxic substance. 14 Underneath the definition of this Act, 15 it's a toxic substance. So, if it's a toxic 16 substance, at least as likely as not, less than 17 50 percent, more than suspicion, because we know 18 that it will aggravate, contribute or cause cell 19 damage. We know that there is cancer at Stage 0, 20 which is what? At the very, very beginning. It 21 doesn't have to be evasive cancer before they 22 should be underneath this program, and even the

> Neal R. Gross and Co., Inc. Washington DC

1

BEIR VII and V report even, has stated it will 1 2 cause benign non-cancer diseases and illnesses. So, you already have all these other 3 Advisory Boards, listing all these illnesses, 4 5 known to these toxic substances, known to these other work industries. Why are we -- you know, 6 start again at the wheel. 7 Thank you. CHAIR MARKOWITZ: Thank you very much. 8 9 Next, I should say for people on the phone, if 10 you want to participate in the public comment or 11 make a comment, please let the moderator know. 12 Our next speaker will be -- the last 13 one present will be Stephanie Carroll. 14 Thank you. Okay, well, MS. CARROLL: 15 as you know, I know all about beryllium disease, 16 so I have a lot to say about it. 17 One thing that was under your purview 18 to review was page 32 of the new regulation on chronic beryllium disease, and I just want to go 19 20 over it, in hopes that someone -- you know, I 21 truly do object to the fact that you don't have 22 more time to comment on these rules, because I

think this is very important, and it is changing 1 2 the intent of Congress and the Act. So, the intent of these changes seem 3 4 to make it next to impossible for BE workers that 5 meet the previous criteria, previous to these changes, in line with the Act, to be approved. 6 7 Already, it is very difficult to be approved for an established beryllium illness in 8 9 this program. 10 I started at page 28, because there 11 was an issue there, but and it's the basis for 12 this statement. Let's see, page 2830.114(c). 13 OWCP will evaluate evidence in 14 accordance with recognized and accepted 15 diagnostic criteria used by physicians, I agree, to determine whether the claimant has established 16 17 the medical condition in accordance with the Act. 18 You do not have to be diagnosed with 19 chronic beryllium disease or diagnosed with 20 beryllium sensitization, to meet the criteria 21 that's been established by the Act. That is so 22 important, and I think it's very difficult for

claims examiners even, to understand what that means.

3	So, when a doctor says, "This person
4	does not have chronic beryllium disease," that in
5	no way should affect a claim examiner's review of
6	the case and understanding that the person has
7	met the diagnostic criteria, set out by Congress,
8	and the whole reason for the EEOICPA in the first
9	place.
10	So, but they just they can't put
11	those two things together. A doctor says, "You
12	don't have the disease, but I'm supposed to
13	approve you for beryllium disease." So, it just
14	doesn't happen.
15	Let's see. On page 28, 30.114(b)(3).
16	Okay, this is a change not intended by the Act.
17	It was the only it was only consequential
18	injuries that ever required a fully rationalized
19	report to approve the condition.
20	The addition of this requirement for
21	all covered illnesses is not in line with the
22	Act, and allows for CE's to judge the validity of

1

a physician's opinions.

2 Example, I had somebody with chronic beryllium disease for many years. 3 He had signs of pulmonary hypertension. They wouldn't accept 4 5 that the pulmonary hypertension was secondary to chronic beryllium disease. 6 7 I had to get a UCLA professor of medicine, he was a cardiologist, write a two page 8 9 report, describing how chronic beryllium disease 10 could possibly lead to pulmonary hypertension. 11 This refusal to accept pulmonary 12 hypertension related to chronic beryllium 13 disease, pneumoconiosis or any other lung 14 diseases at this point is a cost saving measure. 15 They're trying to reduce the cost of treating 16 pulmonary hypertension, and we all know where 17 pulmonary hypertension leads. 18 So, right about now, it's been about 19 the last year or so, they've done everything they 20 can to refuse pulmonary hypertension. 21 In the procedure manual, there used to 22 be a list of pretty much, accepted conditions

related to chronic beryllium disease. 1 They 2 definitely didn't require a well-rationalized medical report from a UCLA professor of medicine 3 and cardiologist to describe how pulmonary 4 5 hypertension and cor pulmonale, let's see, what else is -- well, see, those, I think that's a 6 7 pretty good point right there. I think you can all agree that it's not much of a leap to go into 8 9 those two conditions from chronic beryllium 10 disease. 11 But it's this well-rationalized letter 12 that's going to really get the workers. It's 13 scary, what's happening. 14 So, for covered beryllium illnesses 15 under Part B, medical evidence is set forth in 16 30.207 page 31, and that is also under the 17 purview of the Board. 18 Okay, so, written medical 19 documentation is required in all cases to prove 20 that the employee developed a covered beryllium 21 illness. I just wanted to point that out, and 22 the 30.207 that they -- it looks like they added,

"How does a claimant prove a diagnosis of a 1 2 beryllium disease covered under Part B?" Seems like an innocuous question. 3 4 What it should read is, "How does a 5 claimant prove that the employee developed a covered beryllium illness?" 6 7 When they changed the language to, "How does a claimant prove a diagnosis of a 8 9 beryllium disease covered under Part B," they are 10 now leading us into believe that it is a disease 11 that has to be diagnosed by a physician and now, 12 it doesn't have to just meet the Act's 13 requirements. 14 So, now, there are -- they're 15 massaging us into page 32. 16 Okay, so, okay, did that. Got it. 17 Okay, so, now, I'm on page 32, one, two, two --18 it looks like D, where they added some language. 19 OWCP will use certain -- or will use 20 criteria in either of these paragraphs of this 21 section to establish the employee developed 22 chronic beryllium disease as follows.

It's not developed chronic beryllium 1 2 It's established a beryllium illness. disease. That's from the Act, but when they describe it 3 this way, it becomes an illness that has to be 4 5 diagnosed by a doctor. Okay, so now, if you just go down to 6 7 number two, this is referring to Part B, or not This is referring to post '93 CBD. 8 Part B. The 9 Act has laid out exactly what is needed for that. 10 Now, they've added something else to 11 the Act, another requirement. I don't know how they were able to do this, but number two says, 12 13 "If the earliest dated medical evidence shows 14 that the employee was either treated for or 15 diagnosed with a chronic respiratory disorder, on 16 or after '93, the criteria set forth in paragraph 17 C1 of this section must be used." 18 Oh, that's interesting. Now, you have 19 to have -- have been treated or diagnosed with a 20 chronic respiratory disorder, before you can even 21 get close to meeting the Act's requirements to

establish a beryllium illness, which is establish

Neal R. Gross and Co., Inc. Washington DC

chronic beryllium disease.

2 They have added to the Act, that you 3 must have been treated or diagnosed with a 4 chronic respiratory disorder.

5 Now, you know most of my clients have 6 been, but to change the requirements of the Act 7 and actually add another requirement, that should 8 be listed in the Act, that is scary. I cannot 9 believe they're doing that.

10 So, if you go back -- just to the top 11 of the page, diagnosis after '93, you have to be 12 beryllium sensitized, and you have to have a lung 13 biopsy, showing granulomas. This is very 14 important, or a lymphocytic process consistent 15 with CBD.

16Dr. Lee Newman was contracted to help17claims examiners determine when they look at a18biopsy report, if the lymphocytic process19consists of a CBD and the Act, actually exist.20So, when they see specific things on21the pathology, like a positive BAL,22lymphocytosis, which the numbers of lymphocytosis

just willy-nilly go up and down in the procedure 1 2 manual. It used to be for 14 or 15 years, 10 3 4 percent lymphocytes on lavage was enough to 5 qualify for a lymphocytic process consistent with. 6 7 They just decided to change it because a CMC said that he didn't agree with that number, 8 9 and so, Dr. McTier did her investigation, but in 10 her investigation of that requirement, of 10 11 percent, which hundreds of people hopefully were 12 approved based on, now this one claimant is not 13 going to be approved. She said there was nothing 14 in the procedure manual talking about the 15 lymphocytosis numbers. 16 Well, that's funny. Dr. Lee Newman 17 actually describes it. It's peer reviewed. It's 18 got the footnotes and all references, and he 19 determined 10 percent lymphocytes was enough to 20 express a lymphocytic process consistent with 21 CBD, and I have one claim based on that.

193

Neal R. Gross and Co., Inc. Washington DC

Now, if somebody doesn't have me as

their authorized rep, there is no way at 14 1 2 percent lymphocytes positive BAL, CT, PFT's, everything else, they'd be able to get approved. 3 4 They just won't. CHAIR MARKOWITZ: One more minute. 5 6 MS. CARROLL: Okay, and then a CT scan showing changes, that's fine. 7 Pulmonary function test and exercise test showing pulmonary deficits 8 9 consistent with chronic beryllium disease. 10 Right now, they do want a doctor to 11 say it's consistent with CBD. I don't believe 12 that the Act required that. It's if you have 13 obstruction, restriction and mixed process or 14 other issues that are showing that you have --15 that you have pulmonary deficits. That should be 16 enough, and I think that's what Congress meant. 17 So, I would just please, for all of my 18 workers and so many beryllium workers out there, 19 and people that are suffering through all the 20 monitoring and never being diagnosed with CBD, if 21 someone on this Board could make comments on this 22 section, it would really help.

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

ĺ	
1	I know that my comments are not going
2	to be I don't think as respected as comments
3	coming not from the Board, but from people on the
4	Board, it would make a big difference.
5	So, thank you, and if anybody ever has
6	any questions or wants any data on chronic
7	beryllium disease and beryllium workers, I've got
8	150 cases full of treating and site records and
9	exposure records, and I'd be happy to share it
10	with researchers. Thank you very much.
11	CHAIR MARKOWITZ: Thank you. So, our
12	next speaker is by phone. If the moderator could
13	make contact with Madeline Caudill, who has
14	requested five minutes.
15	OPERATOR: She has dialed in at this
16	time.
17	CHAIR MARKOWITZ: Okay, so, moderator,
18	is anyone else by phone requested time?
19	OPERATOR: I don't have anyone cued
20	up. But again, if you have a comment, you may
21	press Star-One, and that will bring you into the
22	queue for your comment, and we'll stand by.

1	CHAIR MARKOWITZ: And I should tell
2	you, if there is anybody else who is actually
3	present in the room and would like to make a
4	comment, you're welcome at this time.
5	So, speaking to the moderator, if you
6	could let us know in the next minute or so,
7	whether anybody else has requested time, I'd
8	appreciate it.
9	OPERATOR: Will do, and again, we're
10	standing by. If you have a comment from the
11	phone, it is Star-One.
12	CHAIR MARKOWITZ: Okay, so, it seems
13	that no one else has additional comments. So,
14	this will be the end of the public comment
15	period. Thank you very much.
16	So, we will now return to our
17	discussion of the proposed rule changes, and
18	which means that we need to bring up on the
19	screen, if you can go back we're going back
20	actually, to the three issues that we already
21	discussed yesterday, and we actually have drawn
22	up some proposed language.

So, we've had time to think about 1 2 those, and we're going to review them again and So, going back to number one. 3 vote on them. 4 This is on page -- it's 232(a), page 5 I'm sorry, 231(a). It relates to proof of 40. employment. 6 7 So, let me just say to satisfy the request of my specifying the connection between 8 9 these proposed rule changes for the next three, 10 and the scope of the Board, that proof of 11 employment, proof of toxic exposure and proof of 12 diagnosis that's relevant to the exposure are all 13 covered within certainly, our Tasks A, B, C and 14 D, I think. So, just to specify that. 15 Does someone want to read this? This 16 is the language we drew up yesterday. I'm sorry, 17 read this out loud. 18 MEMBER CASSANO: Your designated 19 reader will comply here. 20 Thirty-point-two-three-one (a) proof 21 of employment, it's on page 3940 for anyone that 22 can't read the board.

	-
1	"The Board finds that the proposed new
2	language is vague and contradictory. The Board
3	notes that the proposed new language contradicts
4	Section 30.111(c) in a manner that limits the
5	value of affidavits."
6	"If the goal is to increase the
7	likelihood that affidavits are valid, then
8	guidelines on what elements need to be included
9	in an affidavit should be issued to clarify the
10	claimant's task of proving an employment history
11	in the absence of other evidence."
12	"The Board recommends that the
13	proposed rule changes not be made."
14	CHAIR MARKOWITZ: Okay, so, we're open
15	to comments now, discussion. Dr. Boden?
16	MEMBER BODEN: I move that the Board
17	accept the comment as written.
18	MEMBER CASSANO: Second.
19	CHAIR MARKOWITZ: Okay, so it's open
20	to discussion. Dr. Welch?
21	MEMBER WELCH: One of the things I had
22	wanted to do was this same language appears in

other places. 1 2 So, it appears in -- and I guess we're going to discuss it in the next section. 3 4 CHAIR MARKOWITZ: Right. 5 MEMBER WELCH: So, we want to make sure that those two are consistent with each 6 7 other. 8 CHAIR MARKOWITZ: Right, okay, good 9 point. 10 MEMBER WELCH: And maybe we should --11 can we look at the 12(b) before we --12 CHAIR MARKOWITZ: That's a good point. 13 MEMBER WELCH: And now, it's up on the 14 I think so. I mean, I think we can -- we screen. 15 can't really see them together, unless you make 16 the text smaller, but -- good, I think we can, 17 actually. 18 CHAIR MARKOWITZ: Okay. So, Dr. 19 Cassano, could you just read out loud --20 MEMBER CASSANO: The second one? 21 CHAIR MARKOWITZ: Yes, it's 22 30.11(2)(b), right.

1 MEMBER CASSANO: Right, 30.11(2)(b) 2 evidence of covered employment, it's on page 27. "The Board proposes the following 3 4 language for this section." 5 "If the only evidence of covered employment is a written affidavit and declaration 6 7 subject to penalty of perjury by the employee, survivor or any other person, and DOE or another 8 9 entity either disagrees -- either disagrees with 10 the assertion of covered employment or cannot 11 concur or disagrees with the assertion of covered 12 employment, then OWCP will evaluate probative 13 value of the affidavit under Section 30.111." 14 PARTICIPANT: I don't think the 15 microphone was on. 16 MEMBER CASSANO: I quess I have to re-17 read it? Sorry. Section 30.11(2)(b) evidence of 18 covered employment on page 27. 19 "The Board proposes the following 20 language for this section." Sub-Item 3. 21 "If the only evidence of covered 22 employment is a written affidavit or declaration

subject to penalty of perjury by the employee,
 survivor or any other person, and DOE or another
 entity either disagrees with the assertion of
 covered employment or cannot concur or disagree
 with the assertion of covered employment, then
 OWCP will evaluate the probative value of the
 affidavit under Section 30.111."

8 CHAIR MARKOWITZ: Okay, so, you can 9 see, we tried to conform this second issue, or 10 second item, to the first item, limited by the 11 current language that exists in the second 12 current -- second item, meaning the specific 13 language disagrees or cannot concur or disagree, 14 which is in the current regulation, and not 15 subject to change.

So, comments? We should consider these
together, I think, because they really are close
cousins. Comments? Dr. Welch?

19 MEMBER WELCH: So, the -- what we are 20 in the prior -- in the comment further up, what 21 we're recommending deleting is pretty much, the 22 language that we are proposing for the second

1 part. 2 Now, that's fine, because there is no need to repeat it on subsequent pages, and we can 3 just refer back to that -- that other section. 4 5 But because we were -- where it says -- if I'm following my -- if my brain is working 6 7 right. But I -- I still think that the 8 9 statement -- the discussion we have under the 10 first point that the -- you know, if the goal is to increase the likelihood of affidavits are 11 12 valued, then guidelines would be helpful. 13 CHAIR MARKOWITZ: Right. 14 MEMBER WELCH: I mean, it's -- it is 15 -- the two are consistent with each other. 16 CHAIR MARKOWITZ: That's right. 17 That's right. I mean, probative -- the probative 18 value term in the second part should refer back 19 to the guidelines that we're recommending in the 20 first part. 21 **PARTICIPANT:** Okay. CHAIR MARKOWITZ: It should increase 22

the probative value, if the claimant meets the 1 2 guidelines. 3 Other comments or -- okay, so, we should consider these -- this set -- this really 4 -- of a couple of recommend -- well, really, a 5 single recommendation together. 6 7 Is there any need to read this out loud? 8 9 Okay, so, all those in favor, raise 10 your hand. Okay, all those opposed, and any 11 abstentions? 12 So, 15 members of the Board are 13 present all vote in favor of this recommendation. 14 So, next we move to -- it's 30.231(b) 15 which is -- hold on, I'm sorry, 30.231(b) which 16 is proof of exposure to a toxic substance. This 17 is on page 40 of the written version of the 18 proposed rule changes. 19 Does anybody need to see on the 20 Maybe we should just place for a moment screen? 21 -- if you could place for a moment, 231(b) on the 22 screen, mostly for the attendees who don't have

the book in front of them.

2	So, to summarize, we don't really need
3	to read this. To summarize, these this
4	regulation addresses the sources that OWCP will
5	use to develop a probative thing or obtain
6	probative factual evidence for the purpose of
7	establishing exposure to a toxic substance, and
8	it lists three sources.
9	The first is DOE. DOE former worker
10	program or DOE contractor, essentially. The
11	second is the site exposure matrices and the
12	third is any other entity deemed by OWCP to be
13	reliable.
14	So, if we could now move to our draft
15	recommendation.
16	MEMBER CASSANO: The draft regulation
17	states proof of Board recommends that DOL
18	issue guidelines on how OWCP determines
19	reliability of information under this section.
20	The Board recommends that the
21	following language be added to this section in
22	the by manner of adding a new number three,

number four -- number three and number four. 1 2 That number three now read, "Occupational history or affidavit obtained from 3 the claimant and/or coworkers," or number four, 4 5 "Occupational history obtained by a healthcare provider, other than those who are part of the 6 DOE former worker program, or any other entity or 7 source that is deemed by OWCP to provide reliable 8 9 information to establish that the employee was 10 exposed to a toxic substance at a DOE facility or 11 RECA Section 5 facility." 12 CHAIR MARKOWITZ: Okay, discussion? 13 So, if there is no discussion, can we have a 14 motion? 15 MEMBER CASSANO: Motion to accept. 16 CHAIR MARKOWITZ: And second? So, the 17 motion is to accept this recommendation, and all 18 those in favor? All those opposed? Any 19 abstentions? 20 So, it's 15 members present and 15 21 voting in favor. Very homogenous-minded group. 22 Okay, so, let's move onto the next

one, which is establishing diagnosis of covered
illness. This is $30.232(a)(1)$ and (2).
MEMBER CASSANO: You have the new
does he have the new language?
Okay, just to reiterate what the old
the proposed language from OWCP was, and this
is what the employee must provide to have a claim
processed.
The language was written medical
evidence containing a physician's diagnosis of
the employee's covered illness, as that term is
defined in Section 30.5(s) and the physician's
reasoning for his or her opinion regarding
causation, and to any other evidence OWCP may
deem necessary to show that the employee has or
had an illness that resulted from an exposure to
a toxic substance while working at either a DOE
facility, etcetera, etcetera.
That's not okay.
CHAIR MARKOWITZ: Okay.
MEMBER CASSANO: Yes, there it is.
So, new proposed language states where did it

go?

1

2	CHAIR MARKOWITZ: It's coming back.
3	MEMBER CASSANO: Okay, sorry. That
4	number one, written medical evidence containing a
5	physician's diagnosis of the employee's illness
6	as that term is defined in Section 30.5, and then
7	Sub-A is if possible, that evidence should
8	contain a statement indicating how/why, let's
9	keep it simple, the physician believes that the
10	employee's illness was caused, contributed or
11	aggravated by the exposure.
12	Sub-Part B says, "If the claimant
13	submits an opinion of a qualified physician, as
14	defined in Section 30.230(d)(3), which provides a
15	rationale for determining that the employees
16	illness was caused, contributed or aggravated by
17	the exposure, then the opinion should be
18	considered probative by OWCP."
19	CHAIR MARKOWITZ: So this so, this
20	has some compliment to what we were looking at
21	yesterday, and I'm wondering whether Kevin, you
22	could take the one from yesterday and put it

1	right above this, and see if we need to blend it
2	at all.
3	For instance, right, yes. Yes, that
4	paragraph and yes, right up to there, yes. I
5	guess so, yes.
6	I think that we could can we remove
7	that
8	MEMBER CASSANO: Yes, we can remove
9	all that.
10	CHAIR MARKOWITZ: No, no, the first
11	paragraph, right? The question, right, we can
12	get rid of that.
13	MEMBER CASSANO: Yes.
14	CHAIR MARKOWITZ: So, let's now
15	that's fine there, but let's look at the new
16	language that we've just seen. No, no, scroll
17	down, so we can take a look at the new language
18	first.
19	Well, okay, let me read if you
20	could go back up. Let me read the old the
21	language we were looking at yesterday, just so
22	and if you can make it a little bit larger.

"The Board recommends that DOL remove ent the claimant must produce written

the requirement the claimant must produce written medical evidence wherein, the physician describes the 'reasoning' for his or her opinion regarding causation."

Now, I'm going to skip over the next 6 paragraph, the italics, that's new. We hadn't 7 seen that yesterday. That was a draft I made to 8 9 try to address some of the issues, so, I'm just 10 going to stick with what we were doing yesterday. 11 "The Board believes that sufficient 12 expertise and causation of occupational illness 13 is unlikely to be available in DOE communities, 14 and that the time and commitment of physicians to 15 produce such documented report makes this 16 requirement unrealistic and places too great a burden on claimants." 17

18 Right, so this is -- that's the 19 rationale, right, okay, and then, "In addition, 20 the Board is concerned that any other evidence," 21 the phrase, "Any other evidence OWCP may deem 22 necessary," is overly broad, unnecessary and may

> Neal R. Gross and Co., Inc. Washington DC

1

2

3

4

5

www.nealrgross.com

1	form the basis for adversarial interactions
2	between OWCP and claimants.
3	Okay, so, now, if you can bring up
4	scroll up, so we can look at the new language.
5	Right.
6	So, I have a question about the (b)
7	where it says, "If a claimant submits an opinion
8	from a qualified physician, which provides a
9	rationale that addresses the core issue of cause,
10	contributed or aggravated, then the opinion
11	should be considered probative."
12	I could imagine instances in which a
13	qualified physician provides a lousy rationale
14	MEMBER CASSANO: Yes.
15	CHAIR MARKOWITZ: and it shouldn't
16	be considered probative.
17	MEMBER CASSANO: But I think the idea
18	of considered probative means that they look at
19	it for probative value, and then they can either
20	accept or reject it.
21	CHAIR MARKOWITZ: So, you mean should
22	be evaluated for probative value?

But I think 1 MEMBER CASSANO: Yes. 2 what we were hearing yesterday was that they basically disregarded out of hand, and they're 3 4 not even looked at for their probative value. So, evaluated for probative value may 5 be better. 6 7 MEMBER CASSANO: Okay, so, yes, you can take out, Kevin -- if you take out 'should be 8 9 considered', and or take out 'considered' and 10 just put 'evaluated'. 11 MEMBER WELCH: You could just say 'may 12 be' instead of 'should be'. 13 MEMBER CASSANO: No, then they can 14 turn it -- should be evaluated, may be evaluated 15 16 CHAIR MARKOWITZ: Right, it's for 17 probative value, and then take out the -- no --18 yes, right. 19 MEMBER WELCH: And just the --20 MEMBER CASSANO: Yes, evaluated for 21 value is just --22 MEMBER WELCH: Assessed?

	4
1	MEMBER CASSANO: That's why sometimes
2	words end up when you got
3	CHAIR MARKOWITZ: Another this new
4	language omits something that the new proposed
5	regulation addresses, which is on page 41, the
6	new language one, it that the claimant must
7	provide "written medical evidence containing a
8	physician's diagnosis of employee's covered
9	illness".
10	So, there, DOE I mean, DOL is
11	appropriately requiring medical evidence of the
12	diagnosis, right? Your new language doesn't
13	address that.
14	MEMBER CASSANO: Yes, it does, because
15	it says, "As defined in Section 30.5," and we had
16	a big discussion yesterday about covered illness
17	and the fact that it's a defined term, and that
18	they would have to then by saying it's a
19	covered illness, the physician would have to
20	prove that it was a covered illness, and I think
21	the idea was that you wanted any illness under
22	Part E submitted to be at least considered for

coverage, correct.

2 CHAIR MARKOWITZ: Okay. So, I would suggest adding after the 30.5(s), an 'and', so 3 it's clear that there are two different pieces --4 5 MEMBER CASSANO: Okay. CHAIR MARKOWITZ: -- that are being 6 required, or not required, but the first piece is 7 required and the second piece is if possible. 8 9 Right there. Yes, right there. 10 MEMBER CASSANO: And? 11 CHAIR MARKOWITZ: Yes, and. Dr. 12 Welch? 13 Should there be a colon? PARTICIPANT: 14 CHAIR MARKOWITZ: No, just adding it. 15 MEMBER CASSANO: Yes. 16 CHAIR MARKOWITZ: Okay. Yes, Dr. 17 Welch? 18 MEMBER WELCH: So, two things, sort of 19 as a friendly amendment. 20 We might want to make (b)(2) instead 21 of (b), because the (a) really relates to the 22 same letter that has the physician's diagnosis,

and that refers to a second one. 1 2 CHAIR MARKOWITZ: Right. The other thing, and I 3 MEMBER WELCH: 4 don't know the answer to this is, the employee's 5 illness as defined in Section 30.5(s), 30.5(s) defines covered illness. So, it has the toxic 6 7 effect in it. 8 CHAIR MARKOWITZ: Right. 9 So, you know, it's kind MEMBER WELCH: 10 of like I think what we're trying to say is 11 there's both a diagnosis, a medical diagnosis, 12 and then there is the work-relatedness decision. 13 This written medical evidence focuses 14 on the diagnosis --15 CHAIR MARKOWITZ: Right. 16 MEMBER WELCH: -- of the employees' 17 illness --18 CHAIR MARKOWITZ: So, would that --19 MEMBER CASSANO: So, 30 --20 MEMBER WELCH: -- and necessary --21 maybe I don't think we should keep in that 'as 22 defined', because then that seems to imply it's

the entire covered illness.

2	CHAIR MARKOWITZ: Right. I mean, the
3	we could solve that by, in that second line
4	after the one, which says as that term is
5	defined, simply saying the employee's illness
6	that is the subject of the claim, right? That's
7	I think that
8	MEMBER CASSANO: Okay.
9	CHAIR MARKOWITZ: Dr. Friedman-
10	Jimenez?
11	MEMBER FRIEDMAN-JIMENEZ: As I read
12	it, 30.5(s) says that the illness or death
13	resulted from exposure to a toxic substance and
14	doesn't seem to include aggravation or
15	contributing cause.
16	MEMBER CASSANO: Yes.
17	CHAIR MARKOWITZ: Right, right. Yes,
18	maybe
19	MEMBER CASSANO: That's what we said
20	every time it's mentioned that we
21	CHAIR MARKOWITZ: Yes.
22	MEMBER CASSANO: It needs to be clear

1 that the -- that they meet the statutory 2 language. 3 CHAIR MARKOWITZ: Right. 4 PARTICIPANT: Because it's mentioned 5 -- that wording --6 MEMBER FRIEDMAN-JIMENEZ: Are they 7 going to change that? Since it's not part of the 8 changes that are proposed. 9 CHAIR MARKOWITZ: Right, right. 10 MEMBER FRIEDMAN-JIMENEZ: I'm thinking 11 we should just state it outright, rather than 12 referring. 13 CHAIR MARKOWITZ: Right, okay, well 14 that would be a new recommendation, which we can 15 consider after we resolve this. 16 We've gotten rid of the problem here, 17 because we got rid of the reference to 30.5(s) 18 but we can take that up next, actually. 19 So, let's -- the suggestion pending 20 was that we form an Item Number 2, right? 21 MEMBER CASSANO: Instead of (b). 22 CHAIR MARKOWITZ: Right, okay, so, can

1 we do that? 2 MEMBER CASSANO: I'll accept that as a friendly amendment, yes. 3 4 CHAIR MARKOWITZ: Okay, can you not 5 only accept it, can you create it? MEMBER CASSANO: We can create it. 6 7 CHAIR MARKOWITZ: Okay, so --MEMBER BODEN: Then there's an (a) 8 9 without a (b). 10 MEMBER CASSANO: Then there's an (a) without a (b), which is why I did that. 11 12 MEMBER BODEN: Why not just then, if 13 we're going to make a (2), just have the (a) --14 PARTICIPANT: Be part of one. 15 MEMBER BODEN: -- be part of one. 16 MEMBER CASSANO: Part of the sentence. 17 MEMBER BODEN: And just not --18 MEMBER CASSANO: yes. 19 MEMBER BODEN: -- strike the 'and' 20 then and just have the 'if possible', follow the 21 22 MEMBER CASSANO: So, claim and if

1	possible, and if possible, if you want to use an
2	Oxford 'and'.
3	CHAIR MARKOWITZ: Okay, okay, okay.
4	So, yes, if okay, so, the idea is you take out
5	the "a", right?
6	MEMBER CASSANO: You take out the "a".
7	CHAIR MARKOWITZ: And after the 'and',
8	and comma if possible
9	MEMBER CASSANO: Yes.
10	CHAIR MARKOWITZ: comma, right,
11	okay. Okay, then Kevin, after the 'possible', if
12	you could put a comma, right?
13	MEMBER CASSANO: So, I guess it's not
14	technically an Oxford comma.
15	MEMBER GRIFFON: I hesitate to even
16	raise this question, because I'm worn out.
17	But I mean, this section that we're
18	commenting on, if you look at the header, could
19	be simply reference to covered illnesses.
20	So, even though we're deleting the
21	reference part from that paragraph, that defines
22	covered illness, the whole second phrase is

2

addressing covered illness.

MEMBER CASSANO: Well --

3 MEMBER GRIFFON: I don't even think 4 that --

5 MEMBER CASSANO: But I think what they're saying is, eventually it's going to be 6 7 determined, whether it's covered. So, if you want to establish it as covered illness, you at 8 9 least have to give them a diagnosis of some 10 illness to be evaluated for covered illness, not that you have to give them a definitively covered 11 12 illness first, because a lot of people wouldn't 13 know that.

14 CHAIR MARKOWITZ: Right, it's okay, 15 because the proposed change under this 'establish 16 the employee has been diagnosed with a covered 17 illness' is setting out the requirement that you 18 have to prove diagnosis and you've got to prove 19 the causation, essentially, right, or 20 contribution, aggravation, etcetera. 21 That is what the proposed language is. 22 Our proposal is that we agree, you have to prove

the diagnosis and that you should consider the -if the physician produces a rationalized report regarding causation, but you don't require it, in order to establish a covered illness.

5 Then obviously there are other -- the 6 CE is including, you know, considering a whole 7 other set of things, the CMC report, the SEM, 8 etcetera, to come to that conclusion. Dr. Welch? 9 MEMBER WELCH: So, as far I could

10 tell, this is the only place in the regulation 11 that talks about making the link to toxic 12 exposure, and Tori and I sort of disagreed about 13 whether to delete the number two, in the proposed 14 language, where it says, "Any other evidence OWCP 15 may deem necessary to show that employee has had 16 an illness resulting from exposure to toxic 17 substance."

Because by doing what we did, we're saying that the claimant does not have to provide a rationalized medical opinion on the link with toxic exposure, and then it's implied that that happens in some other way, and maybe that's fine,

> Neal R. Gross and Co., Inc. Washington DC

1

2

3

4

or maybe we should put in here that then OWCP has 1 2 to find information to shed light on that Do you understand what I'm saying? 3 question. 4 MEMBER CASSANO: But I think if we put 5 it here, it means that the claimant has to provide whatever other information OWCP may 6 continually ask for, you know, "I want the CT 7 scan. I want the chest x-ray. I want the lab 8 9 I want all of this," to establish this report. 10 is a covered illness. 11 So, that's why I think it -- it 12 becomes a way to constantly ask for information 13 that the CE may want, not for any real probative 14 reason. 15 You might say that if the above is not 16 available, then OWCP may ask for any other useful 17 information. 18 CHAIR MARKOWITZ: Dr. Friedman-19 Jimenez, you have something on this particular 20 point or something else? I just want to pursue 21 this discussion -- this -- okay, I'm sorry. 22 MEMBER BODEN: Actually, I have first,

something that I can't control myself about, that 1 2 is incredibly minor, which is that the 'which' in number two should be a 'that'. 3 4 But aside from that, I do actually 5 have a comment on this. If you look back at the four that was 6 7 crossed out right above this section, I notice something very interesting. That four -- so, 8 9 this is directly above the section we're talking 10 It's 30.232(a)(4). about. 11 In that sentence, it talks about --12 and so, this is what's being replaced by the 13 thing we're talking about. 14 It talks about that the employee has 15 or had an illness, that may have arisen from 16 exposure to a toxic substance, which is really 17 different from that resulted from an exposure to 18 a toxic substance. 19 So, the first one says, "We want 20 evidence to show you that this is kind of in the 21 ballpark of something that we may want to 22 compensate," and the second says that before we

proceed, we want something that shows us that 1 2 this is, and I think those are actually two really different things, and that if we accept 3 4 something onto that we say deemed necessary to 5 show that the employee may have -- has or had an illness that may have arisen from exposure to a 6 toxic substance. 7 8 CHAIR MARKOWITZ: So, just to 9 summarize, what he's -- I think you're suggesting 10 is that you actually change the word 'resulted' 11 in item number two, to 'may have arisen'. 12 MEMBER BODEN: Right. 13 CHAIR MARKOWITZ: Yes. 14 So, I agree about MEMBER SOKAS: 15 deleting sub-paragraph two because I think the 16 point of this piece right here is really to show 17 that there is an illness, right? 18 It's not necessarily at this point, to 19 show that there is an illness that's related. 20 You show there is a toxic exposure, then you show 21 there's an illness, and then if -- if you can, 22 under one or two -- you know, (a)(1) or (a)(2)

there, link the two, that's great, and it would 1 2 be helpful if the treating physician can do that or somebody else can do that, but that the burden 3 4 of doing that does not necessarily fall on the 5 claimant, that the burden for the claimant is to show there is some illness there. 6 7 Then there are later procedures that can talk about linking the two. 8 9 CHAIR MARKOWITZ: I'm sorry, Dr. 10 Redlich? Okay, is there a response to Dr. Sokas? 11 Dr. Welch? 12 MEMBER WELCH: Well, I think that in 13 the regulation, I imagine, and I didn't read it 14 thoroughly, so someone should correct me, but I 15 think this is where that relationship is talked 16 about, and it's -- it's not -- and so, it doesn't 17 then say, and the agency has a responsibility to 18 make the determination of causation or work -- by 19 trying to say work-relatedness, because we know 20 what that means. 21 But you know, again, I think I'd have 22 to maybe go through it in more detail, to

understand -- even understand how the regulation 1 2 relates to the processes that are -- I don't know how much has to be specified here or not. 3 So, but it's -- but this section does 4 5 -- had always -- has always said covered illness, because that was not changed. So, this section 6 7 was covered illness. But it used to say, if you read the 8 9 strike through stuff, provide the diagnosis, and 10 then as Les pointed out, provide some information 11 that would suggest that it may have arisen out of 12 employment. 13 CHAIR MARKOWITZ: Well, let me just 14 say that covered illness is two words. One is 15 proving the illness and the other is proving the 16 coverage. So, I think that's what's encompassed 17 by this section. That's the only way it can 18 really be interpreted. Dr. Redlich? 19 MEMBER REDLICH: As just a general 20 statement -- as just a general statement about 21 this whole process. 22 I would like it somewhere -- I feel

that it's just inappropriate. This has been in 1 2 place for years. To suddenly have a rush to edit it, where we don't really understand, it's 3 4 complicated wording, with all these tracked 5 changes, of who it's actually changing the intent of things, and since a lot of this actually 6 7 relates to the questions we were asked to address, why you would want to finalize something 8 9 before we've had a chance to do our homework, and 10 more intelligently address these issues, this 11 just seems out of order and unproductive, because 12 it's going to make something more final, where we 13 haven't even become educated or addressed the 14 questions that we've been asked to address. 15 I don't see what the urgency -- it 16 doesn't sound like claims have been being 17 processed with such great speed, that you know, 18 whether this gets changed now or several months 19 from now. 20 But I'm just confused about this whole 21 process. 22 CHAIR MARKOWITZ: Well, let me just

begin to respond just --1 2 MEMBER REDLICH: I mean, personally, I would prefer to not comment on this until I was 3 4 more --5 CHAIR MARKOWITZ: Right. 6 MEMBER REDLICH: -- up to speed and 7 understood all the issues. CHAIR MARKOWITZ: So, I understand the 8 9 frustration, and I actually mentioned at the 10 beginning that this was a challenge. The notice 11 of proposed rulemaking has -- is going forward 12 regardless of us. 13 We've been invited to provide some 14 input, some recommendations about the proposed 15 rule changes, which is what we're doing. 16 That train is likely going to move 17 regardless of what we do. So, this is our 18 opportunity. 19 MEMBER REDLICH: So, there isn't an 20 opportunity to delay that rulemaking, that's not 21 possible? I don't know what the rules are. So. 22 CHAIR MARKOWITZ: Yes.

1	MEMBER REDLICH: If it isn't, then you
2	want to make the best of a situation.
3	CHAIR MARKOWITZ: That's what we're
4	doing, I think.
5	MEMBER REDLICH: Okay.
6	CHAIR MARKOWITZ: And I also think
7	that some of these issues, we're going to be
8	visiting, right? As we've been asked to do, over
9	the next period of time, and we'll have more to
10	say, but you know, the proposed rule changes has
11	its own time table. Dr. Welch?
12	MEMBER WELCH: But maybe to make you
13	feel better, there are how many public comments
14	about the website about these rules, 300,
15	something like that?
16	MEMBER REDLICH: Yes.
17	MEMBER WELCH: So, there are people
18	who know more than us, who have commented on this
19	same language.
20	So, in a way, if we're coming out with
21	something similar to 280 of those 300 comments,
22	then we know more than we think we do. You know

what I mean?

2 MEMBER REDLICH: I haven't read those
3 comments.
4 MEMBER WELCH: Exactly.
5 MEMBER REDLICH: I haven't done that.
6 MEMBER WELCH: I've only read some of
7 them. So, but --

8 MEMBER REDLICH: But that would be 9 relevant, because I think that there are people 10 who know way more about this than I do, and I 11 would appreciate their input.

12 MEMBER WELCH: Right, and I think --13 I mean, I think the problem -- what Steve said 14 is, you know, there is a -- there's deadlines for 15 changing -- for regulation --

16MEMBER REDLICH: That's why I said --17MEMBER WELCH: -- and we're stuck with18it.

19 CHAIR MARKOWITZ: Having said that, if 20 we feel truly uninformed about a given proposed 21 change, then frankly, we should not provide input 22 because that's not going to be valuable to the

process.

2 So, the -- while we might not have all the knowledge and experience we want, we have to 3 have a certain level of comfort with this 4 5 material in order to be able to provide changes and feel confident that we're being productive. 6 7 Dr. Dement? 8 MEMBER DEMENT: I guess when our group 9 discussed this, my concern with the changes, 10 there are a lot of changes here. 11 This striking out language has been 12 there for a long time. So, the scenario that I 13 see, that they are shifting from is where I go to 14 a doctor, I have a diagnosis and he says, it may 15 be or could be or it likely is related to work at 16 one of the sites, but it's not at this level of 17 medical written reason report. 18 But the -- the worker still needs the 19 opportunity to file that, to have that case 20 developed through the process over time. 21 I just saw this as completely short-22 circuiting that and throwing the onus right back

on the worker, to have this reasoned report 1 2 before they get a chance to even develop the 3 case. 4 CHAIR MARKOWITZ: Right. 5 MEMBER CASSANO: And then the language The new language --6 takes that out. 7 MEMBER DEMENT: It takes it out. 8 CHAIR MARKOWITZ: Right. 9 MEMBER DEMENT: So, my recommendations 10 would be -- why do we need to change language 11 that's already there? 12 CHAIR MARKOWITZ: Yes. 13 MEMBER DEMENT: Just my comment. 14 MEMBER WELCH: I remember yesterday, 15 Faye, didn't you say or someone -- someone on 16 this side of the table was saying you didn't like 17 the old language. 18 So, that would be helpful, because I 19 thought the easiest thing was to go back to the 20 old language, but the -- if there is something 21 wrong with it, we should do that. 22 CHAIR MARKOWITZ: But one solution

might be to -- instead of us recommending 1 2 specific language, which is to express our concern and strong feeling about the problems 3 4 presented by the new language without necessarily 5 proposing specific language that would replace the proposed --6 7 MEMBER REDLICH: I think that's a good approach because there is so many changes in so 8 9 many places, that we're actually going to find 10 them all and fix them all, so that they're all 11 consistent. 12 I think if we state what our concerns 13 are, that sounds like a good idea. 14 CHAIR MARKOWITZ: So, you want to 15 scroll back up? Sure, I'm sorry. 16 MEMBER VLIEGER: It's taken 10 years 17 to get this bite at the apple. I am really 18 concerned that we're not going to take advantage 19 of it, at least to fix the problems with the 20 employee being required to produce evidence that 21 does not exist in order to establish a claim. 22 CHAIR MARKOWITZ: Thank you. Can you

1	scroll up?
2	MEMBER SOKAS: Can I have a question?
3	CHAIR MARKOWITZ: Sure. Dr. Sokas.
4	MEMBER SOKAS: So, just also a
5	procedural question.
6	I think the other thing that happens
7	when all of the comments are in and it's closed,
8	that in any preamble to any new publication of
9	rules, they have to address the comments that
10	were received and what the determination was made
11	and why, right?
12	So, that all gets done at some point.
13	I just don't know when exactly that gets done.
14	MEMBER CASSANO: I think when they
15	publish the final rule. You don't have a second
16	bite at the apple.
17	MEMBER SOKAS: Okay. What is that
18	time line?
19	CHAIR MARKOWITZ: The time line for
20	the proposed rulemaking?
21	MEMBER SOKAS: Yes.
22	CHAIR MARKOWITZ: I don't the

comments are closed as of May 9th, I believe, but 1 2 what happens after -- how long it appears -- the period is after that, I don't know. 3 4 I don't -- it's not set, I don't 5 think, unless, is there --MR. RIOS: It under-goes a series of 6 7 reviews. 8 CHAIR MARKOWITZ: Right. 9 MR. RIOS: That are within the 10 department and then over to OMB. 11 MEMBER SOKAS: That's where we get the 12 second bite. We go see OMB. 13 MEMBER WELCH: If you listened to Dr. 14 Michael's this morning, OSHA started the silica 15 rule 18 years ago. So, I mean, there is no --16 there is no legal requirement to finish it in a -17 - well, the definition of a timely manner Depends 18 on the eyes of the beholder. 19 So, I mean, this version of the silica 20 rule took -- all the time lines were missed, 21 particularly the OMB part. 22 MEMBER REDLICH: But that's -- there

1	was a lot of industry wanting to delay.
2	CHAIR MARKOWITZ: Okay, so, let's
3	continue here. If you could move the third
4	paragraph to the front to the top, and so, it
5	no, the one above it, that one, right, just
6	above the right. No, no, right below 30.232.
7	So, we start off with our beliefs.
8	The Board believes that sufficient expertise and
9	causation of our case is unlikely to be available
10	in DOE communities, time commitment with
11	physicians to produce such document report makes
12	the requirement unrealistic and places too great
13	a burden on claimants.
14	The Board recommends that DOL remove
15	the requirement that the claimant must produce
16	written medical evidence, wherein the physician
17	describes the reasoning for his or her opinion
18	regarding causation.
19	So, that's we're not saying what
20	the language ought to be. We're expressing our
21	clear view on the issue.
22	I think that it what's italicized

can be removed. Oh, so, yes, it can be removed 1 2 there. 3 MEMBER BODEN: So, do we also --4 CHAIR MARKOWITZ: And then we have 5 this additional -- yes, if you could just get rid Thanks, and then additional issue and 6 of that. 7 it -- the Board is concerned that "any other evidence OWCP may deem necessary is overly broad 8 9 and unnecessary and may form the basis for

adversarial interactions between OWCP and claimant".

12 MEMBER BODEN: So, there is where I 13 think my concern about the changing the 'may' to 14 the 'must' or changing the wording 'resulting 15 from' to 'may' to resulting from -- from may have 16 -- arisen from --

17 CHAIR MARKOWITZ: Right. 18 MEMBER BODEN: -- needs to be pointed 19 out. 20 CHAIR MARKOWITZ: Right. Okay. Okay, 21 so, after it says -- after 'claimants', Kevin, 22 keep going down. Right? Next paragraph.

10

11

The -- the Board recommends that in 1 2 Section --3 MEMBER BODEN: I think we should say something that the Board is concerned that the 4 5 change of language from the -- from the employee has or -- where is it? That may have -- an 6 7 illness that may have arisen from exposure to a toxic substance, to no --8 9 CHAIR MARKOWITZ: Illness that 10 resulted from? 11 MEMBER BODEN: To resulting --12 CHAIR MARKOWITZ: Right, right. 13 MEMBER BODEN: I'm just looking for 14 the --15 CHAIR MARKOWITZ: It's number two, Got it? 16 line two. 17 MEMBER BODEN: To show that the 18 employee has or had an illness that resulted from 19 20 CHAIR MARKOWITZ: Right. 21 MEMBER BODEN: -- places an extra 22 burden -- an extra, unnecessary burden on

1 claimants. 2 CHAIR MARKOWITZ: To -- an illness 3 that resulted from an exposure to a toxic 4 substance. End of quote. 5 Right. MEMBER BODEN: 6 CHAIR MARKOWITZ: And now, you need to 7 finish the sentence. 8 MEMBER BODEN: Places an unnecessary 9 burden on claimant. 10 CHAIR MARKOWITZ: It's the same 11 sentence, but yes. 12 MEMBER BODEN: Yes. 13 MEMBER WELCH: And maybe it's redundant, but the information about toxic 14 15 exposure and toxic substances in the current 16 process usually doesn't come from the claimant. They're relying on the site exposure matrix. 17 18 So, that it's -- this -- maybe we 19 don't have to say anything more than an 20 unspecified -- but the -- a lot -- a lot of the 21 information comes from other sources, the 22 document acquisition request, the SEM and things

like that.

2 CHAIR MARKOWITZ: I don't -- that's part of the system. It's handled elsewhere. I 3 don't think we need to address that. 4 5 I mean, in the previous section, for instance, D, with a list of sources -- so, can we 6 7 strike the language below that? MEMBER CASSANO: Have we determined --8 9 MEMBER BODEN: Let's not strike it 10 yet. 11 MEMBER CASSANO: Yes. 12 CHAIR MARKOWITZ: Yes, yes, no, well, 13 I understand. That's the --14 MEMBER BODEN: Yes. 15 CHAIR MARKOWITZ: I'm raising the 16 question. I'm not --17 MEMBER WELCH: The item that's point 18 two, the number two, is not addressed in our 19 comments yet. If we want to add something 20 specific to say that -- or we'll be quiet about 21 that. I think that's worth discussing. 22 I think number one, we've covered,

1	that the (a)(1), I think we've covered what
2	Kevin just highlighted, I think we've covered
3	that. We've discussed that in our general
4	comments.
5	MEMBER CASSANO: I think
6	CHAIR MARKOWITZ: Yes, hang on.
7	MEMBER CASSANO: the question right
8	now, as I understand it, is whether to just put
9	the concerns in without moving language versus
10	moving language, as well.
11	So, is that a vote at this point or
12	what?
13	MEMBER BODEN: I'd like to hear from
14	the folks who have experience in this, and have
15	concerns about the original language about
16	whether you think it would be better for us to
17	suggest language or to state our concerns.
18	MEMBER WHITLEY: In my opinion, if we
19	don't have time to write the language that we
20	know takes the loop-holes out and makes the
21	claimant have to do a bunch of things to jump
22	through, we'd better be be better off to just

1 say what we started to say, that this language 2 needs to be looked at, and we disagree with what they're doing. 3 I don't think that we -- unless we 4 5 think we can word-smith it to take care of it, I think we'd better off just to show that we're 6 7 unhappy with it. So, you don't think 8 MEMBER CASSANO: 9 this solves the problem? This language solves 10 the problem. 11 You know, I think --CHAIR MARKOWITZ: 12 MS. POPE: I have a comment. 13 CHAIR MARKOWITZ: I'm sorry, Ms. Pope. 14 15 MEMBER POPE: I am somewhat in 16 agreement with Garry, but I think that if we 17 don't do something, in terms of the language, I 18 don't think it carries as much weight if we just 19 go with putting our recommendations. It just 20 seems like it's a softer approach, opposed to 21 saying that this is what we'd like to see in the 22 language.

CHAIR MARKOWITZ: But I -- I don't see 1 2 where -- the language we're looking at, having this language helps above and beyond, what we 3 4 have above this, wherein, which we clearly 5 express what we regard as the major problem here, which is requiring, you know, the claimant to do 6 7 this. 8 MS. POPE: Are you saying in this 9 particular section? 10 CHAIR MARKOWITZ: Right, right, right. 11 You know, can I just ask for some clarification 12 on what number two means, exactly? 13 We're saying what, that OWCP should 14 evaluate the probative value of the physician's 15 rationale? Is that essentially what we're 16 saying? 17 MEMBER CASSANO: Well, if -- what the 18 thinking was, was that you know, if they go 19 through the effort of producing a good -- a 20 medical opinion, with -- from a person with the 21 qualifications that they stipulate in the 22 definitions, that they should at least look at

that as potentially probative, rather than just 1 2 dismissing it out of hand, which is what happens now, because nowhere else in this whole 3 4 regulation does it state anything about the -- we 5 talked a lot about the fact that the treating physician can't come up with decent -- but if 6 7 somebody does come up with a decent one, there is nothing that tells the claims examiner, yes, 8 9 you've got to look at this at least and make a 10 decision as to whether it's probative or not. 11 That's, I guess -- I'm just looking at 12 it from the system. 13 MEMBER VLIEGER: Can we scroll back up 14 to -- can we scroll back up to the previous 15 section and look at the definition of the section 16 and then maybe that will clarify what we're 17 trying to do and not do here? 18 CHAIR MARKOWITZ: So, you want to go 19 back to the proposed rules? 20 MEMBER VLIEGER: No, I just -- the --21 CHAIR MARKOWITZ: Okay, okay. 22 MEMBER VLIEGER: What we're proposing

2

above.

CHAIR MARKOWITZ: Okay.

3 MEMBER VLIEGER: So, 232, the section 4 itself. How does a claimant establish that the 5 employee has been diagnosed with a covered 6 illness?

So, there we're establishing thecriteria of how to make the diagnosis.

9 MEMBER CASSANO: No, we're 10 establishing what you have -- what a claimant has 11 to provide, and right now, it says they've got to 12 provide all this other stuff, including the 13 rationale, that there is a change in there, and 14 we're changing it back to no, all they need to 15 provide is the physician's diagnosis, and oh, by

16 the way, if there is reasoning or if there is a 17 medical opinion, then you have to provide that.

18 MEMBER VLIEGER: Okay, and then the 19 second section changes this requirement how, 20 where it's saying we're going to consider what 21 the physician statement is that's provided by the 22 employee? 244

[
1	MEMBER CASSANO: If it's you know,
2	I think let's I don't know.
3	What we're saying is that if on
4	their definition of a qualified physician, there
5	is a rational opinion that they you told us
6	yesterday that it was they just they don't
7	even look at it but
8	MEMBER VLIEGER: But with the
9	qualifier at the bottom that says this will be
10	considered let's go back down, where you're
11	saying let's look at it as whether it's probative
12	or not, still has the option of being thrown out
13	in its entirety.
14	MEMBER CASSANO: Well, it could be a
15	lousy rationale.
16	MEMBER VLIEGER: Right. But assessed
17	for probative value, I think should be considered
18	probative, unless it doesn't meet the
19	requirement.
20	MEMBER CASSANO: Well, that is what
21	the original language was, considered probative.
22	CHAIR MARKOWITZ: Yes, no, I don't
-	

think --

2 MEMBER VLIEGER: I don't think we're going to be able to fix this in one paragraph. 3 4 CHAIR MARKOWITZ: Yes, I don't think 5 you could say it's by default, the default is that it's -- it's probably a tremendous variation 6 7 of these physician reports, but we could -- if you go back up, we could address this by saying, 8 9 at the end of the second paragraph, where -- the 10 second sentence where it says, "The Board 11 recommends that DOL remove the requirements," you 12 could add a sentence -- you don't have to write 13 this yet. 14 But that the Board recommends that if 15 the claimant produces a report that addresses 16 causation, aggravation, contribution, that the 17 Board assess this report for its probative value. In other words, put in something to 18 19 address the same point, but not give the 20 particular language. 21 MEMBER CASSANO: Yes, so, take number 22 two from the language and put it up there to

www.nealrgross.com

recommend, that would do it. 1 2 CHAIR MARKOWITZ: Okay, so, if we could just scroll down, yes. No, not -- number 3 4 two, and then bring it up and then we're going to 5 MEMBER CASSANO: You could say the 6 7 Board recommends that. CHAIR MARKOWITZ: Where? So, right 8 9 there, right there, yes. 10 MEMBER CASSANO: And then put the Board will also recommend. 11 12 CHAIR MARKOWITZ: So, the Board --13 that's actually just dropped in there. Before 14 the 'if', you could say, "The Board recommends." 15 Right. 16 MEMBER CASSANO: I changed that back. 17 CHAIR MARKOWITZ: Okay, we're not 18 there yet. We're not there yet. We'll save 19 that. We'll save that for last, yes. Dr. 20 Silver? 21 MEMBER SILVER: When we were word-22 smithing too, a little while ago, 'may' was

changed because people thought it was too wimpy, 1 2 to 'should'. In fact, the opposite of 'may' in 3 4 regulation and legislation is 'shall'. So, let's 5 go all the way. We're just recommending that it 'shall'. 6 MEMBER CASSANO: Yes, I'd like to use 7 8 'shall' a lot. 9 MEMBER SILVER: Yes. 10 MEMBER CASSANO: Yes. 11 MEMBER SILVER: Throw it in there. 12 CHAIR MARKOWITZ: I'm sorry, what is 13 the specific suggestion? 14 MEMBER SILVER: At the very end --15 where did it go? 16 MEMBER CASSANO: Shall be assessed. 17 MEMBER SILVER: Shall be assessed, 18 rather than should. 19 CHAIR MARKOWITZ: Okay. 20 But 'shall' is more MEMBER CASSANO: 21 22 CHAIR MARKOWITZ: Okay, no, hold on.

MEMBER SILVER: Aim higher, like our 1 2 union friends. CHAIR MARKOWITZ: Yes, but just to be 3 4 clear, we're not -- we're not writing the -- the 5 proposed changes. We're expressing our point of So, 'shall' or 'should be' is fine. 6 view. 7 Can we now get rid of -- if we go -scroll down, Kevin. 8 9 MEMBER CASSANO: Get rid of that line. 10 CHAIR MARKOWITZ: Yes, (a)(2) and (3), 11 right, those go? Okay, yes. 12 MEMBER CASSANO: And (a) as well, yes. 13 CHAIR MARKOWITZ: Yes. Okay, and you 14 can get rid of -- delete that paragraph too, 15 whatever that was. 16 (Simultaneous speaking.) 17 MEMBER WELCH: So, the sub-paragraph 18 two was the one that said OWCP can ask for 19 anything that has an illness resulting from 20 So, we addressed that. exposure. 21 CHAIR MARKOWITZ: We already addressed 22 that.

	2
1	MEMBER WELCH: The illness resulting
2	from exposure, did we? Did we?
3	MEMBER CASSANO: It's down below. The
4	very last sentence. It might be gone already.
5	MEMBER WELCH: Yes, there it is.
6	MEMBER CASSANO: Is it completely
7	gone? There was a little tag sentence at the
8	end. Yes, it's gone.
9	CHAIR MARKOWITZ: Okay, so, now you
10	can yes, you can get rid of the one. If you
11	scroll up, we might be able to see the whole
12	thing now. Okay, okay.
13	Okay, okay, so, yes, that's fine. So,
14	there's a motion to approve this. Any second?
15	Yes. Comments? Dr. Redlich?
16	MEMBER REDLICH: When we're done with
17	this one.
18	CHAIR MARKOWITZ: Okay.
19	MEMBER REDLICH: I just needed
20	clarification.
21	CHAIR MARKOWITZ: Okay.
22	MEMBER REDLICH: On something.

1 CHAIR MARKOWITZ: Okay, sure. So, any 2 further comments about this? 3 Okay, so --4 PARTICIPANT: Can we take one minute 5 for just background on this? 6 CHAIR MARKOWITZ: No, I'm sorry, no. 7 No, that's not allowed. Public comment period is 8 over. Okay, so, any other -- okay, so, we're 9 going to take a vote. All those in favor of this 10 11 recommendation? Raise your hand. All those 12 opposed? All those abstaining? 13 So, it's there are 15 members present and all vote in favor of this recommendation. 14 15 Dr. Redlich? 16 MEMBER REDLICH: So, I just need some 17 -- okay, I just need some clarification of our 18 task. 19 In particular, since the committee 20 addressing the issues related to beryllium and 21 lung disease, so --22 CHAIR MARKOWITZ: I'm sorry, can I

1	just interrupt for one moment?
2	MEMBER REDLICH: Yes.
3	CHAIR MARKOWITZ: There was a a
4	request, I think either you or George, to one
5	final issue on the proposed changes, that we
6	wanted to address, which was where we're
7	making consistent, in where possible in the
8	regulation, that causation actually refers to
9	aggravation, contribution and causation, that we
10	that's the way that we understood.
11	Is this something that we want to
12	to
13	MEMBER REDLICH: Yes.
14	CHAIR MARKOWITZ: Okay.
15	MEMBER REDLICH: Yes.
16	CHAIR MARKOWITZ: Okay, so, if we
17	could just handle that, and then get back to this
18	issue.
19	This is a brand new recommendation.
20	There is no language yet for this.
21	MEMBER REDLICH: Not for this
22	specific.

Right. Yes, this is 1 CHAIR MARKOWITZ: 2 -- yes, if you could put this into the other draft recommendations. 3 4 Okay, so, yes, you can take that out. 5 You can take that out. Right. Yes, yes, right 6 there. Okay, okay. 7 So, can someone propose some language 8 here? Okay, okay, yes. 9 MEMBER WELCH: Well, it's right in the 10 middle of the screen. It's close to what we are 11 talking about, right? 12 CHAIR MARKOWITZ: Right. 13 MEMBER REDLICH: Is this the statutory 14 language? 15 CHAIR MARKOWITZ: That's being quoted 16 here? No, this is from the regulations. 17 MEMBER BODEN: So, I'm thinking the 18 first sentence, the Board notes the frequent 19 references in the regulations to "diseases caused 20 by toxic substances". 21 The Board also notes that -- the Board 22 notes the frequent references in the proposed

regulations to "diseases caused by toxic 1 2 substances". The Board also notes that the statute 3 4 refers to --5 CHAIR MARKOWITZ: Aggravation, contribution. 6 7 MEMBER BODEN: -- aggravation, contribution and --8 9 CHAIR MARKOWITZ: Causation. 10 MEMBER BODEN: -- causation. We 11 recommend that the -- that the agency examine all 12 references to causation and ensure that they are 13 consistent with the statute. 14 MR. RIOS: Yes. 15 CHAIR MARKOWITZ: Yes, yes, yes. 16 Okay, so, I'm sorry, Les, can you just repeat 17 that? 18 MEMBER BODEN: No. Repeat which part? 19 CHAIR MARKOWITZ: Well, the Board 20 notes that the regulations make frequent 21 references to causation, right? MEMBER BODEN: To causation. 22

1	CHAIR MARKOWITZ: Right.				
2	MEMBER BODEN: The Board also notes				
3	that the Act refers to here				
4	CHAIR MARKOWITZ: Aggravation,				
5	contribution and causation.				
6	MEMBER BODEN: The Board, therefore,				
7	recommends that the proposed changes in the				
8	regulations make changes I said it better				
9	before.				
10	MEMBER WELCH: You did.				
11	MEMBER BODEN: I know.				
12	MEMBER WELCH: Reflects what?				
13	MEMBER BODEN: Right, reflect the				
14	language of the Act. Thank you.				
15	MEMBER WELCH: Editorial note,				
16	aggravation, contribution, causation.				
17	MEMBER BODEN: Okay.				
18	CHAIR MARKOWITZ: Okay, so, comments?				
19	Discussion? Okay.				
20	MEMBER WELCH: Move to approve.				
21	CHAIR MARKOWITZ: Okay, second? Okay,				
22	we don't need to read this because you read this.				

[
1	All those in favor? All those				
2	opposed? Any abstentions?				
3	Fifteen members present. All vote in				
4	favor of the recommendation.				
5	So, that concludes our input,				
6	comments, recommendations regarding proposed				
7	regulations.				
8	MEMBER REDLICH: So, I				
9	CHAIR MARKOWITZ: I'm going to double-				
10	check, to make sure that we have in fact, voted				
11	on all of them, while we move onto other matters.				
12	MEMBER REDLICH: Well, I was a little				
13	unclear. Certain ones were selected for us to				
14	comment and look at, and others were not.				
15	So, I'm a little unclear. Were the				
16	ones related to Part E the ones that we were				
17	commenting on, but not the ones on B or				
18	CHAIR MARKOWITZ: No, the way that				
19	MEMBER REDLICH: How was it sort of				
20	picked which				
21	CHAIR MARKOWITZ: Sure, sure.				
22	MEMBER REDLICH: ones you were				

focusing on?

2 CHAIR MARKOWITZ: The process was that 3 we're invited to provide input into the proposed 4 changes.

We were briefed by DOL about the proposed changes. DOL provided us with guidance as to what they considered to be within the scope and not in the scope of the Board's charter.

9 We were free at any moment to look at 10 any proposed change that we thought was addressed 11 within our scope -- our scope, our charter, and 12 take up that proposed change and examine it and 13 discuss it.

14 So, that was not a -- the -- DOL's 15 input and guidance about what was in or not in 16 our scope was not a requirement. We were, at all 17 times, free to select on our own, what changes 18 and in fact, we discussed that at the briefing. 19 We discussed that on our subcommittee calls, and 20 since that time.

21 So, now, I was the one who came up 22 with the list, the initial list of the things

that we've discussed on the subcommittee calls, 1 2 but again, called for members to add additional 3 proposed changes that they thought we should 4 address. 5 So, that's -- that's where we are today. 6 7 MEMBER REDLICH: Okay, my brain may have been a little slow in terms of the 8 9 processing all of this. 10 The reason I'm questioning it is 11 because our task -- one of the major 12 subcommittees is addressing a number of issues 13 around chronic beryllium disease and the benefits 14 under Part B. 15 CHAIR MARKOWITZ: Right. 16 MEMBER REDLICH: And yet, there are 17 sections in this document relating to that, that 18 we haven't really --19 CHAIR MARKOWITZ: Sure. 20 MEMBER REDLICH: -- or I haven't gone 21 over that carefully, and so, that is a little bit 22 of what my concern is, because that does appear

to be under what we have been asked to look at, 1 2 not just the Part E. 3 CHAIR MARKOWITZ: Right. 4 MEMBER REDLICH: And so, you know, 5 this whole added paragraph, I assume it has impact because that's why it was added, but I'm 6 7 not really clear fully on it. 8 CHAIR MARKOWITZ: Right. 9 MEMBER REDLICH: And I guess it's a 10 little bit late now to address that, and I 11 suspect public comments have probably addressed 12 it. 13 CHAIR MARKOWITZ: I agree with you, 14 that it could be regarded as within our scope, 15 and we have not discussed it, and I agree with 16 you, it's probably too late to provide input into 17 that. But yes, we are -- as I said before, 18 19 individual Board members are certainly welcome to 20 look at proposed changes, provide input into the record, DOL's record on comments. 21 22 So, let's -- we have about 20 minutes

before we need to close, and I want to just now 1 2 move to purely administrative matters, such as the subsequent meetings. Couple of issues. 3 I want to talk about scheduling the 4 5 subcommittee meetings. If we -- let's say the subcommittees were to circulate dates and agree 6 on a date by, say next Wednesday, come to 7 agreement on a date that they're going to meet by 8 9 next Wednesday, the earliest that you could meet 10 would be June 22nd, given the seven week delay. 11 So, June 22nd is approaching the end 12 So, my question to the subcommittees of June. 13 is, can we attempt and strive to by next 14 Wednesday, May 4th, come to, within each 15 subcommittee, a mutually agreed upon date for 16 each subcommittee telephone meeting that would 17 occur, essentially, the last week in June? Give 18 or take, I mean, just the -- the approximate time 19 frame. 20 MEMBER SOKAS: So, I mean, it's kind 21 of related, but we're talking -- I mean, I hate 22 to be this picky about it, but if we're talking a

two hour phone call as opposed to a two day phone 1 2 call, that's easier to -- do you see what I'm saying? 3 4 CHAIR MARKOWITZ: Yes, yes, sure. 5 So, what do we think is MEMBER SOKAS: going to be necessary, because that will help 6 7 with the scheduling. 8 CHAIR MARKOWITZ: Yes, right. so, 9 that's open for discussion. 10 Mark, you've got some experience here, 11 but different Boards. 12 MEMBER GRIFFON: I was just going to 13 ask, just so we can all get our heads around this 14 a little bit. 15 Can you run through who the committee 16 members -- like the four committees and who is on 17 them? I know I volunteered for two. You know, I 18 know mine. I know mine, but I don't know who 19 else is on it. 20 Then I mean, I would advise that we 21 just caucus on our way out. You know, we have 22 calendars in our hands. It might --

1 Maybe not. Maybe not. Right, right, 2 right. 3 (Simultaneous speaking.) 4 MEMBER CASSANO: Then I presume that 5 the four subcommittees can't meet on the same 6 day, because they're public. So, we have to 7 deconflict --That's right. 8 MEMBER GRIFFON: 9 MEMBER CASSANO: -- those as well. 10 CHAIR MARKOWITZ: So, let me ask, is it -- does a four hour time slot seem reasonable? 11 12 MEMBER GRIFFON: Yes. 13 CHAIR MARKOWITZ: No, no. 14 MEMBER GRIFFON: Not to exceed, right. 15 CHAIR MARKOWITZ: For the subcommittee 16 to meet. 17 MEMBER GRIFFON: Right. 18 CHAIR MARKOWITZ: No, but that's a --19 Dr. Welch? 20 MEMBER WELCH: Well, what I was 21 thinking of doing too was, you know, creating a 22 discussion agenda in advance of the subcommittee

Washington DC

(202) 234-4433

meeting, and one thing -- one consideration for 1 2 the group is, I think we all would like some reports from the -- the database, some general 3 information on claims. 4 I mean, some of it is in the annual 5 So, one question is whether we can get 6 reports. 7 anything else before the first subcommittee meeting, if we were doing some records requests, 8 9 because if it turns out that we could get 10 something in two months, we might have the 11 subcommittee wait a little bit longer. 12 So, you know, I think that it's --13 four hours is reasonable if we don't have a whole 14 lot to work on. If it turns out we're going to 15 have a lot to work on -- I can't be on a phone 16 call more than four hours. So, you know, I mean, 17 usually by two and a half, I'm ready to go. 18 So, we might want to schedule multiple 19 ones, if we're going to have more to work on. 20 CHAIR MARKOWITZ: Sure, I'm sorry, Mr. 21 Rios has an answer to that question. 22 MR. RIOS: So, from the Agency's

1 perspective, we can try to make anything 2 available to you that you request in advance of your subcommittee meetings. 3 But I don't -- but I don't know if 4 5 your initial subcommittee meeting was to identify the data that you're going to need. 6 so. MEMBER WELCH: I think we'd be able to 7 identify some of it -- some of it at -- during 8 9 the course of this meeting. I think we've 10 identified some things that we would like to see, 11 and having it in advance of the subcommittee, 12 might make things move faster. 13 MEMBER REDLICH: The stuff we've 14 already asked for. 15 CHAIR MARKOWITZ: Okay, but the 16 material we've already asked for are already --17 are reports that -- and audit performances and 18 things --19 MEMBER WELCH: And percentages of the 20 -- you know, what are the -- yes. 21 CHAIR MARKOWITZ: Okay, yes? 22 MEMBER BODEN: Just a question about

I know we asked for a whole bunch of 1 that. 2 things. I didn't write all of them down. I know they'll be in the minutes. Is there a way of 3 4 somebody's combing the minutes and providing that 5 to us? CHAIR MARKOWITZ: 6 Yes. 7 MEMBER VLIEGER: Didn't the department 8 keep a list as we were going? Yes? 9 MEMBER BODEN: Or either way. 10 MR. RIOS: There is three lists that 11 are going. So, we need to reconcile them, but at 12 the same time, we will look at the recordings. 13 Depending on how quickly you want the 14 list back and how accurate, meaning accuracy is 15 only -- you're only going to achieve that if we 16 listen to the recording. 17 So, do you want to -- do you want us 18 the list of the last two days, and then give you 19 the list, because we can do that. 20 CHAIR MARKOWITZ: No. I would like the 21 -- send me the initial lists, and I will refine 22 them with assistance from Board members, and turn

	2				
1	them back to you, and then we can supplement them				
2	with any additions from the review of the				
3	recording. Yes, Dr. Redlich?				
4	MEMBER REDLICH: Could you just				
5	clarify, because I'm not that familiar with				
6	public meetings, and what communication is okay,				
7	between the members or not, as far as so,				
8	let's say there was a for an example, a list				
9	of data that I thought would be useful to				
10	request, and if I wanted input from the other				
11	subcommittee members, is there anything else				
12	you'd like to request?				
13	Could I send an email to everyone				
14	CHAIR MARKOWITZ: Right.				
15	MEMBER REDLICH: requesting that or				
16	I just need some guidance				
17	CHAIR MARKOWITZ: Sure, sure, sure.				
18	MEMBER REDLICH: on what is				
19	considered appropriate.				
20	CHAIR MARKOWITZ: Yes. I'm turning				
21	that to Mr. Rios.				
22	MR. RIOS: So, the rule book said that				

even for your subcommittee meetings, you don't 1 2 need to be this transparent.

But since you all selected to be as transparent, to have the public participate in 4 everything you deliberate, then you've changed the rule book for yourselves.

7 So, if -- so, the requirements are not that you have to have even the subcommittee 8 9 meetings in public.

10 With respect to the -- can you send me 11 an email asking for information and can I send it 12 to your subcommittee? Absolutely. But does that 13 conflict with your desire to be transparent? I 14 don't know.

15 But per the regulations, the 16 subcommittee can send me emails. I can send 17 emails to the subcommittee. The subcommittee 18 can have telephone calls without the public 19 notice, but the only thing that I would warn you 20 against is that if you're going to publicly state 21 that the public was -- was capable of witnessing 22 your deliberations, then you want to be

3

5

6

1

consistent in your approach.

2 CHAIR MARKOWITZ: Sure, and let me just say that, yes, we'll have to define some 3 4 boundaries, because we want an open process and 5 the meetings will be open. That's what we voted 6 on. 7 On the other hand, there is a certain amount of interaction that needs to occur for us 8 9 to make progress in what we're asked to do, 10 without a two month delay in that. 11 So, what we'll -- we'll have to 12 determine what those boundaries are. 13 So, did we -- did we settle on what 14 time -- how long these subcommittee meetings 15 might be? 16 MEMBER WELCH: Three hours. 17 CHAIR MARKOWITZ: Three to four hours, 18 okay, okay, and it is realistic that by sometime 19 mid next week or sometime next week, the 20 subcommittees might be able to decide on some dates, and so, we can get the process along? 21 22 Okay, Dr. Friedman-Jimenez?

> Neal R. Gross and Co., Inc. Washington DC

(202) 234-4433

www.nealrgross.com

MEMBER FRIEDMAN-JIMENEZ: Would it be 1 2 possible to do two two-hour meetings instead of a four-hour meeting, because four hours is -- I am 3 4 suggesting that we have shorter meetings and more 5 frequent, because four hours is a big chunk of the day and really affects the rest of your 6 schedule more. 7 CHAIR MARKOWITZ: Well, I am going to 8 9 leave that up to the subcommittee chairs to 10 Yes, Dr. Silver? float. 11 MEMBER SILVER: Dr. Markowitz, I don't 12 know if this is helpful, but yesterday, I jotted 13 down three things you wanted the subcommittees to 14 do, define initial issues and scope, define data 15 and information needs, and review and draft 16 initial work plan with time table. 17 So, maybe the chair of each 18 subcommittee could figure out how many hours we 19 need to do those three things. Is there more to 20 it? 21 CHAIR MARKOWITZ: All right, not that 22 I have.

1	MEMBER FRIEDMAN-JIMENEZ: I think				
2	there was a report from the data and the data				
3	request.				
4	CHAIR MARKOWITZ: Right.				
5	MEMBER SILVER: The second was yes,				
6	the second was define data and information needs				
7	and review.				
8	CHAIR MARKOWITZ: Yes, okay. Okay.				
9	MEMBER SILVER: So, rather than pick				
10	the time and fill it up, those are the three				
11	things we should do and figure out how much time				
12	we need.				
13	CHAIR MARKOWITZ: Okay, so, let's				
14	discuss the Fall meeting. I think that Mr. Rios				
15	can float some dates soon, because I know				
16	people's calendars begin to schedule up with				
17	some with teaching and other activities.				
18	So, that we need considerable notice				
19	on the Fall meeting, and we'll just circulate				
20	some times.				
21	But I I favored late September,				
22	towards the first half of October, so that we				

don't get too deep into the Fall, so we can 1 2 continue some momentum, but we're going to float some dates and it will -- I would recommend a 3 4 two-day meeting. Not a three-day meeting, 5 because it will be more effective over two days, and we can do as much in two days, except this 6 time, as we could do in three days. Dr. Welch? 7 I don't know if this 8 MEMBER WELCH: 9 would be helpful in terms of the notification 10 issues for the subcommittees, but we might --11 I need to hear this. CHAIR MARKOWITZ: 12 MEMBER WELCH: We might consider 13 having a regular time for a subcommittee meeting, 14 so that instead of -- you know, for each one, 15 having to go through the notification process, 16 would it be possible to say this subcommittee is 17 going to meet -- is going to call -- have a call 18 on a certain day, and then if we don't have it, 19 we don't have it. 20 We could discuss that in our schedule 21 -- whether that fits people's schedules. But

22

Neal R. Gross and Co., Inc. Washington DC

would that help with the Federal Register Notice

1	or would we still have to do a Federal Register			
2	Notice for each committee meeting?			
3	MR. RIOS: So, let me read you a			
4	section in the regulations, okay?			
5	It's Section 102-3.160, and it states,			
6	"What activities of an Advisory Board are not			
7	subject to the notice in open meeting			
8	requirements of the Act?"			
9	The following activities of an			
10	Advisory Committee are excluded from the			
11	procedural requirements contained in this sub-			
12	part.			
13	The first is defined as preparatory			
14	work, and it's meetings of two or more advisory			
15	committee or subcommittee members convened solely			
16	to gather information, conduct research or			
17	analyze relevant issues and facts in preparation			
18	for a meeting of the Advisory Committee or to			
19	draft position papers for deliberation by the			
20	Advisory Committee, and so, that was the first,			
21	preparatory work.			
22	The second is administrative work.			

Meetings of two or more advisory committee or 1 2 subcommittee members, convened solely to discuss administrative matters of the Advisory Committee 3 or to receive administrative information from the 4 5 Federal Officer or agency. So, this -- the administrative work 6 7 piece, that sub-section says that you can convene two or more advisory committee members to receive 8 9 information from the agency. 10 MEMBER BODEN: So, I understand that 11 we may not be subject to those rules, but the 12 question of wanting to be open and we need to 13 somehow let people know that they can hear what 14 we're saying --15 Well, the reason I read you MR. RIOS: 16 that section in the regulation is because that 17 section does not cover subcommittees, and in 18 fact, that regulation covered other activities 19 that two or more members of the parent committee 20 can engage in, and if you -- and I will read you 21 the administrative work section again, because 22 that specifically addresses subcommittee members.

1 So, again, Sub-Section B states 2 administrative work. Meetings of two or more advisory committee or subcommittee members 3 convened slowly -- solely and slowly, to discuss 4 5 administrative matters of the advisory committee or to receive administrative information from a 6 Federal Officer or Agency. 7 So, your stated desire yesterday or 8 9 two days ago was to have the subcommittee 10 meetings open to the public. This section that I just read you does not pertain solely to 11 12 subcommittee meetings, but to administrative work 13 or preparatory work that the committee may engage 14 in. 15 So, it doesn't conflict with your 16 stated purpose, but I just want you to be clear. 17 MEMBER VLIEGER: So, prep work and 18 administrative work is excluded from the public? 19 Subcommittee meetings can MR. RIOS: 20 also be excluded from the public. But your 21 stated desire was to have the public participate 22 in your subcommittee meetings.

1 Right now, you're talking about 2 administrative work and receiving and requesting information from the agency. Can you do that 3 over email? Yes, because the regs allow you to 4 5 do all of that outside of the public view. 6 MEMBER VLIEGER: All right. 7 MR. RIOS: So, the reason I read you that is because I want you to know that it 8 9 doesn't conflict with your desire. 10 MEMBER REDLICH: So, my --11 MEMBER WELCH: And the information 12 between ourselves? 13 MEMBER CASSANO: So, I have a follow 14 up question then. 15 The three things that Ken wrote down, 16 as you know, determining an agenda, requesting 17 information and I forget what the third one is, 18 could that be considered preparatory, because I 19 don't know if I want to wait until the middle of 20 June to figure out what my agenda is going to be 21 or to determine what information I'm going to 22 want my subcommittee members to look at, before

we deliberate in the middle of June. 1 2 So, if we can consider that prep work, then we can move on with that, and actually have 3 4 some deliberation occurring in June, otherwise 5 we've already put ourselves seven weeks behind, to be able to do anything. 6 7 CHAIR MARKOWITZ: Dr. Welch? MEMBER WELCH: Well, I mean, I think 8 9 what Tony said is we can -- we, you know, under 10 the Act, these subcommittee actions don't have to 11 meet all the specific requirements of the public 12 notification, but we did decide we want to notify 13 the public. 14 MR. RIOS: Except in this --15 And if we want to MEMBER WELCH: 16 notify the public by putting it in the Federal 17 Register, then that's the amount of time frame we 18 need. 19 We could do emails and stuff before 20 the meeting, that would get us better prepared 21 for the meeting, but I think we still want to 22 have it published in the Federal Register, so

Neal R. Gross and Co., Inc. Washington DC

www.nealrgross.com

1	that the public would know the subcommittee				
2	meetings are happening. That would be my				
3	recommendation, but we could do some additional				
4	prep work in advance, if we want to, by email.				
5	MR. RIOS: Just to be clear, whenever				
6	you communicate with each other, as members of				
7	the committee or subcommittee, you have to copy				
8	me, yes.				
9	CHAIR MARKOWITZ: Okay, anything else				
10	on the Dr. Redlich?				
11	MEMBER REDLICH: An email with the				
12	rules would be helpful.				
13	MR. RIOS: I can send you all, all the				
14	relevant regulations.				
15	MEMBER REDLICH: Thank you.				
16	CHAIR MARKOWITZ: Okay, so, that				
17	covers subcommittee and the advanced notice, and				
18	our meeting in the Fall. Let's discuss very				
19	briefly, well, I just want to talk about where				
20	not decide on where we're going to meet, but just				
21	open the the floor to the fact that we may not				
22	meet here next time. We may meet in a different				

(202) 234-4433

1

location.

2	But is there anything? We have five				
3	minutes until we adjourn. Is there anything else				
4	that on the administrative front that we need				
5	to address?				
6	If you have any questions about travel				
7	or things like that, credit card reimbursement,				
8	Mr. Kevin Bird is over here and he can answer				
9	your questions. Yes, Mr. Griffon?				
10	MEMBER GRIFFON: Just one question.				
11	You mentioned the September meeting. Did you				
12	want to discuss location? You mentioned that				
13	before.				
14	CHAIR MARKOWITZ: Yes, yes. But is				
15	there anything beyond that?				
16	MEMBER GRIFFON: I'm sorry, okay.				
17	CHAIR MARKOWITZ: Okay, so, the idea				
18	is we could meet here in Washington, or we could				
19	meet at a different location. Different location				
20	could be presumably well, I don't think they				
21	put Department of Energy sites in Hawaii much.				
22	But there's a lot of logic to being in				

279

1	proximity to					
2	MEMBER TURNER: Denver or Kansas City.					
3	CHAIR MARKOWITZ: What's that?					
4	MEMBER TURNER: I said Denver or					
5	Kansas City.					
6	CHAIR MARKOWITZ: Okay, so, to be in					
7	proximity to DOE workers, right, so that people					
8	can attend and listen and provide public comment.					
9	MEMBER SILVER: Could we do a site					
10	visit at the same time?					
11	CHAIR MARKOWITZ: Okay, so, yes. So,					
12	we could let's if we just start I just					
13	need your attention, I just need your attention					
14	for five more minutes.					
15	We could consider a site visit, but in					
16	principle, does anyone have any strong feelings					
17	about whether we meet in proximity to a DOE					
18	community or where the DOE workers are, as					
19	opposed to meeting here? Okay, Dr. Welch?					
20	MEMBER WELCH: I think we should meet					
21	near the sites, if we can arrange that, where the					
22	DOE communities, but the communities are					

primarily, at least the ones we know are located 1 2 around the specific sites, the big sites, like Oak Ridge and Hanford and Savannah River, and I 3 4 think we'd get a lot of interest from the public 5 if we met in those areas. 6 CHAIR MARKOWITZ: Okay. 7 MEMBER GRIFFON: Steven? 8 CHAIR MARKOWITZ: Yes, Mark? 9 MEMBER GRIFFON: One other thing that 10 we may consider is where the Radiation Board met 11 for their meeting, because it might be beneficial 12 13 MR. RIOS: Your microphone is off. 14 MEMBER GRIFFON: Oh. You know, it may 15 be beneficial to have the meeting in the same 16 location as the Radiation Board, you know, a few 17 days before or a few days after, whatever. 18 Just a thought, or you may want to --19 not want to conflict with that --20 CHAIR MARKOWITZ: Right, right. 21 MEMBER GRIFFON: -- because a lot of 22 the same claimants are going to be involved in

those meetings.

1

2	CHAIR MARKOWITZ: Right, right.					
3	MEMBER GRIFFON: So, just to check					
4	those schedules, yes, and I think we have they					
5	are meeting, I think in September.					
6	CHAIR MARKOWITZ: Right.					
7	MEMBER GRIFFON: So, just to yes.					
8	CHAIR MARKOWITZ: I have a question,					
9	actually for Ms. Leiton.					
10	If we meet not in Washington, will					
11	there be some attendance from people, DOL, your					
12	unit, so that we can continue interaction?					
13	MS. LEITON: We absolutely plan on					
14	attending.					
15	CHAIR MARKOWITZ: Okay, great. Okay,					
16	great, thank you.					
17	MS. LEITON: One other thing, if you					
18	don't mind, just we do have to do outreach task					
19	groups, and sometimes, you know, we'll go to					
20	these locations.					
21	So, I don't know if you want to either					
22	consider going to where we're going, or again,					

not going where we're going, to either be -- have 1 2 that done -- let them be part of this or avoid --3 CHAIR MARKOWITZ: Right. MS. LEITON: -- you know, whichever 4 5 conflicts, so we've got to schedule that as well. 6 CHAIR MARKOWITZ: Okay, great. Thank 7 We'll look at that schedule. you. Okay, so, I understand. 8 That settles 9 Any other questions before we close? that. Yes? 10 MS. POPE: Can we have Kevin give a 11 overview of the credit card information? 12 CHAIR MARKOWITZ: Okay, Kevin, you 13 have the floor, to explain the credit card to us. 14 So, basically you all have MR. BIRD: 15 travel reimbursement forms in your packet. Fill 16 those out, or I -- after the conference, we can also email them to you. 17 18 Just include all your expenses, not 19 including food and meals already reimbursed per 20 diem basis, so that's a flat fee. Provide 21 receipts for anything over \$75, and then you --22 we will process that, reimburse you and then you

will pay that credit card bill. Five days. 1 2 MR. RIOS: It's five days. Just give me your travel 3 MR. BIRD: reimbursement form within five days from now. 4 5 MEMBER REDLICH: That's in our packet? MR. BIRD: It is, and I'll email it to 6 7 everyone, so you have an electronic copy. MEMBER WELCH: Kevin, what about cash 8 9 receipts? 10 MR. BIRD: Over \$75. 11 MEMBER WELCH: Okay, thank you. 12 Okay, so, one last CHAIR MARKOWITZ: 13 -- if I could have your attention. I would just 14 like to thank numerous people here. Mr. Rios, 15 Ms. Rhodes, Mr. Salandro, who has been back 16 there. 17 Mr. Bird, who is key to many things 18 Also, thank Ms. Leiton and the DOL for for us. 19 not only being extremely informative, but also 20 being very clear about your desire for our input 21 into these various issues. So, we appreciate 22 that.

I	2
1	Also, thank the Ombudsman and
2	Ombudsman's office for participating, and thank
3	the hard working members of the Board. The
4	meeting is adjourned.
5	(Whereupon, the above-entitled matter
6	went off the record at 3:00 p.m.)
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	

Α a.m 1:20 4:2 112:4,5 able 34:21 44:6.10 56:10 73:10,21 74:5 74:20 83:20 85:20 91:14 94:12 103:15 108:18 116:4.10 174:14 191:12 194:3 230:5 246:3 250:11 264:7 268:20 276:6 above-entitled 112:3 163:7 284:5 absence 85:9 198:11 absolutely 55:22 267:12 281:13 abstaining 251:12 abstentions 119:5 122:8 149:22 161:5 203:11 205:19 256:2 accept 83:20 94:12 116:22 127:7 141:21 145:10 160:21 188:4 188:11 198:17 205:15 205:17 210:20 217:2 217:5 223:3 acceptable 87:16 acceptance 85:16 acceptances 83:16 92:3 accepted 18:12 53:11 54:2 85:14 106:2 117:12 179:20,21 180:2 186:14 188:22 access 163:14 166:20 accessible 12:15 accidents 38:21 accomplishes 32:9 account 80:21 accountability 78:20 80:22 82:9,11 170:22 accuracy 265:14 accurate 265:14 achieve 265:15 acquisition 238:22 act 13:21 135:4 142:17 144:10 146:3 170:15 181:18 183:1.4 184:14 186:2,6,17,21 187:16,22 191:3,9,11 192:2,6,8,19 194:12 255:3,14 272:8 276:10 Act's 190:12 191:21 actions 91:11 276:10 activities 13:14 16:14 16:17 25:3 74:13 91:22 270:17 272:6,9 273:18

activity 26:16 37:18 42:6 76:12 acts 16:17 actual 13:15 16:12 36:7 46:8 53:21 60:3 61:16 72:5 74:15 76:11 85:21 102:9 acute 179:14,16 ad 111:4 add 38:4,4,9 47:19,20 47:21 106:2,8 107:9 114:10 116:1 135:19 139:5 154:8 176:11 192:7 239:19 246:12 258:2 added 12:4,4 37:7 44:11 104:1 109:14 113:8 146:12 189:22 190:18 191:10 192:2 204:21 259:5,6 adding 76:20 204:22 213:3,14 addition 102:9 122:15 187:20 209:19 additional 18:7 26:15 38:3.9 60:21 100:11 100:12 104:16 114:3 163:3 164:15 176:12 196:13 236:5,6 258:2 277:3 additions 266:2 address 8:12 15:21 22:13,18 48:2 115:17 130:8,10 138:7 149:5 149:7 159:1 167:2 209:9 212:13 226:8 226:10,14 233:9 239:4 246:8,19 252:6 258:4 259:10 278:5 addressed 104:14 169:14,15 184:8 226:13 239:18 249:20 249:21 257:10 259:11 addresses 22:10,11,14 115:17 167:17 204:4 210:9 212:5 246:15 273:22 addressing 95:5 96:13 104:19 105:1 118:3 219:1 251:20 258:12 adhesive 39:6 adjourn 278:3 adjourned 284:4 adjudicating 98:21 adjudication 91:11 adjustment 99:11 administered 68:9,10 68:11 69:3

administration 25:4 171:16 administrative 3:12 81:18 181:18 182:15 260:2 272:22 273:3,4 273:6,21 274:2,5,6,12 274:18 275:2 278:4 administrator 101:8 admits 177:3 admitted 177:2 adopt 126:1 adopting 161:13 advance 262:22 264:2 264:11 277:4 advanced 174:17 277:17 advantage 232:18 adversarial 210:1 236:10 advice 87:5 89:4 advise 8:22 261:20 advisory 1:4,18 4:8 8:7 53:2 166:6 167:3 170:20 171:5,11,21 185:4 272:6,10,14,18 272:20 273:1.3.8 274:3.5 advocate 6:12 178:6 affect 105:3 138:15 187:5 affidavit 198:9 200:6.13 200:22 201:7 205:3 affidavits 17:16 198:5,7 202:11 affiliation 37:10 affliction 9:14 afraid 171:7 afternoon 24:18 169:5 172:18 agency 126:21 150:10 150:11,15 224:17 254:11 273:5,9 274:7 275:3 Agency's 263:22 agenda 262:22 275:16 275:20 Agent 184:3 aggravate 180:19 184:18 aggravated 94:2 135:3 135:6 140:19 142:16 142:19 144:4 207:11 207:16 210:10 aggravation 96:8 174:7 215:14 219:20 246:16 252:9 254:5,7 255:4 255:16 ago 69:21 234:15

247:22 274:9 agree 67:15 76:8 96:5,6 117:19 147:18 151:19 153:3 155:20 156:1 186:15 189:8 193:8 219:22 223:14 259:13 259:15 260:6 agreed 182:18 260:15 agreement 87:12 241:16 260:8 ahead 62:20 101:19 108:12 109:3 110:4 111:11 181:14 aim 168:6,15 249:1 air 177:12 akin 74:19 alcohol 36:11 Alexander 171:3 alive 65:13 all-star 169:18 allergy 9:13 allow 52:16 66:20 125:9 139:13,15,20 140:1,3 143:7 275:4 allow' 139:19 **allowed** 11:16 110:10 111:4 115:9 251:7 allowing 127:17 allows 118:17 187:22 alternative 114:19 AMA 122:15,20 123:7 123:17 125:9,20,21 126:15 AMA's 123:1 ambient 183:16 amended 38:2 183:4 amendment 118:2 123:14 135:21 181:21 213:19 217:3 America 170:8 American 122:22 amount 268:8 276:17 analyses 91:19 analysis 67:1 84:1 analyze 272:17 and' 213:3 217:19 218:2 218:7 and/or 93:20 205:4 announce 24:3 announcement 112:14 annual 80:21 82:8,10 263:5 answer 46:11 70:11 72:11 85:8,13 88:22 118:18 214:4 263:21 278:8 answered 69:4 170:7 answering 84:18

285

Neal R. Gross and Co., Inc.

ANTONIO 2:15 anybody 9:14 100:4 103:12 195:5 196:2,7 203:19 anyway 9:15 13:7,11 17:14 21:16 22:8 27:10 28:21 33:22 35:17 41:2 60:19 71:5 apologize 9:12 apparent 121:10 apparently 163:21 appear 258:22 appears 19:5 135:4 142:17 198:22 199:2 234:2 apple 232:17 233:16 application 15:6 apply 22:21 90:6,6 162:6 appreciate 23:14 65:9 69:13 72:16 101:20 196:8 229:11 283:21 apprentice 57:5 approach 232:8 241:20 268:1 approached 79:18 approaching 260:11 **appropriate** 19:5 37:5 56:3 81:3 115:4 121:22 266:19 appropriately 212:11 approval 110:11 116:11 116:11 127:17 **approve** 109:10 156:7 187:13,19 250:14 255:20 approved 118:6,8 125:8 125:9 126:15 178:11 186:6,8 193:12,13 194:3 approximate 68:17 260:18 approximately 165:4 **APRIL** 1:14 arbitrarily 99:9 area 8:17 11:3 19:13 40:3 41:10 73:10 99:19 152:4 areas 37:11,22 60:7,10 68:14 86:16 101:3 102:8 151:9 280:5 argue 82:19 124:7 argument 57:4 117:6 arisen 222:15 223:6 225:11 236:16 237:7 arisen' 223:11 **Army** 157:2,4 arose 175:6

arrange 279:21 arsenal 170:5 article 64:16 artillery 157:3 asbestos 47:3 aside 100:3 222:4 asked 8:11,18 50:17 55:18 112:18 130:6 158:17 226:7,14 228:8 259:1 264:14 264:16 265:1 268:9 asking 30:9,11,18 32:20 39:16 52:16 76:16 98:9 267:11 asks 18:6 98:12 131:22 aspects 81:18 assembling 130:12 assertion 200:10,11 201:3,5 assess 246:17 assessed 211:22 245:16 248:16,17 assessment 28:17 48:16 51:6 61:16 73:6 76:4 95:2 133:13 assessments 11:7.20 39:14 41:3 assign 42:5 assigned 41:12 assignment 8:20 assigns 37:15 40:21 assistance 86:17 87:6 89:4 100:13 265:22 associate 7:2 92:22 98:3 associated 135:7 142:20 association 32:6 Association's 122:22 assume 57:7 88:11 156:5 259:5 assuming 19:4 56:11 assumptions 88:15 93:10 assurance 175:16,17 at' 119:19 Atomic 6:12 177:17 attached 20:10 33:18 34:15 42:10 97:10 attempt 98:2 260:13 attempts 70:1 attend 5:9 279:8 attendance 281:11 attendees 203:22 attending 281:14 attention 145:22 279:13 279:13 283:13 audible 9:17

audit 79:5 82:2.22 84:5 84:6,16 264:17 augment 72:9 augmented 151:14 August 10:2 11:22 authorize 171:4 authorized 194:1 automatic 118:7 automatically 54:9 118:8 available 12:14 17:18 70:20 71:5 84:5 89:20 103:14 134:19 142:10 209:13 221:16 235:9 264:2 Ave 1:19 average 65:10 avoid 56:8 282:2 award 55:20 aware 17:10 118:17 165:12 В **b** 12:2 16:7,9 17:21 21:12 36:18 39:1,1 41:4 109:9 114:1 130:14 146:5 189:15 190:2,9 191:7,8 197:13 207:12 210:6 213:20.21 216:21 217:9,11 256:17 258:14 274:1 **back** 4:4 9:10 10:6,9 25:22 29:19,21 30:14 30:15 34:13 39:10 42:18 47:18,18 56:9 59:5 62:9,15 69:21 75:8 80:3,4,10 82:7 91:14 102:16 103:4,7 107:16 109:6 112:7 120:4 139:18 140:5 159:18 162:11 181:2 192:10 196:19,19 197:3 202:4,18 207:2 208:20 222:6 230:22 231:19 232:15 243:13 243:14,19 244:14 245:10 246:8 247:16 252:17 265:14 266:1 283:15 back-log 24:13 back-stop 128:6 background 9:21 40:14 40:16 72:9 251:5 **bad** 134:2 **BAL** 192:21 194:2 **balanced** 83:22 ballpark 222:21

Banda 24:5 25:1 base 50:21 based 22:16 32:3 39:11 55:7,15 57:15 62:20 73:7 76:3 92:7 93:20 97:4 122:16 131:22 133:21 135:13 137:6 143:4 158:9 193:12 193:21 basically 13:12 15:14 21:14,16 24:2 26:8 27:11 28:13,14 29:2 34:13 36:3,5,19 37:16 37:21 42:12 48:17 57:11 79:5 105:18 120:15 134:8 146:11 151:1 211:3 282:14 basis 13:13 14:8 117:7 154:13 186:11 210:1 236:9 282:20 bathed 179:13 be' 211:12,12 249:6 bear 172:13 beds 178:1 beginning 36:14 86:15 103:10 159:9 160:18 170:3 173:20 174:9 182:13 184:20 227:10 begins 165:9,11 behalf 24:6 beholder 234:18 BEIR 185:1 belabor 78:13 beliefs 235:7 believe 32:15 49:17,18 55:6 70:22 89:18 134:3 155:14 184:1 190:10 192:9 194:11 234:1 believes 115:8 116:3,9 153:20 207:9 209:11 235:8 Bellevue/NYU 8:4 belong 91:4,6 belonged 157:1 belongs 123:19 beneficial 280:11,15 benefit 101:21 130:9 benefits 121:12 130:5 132:11 135:9 142:22 258:13 benign 185:2 benzene 178:19 179:2 beryllium 6:3 42:18,19 42:21 43:1,15 119:16 119:22 120:3,8,10,17 121:12 170:7 185:15 185:19 186:8,19,20

187:4,13 188:3,6,9,12 189:1,9,14,20 190:2,6 190:9,22 191:1,2,22 192:1,12 194:9,18 195:7,7 251:20 258:13 beryllium-using 121:10 best 48:17 51:20,20 65:3 100:22 110:1 168:5 228:2 **better** 48:13 51:14 55:15 73:21 76:15 91:21 98:8 102:15 104:22 140:17 156:18 211:6 228:13 240:16 240:22,22 241:6 255:8 276:20 beyond 45:12 242:3 278:15 Bible 65:1 big 89:9 90:12 92:17 101:7 195:4 212:16 269:5 280:2 biggest 93:4,12 100:20 101:1 **bill** 283:1 **bioassay** 39:3 45:9 46:8 60:15 **biopsy** 192:13,18 bipartisan 171:8 182:18 Bird 278:8 282:14 283:3 283:6,10,17 **bit** 10:1 26:10,12 46:15 46:22 65:2 78:21 93:16 110:17 160:20 164:11 168:12 208:22 258:21 259:10 261:14 263:11 bite 232:17 233:16 234:12 **blah** 143:11,11,11,11 153:21,22,22 154:2,2 154:2 blend 208:1 blow 177:22 blue 160:5 board 1:4,18 4:8 5:7 8:8 8:19,22 25:19 40:2 53:2 75:1 82:15 86:6 89:15 96:3 98:6 99:2 103:15,22 104:6 107:3 112:10 113:8 113:13 114:7 115:8 116:3,9 121:7,9 122:10 125:18 128:13 129:1 134:6,15,22 135:10 138:22 139:6 142:7,13 143:1

148:12,15 150:1 153:15,16,20 154:4 154:17 159:2,3,8 160:12,17 161:10 166:5 167:4 169:6,17 169:18 170:20 171:5 171:12,14 189:17 194:21 195:3,4 197:10,22 198:1,2,12 198:16 200:3,19 203:12 204:17,20 209:1,11,20 235:8,14 236:7 237:1,4 246:10 246:14,17 247:7,11 247:12,14 253:18,21 253:21 254:3,19 255:2,6 259:19 265:22 272:6 280:10 280:16 284:3 Board's 130:7 257:8 Boards 185:4 261:11 Boden 2:5 7:11,11 67:18 69:9,10 70:13 70:15 72:18 105:20 105:21 106:17.19 110:5,6 115:5,6,14,19 116:3,9,15 118:12 122:2 126:3,9 128:8,9 128:21 129:1,4,12 140:4,9 143:12,15 145:10 153:15,16 198:15,16 217:8,12 217:15,17,19 221:22 223:12 236:3,12,18 237:3,11,13,17,21 238:5,8,12 239:9,14 240:13 253:17 254:7 254:10,18,22 255:2,6 255:11,13,17 264:22 265:9 273:10 Boden's 123:13 **bodies** 178:15 body 111:21 **book** 53:16 87:8 90:19 113:22 204:1 266:22 267:6 **books** 180:16 **Boston** 7:13 **bother** 48:15 bottom 36:19 38:5 39:7 56:17 131:3 245:9 Boulder 169:22 **boundaries** 268:4,12 **box** 37:15,20 brain 202:6 258:7 branch 35:22 brand 252:19 break 5:4,8 64:1,10

102:20,22 112:1 113:5 161:9 162:8,20 brief 23:15 135:17 169.8briefed 257:5 briefing 87:8 90:19 257:18 briefly 23:13 173:2 277:19 bring 15:7 23:22 113:3 160:1 195:21 196:18 210:3 247:4 **bringing** 169:16 brings 25:1 broad 32:12 104:20 105:2 209:22 236:8 broader 120:15 broken 112:17 brought 107:20 172:13 **brown** 23:6 **building** 5:19 11:13 37:18 43:21 75:13 76:9,10 171:18 174:20,22 buildings 38:1 **built** 170:4 **bulk** 92:13.14 **bulleted** 91:17 **bullets** 15:20 77:20 **bunch** 11:19 240:21 265:1 burden 69:14 114:13 209:17 224:3,5 235:13 237:22,22 238:9 burdensome 105:16 106:16 business 169:10 buttons 43:3 С C 114:1 197:13 C1 191:17 CA- 183:5 cadmium 47:6,7,9,17 184:6,6 cadmium-109 184:7 calendars 261:22 270:16 call 11:19 18:12 27:13 27:17 66:18 101:10 117:5 123:14 149:10 170:8 261:1,2 263:16 271:17,17 called 27:11 35:15,18 174:1 181:5 258:2 calling 66:3 calls 257:19 258:1

267:18 Camp 179:11 cancer 47:1 179:9 184:19,21 cancers 92:17 capable 267:21 capture 76:15 carcinogen 184:12 carcinogenic 14:15 173:6 carcinogens 184:11 card 75:2 278:7 282:11 282:13 283:1 cardiologist 188:8 189:4 care 241:5 carefully 258:21 Carrie 2:8 7:20 23:3 carries 241:18 Carroll 185:13,14 194:6 Cartier 130:11 case 15:17,18 40:6 47:11,16 58:3,7 62:1 63:4 64:22 65:10,11 67:3 81:3 83:1,20 85:2.10 96:16 97:12 98:20 103:15 117:21 121:19 122:17 173:14 174:12 176:18 187:6 230:19 231:3 235:9 cases 20:2 26:5,14,14 55:7,10 69:15 77:14 78:8 83:6,8 91:20 93:4 181:15 182:16 189:19 195:8 cash 283:8 **Cassano** 2:9 7:6,6 46:13,14 48:1,3,6 71:6,7 72:12 93:14,15 107:8,15 110:15,16 111:9 114:12 117:7 118:4 119:11,13 122:3,14 124:17,18 127:20 129:11 131:9 132:10 134:6,7 135:18,19 136:4,7,20 137:2,4,9,16,22 138:8 138:11,20 139:2,13 139:20 140:2,7,11,13 140:18,22 141:7 142:6 143:14,16,22 144:6,12,18 145:6 146:8,10 147:8 149:3 150:9 154:7,22 155:5 156:9 197:18 198:18 199:19,20 200:1,16 204:16 205:15 206:3 206:21 207:3 208:8

	I	I	1
208:13 210:14,17	centers 68:3 179:15	167:12,20 172:17,20	119:8 120:13,20
211:1,7,13,20 212:1	Central 10:22	185:8 194:5 195:11	121:11 122:12 124:16
212:14 213:5,10,15	ceremony 5:6	195:17 196:1,12	125:4,12 126:7,13
214:19 215:8,16,19	certain 60:7 88:11	198:14,19 199:4,8,12	127:18,18 128:11
215:22 216:21 217:2	190:19 230:4 256:13	199:18,21 201:8	129:15 138:4,6,9
217:6,10,16,18,22	268:7 271:18	202:13,16,22 205:12	141:16 144:21,22
218:6,9,13 219:2,5	certainly 12:14 61:22	205:16 206:20 207:2	145:6,8,22 146:2,9
221:4 231:5 233:14	97:21 130:14 197:13	207:19 208:10,14	148:5 153:17,19
239:8,11 240:5,7	259:19	210:15,21 211:16	180:5 187:16 192:6
241:8 242:17 244:9	certainty 171:6	212:3 213:2,6,11,14	193:7 201:15 216:7
245:1,14,20 246:21	certified 14:22 24:5	213:16 214:2,8,15,18	219:15 223:10 229:21
247:6,10,16 248:7,10	CFR 14:2,11	215:2,9,17,21 216:3,9	231:10 237:5 244:13
248:16,20 249:9,12	chair 1:21 2:7 4:3,19	216:13,22 217:4,7	257:10,12
250:3,6 262:4,9	5:12 6:17,20 8:11,16	218:3,7,10 219:14	changed 108:20 113:4
275:13	33:9 35:6 42:15 44:13	221:18 223:8,13	113:20 127:9,14
catch 50:19	46:13 48:7 51:22	224:9 225:13 226:22	133:3 139:2 143:13
categories 33:3 37:3	52:14,21 56:14 58:1	227:5,8,22 228:3,6	190:7 225:6 226:18
93:8 175:8,9	58:16,20 59:3,5,12,17	229:19 231:4,8,12,22	247:16 248:1 267:5
category 28:18 31:6	64:13 65:9 67:18 68:9	232:14,22 233:3,19	changed' 145:1
37:1 43:20 92:5	68:18,20 69:5,8 70:11	233:22 234:8 235:2	changes 3:5,10 102:21
174:19,21 175:1,3,5	70:14,16 71:4 72:13	236:4,17,20 237:9,12	103:6,11,14 106:5
CATI 65:19	74:21 75:5 76:18	237:15,20 238:2,6,10	108:16 109:6,9,20
caucus 261:21	77:16 78:18 81:15	239:2,12,15 240:6	110:3 113:14,22
Caudill 195:13	82:1,4,6,10,14,18	241:11,13 242:1,10	114:2 128:17 129:5
caught 162:3	84:3 86:5,10,14 87:1	243:18,21 244:2	130:8 138:18 146:11
causal 95:6 173:21	87:4,10,19 88:7,18	245:22 246:4 247:2,8	154:3,5 157:21
174:5	89:2 91:3 92:12 93:14	247:12,17 248:12,19	161:12 163:4 186:3,6
causation 78:4 83:4	94:16 96:5 98:5,17,22	248:22 249:3,10,13	194:7 196:17 197:9
96:7,8 130:12 206:14	99:17 100:6 102:3,17	249:21 250:9,18,21	198:13 203:18 216:8
209:5,12 219:19	106:11,18,20 107:13	251:1,6,22 252:3,14	226:5 227:15 228:10
220:3 224:18 235:9	107:16 108:12 109:2	252:16 253:1,12,15	230:5,9,10 232:8
235:18 246:16 252:8	109:21 110:4,15	254:5,9,15,19 255:1,4	244:19 249:5 252:5
252:9 254:9,10,12,21	111:8,10,22 112:6	255:18,21 256:9,18	255:7,8 257:4,6,17
254:22 255:5,16	113:2 114:14 115:12	256:21 257:2 258:15	258:3 259:20
cause 133:11 140:20	115:15,20 116:5,13	258:19 259:3,8,13	changing 104:15,17
179:6,10 180:20	116:19 117:1,11,16	261:4,8 262:10,13,15	107:3,12 108:1
184:18 185:2 210:9	118:1,14,22 120:5,18	262:18 263:20 264:15	111:16,18 113:4
215:15	121:3,6 123:9,22	264:21 265:6,20	117:6 135:22 186:1
caused 94:2 132:14	124:3,9,17 125:15	266:14,17,20 268:2	226:5 229:15 236:13
135:1,4,6 142:16,19	126:8,17 127:8 128:1	268:17 269:8,17,21	236:14 244:14
144:5 178:19 179:5,9	128:7,16,19,22 129:2	270:4,8,13 271:11	charge 146:10
179:22 180:2 207:10	129:5,19 131:4,7	276:7 277:9,16	charter 8:20 130:7
207:16 253:19 254:1	132:8,20 133:7,16	278:14,17 279:3,6,11	257:8,11
caused' 142:14	134:5,12 136:2,5,18	280:6,8,20 281:2,6,8	check 19:7 21:17 47:18
CBD 88:11,12 191:8	136:21 137:3,19	281:15 282:3,6,12	183:17 256:10 281:3
192:15,19 193:21	138:5,9,13,21 139:3	283:12	check-off 183:7
194:11,20	139:10,17,22 140:19	chairs 164:19 167:17	checked 37:6 38:8,14
CE 15:14 18:6 21:18,20	141:1,5,8,19,22 142:4	269:9	38:14 52:5,6 59:22
22:12 26:9 29:19,20	143:20 144:1,7,14,17	challenge 227:10	68:15
30:7 34:3 40:7,12	144:20 145:4,7,12	challenging 72:17	checking 4:6
46:16 47:2,7,18 57:7	147:6,9,17,22 148:12	chance 226:9 231:2	chelation 178:14
62:9 79:19 183:5	149:4,17 150:21	change 103:20 104:5,7	chem 43:19,20
220:6 221:13	151:22 152:7,10	104:13 105:5,15,19	chemical 45:13 181:8
CE's 108:15,15 187:22	153:8,14 154:6,16	105:19,22 106:3,10	chemicals 43:6,18
cell 184:18	155:1 158:13 159:6	106:15 107:4 108:15	64:19 74:12 75:14
cement 40:19 47:3	159:12 161:1 162:13	108:17,18 110:10,14	170:6 184:2,3
center 7:17 10:18 17:1	162:15,18 163:10	113:12,17 114:21	chest 221:8
36:3	165:21 166:1,17,22	115:9,17 116:10,18	Chicago 180:15
11			

Chief 2:20 9:8 children 17:8 chiropractors 146:15 146:20 149:13 choosing 129:20 chronic 5:2 6:3 179:10 179:17 185:19 186:19 187:4 188:2,6,9,12 189:1,9 190:22 191:1 191:15,20 192:1,4 194:9 195:6 258:13 chuck 92:17 93:11 chunk 269:5 CIH's 15:2 circuiting 230:22 circular 54:6 64:17 89:19 90:18 91:4 99:3 circulars 56:7 89:12,16 90:8 circulate 168:11 260:6 270:19 circumstances 53:1 90:5 citation 14:10 123:18 125:20 cite 113:16 130:7 cited 45:10 80:14,15 **cites** 40:13,16 citing 80:16 **City** 6:21 177:5 178:3 279:2.5 civilian 150:9 **claim** 20:10 54:20 55:2 55:4 187:5 193:21 206:7 215:6 217:22 232:21 claimant 2:10 6:15 49:5 55:2 62:4 65:12 66:15 66:18 83:19 111:12 111:19 113:16 119:14 119:14 131:10 148:10 178:10 183:9 186:16 190:1,5,8 193:12 203:1 205:4 207:12 209:2 210:7 212:6 220:19 221:5 224:5,5 235:15 236:11 238:9 238:16 240:21 242:6 244:4,10 246:15 claimant's 103:20 198:10 claimants 21:19 39:22 65:18 66:3 69:15 101:22 104:2,3,6 105:3,18 106:5 107:4 113:9,10 114:8 115:7 115:8 116:4,10 171:6 176:9 181:11 182:8

183:22 209:17 210:2 235:13 238:1 280:22 claimants' 236:21 claimed 14:19 claims 15:11 20:4,9 24:11 29:6 30:15 53:13,22 54:13 55:19 62:5 84:19 85:3 95:2 170:18 182:6 187:1 192:17 226:16 243:8 263:4 clarification 55:14 78:6 104:16 242:11 250:20 251:17 clarify 104:1 113:9 126:3 128:16 198:9 243:16 266:5 class 155:2 classification 56:22 classified 175:19,19 176:3 clear 55:12 74:14 108:6 213:4 215:22 235:21 249:4 259:7 274:16 277:5 283:20 clearer 145:3 clearly 22:22 242:4 client 127:12 clients 192:5 clinic 8:5 77:1 clinical 146:14 close 111:11 177:15 191:21 201:17 253:10 260:1 282:9 closed 176:19 233:7 234:1 **CM** 64:22 81:2 **CMC** 12:18 19:17,20 22:14 27:1,7 55:3,5 55:10,14 77:19 78:2 79:4 81:2,4 82:22 83:9,19 85:5,6,9,14 85:21,22 91:10 176:10 193:8 220:7 CMC's 84:16 181:16 CMS 23:21 code 163:18,19 codifying 123:14 125:18 cognizant 59:7 cohorts 52:19 Coke 151:4 colitis 180:20 collected 60:4 collective 70:2 72:19 73:9 College 7:3 colon 180:21 213:13

Colorado 6:3 169:3,22 **column** 28:16 **combing** 265:4 come 9:9 10:9 31:7 33:17 51:14 57:14 80:3,4 87:12 91:18 92:20 96:2 98:15 101:10 103:4,7 108:17 169:1,12 177:9 183:1 220:8 238:16 243:6,7 260:7 260:14 comes 14:2 17:1 18:16 28:16 34:1,12,15 35:3 50:20 55:1 57:2 95:6 143:18 238:21 comfort 230:4 coming 28:19 33:13,19 49:21 174:16 195:3 207:2 228:20 comma 218:8,10,12,14 comment 3:8 52:15 74:22 75:4 93:15 94:15 99:16 110:2,17 124:2,15 126:11,13 129:14,18 155:9 161:2 163:1.11.14 164:1,7,13 168:20 185:10,11,22 195:20 195:22 196:4,10,14 198:17 201:20 222:5 227:3 231:13 241:12 251:7 256:14 279:8 commented 133:4 228:18 commenting 218:18 256:17 comments 38:10 82:19 90:14 99:2,18 102:16 104:10 105:20 114:3 116:14 118:22 120:12 121:6,13 122:1 123:12,12 125:16 126:2 127:10 129:6 132:21 133:5,14,18 134:5,13 135:18 141:11 142:3 144:2 145:8 147:19 148:12 149:7,18 150:21 153:14 154:6 158:22 168:17 194:21 195:1 195:2 196:13 198:15 201:16,18 203:3 228:13,21 229:3 233:7,9 234:1 239:19 240:4 250:15 251:2 255:18 256:6 259:11 259:21

commercial 10:20 Commission 10:5 commitment 209:14 235:10 committee 90:22 91:5 96:12 98:7,10 99:19 99:22,22 120:12 123:11 133:1,2,8 152:12 166:14 171:21 182:12 251:19 261:15 272:2,10,15,18,20 273:1,3,8,19 274:3,5 274:13 277:7 committees 132:21 147:10 261:16 common 20:20 21:13 88:19 communicate 22:21.22 105:10 164:21 167:1 277:6 communicated 57:8,9 communication 167:3 266:6 communications 166:4 166:14.18 communities 209:13 235:10 279:22.22 **community** 2:2,6,10 279:18 comp 182:16 compensable 132:6 compensate 156:15 222:22 compensated 134:16 142:8 150:15 compensation 35:14 170:15,16 183:3 **complete** 27:5 44:6 79:22 85:10 completely 26:4 80:1 230:21 250:6 complex 6:10 11:20 48:12 75:14 90:5 181:15 complexity 66:10 67:6 compliance 80:5 complicated 100:17 226:4 compliment 207:20 comply 197:19 component 81:1 compound 184:7 compounds 184:6 concept 109:5 133:9 concern 117:10 121:20 127:11 148:6 230:9 232:3 236:13 258:22 concerned 69:11

110:18 121:11 151:2 209:20 232:18 236:7 237:4 concerning 18:9 concerns 60:7 133:6 232:12 240:9,15,17 concludes 56:18 256:5 conclusion 42:9 62:3,4 62:6 220:8 concrete 96:20 concur 153:10 200:11 201:4,13 condition 19:6,12 22:20 28:19 50:15 186:17 187:19 conditioners 177:13 conditions 28:20 92:15 188:22 189:9 conduct 169:10 272:16 conducted 17:2 81:14 conference 117:4 123:14 282:16 confident 230:6 confirm 70:21 131:8 confirmed 112:20 conflict 267:13 274:15 275:9 280:19 conflicts 138:3 282:5 **conform** 201:9 confused 46:15 226:20 congratulations 71:8 Congress 170:14 171:8 186:2 187:7 194:16 Congress' 181:17 Congressional 182:12 Congressman 169:2,4 connect 4:16 103:15 connection 70:8 96:10 197:8 consequential 78:5 87:21 187:17 consequentials 88:6 consider 102:14 161:13 171:22 173:4,12 201:16 203:4 216:15 220:1 244:20 271:12 276:2 279:15 280:10 281:22 considerable 270:18 consideration 263:1 considered 41:19 81:7 107:11 118:19,21 155:22 157:13 207:18 210:11,16,18 212:22 245:10,17,21 257:7 266:19 275:18 considered' 211:9,9 considering 169:19

171:14 220:6 consistency 9:5 20:5 **consistent** 20:7,16 181:19 192:14 193:5 193:20 194:9,11 199:6 202:15 232:11 252:7 254:13 268:1 consisting 147:1 consists 192:19 constant 20:14 constantly 19:14 221:12 consternation 89:13 constitute 150:18 151:14 Constitution 1:19 construction 151:8 consultant 7:19 178:17 consultants 95:3 consulted 50:7 consulting 9:2 11:3 147:14 contact 98:16 195:13 contain 16:1 81:1 207:8 contained 27:17 272:11 containing 206:10 207:4 212:7 contains 18:15 135:11 143:2 CONTENTS 3:1 continually 221:7 continue 58:12 59:7 77:17 112:12 180:4 235:3 271:2 281:12 continued 10:18 132:17 contract 12:18 21:22 23:9 24:4,17 71:9 80:6,18 81:13,16,20 99:6 150:12 156:11 156:13.17 contracted 71:10 192:16 contractor 13:20 15:1 24:9 29:18 64:6 71:20 80:10 99:7 150:8 204:10 contractors 31:3 36:16 71:16 contracts 157:9 contradictory 198:2 contradicts 198:3 contribute 133:10 180:20 184:18 contributed 134:17 135:3,6 140:20 142:9 142:16,19 144:5,10 144:11,13 207:10,16 210:10

contributing 174:8 215:15 contribution 96:8 219:20 246:16 252:9 254:6,8 255:5,16 control 108:11 222:1 controlled 41:20 convene 273:7 convened 169:6 172:11 272:15 273:2 274:4 conversation 64:6 conversations 90:3 convince 131:18 134:8 134:9 136:16 138:7 140:7,10,11 143:6 convince' 134:2,11 135:22 136:15,15 139:1,7,14 140:6 **Convinced** 139:11 convinced' 137:20 138:7 COPD 31:22 32:3 46:18 48:15 56:11 173:22 COPD's 92:16 **copied** 167:2 copies 23:5 27:8 copy 22:10 81:16 82:1 164:22 277:7 283:7 **cor** 189:5 core 12:13 210:9 **Corp** 157:2,5 correct 80:11 87:18 106:17 128:4 129:4 139:6 141:8 147:2 165:21 213:1 224:14 **cost** 188:14.15 Council 6:13 **country** 170:12,13 couple 13:9 24:20 29:1 42:16 64:15 72:14 79:10 98:1 99:1 104:11 112:11 162:11 203:5 260:3 course 120:21 154:19 160:14 264:9 court 124:7 cousins 201:18 cover 10:10 273:17 coverage 150:19 154:21 160:16 213:1 225:16 covered 13:19,19 77:21 78:8,12 119:15 123:5 131:11,18,20 132:14 132:15,15,16,18 133:10,13,15 134:16 134:19 135:5 136:11 136:14 142:8,11,18

143:10 152:15 156:20 157:4,10,13,17,19 179:21 187:21 189:14 189:20 190:2,6,9 197:13 200:2,5,10,11 200:18,21 201:4,5 206:1,11 212:8,16,19 212:20 214:6 215:1 218:19,22 219:1,7,8 219:10,11,16 220:4 221:10 225:5,7,14 239:22 240:1,2 244:5 273:18 covering 108:5 covers 157:11 277:17 coworkers 17:16 205:4 crawl 43:21 create 217:5.6 created 17:21 creating 105:2 262:21 credentials 181:3 credit 278:7 282:11,13 283:1 creosote 177:7 criteria 104:15 132:11 186:5.15.20 187:7 190:20 191:16 244:8 criticism 58:6 cross 100:19 crossed 177:13 222:7 **CT** 194:2,6 221:7 cubicle 178:4 cued 195:19 current 20:22 61:3 107:18 109:18 110:2 115:12,18 125:7,8 201:11,12,14 238:15 currently 14:21 19:21 24:13 39:15 55:19 69:20 cursor 137:15,16 curve 25:12 cuts 124:11 D **D** 2:11 39:11,14 146:5 190:18 197:14 239:6 D.C 1:20 11:3 daily 37:16 42:4

Neal R. Gross and Co., Inc. Washington DC damage 184:19

61:15

dangerous 153:12

DAR 15:22 34:10 60:5

data 15:3,6 34:22 35:3

60:3,21 61:20 65:2

69:12 91:12 158:7

41:5 45:10,12,17 46:8

46:9 48:18 53:3,4,5,6

195:6 264:6 266:9 269:14 270:2,2,6 database 72:10 263:3 date 24:20 53:12 78:5 111:15 165:3 167:8 168:10 260:7,8,15 dated 191:13 dates 27:3,22 165:10 165:12 168:7,11 260:6 268:21 270:15 271:3 daunting 86:2 110:11 day 4:7,20 25:15 43:19 162:19 183:17 261:1 262:6 269:6 271:18 days 59:2 118:18,20 173:1 265:18 271:5,6 271:7 274:9 280:17 280:17 283:1,2,4 deadlines 229:14 deal 25:9 48:18 164:6 169:13 dealing 53:8 93:17 95:21 deals 103:19 dealt 152:21 death 215:12 decades 170:9 deceased 123:5 decent 243:6,7 decide 126:21 127:22 165:2 268:20 276:12 277:20 decided 53:2 166:7 193:7 decision 62:20 80:20 91:15 94:20 127:4 132:2 134:1 135:15 143:5 166:8 214:12 243:10 decisions 91:13 174:13 declaration 200:6,22 deconflict 262:7 deem 82:15 206:15 209:21 220:15 236:8 deemed 204:12 205:8 223:4 DEEOIC 2:21 125:21 deep 271:1 default 246:5,5 defense 11:8 defer 121:1 deficiencies 22:5 **deficits** 194:8,15 define 155:2 157:16 268:3 269:14,14 270:6 defined 120:3 146:16

206:12 207:6,14 212:15,17 214:5 215:5 272:13 defined' 214:22 defines 146:1 214:6 218:21 defining 148:7 definitely 189:2 definition 3:7 120:16 147:12 148:2,16 150:7 184:14 234:17 243:15 245:4 definitions 145:21 150:6 242:22 definitively 219:11 degree 183:15 delay 4:9 227:20 235:1 260:10 268:10 delays 117:17 delete 220:13 249:14 deleting 153:6 201:21 218:20 223:15 deliberate 267:5 276:1 deliberation 272:19 276:4deliberations 267:22 deliver 159:14 **delivering** 151:4,10 152:4 delivers 155:6 delivery 150:16 151:7 151:12 152:13 153:2 154:1,9,14,19 155:4 158:11,21 159:9,20 160:9.14.18 demand 57:18 **Dement** 2:3 7:15,15 33:9,10,15 48:7,8 69:5,6 74:22 75:4,7 96:13,14 97:6,16,19 230:7,8 231:7,9,13 demo 14:16 demographic 27:19 demonstrate 81:3 152:22 demonstrated 147:3 demonstrates 14:17 173:9 demonstration 64:5 denial 85:9 denials 49:12 83:7,15 denied 55:7 83:2 178:15 179:2 180:13 182:6 dentists 146:13 **Denver** 6:2 169:21,22 279:2,4 deny 85:4

department 1:1,19 7:12 8:17 9:3 25:4,5 39:12 70:20 71:6 86:16 95:11 99:11 178:7 180:12 234:10 265:7 278:21 departmental 156:20 157:12 depending 66:10 91:11 111:21 265:13 depends 55:5 67:10 234:17 **Dept** 3:4 **Deputy 23:12** describe 18:3 38:9 78:21 189:4 191:3 describes 193:17 209:3 235:17 describing 188:9 descriptions 26:17,17 deserve 155:2 deserved 170:17 designated 2:14 8:7 142:6 197:18 designed 95:9 desire 149:7 267:13 274:8.21 275:9 283:20 detail 51:17 57:19 64:9 74:10 224:22 detailed 51:9 122:18 details 77:4 determination 123:5 224:18 233:10 determinations 100:22 122:16.20 determine 95:12 134:10 136:11,17 138:1 139:14,21 140:3 143:8 154:10 155:7 186:16 192:17 268:12 275:21 determine' 139:4,8,15 139:18 determined 138:10 139:12 193:19 219:7 239:8 determined' 137:21 138:10 determines 109:10 204:18 determining 14:8 150:19 207:15 275:16 detrimental 124:5 develop 204:5 231:2 developed 27:4 39:9 49:14 75:18 189:20 190:5,21 191:1

230:20 development 176:13 diagnosed 6:3 179:1 186:18,19 190:11 191:5,15,19 192:3 194:20 219:16 244:5 diagnoses 88:20 diagnosing 31:22 diagnosis 32:3 77:6 78:4,5 95:13 174:10 190:1,8 192:11 197:12 206:1,10 207:5 212:8,12 213:22 214:11,11,14 219:9,18 220:1 225:9 230:14 244:8,15 diagnostic 186:15 187:7 dial 163:15 dialed 195:15 die 4:22 5:1 diem 282:20 diesel 40:19 96:20 difference 195:4 different 20:4 21:8 27:14 33:1 37:3 38:1 59:20 71:12 75:22 102:8 108:4 114:15 114:15 122:19 126:4 155:13 168:3 213:4 222:17 223:3 261:11 277:22 278:19,19 difficult 85:20 171:15 171:22 181:15 182:16 182:17,19 186:7,22 diplomatic 114:18 direct 21:19 137:14 167:2 directed 166:5 directly 222:9 director 2:21 5:19 7:22 12:10,11,12,15 23:12 disability 134:4 disagree 201:4,13 241:2 disagreed 220:12 disagrees 200:9,9,11 201:3,13 discover 50:22 discuss 8:17 13:3 16:13 58:5 96:7 103:6 103:10 164:3,14 168:9 199:3 257:13 270:14 271:20 273:2 274:4 277:18 278:12 discussed 13:2 56:2 89:10 196:21 230:9 240:3 257:18,19

	1	I	
258:1 259:15	34:13 36:14 60:9	193:9,16 198:15,20	easily 94:22 95:17
discusses 16:16 39:5	71:21 90:5 99:14	199:18 201:18 213:11	127:10,14
discussing 58:3 103:3	119:19 120:2 150:7	213:16 215:9 220:8	East 7:4 37:22
113:4 159:20 239:21	150:12,14,17 151:13	221:18 224:9,10,11	Ed 169:2,7 171:3
discussion 40:18 98:8	154:20 155:11 156:22	225:18 228:11 230:7	edit 109:6 226:2
98:10 114:3 117:2	156:22 157:13 160:15	233:3 234:13 247:19	editing 109:13 141:16
118:14 122:4 129:13	177:3,10 200:8 201:2	250:15 251:15 262:19	149:11
129:16 145:9 146:7	204:9,9,10 205:7,10	266:3 268:22 269:10	edition 122:21 123:11
168:12 196:17 198:15	206:17 209:13 212:10	269:11 271:7 276:7	123:15,18 124:5,10
198:20 202:9 205:12	235:10 279:7,17,18	277:10 279:19	124:19 125:2,6,8,10
205:13 212:16 221:21	279:22	draconian 124:20	125:18,21 128:14
255:19 261:9 262:22	doing 11:7 19:2,3 37:17	draft 3:6 103:21 105:17	editions 123:17 125:20
discussions 101:2,14	39:13 50:5 54:19	113:3 121:8 125:17	Editorial 255:15
disease 6:4 94:1,2,11	73:14 74:16 75:13	127:9 134:14 148:13	educated 226:13
96:10 130:13 173:10	76:4 92:8 97:5,12,14	149:5 154:17 204:14	EEOIC 135:4 142:17
173:19 174:4 179:5,6	192:9 209:10 220:18	204:16 209:8 253:3	EEOICP 154:21 160:16
179:10 183:6 185:15	224:4 227:15 228:4	269:15 272:19	EEOICPA 34:10 187:8
185:19 186:19 187:4	241:3 262:21 263:8	drafted 10:13,17	effect 106:3 129:11
187:12,13 188:3,6,9	DOL 9:22 11:4,22 57:22	drafts 102:13	214:7
188:13 189:1,10	108:16 118:17 125:8	draw 56:16 70:3	effective 24:3 69:17
190:2,9,10,22 191:2	125:9 141:10 149:16	drawn 196:21	271:5
192:1 194:9 195:7	161:12 164:10 165:3	drew 197:16	effects 76:6
251:21 258:13	204:17 209:1 212:10	drill 96:19	effort 20:22 32:8 35:21
diseases 92:18 93:6,7	235:14 246:11 257:5	drinking 179:12	171:8 242:19
179:15 185:2 188:14	257:6 281:11 283:18	drive 75:20	efforts 171:16
253:19 254:1	DOL's 257:14 259:21	driver 75:11 76:2	Eight 35:12
dismissing 243:2	Domina 2:11 6:11,11 42:15,16 44:16 51:18	158:12 drivers 158:6	Eight-zero-five 131:5 eighth 125:1
disorder 191:15,20 192:4	98:22 99:1 100:8	drop 118:10	eightin 125.1 either 17:2 35:22 36:4
disregarded 211:3	155:9	dropped 247:13	41:9,13 46:8 47:20
district 19:22 79:6	Donna 172:21	due 41:7 131:11,20	68:14 69:18 92:3
169:2 178:16	dose 53:3	132:4 134:19 136:13	109:5 182:14 190:20
Ditto 121:4	dosimeter 158:8	142:10 143:10 175:7	191:14 200:9,9 201:3
divided 94:22	dosimetry 16:8 41:5	Duke 7:17	206:17 210:19 252:4
Division 7:16	double- 256:9	dump 34:12	265:9 281:21 282:1
DMC 174:9 178:17	double-check 71:3	duration 14:14 173:6	electrician 34:2 40:22
doctor 49:7,9,15,20,22	Doug 23:8 71:14	Duronda 2:11 5:7 6:5	42:18 43:16 48:14
50:6 51:3,5,6 55:12	Douglas 23:11	dust 32:6 47:3 119:16	74:1,2 96:19 97:12
55:16 56:3,9 58:1	downstairs 5:6	dusts 39:6	98:13
83:16 105:10 108:3,4	Dr 5:16 33:9 44:13	duties 119:17	electricians 42:20
108:7 111:14 180:15	46:13 48:7 52:14		electronic 283:7
180:17 181:5,6,7,9	56:14 58:6 59:17	E	elements 80:5 198:8
183:11 187:3,11	65:11 67:18 69:5,8	E 12:3,4 16:6 41:3,7	elevator 43:2
191:5 194:10 230:14	71:6 72:15 74:22	123:5 131:19 132:7	elicit 39:21
doctor's 105:10 108:4	76:18,21 82:20 84:3	132:12,14,15 136:12	eligibility 132:11
doctors 49:16 50:16	92:12 93:14 94:16,16	181:22 184:9 212:22	eligible 121:13
108:2,10,19 111:16	96:13 102:3,5 105:20	256:16 259:2	eliminate 109:9 120:22
111:18 117:5 148:3	106:20 109:3 110:4	e.g 142:9	eliminated 113:14
148:11	110:15 114:16 115:5	earlier 19:15 44:5 49:16	159:10 160:19
document 33:19 34:12	117:2,7,7 119:11	56:2 78:9 89:10 90:16	eliminates 143:9
36:1 40:9 115:1	121:3,4 122:2,2	93:3	eliminating 24:14
235:11 238:22 258:17	123:12 124:3,17	earliest 191:13 260:9	152:21 email 4:15 8:11,12 28:9
documentation 189:19 documented 209:15	125:15 128:8 129:11 129:12 133:7,16	early 11:2 12:10 19:9 134:20 142:11 180:6	29:14 30:7 33:20,22
documented 209.15	134:6 135:18 144:2	earn 132:17	112:22 167:2,4,10,15
64:7	146:8 147:10,22	earned 170:17	167:17 266:13 267:11
DOE 5:20 11:4,6,20	149:7 152:10 153:8	easier 167:6 261:2	275:4 277:4,11
13:19,19 15:22 17:17	153:15 166:2 192:16	easiest 231:19	282:17 283:6
11			

Neal R. Gross and Co., Inc. Washington DC 292

emails 29:1.21 267:16 267:17 276:19 emergency 10:17 emphasize 100:14 employed 40:21 employee 3:7 6:12 15:2 15:5 16:13 17:15 18:1 22:20 27:20 36:6 119:15,15 123:6 131:19 150:8,10 156:14 157:7,10 189:20 190:5,21 191:14 200:7 201:1 205:9 206:7,15 219:16 220:15 222:14 223:5 232:20 237:5 237:18 244:5,22 employee's 132:15,16 136:12 183:3 206:11 207:5,10 212:8 214:4 215:5 employees 15:1 35:13 156:20 157:12 170:14 207:15 employees' 214:16 employer 52:11 57:10 emploving 150:11 employment 13:20 16:5 16:14 26:16,17 27:21 27:22 28:15 33:4 34:7 34:21 36:14,17 37:4 37:17 40:17 119:18 120:1 132:18 177:18 197:6,11,21 198:10 200:2,6,10,12,18,22 201:4,5 225:12 employment-related 14:4 employs 22:15 enable 106:13 encompassed 225:16 encompasses 13:16 encountered 76:12 88:19 encourage 56:1 167:21 ended 10:6 endorse 115:5 ends 52:9 energy 23:12,16 25:5,6 35:13 39:13 43:8 71:6 99:12 170:14 278:21 energyadvisorboard... 113:1 energyadvisoryboar... 8:13 engage 273:20 274:13 engine 40:20 **Engineer** 157:5

Engineers 157:2 engines 96:20 **English** 144:4 149:10 enlighten 61:9 ensure 9:4 19:10 20:5 254:12 entails 152:14 enter 163:18 entered 150:12 entire 215:1 entirety 245:13 entity 200:9 201:3 204:12 205:7 environment 11:9 127:19 environmental 7:3,10 7:12,16 8:1,5 41:8,8 177:14,16 183:14 epidemiologist 7:1 8:4 12:8 equipment 38:6 44:1 equitable 99:11 era 107:18 especially 16:10,20 33:1 51:7 60:16 167:7 177:15 essence 26:3 27:12.16 40:10 79:12 82:11 essential 78:10 essentially 11:1 14:12 30:7 31:18 37:17 40:18 41:12.14 68:7 79:16 80:5 81:13 106:12 123:10 128:20 129:14 137:21 204:10 219:19 242:15 260:17 establish 13:12 178:8 179:19 190:21 191:22 191:22 205:9 219:8 219:15 220:4 221:9 232:21 244:4 established 83:1,8 186:8,16,21 191:2 establishing 14:3 25:19 204:7 206:1 244:7,10 estimate 42:1 63:2 etcetera 134:1,1 148:18 148:21 165:6 206:18 206:18 219:20 220:8 evaluate 15:2 20:15 47:7,9 50:1 155:6 186:13 200:12 201:6 242:14 evaluated 124:12 154:10 210:22 211:5 211:14,14,20 219:10 evaluated' 211:10 evaluating 92:10

evaluation 29:11 123:1 evaluations 102:8 evasive 184:21 event 35:2 74:17 eventually 124:14 219:6 everybody 42:20 96:1 101:22 152:22 169:5 everybody's 167:9,14 evidence 13:17,18,19 14:14,17 18:1 22:16 48:4 94:13 104:4 105:8 106:4 113:11 114:9,21 122:17 123:6 130:12 131:10 131:16,22 133:5,21 135:13 136:9 137:6 137:12 143:4 151:16 158:10 173:6,9 179:19 180:10,13 182:21 186:13 189:15 191:13 198:11 200:2 200:5,17,21 204:6 206:10,14 207:4,7 209:3,20,21 212:7,11 214:13 220:14 222:20 232:20 235:16 236:8 exactly 5:10 67:3 117:3 117:20 127:2 136:22 147:18 180:11 191:9 229:4 233:13 242:12 examine 254:11 257:12 examiner 15:12 29:6 30:16 53:13,22 54:13 55:20 62:5 84:19 148:9 243:8 **examiner's** 187:5 examiners 20:4,10 24:11 85:3 174:13 187:1 192:17 example 20:21 26:9 45:10 59:14 74:7 96:19 134:18 148:20 157:1 188:2 266:8 examples 23:6 64:3 **exceed** 262:14 exceeding 41:17 excellent 75:8 123:9 164:10 exceptionally 23:18 **excited** 24:3,22 excites 25:11 exciting 71:18 exclude 111:1 **excluded** 272:10 274:18,20 **excludes** 147:13 excluding 156:2 158:9

executed 24:4.18 exercise 39:18 194:8 exhaust 40:20 exigent 117:21 exist 147:3 192:19 232:21 existing 72:10 exists 201:11 expand 18:7 expanded 147:13 expected 10:16 expedited 117:14 expediter 175:12 expediters 175:11 expense 177:18 expenses 282:18 experience 23:20 24:1 25:2 52:17 55:16 71:17,19 92:7 93:17 97:7,8 136:12 169:16 230:3 240:14 261:10 experienced 131:19 experiences 172:2 expert 22:8 expertise 25:10 51:11 55:13 91:6 169:17 172:2 173:8 209:12 235:8 experts 51:16 146:6 explain 32:14 156:3 282:13 explained 132:1 133:22 135:14 143:5 explains 89:18,19 explanatory 89:8 explicit 102:14 Explore 168:7 explosives 38:16 exposed 16:18 32:13 38:15 42:21 43:11 44:20,21 45:1,2 49:8 50:12 64:19 93:22 119:15 121:12 153:21 154:18 160:13 175:4 175:22 179:2,22 180:4 205:10 exposing 180:7 exposure 13:18 14:4,5 14:7,14 15:13,16,16 15:16,22 29:11 30:20 32:15,17 38:11 39:3 41:14,19,19 42:2,3 45:6 46:8 49:6 52:19 53:6,18 61:16 62:19 68:16 70:10 75:11 76:3,5 77:3 93:19 94:3,6,6,9,13,13 95:1 95:13,13 96:10,17

130:13 151:16 152:14 153:1 154:11 174:17 174:18 176:8 178:8 182:22 183:12 184:9 195:9 197:11,12 203:16 204:7,11 206:16 207:11,17 215:13 220:12,16,21 222:16,17 223:6,20 237:7 238:3,15,17 249:20 250:2 exposures 7:9 18:10 28:16 32:6 40:13 50:13 51:9 52:7 56:11 56:18 59:20 60:1,8,10 61:3,5 70:3 71:12 73:6 75:15 98:19 159:15 177:19 179:14 179:16,17 express 193:20 232:2 242:5 expressing 121:19 235:20 249:5 extensive 37:1 extent 58:4.8 146:21 extra 102:22 237:21,22 extremely 59:6 73:1,7 74:3 77:10 283:19 eves 234:18 F faced 48:11 170:12 facilities 11:6 25:7 37:21 44:8 51:2,16 121:1 177:4 182:9 facility 11:15,18 15:21 17:11 25:10 28:18 36:15 51:12 62:19 67:7 119:20,21 120:2 120:3,9,9 150:17 151:13 154:20 160:15 182:7 184:5 205:10 205:11 206:18 fact 31:9,10 59:22 60:6 68:4 91:16 97:4 118:5 131:18 134:3,10 136:11,16,17 138:1 139:13,15,20 140:3,8 140:10,11 143:8 168:1 178:14 185:21 212:17 243:5 248:3 256:10 257:18 273:18 277:21 factors 85:16 133:12 facts 18:12 53:11 54:2 272:17 factual 104:4 105:8 113:11 114:9,20

151:16 204:6 fail 94:9 failed 27:7 failing 94:4,4 fair 182:2 fairly 19:8 63:10,11 105:12 fall 95:17 168:14,16,16 224:4 270:14,19 271:1 277:18 falls 57:20 130:8,14 familiar 266:5 families 182:3 family 148:20 fantastic 77:12 fantasy 48:10 far 15:15 40:13,14 45:21 57:20 60:14,19 63:18 72:5,18 79:13 80:17 92:19 176:9 220:9 266:7 farms 38:1 faster 264:12 fatalities 5:1 father 17:11 favor 83:19 107:1 119:3 119:7 122:6,10 129:17 130:2 145:13 145:17 149:20 150:2 161:3,7 203:9,13 205:18,21 251:10,14 256:1,4 favorable 127:12,19 favored 270:21 Faye 2:13 6:14 100:7 231:15 February 79:3 federal 2:14 8:7 15:1 123:20 125:11 150:10 157:6,10 165:5 183:3 184:11 271:22 272:1 273:5 274:7 276:16 276:22 Feds 14:22 fee 282:20 feed 91:14 feel 172:7 225:22 228:13 229:20 230:6 feeling 232:3 feelings 279:16 felt 117:21 female 178:22 fence 155:11,13 157:6 fibers 39:6 field 15:8,12 fifteen 52:22 256:3 **fifth** 122:21 123:10,15 124:6,10,13 125:6,18

128:3.9.14 fight 177:1 figure 51:7 91:7 108:9 110:22 126:12 269:18 270:11 275:20 figured 97:13 file 15:17,19 22:17 26:22 98:20 122:17 176:10 230:19 filed 182:5 fill 68:1,3 270:10 282:15 **filled** 68:6,16 filling 68:2 filters 177:12 final 62:2 63:6 149:16 181:21 226:12 233:15 252:5 finalize 226:8 Finally 161:22 financial 81:18 find 5:14 16:6 22:5 26:20,22 27:2 34:14 34:22 82:22 83:18,18 83:19 84:14 97:2 103:16 108:8 178:7 221:2 232:9 finder 131:18 134:3.10 136:11,16,17 138:1 139:14,15,20 140:3 140:12 143:8 finder' 140:8.10 finding 81:8 93:4 findings 22:16 91:11 finds 104:2 113:10 114:7 198:1 fine 53:18 126:20 127:1 127:6 139:16 194:7 202:2 208:15 220:22 249:6 250:13 finish 234:16 238:7 firm 11:3 first 11:11 12:19 14:2 26:2,7 27:10 28:22 33:21 34:1,11 35:17 39:11 40:5,12 69:10 71:8,8 94:5 104:12 115:21 116:16 137:9 138:2 149:3,4 156:4 157:11 158:2.15 169:1 183:8 187:8 201:10 202:10,20 204:9 208:10,18 213:7 219:12 221:22 222:19 253:18 263:7 270:22 272:13,20 **Fischer** 153:8 fits 56:4 271:21 five 23:22 32:1 37:16,16

65:4 73:21 163:22 195:14 278:2 279:14 283:1,2,4 fix 149:16 232:10,19 246:3 fixed 128:2,5 fixing 43:22 177:11 flat 282:20 Flats 6:2,6 11:11 16:11 26:14 170:1,3 flexibility 123:16 125:19 127:6 flip 38:20 float 269:10 270:15 271:2 floor 177:5,6 277:21 282:13 flow 99:13 flow- 27:5 focus 33:7 158:20 focuses 214:13 focusing 257:1 folder 23:6 folks 8:9 21:21 76:7 167:18 240:14 follow 58:2 72:17 91:1 115:22 154:15 158:6 159:6 175:12 217:20 275:13 followed 175:17 following 28:14 113:15 151:15 160:11 163:15 164:12 200:3,19 202:6 204:21 272:9 follows 116:18 190:22 food 282:19 footnotes 193:18 for' 142:14 force 118:10 132:5 forever 124:6 forget 275:17 forgive 161:21 forgot 89:4 form 22:9 39:19 84:17 96:21 98:7,10 183:5 210:1 216:20 236:9 283:4 format 20:19,20 27:14 27:16 format-wise 20:18 former 5:21 6:6,7,9,14 7:7,9 17:17,17 36:20 69:20,22 70:8,17 204:9 205:7 forms 282:15 formulaic 20:1 formulates 15:14 forth 59:6 189:15

191:16 fortunate 11:5 169:19 forward 142:2 171:15 227·11 found 34:14 43:3 62:12 76:2 79:11,12 88:22 150:11 174:5 four 28:2 29:3 33:6 34:7 56:18 57:2 66:9,12 67:8,12,20 94:19 125:2 168:20 180:16 205:1,1,4 222:6,8 261:16 262:5,11 263:13,16 268:17 269:3,5 four-hour 269:3 fourth 8:17 137:8 frame 15:19 53:17 74:3 99:4 260:19 276:17 frames 15:18 frankly 48:9,12 229:21 free 257:9,17 frequency 14:13 37:15 42:3 76:3 173:6 183:16 frequent 41:16 56:19 253:18,22 254:20 269:5 frequently 73:5 98:16 105:12 Friedman- 44:13 106:20 215:9 221:18 Friedman-Jimenez 2:4 8:2,3 44:15 45:14 46:4 76:18,20 82:20 82:21 100:9 106:22 111:6 114:16,17 115:2 116:21 215:11 216:6,10 268:22 269:1 270:1 friendly 118:2 213:19 217:3 friends 249:2 from' 236:15 front 9:12 29:22 120:6 204:1 235:4 278:4 frustration 227:9 full 195:8 fully 106:1 132:1 133:22 135:14 143:5 187:18 259:7 fume 40:20 fumes 32:6 function 156:22 194:7 funded 5:20 funny 193:16 furnace 177:10 further 98:8,9 99:18

201:20 251:2 future 87:16 91:14 123:16,20 125:10,20 164:16 FYI 90:17 G gap 165:9 168:1 Garry 2:12 6:8 64:14 100:2,8 241:16 gather 272:16 gears 173:16 Gee 47:6,15 general 32:1 58:8 111:13 225:19,20 240:3 263:3 generalization 91:10 generally 17:9,19 69:11 80:2 115:9 generate 76:4 generator 177:20 George 2:4 8:2 100:3,9 252:4 Georgetown 6:18 getting 17:6 24:19 72:4 140:2 **Gibson** 4:4,4 give 4:15 8:12 23:15 32:22 49:15 64:2.5.8 102:7 178:7 181:14 181:15 219:9,11 246:19 260:17 265:18 282:10 283:3 given 110:1 167:22 168:1 229:20 260:10 gives 27:16 74:13 giving 37:10 glad 172:10,12 glass 177:22 glean 42:6 **go** 11:10,16 13:5,10 18:13 21:20 29:21,21 32:17 38:1 44:6 46:21 47:6 50:6,8 55:2,4,10 56:9 58:10 62:20 78:17,19 85:13 86:12 86:18 90:21 91:13 93:9 101:5 103:5 105:14 107:16 108:12 108:17 109:3,6 110:4 110:7 111:11 116:6 120:4 125:10 140:5 140:13 141:9,10 145:19 164:12 165:7 173:2 174:4,18,22 175:2,7 177:16 181:13 185:19 189:8

118:14 161:2 174:4

191:6 192:10 193:1 196:19 207:1 208:20 224:22 230:13 231:19 234:12 241:19 242:18 243:18 245:10 246:8 248:5,15 249:7,11 263:17 271:15 281:19 goal 31:19 95:11 198:6 202:10 goals 95:8 goes 14:12 20:9 36:10 43:9 60:19 62:8,9 64:8 93:2 137:16 183:11 going 5:7 8:16 13:3,6 23:15 25:13,21 32:22 33:5 39:17 48:15 50:6 54:21 59:1 65:9 71:11 71:22 85:4 86:8 89:5 89:5 93:11 96:2 99:8 99:9,10 101:6 102:19 102:20,22 103:4,5 106:13 111:22 112:6 119:1 122:11 125:2 130:10 145:13 156:15 158:7.8 161:8 162:11 163:3.22 164:3.5.8 165:1 179:6,9 181:6,7 181:10 189:12 193:13 195:1 196:19 197:2,3 199:3 209:6,10 216:7 217:13 219:6 226:12 227:11,16 228:7 229:22 232:9,18 236:22 244:20 246:3 247:4 251:9 256:9 260:8 261:6,12 263:14,19 264:6 265:8,11,15 267:20 269:8 271:2,17,17 275:20,21 277:20 280:22 281:22,22 282:1,1 **gold** 46:9 good 23:10 25:15,18,21 64:22 65:8 70:6 100:9 102:1 106:9 112:8 145:20 152:1 159:11 163:5 169:4 172:18 172:19 189:7 199:8 199:12,16 232:7,13 242:19 goods 150:16 151:7,8 151:12 154:1,9,14,20 158:22 159:14,20 160:14,18 goods' 159:10 160:10 gotten 216:16

government 150:10 170:21 grabbed 63:11 graduate 10:4 grammar 161:20 grant 181:4 granulomas 192:13 great 5:11,12 25:9 51:2 77:8 100:6 169:5 181:3 209:16 224:1 226:17 235:12 281:15 281:16 282:6 greatly 25:11 Greg 112:7 Griffon 2:3 7:18,18 100:8 120:14 123:22 124:1 131:1,2,5 132:21,22 147:17,18 150:22 151:1 152:2,8 152:16,18 162:10,14 162:17 172:18 218:15 219:3 261:12 262:8 262:12,14,17 278:9 278:10,16 280:7,9,14 280:21 281:3,7 group 10:6,7,22 11:9 12:13 21:15 24:5 79:11 91:21 95:5,18 95:19,20 107:20 118:5 121:1 124:1,16 130:1 205:21 230:8 263:2 groups 281:19 **GSA** 177:8 guarantee 99:15 guess 29:3 30:3,13 33:10 55:17 78:13 104:9 129:7 166:16 199:2 200:16 208:5 218:13 230:8 243:11 259:9 guidance 25:19 88:16 101:4,21 122:15 146:5 257:6,15 266:16 guide 128:3 guidelines 198:8 202:12,19 203:2 204:18 guides 122:22 123:8,11 123:17,19 125:9,20 125:21 126:1,15 guides' 122:21 guides)' 123:2 guy 42:17 43:4 quys 35:10 43:21 53:7 61:9 156:18

н H 2:12 half 12:17 66:2 124:12 168:6 263:17 270:22 Hall 5:11.12 hand 18:13 20:21 23:3 23:5 122:7 145:14 149:21 161:4 172:21 173:1 203:10 211:3 243:2 251:11 268:7 handed 26:2 handle 252:17 handled 239:3 handout 54:20 86:7,21 87:3 hands 261:22 Hanford 6:12,15 43:13 50:9 51:1,8 99:16 157:3,6 280:3 hang 163:15 240:6 happen 33:20 187:14 happened 63:5 80:1 happening 61:5 189:13 277:2 happens 220:22 233:6 234:2 243:2 happy 171:20 195:9 hard 45:18 85:19 108:2 147:4 284:3 hate 260:21 Hawaii 278:21 hazard 159:15 hazardous 151:16 152:5,14 153:1,13,21 154:11,12,18 155:8 160:13 He'll 175:12 head 7:9 168:2 headed 10:21 header 218:18 heads 261:13 health 1:5 2:19,20 4:9 6:19 7:3,4,8,10,13,14 7:19 9:7,8 10:15 11:9 12:2 15:3 16:22 21:11 22:1 36:11 56:21 76:6 102:12 135:6 142:19 healthcare 105:13 170:16 205:5 hear 4:5 112:7 120:21 142:5 240:13 271:11 273:13 heard 59:2 68:20 151:4 hearing 211:2 heavy 16:18 180:17 183:15 held 57:21 help 68:1 69:17 72:9

75:3 77:15 95:11 101:20,22,22 155:2 166:17 192:16 194:22 261:6 271:22 helpful 30:19 40:3 73:1 73:7,12 74:3 77:10 93:1 102:10 202:12 224:2 231:18 269:12 271:9 277:12 helps 29:12 54:17 242:3 hesitate 218:15 high 38:16 41:13 43:5 84:2 higher 249:1 highlighted 240:2 Hilda 171:19 hire 12:11 77:13 historical 15:3 history 22:20 33:12 35:15,19 36:11,12 66:8 73:19,20 96:21 183:9,11,21 198:10 205:3,5 hold 134:13 203:15 248:22 holes 100:17 home 17:14 165:7 homework 226:9 homogenous-minded 205:21 hoods 43:22 hope 69:16 162:5 hopefully 22:21 25:12 26:3 51:7 76:15 168:16 193:11 hopes 185:20 hoping 27:5 72:7 horizontal 75:2 hour 261:1 262:11 hours 66:7,9,12,16 67:9 67:13,20 183:17 263:13,16 268:16,17 269:3,5,18 how/why 207:8 HPT's 158:5 huge 76:10,17 Human 6:18 hundred 52:20,21,22 hundreds 193:11 hurdle 182:17,19 hurt 127:21 hygiene 12:20 13:14 14:20 15:5,9 24:16 25:2,9 40:10 41:9 61:20 62:14,18 75:10 hygienist 14:22 18:18 19:3 24:6 29:17,18

30:8,15 40:7 42:3,13 48:9,16 57:16 65:14 66:12,17,22 72:20 73:17,19 74:14 76:22 81:5 180:16 hygienists 9:2,4 22:1 24:8 28:10 31:13 37:13 47:14 48:22 66:2 71:11 74:5 77:13 hypertension 178:10 178:11 188:4,5,10,12 188:16,17,20 189:5 I i.e 94:5 132:16 143:11 idea 43:10 59:20 70:6 107:21 134:7 156:18 210:17 212:21 218:4 232:13 278:17 ideal 65:11 67:16 ideas 44:9 identified 19:11 80:9 264:10 identify 22:6 264:5,8 identifying 15:12 if' 247:14 **IH** 12:19 19:16.19 20:2 20:9 21:9 22:8 23:9 27:12,17,18 29:10 32:14,14,20 33:2,4,16 34:16 43:8 45:17 46:8 50:21,22 52:9,13 53:12,14,16,22 91:6 91:10 101:15 175:21 176:10,18,22 177:1,2 177:3 178:9 181:16 **IH's** 19:10 158:4 **illness** 14:19 35:14 131:12,21 132:4,16 132:19 133:10,13 134:16,20 135:5 136:14 142:8,11,18 143:10 170:15 179:21 180:1,3 183:7 186:8 189:21 190:6 191:2,4 191:22 206:2,11,16 207:5,10,16 209:12 212:9,16,19,20,21 214:5,6,17 215:1,5,12 218:22 219:1,8,10,10 219:12 220:4,16 221:10 222:15 223:6 223:17,19,21 224:6 225:5,7,14,15 237:7,9 237:18 238:2 244:6 249:19 250:1 illness' 219:17 illnesses 5:2 87:21

148:20 170:11 185:2 185:4 187:21 189:14 218:19 illuminating 67:14 imagine 210:12 224:13 immediate 164:12 impact 93:12 120:20 259:6 impairment 78:4 123:1 124:11 impassioned 117:5,22 implausible 104:3 113:10 114:8 implemented 12:4 implementing 24:19 implied 220:21 implies 134:2 imply 214:22 important 31:19 37:11 37:12 75:21 90:13 105:6 133:9 171:17 186:1,22 192:14 importantly 44:22 impossible 186:4 improve 68:21 171:5,16 improvement 145:5 improves 77:5 **in-** 17:2 inappropriate 106:4 114:20 226:1 incidental 41:14 incidents 38:21 include 12:5 15:4 20:8 61:16 74:7 115:7 153:2 215:14 282:18 included 28:9 34:18 52:8 146:3 153:22 154:21 155:3,8 156:12 159:15,16 160:15 181:2 198:8 includes 146:11 148:3 148:17 170:1 includes' 146:12,19 148:15 including 15:20 27:21 151:8 170:6 220:6 244:12 282:19 inclusive 147:20 148:18 157:19,20 158:1 incomplete 65:4 inconsistency 68:15 incorporated 46:2 increase 198:6 202:11 202:22 incredibly 222:2 **incur** 134:4 indicated 79:5

indicating 93:5 207:8 indication 55:9 individual 16:21 34:6 41:9 58:3 65:20 150:11 259:19 individually 43:10 individuals 96:18 industrial 9:1 12:19 13:14 14:20,21,22 15:5,9 18:18 19:3 22:1 24:6,7,16 25:2,9 28:10 29:17,18 30:8 30:15 31:13 37:12 40:7,10 41:9 42:2,13 47:14 48:9,16,22 57:16 61:20 62:14,18 65:14 66:2,11,17,22 71:11 72:20 73:16,18 74:5,14 75:10 76:22 77:13 81:5 180:16 industries 73:4,9 175:9 185:6 industry 23:20 175:10 235:1 information 15:18 16:5 17:8.20.22 18:3.7.8 18:15 20:8,9 21:7 22:2 27:20,20,21 32:2 32:18 36:2 38:3,11 39:21 40:1 42:7 44:11 51:10,12 53:7 55:5.8 57:9,11 64:2,12 72:4 72:5,8,22 78:11 85:6 85:11,17 97:9 98:20 121:2 176:12,13,14 176:17 178:5 204:19 205:9 221:2,6,12,17 225:10 238:14,21 263:4 267:11 269:15 270:6 272:16 273:4,9 274:6 275:3,11,17,21 282:11 informative 283:19 informs 96:11 initial 257:22 264:5 265:21 269:14,16 initially 12:1 19:1 28:3 injured 6:15 injuries 78:6 187:18 injustice 43:11 44:3 innocent 26:5 innocuous 190:3 **Inorganic** 180:22 input 17:6 21:1 40:2 62:16 68:21 79:13 86:17 146:6 164:9 227:14 229:11,21 256:5 257:3,15

259:16,20 266:10 283:20 inputs 21:14 79:7 inputting 101:10 inside 155:11 157:5 instance 165:15 208:3 239:6 instances 115:3 161:10 210:12 Institutes 170:22 instructions 4:16 insufficient 53:3 insurance 23:20,21 integrated 70:22 intelligence 70:2 intelligently 226:10 intended 187:16 intent 140:16,20 149:12 149:13 151:3 152:6 181:17 186:2,3 226:5 intention 12:12 interacted 61:4 interaction 21:19 268:8 281:12 interactions 210:1 236:10 interest 77:22 280:4 interested 53:20 71:9 81:17 interesting 10:8 191:18 222:8 interestingly 10:14 intermittent 41:1 183:13 internal 166:14.18 International 24:5 internists 148:21 interpret 62:3 73:21 interpretation 127:13 interpreted 63:4 225:18 interrupt 112:8 252:1 interview 18:5 35:19 65:15 68:12 74:15 183:21 Interview' 35:15 interviewed 70:3 interviewee 36:6 38:4 74:16 interviews 17:2 65:20 intro 54:19 introduce 172:5 introduction 9:21 introductions 5:15 investigation 193:9,10 invitation 68:21 invite 9:6 invited 227:13 257:3 involved 69:22 111:21

154:11 155:3 176:3.6 280:22 ionizing 184:12 issue 15:13 65:16 79:19 79:20 80:13 87:11 90:12 103:19 117:9 124:19 148:5 161:2 164:5 186:11 201:9 204:18 210:9 235:21 236:6 252:5,18 issued 125:8 198:9 issues 22:10 58:4,8 59:15 79:15 91:4 105:1,11 194:14 196:20 209:9 226:10 227:7 228:7 251:20 258:12 260:3 269:14 271:10 272:17 283:21 italicized 235:22 italics 209:7 item 3:2,7 91:9,17 103:3 150:5 158:14 160:8 201:10,10,12 216:20 223:11 239:17 items 87:20 J **J** 123:8 Jacksonville 178:17 James 2:12 6:1 Jared 171:4 Jeff 2:19 9:7 24:8 25:22 172:5 Jersey 10:21 **Jimenez** 44:14 106:21 215:10 221:19 job 31:5 32:21 33:2 50:14,17 56:22 70:10 75:12 92:5 93:8 156:17 180:4 iobs 180:5 John 2:3 7:15 John's 13:3 ioin 8:10 joined 10:20 11:2,22 jotted 269:12 judge 182:15 187:22 judged 83:5 judgment 57:16 juice 133:18 July 23:17 jump 240:21 jumping 64:4 **June** 165:17 168:6 260:10,11,12,17 275:20 276:1,4 justification 154:8 justify 111:17

Κ **K** 2:8 11:17 37:22 K-25 51:1 Kansas 177:5 178:3 279:2.5 keep 95:11 96:12 107:9 118:13 180:7 207:9 214:21 236:22 265:8 keeping 107:1 Ken 7:2 275:15 KENNETH 2:4 Kevin 136:18,22 207:21 211:8 218:11 236:21 240:2 249:8 278:8 282:10,12 283:8 kev 283:17 kidney 179:5,6,9,10 kind 20:3 29:22 31:4 35:3 53:7 62:7 71:10 74:18 78:8 91:18 95:9 97:14 98:3 102:5 109:4,13 111:14 131:9 172:12 214:9 222:20 260:20 kinds 27:9 45:13 74:12 76:11 91:20 Kirk 2:11 6:11 100:2,8 know 5:10 9:14 10:2 12:16,18 13:13 17:13 18:3 19:7 20:12 21:4 22:18 24:21 25:1 26:16,18,19 27:5,17 27:21 29:5,21 30:8,19 31:11,16,18 35:21 36:8 37:3,6,20 39:2 39:16 42:8,17 43:9,21 45:4,10,16,21,21,22 46:3,6 47:19 48:17 49:8,10,11,21 50:2,4 50:19 51:8,11,15 54:22 55:6 56:3 57:2 57:4,9 58:22 59:15,16 60:2,4 61:10 62:13,15 62:18,22 63:8,17 64:1 64:11 65:3,7 67:2,5 67:10,11,13 70:7 73:2 73:20,22 74:1,8,10,15 74:16 75:21 76:13 78:1,9 79:15,18,22 80:1,17,20 83:11,14 83:16 84:8,16 85:21 89:6,17 90:7,9,12,12 90:15 91:2,19,21 92:3 92:9,9,21 93:8 96:22 97:9,14,22,22 98:3 99:5 100:16 101:6 103:13 107:21 108:3 111:4,5,18 116:7

			298
124.11 125.20 140.6	laid 191:9	141.10 162.12	120.2 111.0 10 17
124:11 135:20 149:6 149:9,12 151:7 152:3	Lamar 171:3	141:10 162:12	138:2 141:9,10,17 143:2 144:15 158:2,3
165:1 169:8,20 173:2	language 82:19 104:1	legal 234:16 legislation 248:4	186:6 187:21 215:3
174:11,14 175:8,15	104:20 105:2 106:7	legitimate 97:16 107:2	233:18,19 237:16
175:16 176:1,1,7,8,16	107:8 109:6,14,17,19	107:6	249:9
		Leiton 2:21 9:11 19:13	lines 157:8 160:5
179:11,14 181:12 182:10 183:19,20,21	110:22 113:5,8,19 114:19 115:5 116:22	25:17 32:10 34:17	234:20
183:21,22 184:17,19	118:3,5 120:8 121:16	39:9 44:4 48:21 55:4	link 84:7 88:14 112:16
185:6,11,15,15,20	121:22 124:8 127:7,9	55:22 63:20,22 65:16	130:13 174:5 180:18
188:16 191:11 192:5	128:8 129:8 130:19	66:7,13 67:2 73:13,16	220:11,20 224:1
195:1 196:6 202:10	130:20 131:14 133:1	76:14 77:11,18 81:10	linked 91:18 174:3
214:4,9 219:13 220:6	133:3 134:13 135:22	81:21 82:3,5,7,13,17	linking 224:8
221:7 223:22 224:19	136:3,7,22 137:18	83:10 84:8,11,14,20	list 28:2,4,4 29:2 32:9
224:21 225:2 226:17	140:18,22 141:1,2	85:12 86:8,12 87:2,5	32:12 37:1 39:17
227:21 228:10,18,22	142:2,15 149:2	87:9,18 88:3,8,21	42:19 76:9,9 86:15
228:22 229:10,14	151:20 156:13 157:15	89:3 90:20 92:1 93:2	98:1 100:18,19 101:7
233:13 234:3 240:20	157:22 158:2 161:11	98:18 100:15 102:18	173:17 188:22 239:6
241:11 242:6,11,18	161:13,14,18 190:7	181:2 281:9,13,17	257:22,22 265:8,14
245:1,2 255:11 259:4	190:18 196:22 197:16	282:4 283:18	265:18,19 266:8
261:17,17,18,18,18	198:2,3,22 200:4,20	Lejeune 179:11	listed 43:15,20 192:8
261:21 262:21 263:12	201:11,13,22 204:21	length 33:3	listen 265:16 279:8
263:16 264:4,20	206:4,6,9,22 208:16	lengthy 86:15	listened 234:13
265:1,2 267:14	208:17,21 210:4	Les 7:11 123:13 124:11	listing 36:15 185:4
269:12 270:15 271:8	212:4,6,12 216:2	225:10 254:16	lists 37:21 38:13 173:19
271:14 273:13 275:8	219:21 220:14 228:19	Leslie 2:5 72:18	173:19 184:10,11
275:16,19 276:9	230:11 231:5,6,10,17	lesser 31:14	204:8 265:10,21
277:1 280:1,14,16	231:20 232:2,4,5	let's 4:3 5:15 13:5 46:18	literally 24:17
281:19,21 282:4	235:20 237:5 239:7	46:21 58:4,5,6,20	literature 32:5 61:11
knowledge 15:7 72:9	240:9,10,15,17,19	100:1 112:12 113:6	70:19 little 4:9 10:1 13:8
72:19 73:2,9 169:17 230:3	241:1,9,17,22 242:2,3 245:21 246:20,22	120:11 129:16 130:4 130:16 131:7 149:18	26:10,12 27:13 41:6
known 173:21 185:5,5	252:20 253:7,14	150:4 158:20 162:21	41:10 45:8 46:14,19
knows 42:20 49:10 54:9	255:14	162:21 173:19 186:12	46:22 48:18 49:1,20
Kotsch 2:19 9:7,12	large 60:8 87:22	187:15 189:5 205:22	65:2 78:21 93:16
20:18 25:16 26:1 29:8	larger 58:4 79:10	207:8 208:14,15	110:17 117:17 160:20
29:14,16 30:3,6,11,21	208:22	216:19 235:2 239:9	164:11 168:12 178:4
31:1 33:13,18 34:19	largest 92:15 93:11	245:2,10,11 248:4	183:9 208:22 247:22
35:8 40:4 45:7,16	Las 177:17	259:22 260:5 266:8	250:7 256:12,15
46:11 47:11 48:2,5	late 168:16 259:10,16	270:13 277:18 279:12	258:8,21 259:10
54:6,10,12,15 57:6,15	270:21	letter 83:3 189:11	261:14 263:11
58:13,19,21 59:4,10	Laura 2:7 5:16 126:13	213:22	located 8:14 280:1
59:13 60:14 61:1,6,9	Laurie 5:18 120:18	letters 118:18	location 278:1,12,19,19
61:13,18,22 62:8,12	lavage 193:4	level 43:5 51:21 73:6	280:16
63:6,8,10,15,21 67:4	law 94:21 146:17 148:8	87:15 95:10 230:4,16	locations 281:20
67:15 68:3,7,12 71:2	182:15	levels 41:13,17 56:20	logged 112:20
74:4 76:7 77:16 79:1	lawyer 180:15 181:6	60:8	logic 278:22
81:11 91:16 92:13	lead 18:18 178:12,12,14	libitum 111:4	logistics 164:15
97:3,8,18,21 102:18	178:15 188:10	licensing 10:6,8	long 9:22 28:4 58:16,17
L	leading 190:10 leads 188:17	lieu 51:13 life 76:5	58:19 100:18 101:19 102:22 110:11 167:2
lab 221:8	leap 189:8	light 183:16 221:2	169:9 173:1 230:12
labor 1:1,19 3:4 8:18	leaps 92:7	likelihood 198:7 202:11	234:2 268:14
9:1 28:18 36:22 37:4	learning 71:10	likes 12:7	longer 28:4 29:2 38:2
70:21 95:12 171:19	leave 108:17 127:12	limit 31:4,17 54:16	134:19 142:10 180:3
174:18,20 175:1,3,5,8	128:15,17 155:15	121:12 146:22 149:13	263:11
175:8 180:12	269:9	limited 147:1 201:10	look 26:21 32:11 39:19
laborer 16:15 26:19	Lee 192:16 193:16	limits 118:17 198:4	47:5,8,15 48:3 61:3
lack 41:7 130:2	left 10:20 58:10 124:2	line 56:16,17 135:11	78:2 84:20 85:22 86:3
	l	l	l

86:6 92:2,4,5 93:7 98:19 99:3 101:6 103:9 113:6,21,21 117:17 129:9 148:9 157:9 158:18 162:19 177:17 178:2 192:17 199:11 208:15,17 210:4,18 218:18 222:6 242:22 243:9 243:15 245:7,11 256:14 257:9 259:1 259:20 265:12 275:22 282:7 looked 54:20 70:4 84:16 162:5 180:22 211:4 241:2 looking 16:5 19:21 21:4 39:16 44:9 63:12,13 72:2,3 77:20 88:5 91:5 92:1,3 95:15 98:14 103:18 159:2 160:7 162:2 165:12 171:15 207:20 208:21 237:13 242:2 243:11 looks 43:13 101:9 153:18 189:22 190:18 **loop** 10:9 loop-holes 240:20 **lose** 103:1 loses 30:13 loss 130:5,9 131:19 132:3,6,11,13 134:4 134:15 135:7,8 136:12 142:7,20,21 179:18 180:13 lost 131:11 140:2 160:20 lot 11:3 17:12 34:11 41:8 43:7 45:11,17 48:9 49:12 55:10 57:18 61:10 64:8 65:17 77:4 80:12,12 94:8 108:10 120:22 130:19 155:12.13.14 169:9 183:2 185:16 219:12 226:6 230:10 235:1 238:20,20 243:5 248:8 263:14 263:15 278:22 280:4 280:21 lots 68:14 loud 130:22 160:1 197:17 199:19 203:8 lousy 210:13 245:15 love 74:5 low 41:13 56:19 57:3,13 83:5 lower 37:20

luck 172:19 lucky 16:10 158:8 lunch 161:9 162:8,17 162:20 lung 46:22 93:6,7 188:13 192:12 251:21 lung- 92:15 lymphocytes 193:4,19 194:2 lymphocytic 192:14,18 193:5,20 lymphocytosis 192:22 192:22 193:15 lymphoma 178:18 Μ **M** 2:3,11,12 Madeline 195:13 magnitude 76:5 main 78:7 maintenance 16:14 26:18 151:9 177:9 major 11:6 30:19 38:21 99:6 242:5 258:11 majority 77:8 making 24:12 32:9 91:15 110:8 121:20 125:14 130:12 138:19 145:19 174:13 175:13 182:20.21 183:2 220:11 252:7 male 178:19,20 manage 166:18,19 management 174:16 mandated 173:5 manipulation 147:2 manner 198:4 204:22 234:17 manual 88:4 123:19

125:22 147:1 188:21

193:2,14

280:8

Mark's 121:1

marked 42:17

manuals 175:14

Mark 2:3 7:18 52:19

100:2,4,8 120:13

162:9 171:2 261:10

Markowitz 1:20 2:7 4:3

8:16 33:9 35:6 42:15

51:22 52:14,21 56:14

58:1,16,20 59:3,5,12

67:18 68:9,18,20 69:5

71:4 72:13 74:21 75:5

69:8 70:11,14,14,16

4:19 5:12 6:20,20

44:13 46:13 48:7

59:17 64:13 65:9

76:18 77:16 78:18 81:15 82:1,4,6,10,14 82:18 84:3 86:5,10,14 87:1,4,10,19 88:7,18 89:2 91:3 92:12 93:14 94:16 96:5 98:5,17,22 99:17 102:3,5,17 106:11,18,20 107:13 107:16 108:12 109:2 109:21 110:4,15 111:8,10,22 112:6 113:2 114:14 115:12 115:15,20 116:5,13 116:19 117:1,11,16 118:1,14,22 120:5,18 121:3,6 123:9,22 124:3,9,17 125:15 126:8,17 127:8 128:1 128:7,16,19,22 129:2 129:5,19 131:4,7 132:8,20 133:7,16 134:5,12 136:2,5,18 136:21 137:3,19 138:5,9,13,21 139:3 139:10,17,22 140:19 141:1,5,8,19,22 142:4 143:20 144:1,7,14,17 144:20 145:4,7,12 147:6,9,17,22 148:12 149:4,17 150:21 151:22 152:7,10 153:8,14 154:6,16 155:1 158:13 159:6 159:12 161:1 162:13 162:15,18 163:10 165:21 166:1 167:12 167:20 172:17,20 185:8 194:5 195:11 195:17 196:1,12 198:14,19 199:4,8,12 199:18,21 201:8 202:13,16,22 205:12 205:16 206:20 207:2 207:19 208:10.14 210:15,21 211:16 212:3 213:2,6,11,14 213:16 214:2,8,15,18 215:2,9,17,21 216:3,9 216:13,22 217:4,7 218:3,7,10 219:14 221:18 223:8,13 224:9 225:13 226:22 227:5,8,22 228:3,6 229:19 231:4,8,12,22 232:14,22 233:3,19 233:22 234:8 235:2 236:4,17,20 237:9,12 237:15,20 238:2,6,10

239:2.12.15 240:6 241:11,13 242:1,10 243:18,21 244:2 245:22 246:4 247:2,8 247:12,17 248:12,19 248:22 249:3,10,13 249:21 250:9,18,21 251:1,6,22 252:3,14 252:16 253:1,12,15 254:5,9,15,19 255:1,4 255:18,21 256:9,18 256:21 257:2 258:15 258:19 259:3,8,13 261:4,8 262:10,13,15 262:18 263:20 264:15 264:21 265:6,20 266:14,17,20 268:2 268:17 269:8,11,21 270:4,8,13 271:11 276:7 277:9,16 278:14,17 279:3,6,11 280:6,8,20 281:2,6,8 281:15 282:3,6,12 283:12 married 127:20 massaging 190:15 material 82:15 230:5 264:16 materials 102:12 153:13,21 154:11,12 154:19,20 155:8 160:13,15 170:6 matrices 14:7 15:17 70:13 204:11 matrix 14:7 15:17 87:20 88:1 174:17,18 184:10 238:17 matter 87:14 112:3 163:7 284:5 matters 3:12 132:4 169:13,19 171:15,22 256:11 260:2 273:3 274:5 may' 236:13,15 247:22 248:3 McTier 193:9 meals 282:19 mean 11:4 20:13,19 36:15 41:18 44:2 52:18 53:15 55:6 57:18 59:10 61:6 63:20 64:1 65:7 70:18 76:8 87:13 92:13 96:7 98:2,18 108:9 112:8 126:18 127:1 147:4 148:8 149:12 152:18 154:16 155:20 165:20 166:9 173:5 179:6,9

	1 1		I
199:14 202:14,17	120:21 165:3,15	141:15,20 142:1,6	262:4,8,9,12,14,17,20
210:21 212:10 215:2	168:10,15 171:14	143:12,14,15,16,22	264:7,13,19,22 265:7
218:17 227:2 229:1	191:21 260:16 263:1	144:3,6,12,18 145:6	265:9 266:4,15,18
229:13 234:15,19	263:8 264:5,9 269:3	145:10 146:10 147:8	268:16 269:1,11
239:5 260:18,20,21	270:14,19 271:4,4,13	147:11,18 148:1	270:1,5,9 271:8,12
261:20 263:5,16	272:2,7,18 276:20,21	149:3,9 150:9 151:1	273:10 274:17 275:6
276:8	277:18 278:11 279:19	152:2,8,11,16,17,18	275:10,11,13 276:8
meaning 81:5 138:16	280:11,15 281:5	152:20 153:10,16	276:15 277:11,15
201:12 265:14	284:4	154:7,22 155:5,9,20	278:10,16 279:2,4,9
means 73:22 120:9	meetings 164:15,17	156:9,19 157:18,21	279:20 280:7,9,14,21
133:19 148:22 187:2	165:8,19 166:19	162:10,14,17 165:18	281:3,7 283:5,8,11
196:18 210:18 221:5	167:22 260:3,5 264:3	165:22 166:3,16	members 2:1 12:5 75:1
224:20 242:12	266:6 267:1,9 268:5	167:5,9,11,14,19	79:10 86:6 112:11
means' 146:12	268:14 269:2,4	172:18 197:18 198:16	119:6,7 121:7 122:9
meant 81:11 91:1	272:14 273:1 274:2	198:18,21 199:5,10	133:19 134:6 145:16
156:17 194:16	274:10,12,19,22	199:13,20 200:1,16	148:13 150:1 153:15
measure 188:14	277:2 281:1	201:19 202:14 204:16	161:6 164:21 166:5
measured 45:3	meets 122:18 203:1	205:15 206:3,21	166:15,19,21 167:1
measurement 46:9	Member 5:7,18 6:1,5,8	207:3 208:8,13	203:12 205:20 251:13
measurements 32:4	6:11,14,16 7:2,6,11	210:14,17 211:1,7,11	256:3 258:2 259:19
60:16	7:15,18,20 8:2 29:5,9	211:13,19,20,22	261:16 265:22 266:7
mechanic 16:15 26:18	29:15 30:2,5,9,17,22	212:1,14 213:5,10,15	266:11 272:15 273:2
mechanism 21:13 60:5	31:20 33:10,15 42:16	213:18 214:3,9,16,19	273:8,19,22 274:3
medical 2:6,20 5:19,19	44:15 45:14 46:4,14	214:20 215:8,11,16	275:22 277:6 284:3
7:8,17 9:8 12:9,11,12	48:1,3,6,8 52:1,15,22	215:19,22 216:6,10	memo 53:15 176:22
12:14 13:15 19:5,11	54:8,11,13,16 55:17	216:21 217:2,6,8,10	memoranda 89:21
21:8 22:13,20 27:1,20	56:13,15 57:13,17	217:12,15,16,17,18	90:18
28:19 58:10,15,17	59:18 60:21 61:2,8,12	217:19,22 218:6,9,13	memorandum 22:9
63:16 77:19 78:15	61:15,21 62:2,11 63:3	218:15 219:2,3,5	89:18
79:4,8 91:6 92:14	63:7,9,14 64:14 65:12	220:9 221:4,22	Memorial 4:20
104:3 113:11 114:8	66:5,11,21 67:12,17	223:12,14 224:12	memory 103:3
114:20 122:17,22	67:19 68:5,11,13,19	225:19 227:2,6,19	memos 53:21
123:6 126:19 131:10	68:22 69:6,10 70:13	228:1,5,12,16,17	men 171:9
131:16,22 133:21	70:15 71:7 72:12,16	229:2,4,5,6,8,12,16	mention 54:1
135:13 136:9 137:5	73:15,18 75:4,7 76:20	229:17 230:8 231:5,7	mentioned 24:12 26:13
137:12 143:4,11	82:21 84:4,9,13,15,22	231:9,13,14 232:7,16	39:10 73:8 80:22
146:5,6 147:15 148:3	93:15 94:18 96:14	233:2,4,14,17,21	90:16 215:20 216:4
174:11 176:16 179:19	97:6,16,19 98:13 99:1	234:11,13,22 236:3	227:9 278:11,12
180:10,13 181:9	102:4 105:21 106:17	236:12,18 237:3,11	mentioning 24:8
182:20 186:17 189:3	106:19,22 107:8,15	237:13,17,21 238:5,8	message 163:12
189:15,18 191:13	107:18 108:14 109:4	238:12,13 239:8,9,11	met 1:18 187:7 280:5
206:9 207:4 209:3	109:18,22 110:6,16	239:14,17 240:5,7,13	280:10
212:7,11 214:11,13	111:6,9,12 114:12,17	240:18 241:8,15	metal 6:13 180:17
220:20 230:17 235:16	115:2,6,14,19 116:3,9	242:17 243:13,20,22	metalized 178:2
242:20 244:17	116:15,21 117:3,15	244:3,9,18 245:1,8,14	metals 16:18
medicine 5:22 6:22	117:19 118:4,9,12,16	245:16,20 246:2,21	mic 4:6
7:17,21,22 8:1,3,5	119:13 120:14,19	247:6,10,16,21 248:7	Michael's 234:14
105:7 171:1 188:8	121:4 122:14 123:13	248:9,10,11,14,16,17	micro- 174:15
189:3	124:1,4,10,18 126:3,9	248:20 249:1,9,12,17	microphone 200:15
medium 41:13 183:16	126:18 127:11,20	250:1,3,5,6,16,19,22	280:13
meet 168:6,7,13,14	128:4,9,21 129:1,4	251:16 252:2,13,15	mid 268:19
183:20 186:5,20	131:2,5,9 132:10,22	252:21 253:9,13,17	middle 39:5 40:12 99:6
190:12 216:1 245:18	133:8,17 134:7	254:7,10,18,22 255:2	253:10 275:19 276:1
260:8,9 262:5,16	135:19 136:4,7,20	255:6,10,11,12,13,15	milli-tritides 178:1
271:17 276:11 277:20	137:2,4,9,16,22 138:8	255:17,20 256:8,12	milling 10:7,10,10
277:22,22 278:18,19	138:11,20 139:2,13	256:19,22 258:7,16	mind 32:18 96:12
279:17,20 281:10	139:20 140:2,4,7,9,11	258:20 259:4,9	281:18
meeting 1:9 112:11	140:13,18,22 141:7	260:20 261:5,12	mine 261:18,18

mining 10:11 minor 11:7 141:16 222:2 minute 111:10 161:8 194:5 196:6 251:4 minutes 18:14 58:9 67:13 98:6 100:12 102:20 103:1 163:2 163:22 164:8 195:14 259:22 265:3,4 278:3 279:14 **mirror** 162:2 missed 22:7 47:13 234:20 missing 33:10 47:16,17 112:11 **mission** 95:8 mixed 194:13 modality 72:3 mode 72:3 moderate 56:20 57:3,13 moderator 185:11 195:12,17 196:5 modify 39:19 moment 98:11 134:13 160:6 164:4 203:20 203:21 252:1 257:9 momentum 271:2 money 99:5,12 180:14 181:10 monitored 39:2 monitoring 15:6 34:22 35:3 41:5,9 45:12 49:2 60:9 61:20 158:7 194:20 month 37:18 131:20 132:3,14,18 135:8 136:13 142:21 180:10 268:10 monthly 42:4 months 34:7 56:18 57:2 164:19 226:18 263:10 morning 23:10 112:15 112:18 234:14 mother 17:11 motion 116:14 119:4 122:2,5 129:10,12 141:14,20 142:1 144:2 160:10,21 205:14,15,17 250:14 motive 118:10 move 58:14 72:14 75:1 109:21 116:20,21 119:8 122:11 125:1 125:10 127:7 130:4 130:16 139:18 145:10 150:4 198:16 203:14 204:14 205:22 227:16

235:3 255:20 256:11 260:2 264:12 276:3 moved 107:20 111:16 160:22 moving 240:9,10 MPH 12:8 multiple 5:1 16:16 110:18 133:12 263:18 Museum 177:17 must' 236:14 mutually 260:15

Ν

N.W 1:19 name 16:13 23:11 36:6 75:2 169:7 narrative 23:1 75:19 narrow 30:9,11 32:22 106:5 147:12 narrowing 121:10 nasty 43:6 national 6:9 25:3 78:20 79.2 nature 14:13 32:17 41:10 73:1 173:5 183:12 Naval 7:7 near 6:2 279:21 necessarily 75:12 86:18 91:5 149:10 152:6 223:18 224:4 232:4 necessary 82:16 172:8 206:15 209:22 214:20 220:15 223:4 236:8 261:6 need 4:15 15:21 18:19 18:20 20:16 21:18 22:1 39:21 47:9 54:21 56:9 69:14 71:2 77:8 94:12 98:6,7,9 104:2 105:15 107:13,14 110:22 111:5 112:12 113:9 119:1 122:2,6 123:3,20 125:22 126:11,12 129:6 130:21 149:19 155:6 155:15,21 156:1 161:17 163:15,18 164:20 166:9 170:10 174:4 176:14,17 181:9,12 196:18 198:8 202:3 203:7,19 204:2 208:1 231:10 238:6 239:4 244:14 251:16,17 255:22 260:1 264:6 265:11 266:16 267:2 269:19

270:12.18 271:11 273:12 276:18 278:4 279:13,13 needed 129:22 136:21 165:5 179:19 191:9 250:19 needing 110:10 needs 96:12 133:12 147:13 149:11 155:14 155:16 161:12 165:3 172:14 183:1 184:8 215:22 230:18 236:18 241:2 268:8 269:15 270:6 neglected 130:6 neutron 177:20,21 Nevada 69:22 never 11:15 17:13 64:19 194:20 new 6:21 10:21 12:12 23:9,18 24:15 43:22 71:9 108:3 109:14 120:8 125:22 129:8 130:19,20 131:13 137:18 149:1 183:5 185:18 198:1.3 204:22 206:3.4.22 208:15,17 209:7 210:4 212:3,4,6,12 216:14 231:6 232:4 233:8 252:19 Newman 192:16 193:16 nice 147:6,7 **night** 162:12 nine 35:13 ninth 125:1 NIOSH 16:8 17:19 65:20 nitty-gritty-wise 74:11 non-cancer 185:2 non-covered 132:4 non-DOE 36:11 non-Hodgkin's 178:18 179:1 non-MD 148:7 non-sparking 42:22 **norm** 74:18 normally 26:11 60:15 61:19 northern 169:21 note 37:14 58:9 255:15 notes 103:22 113:8 125:18 198:3 253:18 253:21,22 254:3,20 255:2 notice 28:3 222:7 227:10 267:19 270:18 271:22 272:2,7

noticed 53:11 notices 123:21 notification 271:9,15 276:12 notified 112:16 176:9 176:11 notify 108:19 276:12,16 November 43:14 NRC 10:16 11:4 nuclear 6:2 10:5,20 11:7 25:3,6,10 170:5 171:10,17 175:10 nuclides 60:22 number 11:6 16:1 28:2 31:14 52:10 67:5,7 68:17 103:4,9 105:11 150:5 158:14,18 160:8 163:16,17 191:7,12 193:8 197:3 204:22 205:1,1,1,2,4 207:4 216:20 220:13 222:3 223:11 237:15 239:18,22 242:12 246:21 247:3 258:12 numbered 35:9.11 numbers 37:15 192:22 193:15 numerous 283:14 Nursing 6:19 0 O'Neil 172:5 **Oak** 179:6 280:3

277:17

object 158:3 185:21 objectives 95:8,10 objectivity 9:5 obligated 150:14 obstruction 194:13 obtain 177:18 204:5 obtained 205:3,5 obtaining 39:22 obviate 123:20 125:22 obvious 61:13 86:20 obviously 12:1 15:12 15:20 16:4,7 17:5,7 17:15 21:6,8 22:4,18 25:11 27:22 41:3 45:12,19 59:15 64:19 65:4 67:4 72:6 91:2 92:14 114:22 220:5 OCC 180:17 occasionally 17:21 21:21 occupational 5:2,21 6:17,22 7:7,16,19,21

8:1,3,5 12:7 15:3 16:22 31:21 32:3

			302
33:12 35:14,15,16,19	190:16,16,17 191:6	opinion 14:16 22:9	220:14 221:1,6,16
56:21 66:8 73:20	194:6 195:17 196:12		
		43:12 54:21 55:1,3,11	236:8,10 242:13
170:15 183:6,20	198:14,19 199:8,18	55:11,15,15 79:4,8	249:18
205:3,5 209:12	201:8 202:21 203:3,9	80:16 81:4 83:9 89:15	OWCP's 123:16 125:19
occupied 119:21	203:10 205:12,22	173:7 206:13 207:13	owned 119:21 120:9,16
120:16	206:5,19,20 207:3	207:17 209:4 210:7	Oxford 218:2,14
occur 260:17 268:8	208:19 209:19 210:3	210:10 220:20 235:17	
occurring 276:4	211:7 213:2,5,16	240:18 242:20 244:17	<u> </u>
October 270:22	215:8 216:13,22	245:5	P-R-O-C-E-E-D-I-N-G-S
offer 101:16 128:12	217:4,7 218:3,3,3,4	opinions 188:1	4:1
172:6	218:11,11 219:14	opportunity 23:14	p.m 24:4 162:22 163:1
office 78:20 79:6	221:21 224:10 228:5	65:13 69:2 74:6	163:8,9 164:2 284:6
105:11 170:22 172:6	233:17 235:2 236:20	227:18,20 230:19	package 28:7,21 64:3
172:6 178:16,18	236:20 243:21,21	opposed 45:15 119:4	packet 59:11 282:15
284:2	244:2,18 247:2,17	122:7 145:15 149:22	283:5
office's 79:3	248:19,22 249:11,13	161:4 203:10 205:18	page 3:2 30:7 34:9,11
Officer 7:8,8 8:7 273:5	250:9,12,12,13,13,18	241:20 251:12 256:2	35:5,7,10,17 36:12,13
274:7	250:21 251:1,3,8,8,17	261:1 279:19	36:22 37:9 38:20 39:7
offices 19:22	252:14,16 253:4,6,6,8	opposite 248:3	40:9,12 79:1 86:6
OFFICIAL 2:14	253:8 254:16 255:17	option 245:12	87:8 103:11,18
oh 30:2 88:8 191:18	255:18,19,21,21	optometrists 146:14	107:17 119:10,11
236:1 244:15 280:14	258:7 264:15,21	Orange 184:3	120:7 122:12 130:17
OHI 35:18	266:6 268:18,18,22	order 91:14 130:22	130:20 131:3 137:14
OHQ 18:8 20:22 21:3	270:8,8,13 272:4	148:18 165:4 220:4	145:19 150:5 159:19
35:18 52:2,8,12 76:14	277:9,16 278:16,17	226:11 230:5 232:21	
okay 4:5 5:13 9:18 23:4		ore 10:11	160:3,3,4,7 185:18
	279:6,11,19 280:6		186:10,12 187:15
26:1 30:2,5 33:15	281:15,15 282:6,8,12	organization 25:8	188:8 189:16 190:15
35:8 47:1 48:1,6	283:11,12	orient 159:19	190:17 192:11 197:4
54:17,17 56:13 58:20	old 57:5 106:9 109:6	original 126:14 173:16	197:4,21 200:2,18
59:3,12,17 61:8,12,21	158:1 206:5 208:20	240:15 245:21	203:17 212:5
62:11,11 63:9,14	231:17,20	OSHA 234:14	pages 27:11 28:14 34:1
66:13 68:13,22 69:1,3	OMB 234:10,12,21	osteopathic 146:15	35:11,13 37:2 40:8
69:8 71:4,4 79:1 82:6	Ombudsman 284:1	ought 47:19 235:20	74:9 87:2,9 202:3
87:15,19 89:2 92:12	Ombudsman's 284:2	outcome 63:6	paid 156:14
98:17 99:17,17 100:1	omits 212:4	outreach 281:18	panel 43:2
100:2,5,6,6,6,7,9	once 90:21 117:18	outright 216:11	Pantech 38:18
106:18 110:4 111:1	140:5 142:5 165:2	outside 57:22 94:13	paper 54:4,4 183:1
112:10 114:5 116:13	oncologists 117:6	108:3 155:13 275:5	papers 272:19
117:1 118:1 119:3,4,6	ones 11:7 27:14 31:19	over-redacted 26:4	paperwork 183:2
119:7,9 120:11 122:2	33:4 38:13 66:22	over-redacting 30:13	Paragon 174:1
122:4 124:3 125:16	103:7 178:13 256:13	overall 79:11	paragraph 116:7 137:8
129:11 130:4,5,17	256:16,16,17,22	overhaul 20:22	137:10 144:3,22
131:7,9 132:20 133:1	263:19 280:1	overlap 96:1	150:20 155:16,18
133:3 134:12 135:20	ongoing 20:13	overly 151:6 209:22	160:5 191:16 208:4
136:18 137:2,4,16	online 70:20 163:13	236:8	208:11 209:7 218:21
138:20 139:17 141:9	onus 230:22	overturned 83:7	235:4 236:22 246:3,9
141:19,21,22 143:20	open 90:7 104:9 127:13	overview 13:12,13	249:14 259:5
144:2,6,18,18,20	177:7 178:4 198:14	282:11	paragraphs 140:14
145:8,12,16 148:13	198:19 261:9 268:4,5	OWCP 12:11,13,14	190:20
149:2,18 150:21	272:7 273:12 274:10	23:17 104:8 105:19	parallel 114:2
152:7 153:8,14	277:21	109:10 116:12 122:16	parent 273:19
159:17,18 160:2,4,6,7	operated 119:21 120:9	123:4 131:13,15	parenthetical 143:9,18
161:1,4 162:14	120:16	133:20 135:12 136:8	part 10:11 12:2,3,3,19
163:21 165:22 167:5	operation 11:16 170:9	137:4,11 143:3 173:4	14:2 39:1,11,14 41:3
100.21 100.22 101.0	OPERATOR 195:15,19	186:13 190:19 200:12	41:4,7 43:4 62:22
	UILINATUN 190.10,19		
167:19 172:18 173:4		201-6 201-1 12 10	/6.10.00.01.6 /
167:19 172:18 173:4 174:2 175:14,21	196:9	201:6 204:4,12,18	75:19,22 94:5,7
167:19 172:18 173:4		201:6 204:4,12,18 205:8 206:6,14 207:18 209:21 210:2	75:19,22 94:5,7 111:21 116:1 123:5 130:11 131:18 132:6

132:12.14.15 136:12 137:10 149:3,4,5 150:6 157:11 160:1 181:22 184:9 189:15 190:2,9 191:7,8 202:1 202:18,20 205:6 212:22 216:7 217:14 217:15,16 218:21 234:21 239:3 254:18 256:16 258:14 259:2 272:12 282:2 **PARTICIPANT** 82:8,12 86:22 87:7 108:21 109:1,16 128:18 129:18 137:7,14 139:9,11 141:4,6 144:9,16 145:2 155:18 159:5,11 160:22 200:14 202:21 213:13 216:4 217:14 251:4 participant's 117:10 participate 4:14 185:10 267:4 274:21 participated 11:12 36:20 participating 4:11 172:9 284:2 particles 119:16 particular 14:18 26:22 31:5 32:21 34:6 37:7 45:10 52:2 58:2 62:19 73:22 74:9 78:16 80:20 83:17 92:4,5 95:18 98:20 99:19 103:3 118:3 121:20 121:21 156:12,16 171:11 173:10 221:19 242:9 246:20 251:19 particularly 102:21 234:21 particulars 58:7 parties 171:11 partner 108:4 parts 26:2,3,7 123:8 161:15,22 party 34:10 passed 12:9 170:14 182:4 pathogenic 14:15 pathologic 173:7 pathology 192:21 patient 77:4 108:8 patients 72:21 77:2 147:16,21 148:19 pay 283:1 paying 88:12 payment 149:13

PCB's 98:15,16 peer 193:17 **PELs** 41:21 penalty 200:7 201:1 pending 216:19 Pennington 23:8,10,11 71:14,15 people 10:1 17:17 32:12 43:10 44:7 62:17 66:16 69:19 70:2 77:8 81:19 96:6 105:5 112:20 158:7 163:12 168:3,20,22 172:4 179:11 185:9 193:11 194:19 195:3 219:12 228:17 229:9 248:1 273:13 279:7 281:11 283:14 people's 108:11 270:16 271:21 percent 77:2 83:6 184:17 193:4,11,19 194:2 percentage 83:11,21 percentages 264:19 Perez 171:20 perfect 65:10 161:20 perform 18:20 24:5 46:7 150:14 156:22 performance 81:12,13 119:17 performances 264:17 performed 19:2 79:9 period 50:10 54:17 69:16 116:11 163:2 163:11,14 164:1,7,13 168:20 196:15 228:9 234:3 251:7 periods 50:4 perjury 200:7 201:1 Perlmutter 169:2,4,7 permanent 123:1 permission 104:8 106:14 107:5 115:10 115:11.16 permitted 104:7 105:18 107:4 person 17:3 32:21 36:4 40:21 50:9 59:21.21 65:15 101:9 118:10 168:10,21,22 180:3 187:3,6 200:8 201:2 242:20 person's 32:15 personal 38:6 97:6 107:2,10 109:12 113:16 117:13 personally 169:12

227:2 perspective 75:11 264:1 pertain 162:1 274:11 pertinent 123:7 PFP 37:21 **PFT's** 194:2 **PhD** 12:6 phone 4:13 8:10 17:3 36:4 103:12 163:12 168:22 185:9 195:12 195:18 196:11 261:1 261:1 263:15 phosgene 32:4 phrase 135:10 141:18 143:1,18 151:15 209:21 218:22 phrases 134:22 142:13 physical 7:9 119:19 120:2 physically 74:20 physician 5:22 6:17,22 7:7,21 8:4 14:16 32:18 54:21 57:19 62:5,6,10 63:16 73:14 77:5 79:14,20 80:6,15 81:4 83:3 105:15 107:12,22 110:21 111:3,20 146:2,19 147:12 148:2,17 173:8 179:3 180:11 180:15 190:11 207:9 207:13 209:3 210:8 210:13 212:19 220:2 224:2 235:16 243:6 244:21 245:4 246:7 physician's 54:22 107:19 132:1 133:22 135:14 143:4 188:1 206:10,12 207:5 212:8 213:22 242:14 244:15 physicians 9:2,3,4 50:8 62:13 77:13 79:7 80:4 102:8 103:20 104:5,7 104:17 105:5 106:15 107:3 110:10 113:4 113:12,18 114:22 115:9 116:10 146:3 146:11 147:14,15 148:4,17,19,21 186:15 209:14 235:11 physicist 2:19 9:7 12:2 physicists 10:15 physics 21:11 pick 168:10 270:9 picked 256:20 picky 260:22

picture 70:3 74:14 178:11 **pictures** 178:2 piece 54:4,4 76:17 92:15 213:7,8 223:16 273:7 pieces 213:4 pin 85:20 Pinellas 176:19 178:20 182:4 pit 11:13 **PITS** 170:4 place 41:21 43:3 187:9 203:20,21 220:10 226:2 places 61:17 114:13 199:1 209:16 232:9 235:12 237:21 238:8 plan 166:4 269:16 281:13 plant 6:2 10:21 16:11 170:1,4,5,9 176:19 177:5 178:3,20 183:7 plants 171:10 177:14 177:14 plastics 39:5 plausible 13:18 plausibly 115:4 play 129:13 please 49:5 62:16 64:11 102:6 112:22 161:4 161:21 185:11 194:17 plutonium 11:13,21 44:20,21 45:1,2,8 170:4 176:5 pneumoconiosis 188:13 podiatrists 146:13 point 11:22 23:2 25:21 34:19 66:4,19 75:9 88:9 89:3 94:14 101:2 115:21 118:3 121:21 125:13 188:14 189:7 189:21 199:9.12 202:10 221:20 223:16 223:18 233:12 239:17 240:11 246:19 249:5 pointed 153:11 225:10 236:18 pointing 121:20 127:3 149:15 points 13:1 41:16 100:11,12 policy 35:22 63:1 79:10 79:11 87:15 Polis 171:4 polite 114:22 115:3 polyps 180:21

poorly 46:7 **Pope** 2:11 5:7 6:5,5 159:18 160:1 241:12 241:13,15 242:8 282:10 portion 12:20 14:9 40:5 40:5pose 27:6 61:7 posed 18:21 22:12 40:12 position 27:22 28:1 75:2 126:6,10 127:21 272:19 positions 16:16 126:4 positive 192:21 194:2 possible 20:7 22:11 24:15 31:15 32:12 38:12 122:20 167:22 207:7 213:8 218:1,1,8 227:21 252:7 269:2 271:16 possible' 217:20 218:11 possibly 49:19 85:13 102:6 188:10 post 91:4 166:12 191:8 potential 13:17 15:15 28:16 32:15 40:13 61:4 potentially 31:11 38:15 243:1 power 10:21 PowerPoint 4:13 **PPE** 38:6 52:3 practice 148:8,10,20 practices 107:19,19,21 146:16 practitioner 111:13 practitioners 146:15 pre- 105:21 pre-defined 161:16 preamble 153:18 233:8 precedent 125:5 predicting 76:6 predominantly 71:22 prefer 80:17 128:2,5 227:3 preference 105:9 107:2 107:10 109:12 113:17 117:13 premises 150:17 151:13 prep 274:17 276:2 277:4 preparation 272:17 preparatory 272:13,21 274:13 275:18 prepared 276:20

presence 14:9 37:18 119:19 120:2 present 9:9 14:6 15:13 28:12,13 45:19,22 59:1 88:1 119:6,7 122:9 145:17 150:2 161:6 185:13 196:3 203:13 205:20 251:13 256:3 presentation 12:17,21 58:17 presentations 4:14 13:4 presented 232:4 presenters 2:17 9:20 presenting 124:12 presiding 1:21 press 195:21 pressure 152:3 presumably 278:20 presume 46:17 262:4 presumed 93:22 presumption 93:16,19 93:21 94:5,7,9,14 153:2 presumptions 56:8 87:11,12,17 93:18 presumptive 91:19 94:11 179:15 presumptively 92:22 pretty 77:21 78:12 83:22 86:2 118:19 124:11 169:18 188:22 189:7 201:21 previous 9:20 116:6 133:5 157:22 186:5,5 239:5 243:14 **previously** 24:8,12 166:3 primarily 27:15 40:22 280:1 primary 24:10 183:13 principle 110:9 279:16 printout 34:3 prior 84:9,13,15 91:10 119:2 133:3 201:20 priori 134:3 private 25:6 probability 44:20 45:1 83:4 probably 11:5 13:8 35:9 35:12 40:3 43:1 48:13 53:4 64:2 77:7 87:22 88:12 97:13 104:18 104:22 105:12 110:7 120:4 138:14 151:3 165:17 246:6 259:11 259:16

probative 131:17,17 133:5 134:9 136:10 136:16 137:12 143:6 143:7 200:12 201:6 202:17,17 203:1 204:5,6 207:18 210:11,16,18,19,22 211:4,5,17 221:13 242:14 243:1,10 245:11,17,18,21 246:17 problem 4:10 52:10 80:8,9,11 85:15 104:14,18,21,21,22 105:1 144:19 216:16 229:13 241:9,10 242:5 problems 46:20 111:15 135:7 142:20 182:1 232:3,19 procedural 127:18 233:5 272:11 procedure 88:4 117:14 125:6 126:22 127:13 127:14 181:18 188:21 193:1.14 procedures 123:19 125:22 224:7 proceed 5:16 112:12 130:22 223:1 process 14:20 15:10,11 20:1 24:19 29:13 33:8 33:11 48:20 49:14 51:15 72:1 77:15,19 82:4 92:6 93:19 94:21 95:2 102:11 103:1 105:14 106:14,15 110:12 127:17 162:10 170:18 175:2 176:3,6 192:14,18 193:5,20 194:13 225:21 226:21 230:1,20 238:16 257:2 268:4,21 271:15 282:22 processed 206:8 226:17 processes 32:2 73:4 93:8 175:19 225:2 processing 258:9 produce 104:2 113:10 209:2,15 232:20 235:11,15 produces 220:2 246:15 producing 66:6 242:19 product 175:12,17 production 11:14 productive 39:18 230:6 products 175:19

professor 6:17,21 7:3 7:12,15,22 188:7 189:3 profile 70:18 profiles 17:19 71:1 program 5:20 8:1 10:2 12:3 17:17 23:12,17 35:14 36:21 57:5 89:17,21 90:18 91:13 92:8 99:9 101:22 106:12 118:20 121:13 156:21 157:14 171:17 182:13 183:20 184:22 186:9 204:10 205:7 programs 5:21 11:8 70:16,17 progress 145:20 164:11 171:21 268:9 project 70:1 157:5 projects 69:20 70:9 prolong 5:5 proof 14:5 119:18 120:1 132:6 197:5,10,11,11 197:20 203:16 204:17 proper 19:11 94:1 properly 18:21 19:8 31:9 properties 14:15 173:7 proposal 141:13 144:1 144:21 219:22 proposals 138:19 propose 118:2 128:10 253:7 proposed 3:5,10 102:21 103:6.11.13 104:13 107:17 110:2 113:14,22 114:2 119:8 120:13,15 122:12 128:17 129:15 130:8 133:15 138:6 138:18 145:22 146:2 146:9,10 153:5 161:11,14 162:4,7 163:4 164:10 196:17 196:22 197:9 198:1,3 198:13 203:18 206:6 206:22 212:4 216:8 219:15,21 220:13 227:11,14 228:10 229:20 232:6 233:20 243:19 249:5 252:5 253:22 255:7 256:6 257:3,6,10,12 258:3 259:20 proposes 200:3,19 proposing 121:16 149:1 201:22 232:5 243:22

protect 26:5 protection 10:22 38:6 52:4 protective 38:6 proud 171:13 prove 69:15 94:6 131:11 152:3 189:19 190:1,5,8 212:20 219:18,18,22 proves 94:13 119:14 provide 8:18 17:20 21:1 25:20 49:6 57:10 68:21 80:19 88:14 101:4,14,21 102:15 104:3 106:6 113:11 114:8,10 136:3 151:16 156:14 158:10 167:16 170:16 171:6 205:8 206:7 212:7 220:19 221:6 225:9 225:10 227:13 229:21 230:5 244:11,12,15 244:17 257:3 259:16 259:20 279:8 282:20 provided 40:6 42:7 52:13 59:10.13 171:10 244:21 257:6 provider 148:7 205:6 providers 147:15 provides 13:13 25:9 41:22 72:22 207:14 210:8,13 **providing** 51:12,17 56:3 72:8 146:4 164:9 172:1 265:4 proving 198:10 225:15 225:15 provision 150:13 proximity 279:1,7,17 psychiatrist 148:5 psychologists 146:14 **public** 3:8 7:4,13 163:1 163:10,14 164:1,7,13 166:9,12,20 168:19 185:10 196:14 228:13 251:7 259:11 262:6 266:6 267:4,9,18,21 274:10,18,20,21 275:5 276:11,13,16 277:1 279:8 280:4 publication 233:8 publicly 267:20 publish 233:15 published 70:18,19 89:14 276:22 pulmonale 189:5 pulmonary 7:21 31:21 173:19 174:3 188:4,5

188:10,11,16,17,20 189:4 194:7,8,15 pulmonologist 46:20 **pure** 48:10 purely 260:2 PUREX 37:21 purpose 150:18 204:6 274:16 pursue 221:20 pursued 60:3 purview 185:17 189:17 push 43:2 put 28:17 33:20 44:15 53:12 75:2 99:8 115:1 137:15 142:2 187:10 207:22 211:10 218:12 221:1,4 240:8 246:18 246:22 247:10 253:2 276:5 278:21 puts 54:1 64:7 152:2 putting 57:19 74:11 241:19 276:16 Q QTC 81:16 qualifications 242:21 qualified 14:16 173:8 207:13 210:8,13 245:4 qualifier 114:10 245:9 qualifiers 52:5 qualify 135:8 142:21 193:5 qualitative 41:4,11,14 72:22 73:6 76:4 quality 9:4 18:19 69:12 79:6,7 175:16,16 quantitative 41:6 quantity 176:4,7,7 question 15:15,19 18:21 19:4 22:12,14 22:15 27:6 28:13 30:22 40:11 44:17 46:5 47:21 51:4 53:9 53:10 54:18 55:18 60:12,20 61:7 62:2 69:18 72:11 74:22 75:3 76:13,19 77:3,9 85:1,8,12 89:13 91:8 95:5 96:14,15 98:5,7 98:12 105:7,7 114:6 126:19,20 130:18,21 165:18 167:13 190:3 208:11 210:6 218:16 221:3 233:2,5 239:16

240:7 260:12 263:6

263:21 264:22 273:12

275:14 278:10 281:8

auestioned 52:12 133:19 questioning 258:10 questionnaire 16:22 35:16,20 44:18 56:21 66:8,14 67:22 68:10 75:17 102:12 questionnaires 39:12 questions 12:16 13:5 28:5 42:11,17 44:17 45:5 46:7 58:14 59:19 66:19 69:6 72:14 75:6 76:16 78:14 81:10 82:20 84:17,18 90:22 93:3 98:9 105:8,9 133:4 168:8,18 172:15 195:6 226:7 226:14 278:6,9 282:9 queue 195:22 quick 18:14 60:13 96:14 quickly 5:15 13:9 24:15 76:19 265:13 quiet 239:20 auit 180:6 quite 18:17 86:19 87:22 98:16 105:16 quote 238:4 quoted 253:15 quotes 140:1 R Rachel 2:21 85:2 Rachel's 13:3 radiation 7:8,9 39:2 53:1,2,4,5 61:4 184:8 184:10,12,12 280:10 280:16 radio 60:22 radioactive 184:7 radiologic 60:1 radiological 10:22 38:19 60:17 radionuclides 60:18 radon 61:14 raise 114:6 122:7 145:14 149:21 161:3 164:5 203:9 218:16 251:11 raised 93:3 148:5 raising 239:15 ran 133:17 range 67:8 170:11 ranged 56:19 rare 35:2 171:8 rarer 74:17 rational 245:5 rationale 49:21 115:22

136:9 207:15 209:19 210:9,13 242:15 244:13 245:15 rationalized 56:5,17 122:17 131:16 133:19 135:11 187:18 220:2 220:20 rationalized' 143:2 re- 200:16 re-read 103:21 122:6 149:19 re-run 19:6 re-running 43:22 re-statement 135:17 reach 4:12 105:10 reaching 167:7 reactor 10:19 11:17 read 8:19 84:15 113:6 119:1,12 122:5 123:4 130:21 131:7 132:9 134:14 141:12 142:5 143:20 144:19 146:8 147:4 148:13,16 150:9 159:22 174:11 190:4 197:15,17,22 199:19 200:17 203:7 204:3 205:2 208:19 208:20 215:11 224:13 225:8 229:2,6 255:22 255:22 272:3 273:15 273:20 274:11 275:7 reader 142:6 197:19 readily 71:5 127:18 reads 120:1 121:8 148:2 ready 142:1 263:17 real 53:7 75:11 77:2 159:13 221:13 realistic 268:18 reality 45:5 realize 53:20 69:1 really 25:18 27:12 33:4 46:5 47:9 55:13 58:22 64:21 70:5 74:14 75:18 77:5,15 84:2 85:7,19 89:14 96:7 101:3,12,18 102:1 104:12 105:3 108:2 117:12 120:19 121:17 121:17 124:22 130:10 130:11,20 138:6 182:1 189:12 194:22 199:15 201:17 203:4 203:5 204:2 213:21 222:16 223:3,16 225:18 226:3 232:17 258:18 259:7 269:6 reason 48:21 85:16

107:2,11 109:12 113:17 121:9 124:21 155:10 156:6 157:16 187:8 221:14 230:17 258:10 273:15 275:7 reasonable 137:5 262:11 263:13 reasonably 31:17 reasoned 132:1 133:22 135:14 136:9 137:12 143:5 231:1 reasoning 206:13 235:17 244:16 reasoning' 209:4 reasons 78:7 105:4 109:11 RECA 10:12 13:21 205:11 receipts 282:21 283:9 **receive** 26:11 61:19 81:16 273:4,8 274:6 received 26:9 233:10 receiving 275:2 recognize 4:20 100:16 100:18 124:19 161:17 161:19 recognized 186:14 recognizes 160:12 161:10 recognizes' 159:4 recommend 29:10 135:22 153:6,17 203:5 247:1,11 254:11 271:3 recommendation 3:6 30:14 103:22 105:17 106:1 110:14 113:3 113:20 117:12 121:8 122:10 124:22 125:17 129:3,8,21 130:3 134:14 145:14,18 148:14 149:6,21 150:3 153:4 154:17 203:6,13 204:15 205:17 216:14 251:11 251:14 252:19 256:4 277:3 recommendations 3:4 8:18 121:15 161:21 162:6 164:9 170:21 227:14 231:9 241:19 253:3 256:6 recommended 116:17 recommending 161:11 201:21 202:19 232:1 248:5 recommends 104:6 107:3 113:13 120:7

134:15.22 135:10 138:22 139:6 142:7 142:13 143:1 148:15 154:4,17 159:3,8 160:17 198:12 204:17 204:20 209:1 235:14 237:1 246:11,14 247:7,14 255:7 recommends' 159:4 **reconcile** 161:12 265:11 reconciliation 161:17 reconstruction 53:3 reconvene 112:1 162:9 reconvening 112:10 record 81:3 112:4 149:15 163:8 259:21 259:21 284:6 recorded 117:18 recording 265:16 266:3 recordings 265:12 records 15:22 16:7 17:15,18 34:15,18 49:2 50:22 51:1 60:9 123:6 176:15 177:3,3 177:17 195:8,9 263:8 recvcle 80:10 redact 26:4 redacted 102:7 redacting 30:3 **Redlich** 2:8 7:20,20 30:17,22 31:20 65:11 65:12 66:5,11,21 67:12,17,19 68:5,11 68:13,19,22 72:15,16 73:15,18 76:21 107:18 125:15 155:20 157:18 224:10 225:18 225:19 227:2,6,19 228:1,5,16 229:2,5,8 229:16 232:7 234:22 250:15,16,19,22 251:15,16 252:2,13 252:15,21 253:13 256:8,12,19,22 258:7 258:16,20 259:4,9 264:13 266:3,4,15,18 275:10 277:10,11,15 283:5 redone 21:17 reduce 25:12 123:16 125:19 127:5 188:15 reduced 29:2 reduction 132:5 183:1 redundant 238:14 refer 32:10,13,19 55:13 77:14 78:7 88:4 96:17 202:4,18

reference 16:12 80:14 80:17 97:10 216:17 218:19,21 references 42:10 80:15 80:19 193:18 253:19 253:22 254:12,21 referral 19:19,20 27:12 27:18 29:10 33:8 42:13 52:9 77:19 referrals 24:11,16 31:4 79:16 80:2,3 110:18 111:1,2 referred 63:16 108:8 referring 20:1 108:7 119:9 191:7,8 216:12 refers 91:15 214:1 252:8 254:4 255:3 refine 57:10 265:21 reflect 45:5 113:5 123:15 255:13 reflecting 123:13 151:18 reflective 69:7 **reflects** 58:4,8 255:12 **refresh** 103:2 **refuge** 170:2 refusal 188:11 refuse 188:20 regard 20:8 50:1 242:5 regarded 259:14 regarding 78:15 130:5 206:13 209:4 220:3 235:18 256:6 regardless 227:12,17 Register 123:21 125:11 165:5 271:22 272:1 276:17,22 **regs** 275:4 regular 271:13 regularly 20:15 regulate 154:13 **regulation** 115:13,18 123:15 125:7,19 126:22 127:15 128:3 138:18 185:18 201:14 204:4,16 212:5 220:10 224:13 225:1 229:15 243:4 248:4 252:8 273:16,18 regulations 41:20 121:18 126:1 161:15 162:1,4,7 164:10 181:22 183:4 253:16 253:19 254:1,20 255:8 256:7 267:15 272:4 277:14 regulator 23:21 regulatory 10:5 14:1

41:17 87:14 125:3,12 154:13 reimbursable 146:21 **reimburse** 282:22 reimbursed 146:22 282:19 reimbursement 278:7 282:15 283:4 reiterate 206:5 reject 109:19 110:14 128:10,13 210:20 relate 158:16,16 related 10:19 16:6 39:1 39:1 49:18,19 50:12 50:14,14,18 56:12 83:4 88:10 92:16 94:21 148:20 188:12 189:1 223:19 230:15 251:20 256:16 260:21 relates 145:20 146:2 197:5 213:21 225:2 226:7 relating 15:8 258:17 relation 146:1,4 165:11 relationship 14:18 95:6 95:14 173:9.21 224:15 relay 25:20 relevance 89:15 145:21 relevant 33:5 82:15 146:7 197:12 229:9 272:17 277:14 reliability 204:19 reliable 204:13 205:8 rely 12:10 relying 238:17 remarks 169:8 remember 52:18 109:8 117:4 175:6 231:14 remotely 4:12 removal 150:16 151:12 153:11 154:1,9,14,19 155:4 158:22 159:9 159:20 160:10.14.18 remove 141:10 154:14 159:14 208:6,8 209:1 235:14 246:11 removed 236:1,1 removes 155:7 removing 152:13 153:12 157:3 renal 92:18 renders 22:8 **rep** 194:1 repaired 112:18 repeat 102:5 163:19 202:3 254:16,18 repeated 133:6

Neal R. Gross and Co., Inc.

repeatedly 88:19 repeating 143:17 **replace** 122:21 136:15 137:20 139:14 141:17 159:3 232:5 replaced 113:14 135:2 139:3 142:15 222:12 replacement 11:18 replacing 131:14 replicate 162:1,4 report 34:13 56:4 67:1 67:21 81:2 83:12,13 85:21 177:15 184:11 185:1 187:19 188:9 189:3 192:18 209:15 220:2,7 221:9 230:17 231:1 235:11 246:15 246:17 270:2 reported 52:3,7 **reports** 9:3 80:4 81:2 86:1 147:9 174:11 177:16 182:12 246:7 263:3,6 264:17 **represent** 169:20 representative 182:14 representatives 171:3 represented 182:8 request 15:22 81:15 99:10 100:13 103:20 104:4,16 105:15 113:12 114:21 117:18 197:8 238:22 252:4 264:2 266:10,12 270:3 requested 28:6 168:21 172:21 195:14,18 196:7 requesting 86:16 104:7 105:19 106:14 107:5 115:10,10,15 266:15 275:2,16 requests 16:9 21:10 105:22 109:10 263:8 require 66:1 133:20 189:2 220:3 required 80:18 105:22 106:6 111:17 187:18 189:19 194:12 213:7 213:7,8 232:20 requirement 110:2 187:20 191:11 192:7 193:10 209:2,16 219:17 234:16 235:12 235:15 244:19 245:19 257:16 requirements 14:1 81:19 122:19 123:7 190:13 191:21 192:6

246:11 267:7 272:8 272:11 276:11 requires 95:13 106:3 115:13 125:3 131:13 131:15 135:12 136:8 137:5,11 143:3 requiring 104:15 212:11 242:6 reauisition 34:10 research 66:9 181:10 272:16 researched 178:6 180:22 researchers 66:19 195:10 resins 39:6 resolve 216:15 resolved 79:19,19 resource 17:1 36:3 68:3 172:7 resources 51:16 66:4 101:13 respect 9:1 267:10 respected 195:2 **respiratory** 52:4 191:15 191:20 192:4 respond 227:1 response 10:18 118:19 118:21 224:10 responsibility 224:17 rest 72:7 103:5 162:16 162:18,19 178:13 269:6 restored 148:2,16 restrict 151:4 restriction 194:13 restrictions 17:12 restrictive 151:2,6 resubmit 47:21 result 31:8 170:12.20 resulted 206:16 215:13 222:17 237:10,18 238:3 resulted' 223:10 resulting 220:16 236:14 236:15 237:11 249:19 250:1 results 79:12 resumed 112:4 163:8 retains 106:13,14 retirement 132:5 133:10,11 134:17,21 142:9,12 180:6 return 79:14 162:21,21 164:8 196:16 review 11:12 14:12 15:2 15:8 18:20 19:1,4,10 21:8 27:18 35:22 36:1

40:7,10 42:14 48:22 62:8,14,18 67:11 79:3 79:8 82:9 83:14 97:11 185:18 187:5 197:2 266:2 269:15 270:7 reviewed 18:16,18 19:16,17 28:6 79:6 96:16 193:17 reviewing 19:14 reviews 13:15 21:11,11 45:20 78:15,20,21 79:3 80:22 81:13 82:11 102:9 234:7 revise 36:1 revised 90:11 revising 102:11 revisions 76:14 126:2 rewriting 138:17 Rhodes 283:15 **Rhonda's** 13:4 Richland 6:13 rid 208:12 216:16,17 236:5 249:7,9,14 250:10 **Ridge** 179:7 280:3 **ridiculous** 182:22 right 4:17 45:16 46:12 50:20 56:17 57:5 62:7 69:8 76:16 81:9 84:17 85:12 87:13 88:7,7 96:5 106:6 107:6 109:1,2,2,2 115:16 116:7,8 117:15 124:9 126:5,8,17 128:15 131:4,4 138:8,18 139:5,10,10,22,22 140:1,16 141:2,2,6 143:14 144:2,17 149:2 151:22 152:16 154:3 159:10,17 162:12,13 165:15,16 165:19 188:18 189:7 194:10 199:4,8,22 200:1 202:7,13,16,17 208:1,3,4,11,11 209:18,19 210:5 211:16,18 212:12 213:9,9 214:2,8,15 215:2,6,17,17 216:3,9 216:9,13,20,22 218:5 218:10,12 219:14,19 222:7 223:12,16,17 227:5 228:8 229:12 230:22 231:4,8 233:11 234:8 235:5,6 235:6 236:17,20,22 237:12,12,20 238:5 240:7 242:10,10,10

244:11 245:16 247:8 247:9,15 249:11 253:1,5,5,9,11,12 254:21 255:1,13 258:15 259:3,8 261:8 262:1,1,2,8,14,17 266:14 269:21 270:4 275:1,6 279:7 280:20 280:20 281:2.2.6 282:3 right- 28:15 rigmarole 125:11 rigorous 79:17 rigorously 79:17 Rios 2:15 4:18 5:11 8:6 8:6 90:17 112:13,15 130:6 166:11,21 167:6,16 234:6,9 254:14 263:21,22 265:10 266:21,22 270:14 272:3 273:15 274:19 275:7 276:14 277:5,13 280:13 283:2,14 **River** 11:17 16:11 26:14 178:21 179:5 280:3 Rocky 6:2,6 11:10,11 16:11 26:14 170:1,3 role 24:10 133:13 rolled 18:11 room 196:3 root 32:16 **Rosemary** 2:8 6:16 100:6,7 roughly 58:17 route 87:16 **routinely** 114:10 rule 3:5,10 102:21 103:11,13 105:22 106:9 107:17 196:17 197:9 198:13 203:18 227:15 228:10 233:15 234:15,20 266:22 267:6 rulemaking 227:11,20 233:20 rules 185:22 227:21 228:14 233:9 243:19 273:11 277:12 run 18:14 21:17 31:16 34:1 47:12 67:6 83:12 83:13 261:15 running 89:6 182:3 runs 37:1 rush 226:2 S S 2:7

sadly 12:9 safer 99:10 safety 7:19 11:7,9 15:3 Salandro 283:15 samples 43:5 sampling 45:17 sat 180:11 satisfactory 79:13 81:8 satisfy 117:9 123:7 148:6 197:7 Savannah 11:17 16:11 26:14 178:20 179:5 280.3 save 67:19 98:6 247:18 247:19 saves 77:4 saving 188:14 saw 84:7 230:21 saying 29:6 48:14 50:2 50:6,8 51:8 85:3,5 90:4 104:11 106:12 107:1 128:2 154:15 156:10 158:11 176:13 212:18 215:5 219:6 220:19 221:3 231:16 235:19 241:21 242:8 242:13.16 244:20 245:3,11 246:8 261:3 273:14 says 13:11 34:8,8,10 44:19 47:3 56:22 64:16,17 87:5 105:17 106:8 107:10 111:1 115:7 116:7 120:8 125:6,7 126:6,10 127:5 128:13 132:13 140:6,7,14 143:10 144:7,10,12 146:11 146:19 154:17 159:7 183:6,12 187:3,11 191:12 202:5 207:12 210:7 212:15 215:4 215:12 220:14 222:19 222:22 230:14 236:21 244:11 245:9 246:10 273:7 scan 194:6 221:8 scary 189:13 192:8 scenario 230:12 schedule 165:8,13,15 167:8,21 263:18 269:7 270:16 271:20 282:5.7 scheduled 5:4 164:19 schedules 168:3 271:21 281:4 scheduling 260:4 261:7 school 6:18 7:13 10:4

Science 2:20 6:18 9:8 scientific 2:2 44:16 scientist 66:1 scientists 65:22 scope 81:19 130:9,15 146:1,16 148:8,9 158:17,19 197:10 257:7,8,11,11,16 259:14 269:14 screen 78:19 86:15 159:3 196:19 199:14 203:20,22 253:10 screening 5:20 17:18 36:20 scroll 208:16 210:4 232:15 233:1 243:13 243:14 247:3 249:8 250:11 Sea 7:7 season 9:13 second 14:9,11 28:8,21 30:6 36:12 40:5 46:18 64:21 79:4 83:8 94:7 94:14 116:17 117:1 122:2 142:4 144:3.15 149:5 155:21 156:1 158:2.18.21 168:6 198:18 199:20 201:9 201:10,11,12,22 202:18 204:11 205:16 213:8 214:1 215:3 218:22 222:22 233:15 234:12 244:19 246:9 246:10 250:14 255:21 270:5.6 272:22 secondary 83:8 183:13 188:5 **Secondly** 105:4 seconds 129:12 **SECOP** 83:1 Secretary 8:22 171:19 section 10:11 36:10,13 36:18,22 37:9,10 38:5 38:5,11,16,19,20 39:5 58:10 81:9 87:4 90:19 103:19 119:10 122:13 124:2 132:2 142:14 145:20 162:3 190:21 191:17 194:22 198:4 199:3 200:4,13,17,20 201:7 202:4 204:19 204:21 205:11 206:12 207:6,14 212:15 214:5 218:17 222:7,9 225:4,6,17 237:2 239:5 242:9 243:15 243:15 244:3,19 272:4,5 273:16,17,21

274:10 sections 100:19 135:1 162:2,7 258:17 security 6:9 17:12 25:4 see 4:13 9:15 18:15 19:22 20:19 21:9 22:7 22:10,17 26:22 27:15 28:7 31:13 32:12 35:3 38:13,17 46:16,17 54:5 60:1 61:7 72:21 83:12 84:22 85:1 86:1 94:8 98:14 100:1 107:14 108:21 113:22 115:20 128:2,5 132:2 137:17 144:14 153:5 157:9 160:4 169:5,15 171:20 172:11 186:12 187:15 189:5.6 192:20 199:15 201:9 203:19 208:1 226:15 230:13 234:12 241:21 242:1 250:11 261:2 264:10 seen 13:10 208:16 209:8 sees 72:21 select 257:17 selected 256:13 267:3 **self** 69:2 self- 69:2 89:7 self-explaining 86:20 SEM 15:17 19:7 21:17 21:22 22:2,3,3,5 28:17 31:9 32:11 34:1 42:7,20 43:14 44:5,12 46:1 47:6,12 64:4,7 65:5,6 67:6 72:7 76:8 97:1 98:19 101:8,10 173:17 174:2 220:7 238:22 Senator 182:14 Senators 171:2 send 4:15 49:7,9 51:3,5 55:21 62:15 63:1 85:4 112:22 178:9 265:21 266:13 267:10,11,16 267:16 277:13 sending 85:6 Senior 2:19 9:7 sense 130:1 179:20 182:2 sensitivity 48:19 sensitization 186:20 sensitized 192:12 sent 28:10 79:20,22 176:10,15,15,18 sentence 115:21 116:2 116:16,17 117:8

149:11 152:21 153:7 154:1,5 155:19,21 156:2,4 158:15,18,21 159:7,8 160:9,17 217:16 222:11 238:7 238:11 246:10,12 250:4,7 253:18 sentences 158:14 sentiment 115:16 121:5 159:13 September 270:21 278:11 281:5 series 234:6 serious 169:13 service 7:10 149:14 150:18 151:14 152:14 156:14 170:13 171:9 services 146:20,21 150:13,15 151:7 152:13 session 8:21 102:18 set 125:5 183:7 187:7 189:15 191:16 203:4 220:7 234:4 setting 219:17 settle 268:13 settles 282:8 seven 31:5 86:7 165:4,9 165:10,11 167:22 260:10 276:5 seven-plus 168:2 seventh 124:15 125:1 169:2shall' 248:4,6,8,20 249:6 **shape** 163:5 share 177:11 195:9 she'll 73:3 shed 221:2 shifting 230:13 short 57:20 76:19 89:7 99:5 short- 230:21 shorter 32:9 269:4 shorthand 96:9 shortly 163:11 should' 248:2 show 13:17 16:3 37:8 57:17 63:17 88:8 206:15 220:15 222:20 223:5,16,19,20,20 224:6 237:17 241:6 showing 192:13 194:7 194:8,14 shows 174:19,20 191:13 223:1 side 16:7,7,9,9 17:21 21:12 41:3,4,7 60:17

64:5 100:4 177:10 231:16 significance 138:6 signs 188:3 silica 234:14,19 Silver 2:4 7:2,2 56:14 56:15 57:13,17 58:6 117:2,3,15,19 118:9 121:3,4 123:12,13 133:16,17 141:15,20 142:1 144:2,3 147:22 148:1 153:9,10 247:20,21 248:9,11 248:14,17 249:1 269:10,11 270:5,9 279:9 similar 11:16 16:9 97:14 152:12 177:4 228:21 Similarly 60:6 **simple** 107:1 155:10 181:16 183:18 207:9 simplification 133:20 135:16 simplified 135:12 137:17,18 143:3,15 143:17 182:11 simplified' 143:13 144:22 simply 17:9 138:21 215:5 218:19 Simultaneous 249:16 262:3 single 51:12 184:5 203:6 sit 12:13 site 14:7 15:16 16:11 17:19 18:10 26:14 42:8 43:9 44:7,10 69:22 70:17,18 71:1 72:6 73:22 74:2 151:17 156:22 158:4 158:5 173:18 174:16 174:18 184:9 195:8 204:11 238:17 279:9 279:15 sites 45:20,22 64:20 70:4 71:12,17,21 99:15 121:10 151:8 157:3 230:16 278:21 279:21 280:2,2 sits 55:19 situation 17:7 48:12 228:2 six 67:8,13,20 86:6 103:4,9 **sixth** 124:4,8,13,19 skills 114:18

skin 92:17 skip 209:6 slightly 157:22 slot 262:11 slow 258:8 slowly 274:4,4 small 11:2 87:21 smaller 199:16 smithing 247:22 smoke 61:14 smoothly 170:19 snapshot 53:7 sniffling 9:15 **SOAF** 19:13 21:6 27:1,6 27:13,18 35:4 40:6 42:6 57:6,11 63:15 SOAF's 21:4 sociology 57:4 soften 138:10 softer 241:20 **Sokas** 2:8 6:16,16 59:17,18 60:21 61:2,8 61:12,15,21 62:2,11 63:3,7,9,14 100:7 102:3,4 117:7 165:18 165:22 167:9.14.19 223:14 224:10 233:2 233:3,4,17,21 234:11 260:20 261:5 **soldering** 178:3,12 solely 132:4 272:15 273:2 274:4,11 solicit 39:20 Solis 171:19 solution 49:4 231:22 **solve** 104:20 215:3 solvents 16:19 181:1 solves 241:9,9 solving 104:21 somebody 30:17 95:21 188:2 193:22 224:3 243:7 somebody's 265:4 someplace 96:22 97:1 somewhat 241:15 soon 167:22 168:11 270:15 sorry 4:9 11:4 14:11 21:3 22:19,22 29:16 29:21 33:13 34:9 35:6 35:9,10 40:15 61:1 81:11 87:1 100:2 116:5,6 122:12,14 136:2 144:4,7 167:12 197:5,16 200:17 203:15 207:3 221:21 224:9 232:15 241:13 248:12 251:6,22

254:16 263:20 278:16 sort 29:9 64:11 70:10 71:9 72:18 73:5,8 92:10 95:9 124:20 149:14 213:18 220:12 256:19 sound 226:16 sounded 126:15 sounds 110:20 232:13 **soup** 43:18 source 89:13 205:8 sources 204:4,8 238:21 239.6Southern 10:21 speak 5:7 74:20 116:1 172:21 179:18 speaker 172:20 185:12 195:12 speakers 5:6 speaking 196:5 249:16 262:3 special 46:19 52:19 specialist 31:21 79:5 81:5 specialists 21:15 110:19 111:3.15 specialized 15:7 22:15 **specific** 15:5,5 16:21 22:2,12,13,14 32:1,7 44:11 51:1,1,8 75:20 88:15 96:18 104:18 104:20,22 105:1 117:9 123:18 125:21 149:14 161:11 181:4 181:8 182:21.22 192:20 201:12 232:2 232:5 239:20 248:13 252:22 276:11 280:2 specifically 22:11 102:7 111:1,2 177:9 273:22 **specificity** 48:19 49:1 49:20 51:21 specifics 50:21 specified 225:3 specify 128:14 136:22 197:14 specifying 123:10 197:8 speed 226:17 227:6 spend 98:8 175:15 spends 66:12 **spent** 43:4,12 66:6 67:20 180:14 **spine** 147:2 spirit 135:2 140:15,15 140:17 spoken 23:13

spot 109:13 138:12,15 **spouse** 17:8 stab 156:9 staff 9:2 12:4,5 24:9 Stage 184:19 Stainaker 174:1 stand 94:8 195:22 standard 46:10 57:21 118:20 135:3 142:15 155:12.12 standard' 140:15 standards 41:17 standing 196:10 stands 158:15 stapled 26:7 40:9 Star-One 195:21 196:11 start 12:21 28:19 38:12 87:10 92:1 104:10 112:7 163:22 168:2 185:7 235:7 279:12 started 4:4 9:19,20 10:1 10:2,2 186:10 234:14 241:1 starting 25:21 starts 15:11 27:19 36:5 36:18 92:19 160:9 startup 11:12 state 7:4 23:20 146:17 148:8,10 150:10 178:18 216:11 232:12 240:17 243:4 267:20 stated 185:1 274:8,16 274:21 statement 18:12 53:11 54:2 107:10 110:9 126:20 129:22 143:10 186:12 202:9 207:8 225:20,20 244:21 states 1:1 40:11 170:8 204:17 206:22 272:5 274:1 status 112:14 statute 111:5 158:10 175:6 254:3,13 statutorily 150:14 statutory 87:13,14 156:13 216:1 253:13 staying 107:22 steel 6:6 178:1 step 13:7,8 63:17 183:8 **Stephanie** 185:13 Steve 70:14 153:5 229:13 Steven 1:20 2:7 6:20 280:7 stick 209:10 sticking 109:5 stipulate 242:21

309

stipulates 125:6 stop-gap 127:16 straight 13:5 straightforward 45:9 46:22 strange 157:8 strategic 126:19 stricken 155:17 strike 119:19,20 122:20 129:7 217:19 225:9 239:7,9 striking 230:11 strive 260:13 strong 55:12 232:3 279:16 struck 119:20 146:12 146:22 153:17 154:2 154:5 struggle 20:3 51:19 56:1 100:21 stuck 124:6 229:17 studies 6:19 181:1.2 **study** 45:4 stuff 42:22 43:8,9 125:4 225:9 244:12 264:13 276:19 sub-15:19 272:11 Sub-3 132:13 Sub-A 207:7 **sub-groups** 64:1,10 **Sub-Item** 200:20 sub-paragraph 119:18 223:15 249:17 Sub-Part 123:8 207:12 sub-section 273:7 274:1 sub-specialists 110:19 subcommittee 120:14 123:12 133:18 151:11 151:19,21 164:18,22 165:3 166:13,19,22 167:8,17,21 257:19 258:1 260:5,15,16 262:15,22 263:7,11 264:3,5,11 266:11 267:1,8,12,16,17,17 268:14 269:9,18 271:13,16 272:15 273:2,22 274:3,9,12 274:19,22 275:22 276:10 277:1,7,17 subcommittees 120:12 150:22 164:20 166:2 166:8,12,22 167:18 258:12 260:6,12 262:5 268:20 269:13 271:10 273:17 subcontracted 156:21

subcontractor 13:20 subcontractors 25:5 36:16 subject 172:13 200:7 201:1,15 215:6 272:7 273:11 subluxation 147:3 submission 131:15,16 133:21 136:8 137:5 137:11 143:3 submissions 135:13 **submit** 18:2,4,9 131:10 submits 18:2 207:13 210:7 submittal 42:12 submitted 28:22 34:4,5 35:1 49:2 109:11 212:22 subsequent 202:3 260:3 **substance** 14:4,6,13,18 22:19,19 32:7 152:15 153:1 173:11,18 174:3,19 179:22 180:8,18,19 184:10 184:13.15.16 203:16 204:7 205:10 206:17 215:13 220:17 222:16 222:18 223:7 237:8 238:4 substances 1:4 4:8 13:18 33:1 39:8 49:3 50:12,13 151:17 152:5 160:13 173:21 175:2.4 185:5 238:15 253:20 254:2 substandard 34:18 substantive 164:4 substituting 109:16 suburbs 169:21 succinct 73:5 succinctly 76:16 suddenly 226:2 suffer 25:13 suffering 9:13 194:19 sufficient 107:9,11 109:11,12 131:17 134:4,9 136:10 137:12 143:6.7 176:14 209:11 235:8 sufficiently 122:18 suggest 86:5 114:19 116:15 213:3 225:11 240:17 suggested 128:10 133:20 153:18 181:12 suggesting 121:21 223:9 269:4

suggestion 95:20 109:7 216:19 248:13 suggestions 90:8 summarize 204:2,3 223:9 summarizes 40:14,17 summary 28:15 42:9 57:12 59:1 summer 168:2.4 supervisor 29:7 supplement 266:1 supplemental 18:3 supplied 38:7 support 10:22 21:22 34:4 104:4 113:12 114:21 supported 60:11 supporting 24:7,10 supports 32:5 supposed 111:7 187:12 sure 8:15 13:6 18:19 19:7 20:15 29:4 32:8 50:18 59:9 68:18 70:20 76:17 82:17 83:15 86:3 89:20 91:3 95:4 101:5 116:19.19 135:16 149:15 151:18 151:19 154:16 164:22 175:13 199:6 232:15 233:3 251:1 256:10 256:21,21 258:19 261:4 263:20 266:17 266:17,17 268:2 surge 31:9 surgeons 146:13 148:3 148:17 surveillance 70:9 survivor 17:7 200:8 201:2 survivors 36:9 suspect 259:11 suspected 38:15 suspicion 184:17 switching 108:10 synergy 59:20 system 55:19 63:19 80:2 105:13 239:3 243:12 т Tab 86:22 table 3:1 46:18 100:4 228:11 231:16 269:16 tag 250:7 tail 92:19 tailor 19:19 tailored 19:18 take 46:18 58:14,19

72:13 73:19 78:14 90:14 96:4 102:22 111:22 113:6 119:1 121:14 125:2 129:16 149:18 156:9 159:21 161:9 162:20 207:22 208:17 211:8,8,9,17 216:18 218:4,6 232:18 241:5 246:21 251:4,9 253:4,5 257:12 260:18 taken 36:3 232:16 takes 66:15 67:3 73:20 231:6,7 240:20 talent 172:12 talk 21:18 23:8,9 31:12 36:14 44:5,7 47:18 52:16 65:15 67:6 77:3 78:2 96:3 224:8 260:4 277:19 talked 13:21 17:13 19:15 33:2,2,3 49:16 50:5 51:18 53:17 65:5 78:3 224:15 243:5 talking 12:22 17:5 66:14.15 91:12 96:1 121:16 131:3 165:19 165:20 166:13 179:16 193:14 222:9,13 253:11 260:21,22 275:1 talks 14:3,7,12 37:2,14 38:21 79:2 89:22 220:11 222:11,14 tank 38:1 tap 21:21 task 75:16,18 86:2 87:22 96:18 98:4 99:19 101:19 146:5,5 156:12 198:10 251:18 258:11 281:18 tasks 75:20 76:1,4 94:19 95:9,16 96:11 97:14,17 101:7 153:11 197:13 teacher 144:4 teaching 270:17 team 177:15 tech 43:20 technically 218:14 techs 43:19 telephone 65:14 67:14 165:19 260:16 267:18 tell 24:2 32:16 50:3,10 50:17 63:3,18 64:7 111:13,19 170:10 171:13 176:2,4,5,6 181:7 183:22 196:1

telling 52:2 45:20.22 46:15 47:4 246:1.2 4 25:4 261:5 22 tenls 46:1 243:8 52:2 61:14 64:15 263:2.12 264:7.9 23 tennessee 7:4 68:15,16 70:9 71:18 278:20 279:20 280:4 24 tense 139:9 92:17.21 22 97:5,13 95:11,21 108:22 14:5 tense 139:9 92:17.21 22 97:5,13 95:11,21 108:22 11:6 term 134:11 135:11 104:11 177:11 187:11 216:10 242:18 253:17 11:7 11:88:01:8 42:3 11:8 206:11 207:6 212:17 129:20 198:21 213:18 264:10,12,18 265:2 204:12 235:3 275:17 11:min 206:11 221:8 244:17,19 12:12:8: 275:15 278:7 283:17 11:min 10:11 18:11 18:11 11:min 100:21 118:2 128:8 22:3 25:17.20 27:27 13:21 51:0 0:32 11:11 19:11 41:15 13:3:8 10:11 194:8 41:15 42:2 43:7 46:11 10:41:19 114:15 13:3:8 10:11 10:11:15 13:3:8 10:11 194:8 41:15 42:2 43:7 46:11 10:11:15 13:1:8 10:11 10:11:11 10:11:11 10:11:11 10:11:11 10:11:11 10:11:11:11 10:11:11 10:11:11	II.			
telling 52:2 45:20.22 46:15 47:4 246:1.2 425:4 261:5 22 tenls 46:1 243:8 52:2 61:14 64:15 263:2.12 264:7.9 23 tennessee 7:4 68:15,16 70:9 71:18 276:20 279:20 280:4 24 tense 139:9 92:17.21 22 97:5,13 95:11,21 108:22 41:4.5 tense 139:9 92:17.21 22 97:5,13 95:11,21 108:22 41:4.5 terminology 44:16 238:22 240:21 257:22 14:4.5 262:21 111 206:11 207:6 212:17 192:20 198:21 213:18 266:13,19 270:11 266:13 264:10,12,18 265:2 204:12 235:3 275:17 111 100:21 118:2 128:8 275:15 278:7 283:17 111 111:18:11 111 111:18:11 111 111:18:13:13:18 111 100:21 118:2 128:8 22:3 25:17,20 27:27 13:2 15:10 20:3,21 14:17:19 114:15 13:38 104 194:8 44:15 42:2 43:7 46:11 14:19 114:15 13:38 104 194:8 44:15 42:2 43:7 46:11 14:19 114:15 13:38 104 194:8 44:15 42:2 43:7 46:11 14:19 114:15 13:38 104 194:8 44:13 14:21	220:10	41:21 42:9 45:18.19	241:16.18 245:2.17	22
tells 52:2 61:14 64:15 26:2 27:2 26:2 27:3 11:3 21:0 22:1 21:1 21:0 22:1 21:1 21:0 22:2 21:1 21:0 22:2 21:1 21:0 22:2 21:1 21:0 22:2 21:1 21:0 22:1 11:0 22:1 11:0 22:1 11:0 22:1 11:0 22:1 11:0 22:1 11:0 22:1 11:1 21:0 22:1 11:1 21:0 22:1 11:1 11:1 11:1 11:1 11:1 11:1 11:1 11:1 11:1 11:1 11:1				23
tempted 13:1,4 ten 181:20 68:15.16 709 71:18 76:8,13 79:12 88:10 270:1,14 276:8,21 22 tennessee 7:4 tense 139:9 92:17,21,22 97:5,13 276:20 279:20 280:4 26 term 134:11 135:11 97:15 101:15 102:15 281:4,5 22 term 34:11 135:11 97:15 101:15 102:13 96:11.21 108:22 timm 143:2 146:18 202:18 104:11 177:11 187:11 216:10 242:18 253:17 18 205:12 24:12 223:32 26:10 238:22 240:21 257:22 thinking 03:32 97:17 18 100:21 118:2 128:8 264:10,12,18 265:17 203:32 75:17 Thirty-point-two-thre 18 100:21 118:2 128:8 275:15 278:7 7283:17 18:17,19 12:12,22 197:20 Thirty-point-two-thre 112:14 199:16 53:6 59:1 62:18 67:15 69:11,31 574: 75:8 thought 18:5 78:1 tob 194:8 41:15 42:2 43:7 46:11 104:19 114:15 133:8 tod 194:8 22 177:01 194:8 41:13 19:42:9 52:1 28:11 101:1,31,17 74 72:5,12 126:9 280:18 100:1 195:12:02 10:17 77:79,11,14,21 102:16 14 147:11 148:1 23:10 194:6				23
				26
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				26
				27
				27
				time
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$				18
215:4 220:7 223:3 226:6 thinks 30:18 42:3 88 terms 25:18 46:7 58:3 264:10,12,18 265:2 204:12 235:2 275:17 121 83:21 85:1 96:13 269:13,19 270:11 Thirty 118:18 thift 100:21 118:2 128:8 275:15 278:7 283:17 Thirty 198:18 thift 188:17 241:17 258:8 think 30:17,19 12:12,22 Thirty 198:18 thift 194:8 22:3 25:17,20 27:27 thoroughly 224:14 to' terrible 44:3 22:3 25:17,20 27:27 thoroughly 224:14 to' test 59:22 47:13,19 48:9 52:1 248:1 257:10 258:3 12 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 22 text 199:16 69:1 77:9,11,14,21 102:16 14 102:2,4,17 106:19 87:16 89:9,21 95:10 thousands 4:21 65:17 16 112:1,8 113:1 123:9 95:19,20,22 97:4 28:5,5,12 29:3,4 34:1 102:16 14 12:2:0 140:12 147:8 98:11 101:1,3,11,17 40:8,919 135:12 37 14 13:2:2:0 140:12 147:8 98:14 20:16:132:6:16 165:17 170:5.7 10 17				time
terminology 44:16 238:22 240:21 257:22 third 4.7 36:13 144:21 224 terms 25:18 46:7 58:3 264:10,12,18 265:2 204:12 235:3 275:17 time 138:21 85:1 96:13 269:13,19 270:11 204:12 235:3 275:17 time 158:17 241:17 258:8 275:15 278:7 283:17 Thirty 18:18 time 271:9 13:2 15:10 20:3,21 thoroughly 224:14 toroughly 224:14 194:8 41:15 4:2: 43:7 46:11 147:11 148:1 231:19 104 194:8 41:15 4:2: 43:7 46:11 147:11 148:1 231:19 10 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 22 text 199:16 76:7 77:9,11,14,21 102:16 14 48:6 69:3 72:12 84:20 78:8,12 81:8 82:18 thought 90:15 102:13 told 102:2,4,17 106:19 87:16 89:9,21 95:10 14:21 24:7 26:2 Tor 112:1,8 113:1 123:9 95:19,20,22 97:4 28:55,512 29:3,43:41:10 205:2 265:10 268:16 10 12:2:4,12 19:10 13:5 74:14 13:5 118:12 119:10 205:2 265:10 268:16 10 13:2:2:5,11 153:4 140:14:18 212:19:10 205:			thinks 30:18 42:3	80
terms 25:18 46:7 58:3 8:21 85:1 96:13264:10,12,18 265:2 269:13,19 270:11201:12 235:3 275:17 time 168:17 241:17 258:8 13:2 15:10 20:3,21Thirty-point-two-thre 197:20time time time 197:20271:9 terrible 44:3 194:822:3 25:17,20 27:2,7 test 69:22 96:20 194:8 				25
83:21 85:19 269:13,19 270:11 Thirty 118:18 title 100:21 118:2128:8 trink 9:71,91 122.22 197:20 197:20 197:20 197:20 197:20 197:20 197:20 197:20 197:20 197:20 197:20 107:20 107:21 107:20 107:21 107:20 107:21 104:19		264:10,12,18 265:2	204:12 235:3 275:17	timi
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	83:21 85:1 96:13		Thirty 118:18	title
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	100:21 118:2 128:8			title
271:9 13:2 15:10 20:3,21 thoroughly 224:14 to'1 text fible 44:3 22:3 25:17,20 27:2,7 thoroughly 224:14 to'1 194:8 41:15 42:2 43:7 46:11 104:19 114:15 133:1 tood tood 194:8 41:15 42:2 43:7 46:11 104:19 114:15 133:1 19 16 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 26 textual 27:15 69:11,13,15 74:4 75:8 thoughts 90:15 102:13 told textual 27:17 76:7 77:9,11,14,21 102:16 11 102:16 14 48:6 69:3 72:12 84:20 78:8,12 81:8 82:18 80:17 170:5,7 tom 65:17 170:5,7 tom 102:2,4,17 106:19 87:16 89:9,21 95:10 14:17:13 196:20 103:7,22 10:6,8 177:21,91 13:5 118:10 109:7,22 10:6,8 179:9 204:8,22 205:1 104:19 135:12 105:12 20:12 104:19 135:12 105:12 20:12 104:12 24:7 26:2 tom 172:19,10,17 182:10 109:7,22 110:6,8 179:9 204:8,22 205:11 104:19 135:12 104:19 135:12 107:19 20:12 205:11 104:12 24:12 24:7 26:2 106 172:19,10,17 182:10 109:7,22 110:6,8	158:17 241:17 258:8	think 9:17,19 12:12,22		TMI
test 69:22 96:20 194:8 29:3 34:6 39:10 41:1 104:19 114:15 133:8 tod 194:8 41:15 42:2 437 46:11 147:11 148:1 231:19 16 test 59:22 47:13,19 48:9 52:1 248:1 257:10 258:3 11 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 22 text ual 27:15 69:11,13,15 74:4 75:8 thoughts 90:15 102:13 10 text as 20:20 101:17 84:1,46,10,15 86:18 65:17 170:5,7 ton 102:2,4,17 106:19 87:16 89:9,21 95:10 three 14:21 24:7 26:2 Ton 112:1,8 113:1 123:9 95:19,20,22 97:4 28:5,512 29:3,43:41 top 132:20 140:12 147:8 98:11 101:1,3,11,17 40:8,9,19 135:12 37 149:17 163:5,20 101:18 102:1 106:2,7 143:2 158:15 160:5 16 172:1,9,10,17 182:10 109:7,22 110:6,8 197:9 204:8,22 205:1 tox 182:10,10 185:7,8,14 113:5 118:12 119:10 205:2 265:10 268:16 tou 195:5,10,11 196:15 120:21 122:5 124:4 268:17 269:13,19 23 23:66 132:2,4 149:19 151:3 156:10 158:12 163:5 throw 245:12	271:9	13:2 15:10 20:3,21	thoroughly 224:14	to' 1
194:8 41:15 42:2 43:7 46:11 147:11 148:1 231:19 16 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 27 textual 27:15 69:11,13,15 74:4 75:8 thoughts 90:15 102:13 tol 48:6 69:3 72:12 84:20 78:8,12 81:8 82:18 thousands 4:21 65:17 Ton 89:2 90:20 101:17 84:1,46,10,15 86:18 65:17 170:5,7 tom 102:2,4,17 106:19 87:16 89:9,21 95:10 three 14:21 24:7 26:2 Ton 132:20 140:12 147:8 98:11 00:1,35 86:18 166:17 170:5,7 tom 132:20 140:12 147:8 98:11 00:1,35 86:18 165:17 170:5,7 top 132:20 140:12 147:8 98:11 00:1,35 86:18 165:17 170:5,7 top 132:20 140:12 147:8 98:11 00:1,35 (2:14) 168:21 173:13 196:20 Tor 172:1,9,10,17 182:10 109:7,22 110:6,8 197:9 204:8,22 205:1 tota 182:10,10 185:7,8,14 113:5 118:12 119:10 205:2 265:10 268:16 tou 195:5,10,11 196:15 120:21 122:5 124:4 268:17 269:13 13:1 147 231:16 282:6 283:11 128:6 133:2,6,14 147:6:3,19 tou	terrible 44:3	22:3 25:17,20 27:2,7	thought 18:5 78:1	toba
tests 59:22 47:13,19 48:9 52:1 248:1 257:10 258:3 17 text 199:16 53:6 59:1 62:18 67:15 266:9 280:18 22 textual 27:15 69:11,13,15 74:4 75:8 thoughts 90:15 102:13 told textual 27:15 69:11,13,15 74:4 75:8 thoughts 90:15 102:13 told thank 4:5,19 25:14,16 76:7 77:9,11,14,21 102:16 14 48:6 69:3 72:12 84:20 78:8,12 81:8 82:18 thousands 4:21 65:17 Tor 102:2,4,17 106:19 87:16 89:9,21 95:10 three 14:21 24:7 26:2 Tor 112:1,8 113:1 123:9 95:19,20,22 97:4 28:5,512 29:3,4 34:1 top 132:20 140:12 147:8 98:11 101:1,3,11,17 40:8,9,19 135:12 37 149:17 163:5,20 101:18 102:1 106:2,7 143:2 158:15 160:5 16 172:1,9,10,17 182:10 109:7,22 110:6,8 197:9 204:8,22 205:1 tor 195:5,10,11 196:15 120:21 122:5 124:4 268:17 269:13,19 tox 232:22 255:14 277:15 126:4,12,18,20 127:3 270:10 271:7 275:15 14 281:16 282:6 283:11 128:6 13 3:72:16 145:2,4 149:19 151:3 throw	test 69:22 96:20 194:8	29:3 34:6 39:10 41:1	104:19 114:15 133:8	toda
text 199:1653:6 59:1 62:18 67:15266:9 280:1824textual 27:1569:11,13,15 74:4 75:8thoughts 90:15 102:13102thank 45,19 25:14,1676:7 77:9,11,14,21102:1610248:6 69:3 72:12 84:2078:8,12 81:8 82:18thousands 4:21 65:1710189:2 90:20 101:1784:1,4,6,10,15 86:1865:17 170:5,7tom102:2,4,17 106:1987:16 89:9,21 95:10three 14:21 24:7 26:2Tom112:1,8 113:1 123:995:19,20,22 97:428:5,5,12 29:3,4 34:1top132:20 140:12 147:898:11 101:1,3,11,1740:8,919 135:1233149:17 163:5,20101:18 102:1 106:2,7143:2 158:15 160:516167:19 169:3,12,15109:7,22 110:6,8197:9 204:8,22 005:1tot172:1,9,10,17 182:10109:7,22 110:6,8197:9 204:8,22 005:1tot195:5,10,11 196:15120:21 122:5 124:4268:17 269:13,19tox281:16 282:6 283:11128:6 133:2,6,14three-day 271:422283:14,18 284:1,2134:7 141:12 144:18Throw 248:1143tharks 56:13 172:16145:2,4 149:19 151:3throwing 230:2253236:6152:2,5,11 153:4throwing 230:2253they'd 177:11 194:3165:8 166:8 172:3tige 91:1718they'd 177:11 194:3165:8 166:8 172:3tige 91:1718they'd 177:11 19:33195:12 01:53.13131329:22 41:22 47:2186:22 189:6,7time 91:13 41:16 43:52021:3 74:16 175:18 176:1220:14 20:17 202:867:20 69:16 72:13	194:8	41:15 42:2 43:7 46:11		16
textual 27:1569:11,13,15 74:4 75:8thoughts 90:15 102:13toldthank 4:5,19 25:14,1676:7 77:9,11,14,21102:161448:6 69:3 72:12 84:2078:8,12 81:8 82:18102:161489:2 90:20 101:1784:1,4,6,10,15 86:1865:17 170:5.7Tom102:2,4,17 106:1987:16 89:9,21 95:10three 14:21 24:7 26:2Tom112:1,8 113:1 123:995:19,20,22 97:428:5,5,12 29:3,4 34:1top132:20 140:12 147:898:11 101:1,3,11,1740:8,91 9135:1235149:17 163:5,20101:18 102:1 106:2,7143:2 158:15 160:516172:1,9,10,17 182:10109:7,22 110:6,8197:9 204:8,22 205:1tota195:5,10,11 196:15120:21 122:5 124:4268:17 269:13,19tox232:22 255:14 277:15126:4,12,18,20 127:3270:10 271:7 275:1514281:16 282:6 283:11128:6 133:2,6,14three-day 271:422236:6152:2,5,11 153:4thrown 245:1217that' 222:3154:7 155:5,16,21thrown 245:1217that' 222:3154:7 155:5,16,21thrown 245:1217the' 146:18156:10 158:12 163:5tige 177:1516they'd 177:11 194:3165:8 166:8 172:3tige 177:151629:22 41:22 47:2186:22 189:6,7tige 177:151629:22 41:22 47:2186:21 172:1173:10 74:2,6 76:52220:14 201:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:52220:21 2 23:12 33:19 233:6212:20 214:10,2177:5 78:1,14 89:725	tests 59:22	47:13,19 48:9 52:1	248:1 257:10 258:3	17
thank $4:5, 19 25:14, 16$ 76:7 77:9, 11, 14, 21102:1614 $48:6 69:3 72:12 84:20$ $78:8, 12 81:8 82:18$ $65:17 170:5.7$ Tom $89:2 90:20 101:17$ $84:1, 4, 6, 10, 15 86:18$ $65:17 170:5.7$ tom $102:2, 4, 17 106:19$ $87:16 89:9, 21 95:10$ three 14:21 24:7 26:2Tom $112:1, 8 113:1 123:9$ $95:19, 20, 22 97:4$ $28:5, 5, 12 29:3, 4 34:1$ top $132:20 140:12 147:8$ $98:11 101:1, 3, 11, 17$ $40:8, 9, 19 135:12$ 37 $149:17 163:5, 20$ $100:18 102:1 106:2, 7$ $143:2 158:15 160:5$ 16 $177:1, 9, 10, 17 182:10$ $109:7, 22 110:6, 8$ $197:9 204:8, 22 205:1$ $102:1 22:5 124:4$ $182:10, 10 185:7, 8, 14$ $113:5 118:12 119:10$ $205:2 265:10 268:16$ $100:1 22:5 225:10 268:16$ $195:5, 10, 11 196:15$ $120:21 122:5 124:4$ $268:17 269:13, 19$ $100:1 12:5 126:4, 12:18, 20 127:3$ $232:22 255:14 277:15$ $126:4, 12:18, 20 127:3$ $270:10 271:7 275:15$ 14 $232:22 255:14 277:15$ $126:4, 12:18, 20 127:3$ $270:10 271:7 275:15$ 14 $232:22 235:14 277:15$ $145:2, 4 149:19 151:3$ $116ree-day 271:4$ 252 $236:6$ $152:2, 5, 11 153:4$ $116ree-day 271:4$ 252 $236:6$ $152:2, 6, 11 153:4$ $116ree-day 271:4$ 252 $129:22 41:22 47:2$ $136:10 158:12 163:5$ $116:77:15$ $116:17 21:2$ $171:11 94:3$ $165:8 166:8 172:3$ $116:17 21:1$ $116:17 2:16$ $146:21 177:15$ $111:17 132:9 15:20$ $221:12 23:11 122:2 197:1$ $50:10 53:17 54:17$	text 199:16	53:6 59:1 62:18 67:15	266:9 280:18	25
48:6 69:3 72:12 84:20 78:8,12 81:8 82:18 thousands 4:21 65:17 Tor 89:2 90:20 101:17 84:1,4,6,10,15 86:18 65:17 170:5,7 tor 102:2,4,17 106:19 87:16 89:9,21 95:10 16:17 170:5,7 tor 112:1,8 113:1 123:9 95:19,20,22 97:4 28:5,5,12 29:3,4 34:1 tor 132:20 140:12 147:8 98:11 101:1,3,11,17 40:8,9,19 135:12 37 149:17 163:5,20 101:18 102:1 106:2,7 143:2 158:15 160:5 16 172:1,9,10,17 182:10 109:7,22 110:6,8 197:9 204:8,22 205:1 tot 182:10,10 185:7,8,14 113:5 118:12 119:10 205:2 265:10 268:16 tou 195:5,10,11 196:15 120:21 122:5 124:4 268:17 269:13,19 tox 281:16 282:6 283:11 128:6 133:2,6,14 three-day 271:4 22 236:6 152:2,5,11 153:4 thrown 245:12 17 that' 222:3 154:7 155:16,21 Thurw 245:12 17 29:22 41:22 47:2 186:22 189:6,7 ties 91:17 ties 91:17 18 that' 22:3:22 173:20 182:11 186:1 ties 91:16 43:5 22 22	textual 27:15	69:11,13,15 74:4 75:8	thoughts 90:15 102:13	told
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		76:7 77:9,11,14,21	102:16	14
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				Ton
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				tom
132:20 140:12 147:8 98:11 101:1,3,11,17 40:8,9,19 135:12 37 149:17 163:5,20 101:18 102:1 106:2,7 143:2 158:15 160:5 16 167:19 169:3,12,15 106:9 108:5,14,18 168:21 173:13 196:20 Tor 172:1,9,10,17 182:10 109:7,22 110:6,8 197:9 204:8,22 205:1 tota 182:10,10 185:7,8,14 113:5 118:12 119:10 205:2 265:10 268:16 tota 195:5,10,11 196:15 120:21 122:5 124:4 268:17 269:13,19 tota 232:22 255:14 277:15 126:4,12,18,20 127:3 270:10 271:7 275:15 14 248:16 282:6 283:11 128:6 133:2,6,14 three-day 271:4 22 233:6 145:2,4 149:19 151:3 thrown 248:11 43 that' 222:3 154:7 155:5,16,21 thrown 245:12 17 that' 222:3 154:7 155:5,16,21 thrown 245:12 17 the' 146:18 156:10 158:12 163:5 tige 177:15 12 they'd 177:11 194:3 165:8 166:8 172:3 tige 177:15 12 29:22 41:22 47:2 186:22 197:1 50:10 53:17 54:17 22 123:17 101:1 160:1 197:14 199:14,14,16 59:8 66:5,18,22 67:3 22 <				-
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				-
$\begin{array}{c c c c c c c c c c c c c c c c c c c $				
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$				
195:5,10,11 196:15120:21 122:5 124:4268:17 269:13,19toxi232:22 255:14 277:15126:4,12,18,20 127:3270:10 271:7 275:1514281:16 282:6 283:11128:6 133:2,6,14three-day 271:422283:14,18 284:1,2134:7 141:12 144:18three-day 271:422thanks 56:13 172:16145:2,4 149:19 151:3three-day 271:422236:6152:2,5,11 153:4Throw 248:1143that' 222:3154:7 155:5,16,21thrown 245:1217the' 146:18156:10 158:12 163:5tieg 91:1718they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518they'd 177:11 194:3165:8 166:8 172:3tiger 177:151829:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163331:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:1 <td></td> <td></td> <td></td> <td></td>				
232:22 255:14 277:15 126:4,12,18,20 127:3 270:10 271:7 275:15 14 281:16 282:6 283:11 128:6 133:2,6,14 three-day 271:4 22 283:14,18 284:1,2 134:7 141:12 144:18 three-day 271:4 22 236:6 152:2,5,11 145:2,4 149:19 151:3 throwing 230:22 53 236:6 152:2,5,11 153:4 throwing 230:22 53 that' 22:3 154:7 155:5,16,21 THURSDAY 1:13 17 the' 146:18 156:10 158:12 163:5 ties 91:17 18 they'd 177:11 194:3 165:8 166:8 172:3 tiger 177:15 18 29:22 41:22 72 186:22 197:1 50:10 53:17 54:17 22 33:17 101:1 107:14 199:14,14,16 59:8 66:5,18,22 67:20 69:16 72:13 22 174:16 175:18 176:12 200				
281:16 282:6 283:11128:6 133:2,6,14three-day 271:422283:14,18 284:1,2134:7 141:12 144:18Throw 248:1143thanks 56:13 172:16145:2,4 149:19 151:3throwing 230:2253236:6152:2,5,11 153:4thrown 245:1217that' 222:3154:7 155:5,16,21THURSDAY 1:1317the' 146:18156:10 158:12 163:5ties 91:1718they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163331:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
283:14,18 284:1,2 134:7 141:12 144:18 Throw 248:11 43 thanks 56:13 172:16 145:2,4 149:19 151:3 throwing 230:22 53 236:6 152:2,5,11 153:4 thrown 245:12 17 that' 222:3 154:7 155:5,16,21 THURSDAY 1:13 17 the' 146:18 156:10 158:12 163:5 ties 91:17 18 they'd 177:11 194:3 165:8 166:8 172:3 tiger 177:15 18 thing 23:7 27:3 28:22 173:20 182:11 186:1 tile 177:5,5 20 29:22 41:22 47:2 186:22 189:6,7 time 39:13 41:16 43:5 20 52:18 74:18 82:12 194:16 195:2 197:1 50:10 53:17 54:17 22 83:17 101:1 160:1 197:14 199:14,14,16 59:8 66:5,18,22 67:3 22 174:16 175:18 176:12 200:14 201:17 202:8 67:20 69:16 72:13 23 122:11 223:2,9,15 118:17 141:13 163:3 toxi 280:9 281:17 221:11 223:2,9,15 118:17 141:13 163:3 toxi 11:17 13:2,9 15:20 228:4,6,22 229:9,12 168:21 169:12,14 16 16:1,2,4,18 17:10,13 229:13 232:7,12 171:18 172:1,21 toxi 17:14 18:21 19:6 21:5				
thanks 56:13 172:16145:2,4 149:19 151:3throwing 230:2253236:6152:2,5,11 153:4thrown 245:1217that' 222:3154:7 155:5,16,21THURSDAY 1:1317the' 146:18156:10 158:12 163:5ties 91:1718they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323174:16 175:18 176:12200:14 201:17 211:173:10 74:2,6 76:528222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141616:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163331:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
236:6152:2,5,11 153:4thrown 245:1217that' 222:3154:7 155:5,16,21THURSDAY 1:1317the' 146:18156:10 158:12 163:5ties 91:1718they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141616:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163331:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
that' 222:3154:7 155:5,16,21THURSDAY 1:1317the' 146:18156:10 158:12 163:5ties 91:1718they'd 177:11 194:3165:8 166:8 172:3tieger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7tile 177:5,52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:526222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141616:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:523:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163331:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
the' 146:18156:10 158:12 163:5ties 91:1718they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7tile 177:5,52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1322185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:528222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
they'd 177:11 194:3165:8 166:8 172:3tiger 177:1518thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7tile 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:524250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
thing 23:7 27:3 28:22173:20 182:11 186:1tile 177:5,52029:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1322185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:526222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
29:22 41:22 47:2186:22 189:6,7time 39:13 41:16 43:52052:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:528222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138			-	
52:18 74:18 82:12194:16 195:2 197:150:10 53:17 54:172283:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:524222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxithings 10:10,19 11:11224:12,15,21 225:16163:4 165:2,16 168:1toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163131:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				
83:17 101:1 160:1197:14 199:14,14,1659:8 66:5,18,22 67:322174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:525222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxithings 10:10,19 11:11224:12,15,21 225:16163:4 165:2,16 168:1toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141616:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				22
174:16 175:18 176:12200:14 201:17 202:867:20 69:16 72:1323185:17 204:5 214:3208:6 210:17 211:173:10 74:2,6 76:528222:13 231:19 233:6212:20 214:10,2177:5 78:1,14 89:7toxi250:12 263:1 267:19215:7 219:3,5 221:498:9 99:4,5,8 108:16toxi280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxithings 10:10,19 11:11224:12,15,21 225:16163:4 165:2,16 168:1toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138				22
185:17 204:5 214:3 222:13 231:19 233:6 250:12 263:1 267:19 280:9 281:17208:6 210:17 211:1 215:7 219:3,5 221:4 215:7 219:3,5 221:473:10 74:2,6 76:5 77:5 78:1,14 89:7 98:9 99:4,5,8 108:16 18:17 141:13 163:3 10:10,19 11:11 11:17 13:2,9 15:20 11:17 13:2,9 15:20215:7 219:3,5 221:4 221:11 223:2,9,1598:9 99:4,5,8 108:16 118:17 141:13 163:3 163:4 165:2,16 168:1 163:4 165:2,16 168:1 163:4 165:2,16 168:1 163:4 165:2,16 168:1 16:1,2,4,18 17:10,13 17:14 18:21 19:6 21:5 223:6,14 234:5208:6 210:17 211:1 77:5 78:1,14 89:7 18:17 141:13 163:3 163:4 165:2,16 168:1 163:4 165:2,16 168:1 171:18 172:1,21 171:18 172:1,21 171:18 172:1,21 172:13 28 22:7,17 23:3 27:9 31:22 32:12 33:16 239:4,21,22 240:1,2,5 195:18 196:4,7 197:1 38 171:18 175:13 171:14 18:14 196:4,7 197:1				23
250:12 263:1 267:19 280:9 281:17215:7 219:3,5 221:4 221:11 223:2,9,1598:9 99:4,5,8 108:16 118:17 141:13 163:3toxi toxi toxi toxithings 10:10,19 11:11 11:17 13:2,9 15:20224:12,15,21 225:16 228:4,6,22 229:9,12163:4 165:2,16 168:1 168:21 169:12,14toxi toxi toxi 168:21 169:12,1416:1,2,4,18 17:10,13 17:14 18:21 19:6 21:5229:13 232:7,12 235:22 236:13 237:3171:18 172:1,21 175:15 185:22 195:16toxi toxi toxi 31:22 32:12 33:16250:12 26:12 24:12,15,21 225:1631:22 24:12,15,21 225:16163:4 165:2,16 168:1 103:4 165:2,16 168:1toxi toxi toxi toxi	185:17 204:5 214:3			25
280:9 281:17221:11 223:2,9,15118:17 141:13 163:3toxithings 10:10,19 11:11224:12,15,21 225:16163:4 165:2,16 168:1toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138	222:13 231:19 233:6	212:20 214:10,21	77:5 78:1,14 89:7	toxi
things 10:10,19 11:11224:12,15,21 225:16163:4 165:2,16 168:1toxi11:17 13:2,9 15:20228:4,6,22 229:9,12168:21 169:12,141816:1,2,4,18 17:10,13229:13 232:7,12171:18 172:1,21toxi17:14 18:21 19:6 21:5233:6,14 234:5174:9,10,12 175:132822:7,17 23:3 27:9235:22 236:13 237:3175:15 185:22 195:163731:22 32:12 33:16239:4,21,22 240:1,2,5195:18 196:4,7 197:138	250:12 263:1 267:19			toxi
11:1713:2,915:20228:4,6,22229:9,12168:21169:12,141816:1,2,4,1817:10,13229:13232:7,12171:18172:1,21toxi17:1418:2119:621:5233:6,14234:5174:9,10,12175:132822:7,1723:327:9235:22236:13237:3175:15185:22195:163731:2232:1233:16239:4,21,22240:1,2,5195:18196:4,7197:139	280:9 281:17	221:11 223:2,9,15	118:17 141:13 163:3	toxi
11:1713:2,915:20228:4,6,22229:9,12168:21169:12,141816:1,2,4,1817:10,13229:13232:7,12171:18172:1,21toxi17:1418:2119:621:5233:6,14234:5174:9,10,12175:132822:7,1723:327:9235:22236:13237:3175:15185:22195:163731:2232:1233:16239:4,21,22240:1,2,5195:18196:4,7197:139				toxi
17:14 18:21 19:6 21:5 233:6,14 234:5 174:9,10,12 175:13 28 22:7,17 23:3 27:9 235:22 236:13 237:3 175:15 185:22 195:16 3' 31:22 32:12 33:16 239:4,21,22 240:1,2,5 195:18 196:4,7 197:1 39	11:17 13:2,9 15:20	228:4,6,22 229:9,12	168:21 169:12,14	18
22:7,17 23:3 27:9 235:22 236:13 237:3 175:15 185:22 195:16 37 31:22 32:12 33:16 239:4,21,22 240:1,2,5 195:18 196:4,7 197:1 39		229:13 232:7,12	171:18 172:1,21	toxi
31:22 32:12 33:16 239:4,21,22 240:1,2,5 195:18 196:4,7 197:1 3		233:6,14 234:5	174:9,10,12 175:13	28
	22:7,17 23:3 27:9	235:22 236:13 237:3		31
37:22 38:7,9,22 41:5 240:16 241:4,5,6,8,11 209:14 215:20 228:9 74				39
	37:22 38:7,9,22 41:5	240:16 241:4,5,6,8,11	209:14 215:20 228:9	74
	I	l	I	I

28:11 230:12,20 33:18,19 234:20 35:10 240:19 257:20 60:18 262:11 265:12 68:14 269:16 270:10 70:11 271:7,13 76:17 277:22 279:10 ely 117:6 118:19,21 81:17,18 234:17 es 34:11 50:5 65:4 0:12,13 86:1 155:12 57:17 270:20 ing 25:17 **e** 37:7 75:12 ed 35:13 **II** 10:13 144:10,11,13,19 acco 36:11 lay 4:19 21:9 120:22 64:6 169:11 172:22 73:3 175:18 177:2 58:6 **d** 64:21 134:18 42:10 175:20 245:5 **m** 171:20 norrow 165:7 ny 4:17 8:6 276:9 29:17 30:6,12,14 7:14 119:11 138:4 60:8 192:10 235:4 ri 109:8 220:12 al 67:11 iches 81:2 **(ic** 1:4 4:8 13:18 14:4 4:5,13,18 18:9 22:19 2:19 28:16 33:1 39:8 3:18 49:3 50:12,13 3:5 173:10,18,20 74:3,19 175:1,3 79:22 180:8,19 82:21 184:10,13,15 84:15 185:5 197:11 03:16 204:7 205:10 06:17 214:6 215:13 20:11,16,21 222:16 22:18 223:7,20 37:8 238:3,14,15 53:20 254:1 cicity 180:17 cicologist 12:6 81:6 **icology** 21:11 in 40:18,18 42:1 80:5 tins 14:9 19:11 28:3 8:5,12 30:12 31:8,11 1:17 32:1 38:13 9:17 45:13 67:7 4:12 76:9,11

311

track 160:20 tracked 226:4 **Trade** 179:14 trades 5:19 6:13 75:22 train 227:16 trained 73:18 training 22:15 24:19 25:12 71:10 72:1 transmission 53:21 transmit 21:7,10 22:6 transmitted 19:9 transparency 171:5 transparent 267:2,4,13 transporting 10:11 trash 127:22 traumatic 4:22 travel 278:6 282:15 283:3 treat 94:10 147:20 148:19 treated 148:11 191:14 191:19 192:3 treating 49:10 54:22 62:6 78:11 81:4 83:2 110:21 111:2.20 147:15 188:15 195:8 224:2 243:5 treatment 78:6 107:12 147:1 tremendous 246:6 trend 92:10 tri- 184:4 triage 181:13 triaged 48:13 trichloroethylene 179:8 179:12 tried 26:3 44:5 201:9 tries 42:5 trigger 131:20 132:3,14 132:17 135:7 136:13 142:20 180:9 triggers 170:4 tritium 11:18 trouble 112:19,21 truck 158:6 true 90:4 136:13 truly 185:21 229:20 try 31:4 63:1 80:19 91:18 98:2 147:4 155:1 160:1 209:9 264:1 trying 20:6 26:21 27:4 39:19 56:8,15 92:2 108:7 110:22 158:10 167:8 188:15 214:10 224:19 243:17 tube 177:21 turn 25:21 102:21

120:11 211:14 265:22 Turner 2:12 6:1,1 98:11 98:13 279:2,4 turning 266:20 turns 263:9,14 tweaked 183:19 two 14:22 23:2 24:9 26:2,7 27:11 37:2 59:2,18 66:2,7,9,12 66:15 67:8,12 87:2,9 91:17 118:6 126:4 140:14 158:14,18 173:13 176:22 178:22 184:3 187:11 188:8 189:9 190:17,17 191:7,12 199:6 202:15 213:4,18 220:13 222:3 223:2 223:11,15,22 224:1,8 225:14 237:15,16 239:18,18 242:12 246:22 247:4 249:18 261:1,1,17 263:10,17 265:18 268:10 269:2 271:5,6 272:14 273:1 273:8.19 274:2.9 two-day 271:4 two-hour 269:2 two-step 93:18 Two-thousand-six 181:21 type 32:2 51:17 91:19 92:4,5 151:9 174:16 types 16:17 49:3 73:3 81:13 122:19 typical 74:2 **typically** 148:19 U

UCLA 188:7 189:3 Udall 171:2 ulcerative 180:20 ultimately 27:8 28:6 umbrella 111:14 un-interpretable 62:7 unable 105:9 uncertain 121:9 unclear 256:13,15 under-goes 234:6 underline 153:11 underlying 117:8 underneath 175:4 184:14.22 understand 29:12 53:15,19 104:13 120:20 156:5,8 166:4 166:17 187:1 221:3 225:1,1 226:3 227:8

239:13 240:8 273:10 282:8 understandable 23:1 understanding 90:2 187:6 understatement 170:18 understood 148:4 227:7 252:10 undue 114:13 unfair 158:12 unfortunately 9:21 11:15 26:21 74:17 unhappy 241:7 uniform 181:18 182:11 uninformed 229:20 union 37:10 249:2 unique 175:10 unit 2:19 9:8 281:12 **United** 1:1 6:5 170:8 **University** 6:18,21 7:5 7:13,17 unknown' 184:1 unnecessarily 121:11 unnecessary 209:22 236:9 237:22 238:8 unproductive 226:11 unrealistic 209:16 235:12 unspecified 238:20 updated 43:14 126:1 updates 123:21 uranium 10:7,10 11:21 170:6 176:3 179:4 urgency 117:9 226:15 urine 59:22 use 20:20 36:11 51:3 53:16 56:5,8 65:1,2 70:1 78:10,14 81:3 88:2 95:3 101:3 110:18 128:3 136:5 146:6 149:1 190:19 190:19 204:5 218:1 248:7 useful 16:20 17:4 21:2 26:20 39:20 70:6 75:19 76:6 221:16 266:9 usually 38:17 39:18 42:5 47:18 80:7 178:6 238:16 263:17 V V 185:1 **VA** 7:9 vague 198:2 valid 113:17 198:7

validation 45:4 46:6 validity 187:22 valuable 59:6 101:12 101:18 229:22 value 17:9 131:17,17 134:9 136:16 137:13 137:22,22 143:6,7 198:5 200:13 201:6 202:18 203:1 210:19 210:22 211:4,5,17,21 242:14 245:17 246:17 valued 202:12 vapors 32:7 119:16 variation 246:6 varies 67:2,4 variety 23:22 various 25:5,6 70:4 71:12 100:19 122:19 150:22 283:21 Vegas 177:17 vendor 120:3,8,10,17 vendor' 119:22 vendors 151:4 veracity 52:11 verified 17:16 version 203:17 234:19 versus 19:19 32:1 240:9 Victoria 2:9 7:6 view 235:21 249:6 275:5 VII 185:1 virtually 71:19,20 vis-a-vis 166:20 visit 11:5 279:10.15 visiting 228:8 Vlieger 2:13 6:14,14 51:22 52:1 100:8 111:12 118:16 127:10 127:11 128:1.4 156:19 157:21 232:16 243:13,20,22 244:3 244:18 245:8,16 246:2 265:7 274:17 275:6 voluntary 132:5 volunteered 261:17 volunteers 99:21 100:5 vote 103:8 119:1,2 122:10 129:16,20,22 145:13 149:18 150:2 159:21 197:3 203:13 240:11 251:9,14 256:3 voted 119:6 145:17 161:7 256:10 268:5 voting 205:21 vulnerability 11:19

Neal R. Gross and Co., Inc. Washington DC

validate 45:18

validated 44:18 45:15

1			313
	252,10 256,10 261,21	40.10 50.5 7 51.14	welcome 4.7 0.0 10
W	252:10 256:18 261:21	49:16 50:5,7 51:14	welcome 4:7 9:9,10
wage 130:5,9 132:6,11	265:3,9	58:9,21 62:12 65:17	159:18 169:1 196:4
132:13 134:4,15	ways 19:18 39:19 52:10	77:21 78:2,12 84:1	259:19
135:7,8 142:7,20,21	94:19 95:7	88:15,22 89:14 90:3	Welcome/Introductio
179:18 180:13	we'll 5:5,13,14,16 13:7	92:2 97:4 101:2	3:3
wages 131:11,19 132:3	18:13 19:19 22:5,9	158:17 161:14 164:10	welded 34:6
132:17 136:12	28:7 33:17 38:1 47:20	166:7 182:4 197:1	welder 26:18 34:5 50:4
wait 263:11 275:19	49:7 59:6 71:2 72:14	208:16 216:16 226:9	50:10 57:1 92:4
waiting 160:6	75:1 82:7 83:20 84:20	226:14 227:13 228:8	welding 40:20 73:22
walk 89:6	84:22 85:4 86:3 89:19	239:22 240:1,2,3	well-rationalized 189:2
want 4:13 8:10 23:2,8	91:7 103:6 111:11	258:1 264:9,13,16	189:11
33:7 38:10 59:7 64:11	112:1 131:8 153:5	276:5 282:5	well-written 80:7
67:6 77:22 86:13 95:4	162:8,9,20,20,22	weak 83:3	went 10:4 11:11 27:1
102:6 103:13 117:4	168:9,22 195:22	weapons 6:2 175:10	53:13 112:4 163:8
117:20 118:1 124:22	228:9 239:20 247:18	wear 52:4	173:2 174:9,12 284:6
126:21 136:10 137:15	247:19 268:3,11,11	WebEx 4:10 8:10	weren't 10:14,15 80:15
137:19 138:1 140:9	270:19 281:19 282:7	103:16 112:13,14,17	West 37:22
141:12 146:8 153:16	we're 8:16 13:12 16:10	website 8:14 84:5 89:20	western 169:21
154:13 156:7 169:15	19:20 20:6 21:4 24:3	103:14,17 112:16	Westinghouse 99:7
172:5,6,16 179:18	25:18 32:20,22 35:8	166:6 228:14	wheel 185:7
180:9,10 185:10,19	35:12 38:17 39:15,18	Wednesday 260:7,9,14	whether' 136:17
194:10 197:15 199:5	39:22 40:15 44:9 50:6	week 19:15 24:13 44:5	which' 222:2
213:20 218:1 219:8	56:7,11 69:11 71:22	49:16 56:2 78:9 89:11	whichever 19:3 282:4
221:7,8,8,9,13,20	72:2,2,4,7 85:3,6 89:6	93:4 101:18 165:9	Whitfield 171:4
222:19,21 223:1	90:4,7,14 95:8 96:2	168:1 169:9 260:10	Whitley 2:12 6:8,8
226:8 228:2 230:3	98:21 99:5 101:6,15	260:17 268:19,19	64:13,14,14 90:15
232:14 239:19 243:18	101:20 102:19,20,22	weekly 42:4	100:8 108:13,14
252:11 260:1,4	103:4,5,18,18 104:9	weeks 24:21 118:6	240:18
263:18 265:13,17,17	109:13,16 111:22	165:4,10,11 168:2	whittle 31:13
267:22 268:4 274:16	112:10,11 119:1,9	276:5	whittled 28:11 46:15
275:8,19,22 276:12	121:14,15,16,17,19	weight 241:18	wide 170:11
276:15,21 277:4,19	122:11 129:20 130:10	Welch 2:7 5:17,18,18	wildlife 170:2
278:12 280:18,19	138:17,19 145:12	29:5,9,15 30:2,5,9	willing 49:17 90:14
281:21	158:8 159:2,19,19,21	52:14,15,22 54:8,11	101:8,15
wanted 8:11,14 20:12	160:7 161:8,8 162:2	54:13,16 55:17 56:13	willy-nilly 193:1
24:21 71:7 100:11,13	162:11 163:3,5,21	84:3,4,9,13,15,22	wimpy 248:1
102:5 107:22 169:11	164:2,3,5,8 165:19,20	92:12 94:16,17,18	window 165:9,11
180:12 189:21 198:22	169:18 179:16 181:19	109:3,4,18,22 120:19	wish 5:9
212:21 252:6 266:10	181:22 182:3 196:9	121:4 124:3,4,10	witnessing 267:21
	196:19 197:2 198:14	126:18 133:7,8	women 171:10
269:13	199:2 201:21 202:19	147:10,11 149:8,9	wondering 117:8
wanting 235:1 273:12 wants 38:4 129:10	214:10 217:13 218:17	152:10,11,17,20	207:21
195:6	218:20 220:18 222:9	166:2,3,16 167:5,11	wood 177:6
	222:13 227:15 228:3	198:20,21 199:5,10	word 134:2 137:20
warn 267:19	228:7,20 229:17	199:13 201:18,19	138:7,22 139:4,4,7,7
Washington 1:20 6:13	230:6 232:9,18	202:14 211:11,19,22	140:16 143:12 144:21
278:18 281:10	235:19,20 241:6	213:12,17,18 214:3,9	144:22 223:10
wasn't 41:18 63:21	242:2,13,15 243:16	214:16,20 220:8,9	word- 247:21
80:14 149:5 152:5	243:22 244:7,9,14,20	224:11,12 228:11,12	word-smith 241:5
175:4 177:5 181:3	245:3 246:2 247:4,17	228:17 229:4,6,12,17	wording 216:5 226:4
water 179:12	247:18 248:5 249:4,4	231:14 234:13 238:13	236:14
way 32:19 33:7 41:2	249:5 250:16 251:8	239:17 249:17 250:13	words 44:19 106:7
61:20 84:2 85:22	252:6 257:3 260:21	250:5 253:9 255:10	128:12,19 212:2
127:8 145:3 147:12	260:22 263:14,19	255:12,15,20 262:19	225:14 246:18
159:1 166:10 169:14	268:9 271:2 273:14	262:20 264:7,19	work 9:1 10:4 11:4
170:16 182:9 187:5	277:20 281:22 282:1	268:16 271:7,8,12	16:17 18:4 24:6 26:16
191:4 194:1 220:22	we've 13:1,21 15:10	275:11 276:7,8,15	27:22 32:2 36:12,14
221:12 225:17 228:20			
229:10 244:16 248:5	13.10,13,10 22.7 31.4	213.13,20 203.0,11	37.11 42.0 49.19 37.4
229:10 244:16 248:5	19:10,15,18 22:7 31:4	279:19,20 283:8,11	37:11 42:8 49:19 5

_			314
	l		_
69:12 71:1 74:12	write 67:1 175:14 188:8	105 3:6	231(d) 14:3
76:12 80:1 81:19,20	240:19 246:12 265:2	11 150:5	232 244:3
99:20 101:9 127:19	writing 57:20 249:4	11/Contractor 3:7	232(a) 197:4
134:2,18 137:17	written 23:1 55:3 74:9	11:00 5:5 112:1,5	2470553 163:18,20
142:10 148:19 151:9	81:21 82:5 133:18	12 102:20	25 6:6 33:1 48:14
162:22 163:3 168:17	189:18 198:17 200:6	12(b) 199:11	260 3:12
170:9 176:15 185:6	200:22 203:17 206:9	12:00 163:8	27 200:2,18
224:18 230:15 263:14	207:4 209:2 212:7	12:45 162:21	28 1:14 186:10 187:15
263:15,19 269:16	214:13 230:17 235:16	12:50 163:9	280 228:21
272:14,21,22 273:6	wrong 138:12,15	12:50 100:5	2830.114(c) 186:12
	231:21		2030.114(0) 100.12
273:21 274:2,12,13	_	13 29:2 30:12,12 119:7	3
274:17,18 275:2	wrote 64:16 83:3	122:9	
276:2 277:4	180:16 181:2 275:15	14 120:7 145:16,16	3 160:8 200:20 249:10
work- 94:20	Y	150:1 193:3 194:1	3,000 180:14
work-related 31:22	X	15 31:7,11 69:21 98:1	3.805(a)(3) 142:14
work-related' 175:7	x' 74:2	103:1 161:6 193:3	3:00 24:4 284:6
work-relatedness	x-ray 147:3 221:8	203:12 205:20,20	30 118:20 119:10 120:5
95:12 214:12 224:19		251:13	214:19
worked 50:3,9 60:6	Y	150 3:7 195:8	30.11(2)(b) 199:22
70:5 93:21 171:2	Y-12 6:9	1505 99:3	200:1,17
174:21 175:1,3	Yale 8:1	1506 89:19 90:18 99:3	30.111 200:13 201:7
worker 1:5 4:8 5:21 6:7	year 4:21 12:10 20:7	15th 165:17	30.111(c) 198:4
6:9,15,15 17:5,17	57:5 175:15 188:19	16 150:5,5 159:19 160:4	30.114(b)(3) 187:15
33:11 36:8,20 52:3	years 6:6 23:19,22 25:2	160:4,7	30.206(a) 119:10
69:20,22 70:8,17 74:9	36:16 37:4 43:12	163 3:8	30.207 189:16,22
74:16 76:12 124:12	48:14 68:17 69:21	17 145:19	30.23 14:2
		18 234:15	
134:18,20 142:9,11	73:21 92:9 97:5 102:2		30.230(d)(3) 207:14
151:15 152:3,19	125:2 176:22 181:20	19 57:4	30.231(b) 203:14,15
176:21 178:2,7,19,20	181:22 188:3 193:3	1952 170:3	30.232 235:6
183:8 204:9 205:7	226:2 232:16 234:15	196 3:10	30.232(a)(1) 206:2
230:18 231:1	yes' 68:15 86:1	1990 6:4	30.232(a)(4) 222:10
worker's 4:20 150:19	yesterday 24:4,18 31:3	1995 53:12 64:17,20	30.405 103:19
workers 4:21,22 6:6	103:2,7 196:21	91:4 176:22	30.405(c) 113:19
48:11 73:4 75:15	197:16 207:21,22	1997 176:20	30.5 207:6 212:15
110:9 121:12 124:5	208:21 209:8,10		30.5(e)(e) 145:21
128:6 153:20 154:18	211:2 212:16 231:14	2	30.5(j) 120:3,7
155:2,3,22 156:3	245:6 269:12 274:8	2 36:10 206:2 213:20	30.5(s) 206:12 213:3
159:14 160:12 170:7	York 6:21	216:20 217:13 223:22	214:5,5 215:12
170:11,17 171:17		249:10	216:17
177:8,9 178:22	Z	20 14:2,11 23:19 67:13	30.5(x)(2)(3) 150:6
179:13 182:2,4,18	Z 2:4	69:21 77:2 259:22	30.509(c) 122:13
186:4 189:12 194:18	£ 2. 4	20.231(d)(2) 14:11	30.805(a)(3) 132:2,9
194:18 195:7 279:7	0		135:2
		200 1:19	
279:18	0 184:19	2000's 34:22	30.806 130:16 135:12
working 10:19 19:21		2001 10:3 11:22	143:3
23:21 24:14 25:3	<u> </u>	2005 173:16	300 44:7 228:14,21
43:17 72:1 112:21	1 223:22 240:1	2006 173:16	30th 165:16
178:12,13 182:16	1-800-369-3381 163:16	2007 173:17	31 119:11 189:16
202:6 206:17 284:3	163:17	2008 173:17	32 173:20 185:18
works 33:8 78:22	1:00 163:1 164:2	2009 173:17	190:15,17
world 25:10 179:14	10 31:7,11 77:1 92:9	2015 23:17 41:1 43:14	33 43:12
worn 218:16	97:5 98:1 181:22	79:4 82:2 84:6	35 183:6
worry 138:14,16	193:3,10,19 232:16	2016 1:14	350 182:5
worse 106:10	10:27 111:8	22 50:19	3940 197:21
	10:30 5:3,4,8 111:7	222S 43:5,17	
worth 110:8 239:21		22nd 260.10 11	4
worth 110:8 239:21 worthwhile 172:3	112:4	22nd 260:10,11 231(a) 197:5	
worth 110:8 239:21		22nd 260:10,11 231(a) 197:5 231(b) 203:21	4 3:3 4,000 4:22

1
40 197:5 203:17 41 212:5 45 163:2 164:7 4D 99:22 4th 260:14
5
5 10:11 36:13 205:11 50 58:9 184:17 55 103:11,18 107:17 5C 36:22 5D 37:9 5th 43:14
6
6 37:10 600 182:4,5 64 122:12 65 122:13
7
7 38:5 707 11:13 75 282:21 283:10 77 40:22 56:19 57:1 78 10:6 79 57:1
8
8 3:4 38:11 90:19 8:30 1:20 8:44 4:2 80's 11:1 806 131:3,8,9 81 10:19
9
9 87:4 90's 11:2 34:22 93 191:8,16 192:11 96 130:17 9th 234:1

CERTIFICATE

This is to certify that the foregoing transcript

In the matter of: Advisory Board on Toxic Substances and Worker Health

Before: US DOL

Date: 04-28-16

Place: Washington, DC

was duly recorded and accurately transcribed under my direction; further, that said transcript is a true and accurate record of the proceedings.

near Rans &

Court Reporter

NEAL R. GROSS

COURT REPORTERS AND TRANSCRIBERS 1323 RHODE ISLAND AVE., N.W. WASHINGTON, D.C. 20005-3701

www.nealrgross.com

(202) 234-4433