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VOLKSWAGEN'S EMISSIONS CHEATING ALLEGATIONS:

INITIAL QUESTIONS

THURSDAY, OCTOBER 8, 2015

House of Representatives

Subcommittee on Oversight and Investigations

Committee on Energy and Commerce

Washington, D.C.

The subcommittee met, pursuant to call, at 10:00 a.m., in Room 2123 Rayburn House Office Building, Hon. Tim Murphy [chairman of the subcommittee] presiding.

Members present: Representatives Murphy, Barton, McKinley, Burgess, Blackburn, Griffith, Bucshon, Flores, Brooks, Mullin, Collins, Upton (ex officio), DeGette, Schakowsky, Castor, Tonko, Yarmuth, Clarke, Kennedy, Green, Welch, and Pallone (ex officio).

Staff present: Gary Andres, Staff Director; Sean Bonyun,

Communications Director; Leighton Brown, Press Assistant; Rebecca Card, Staff Assistant; Karen Christian, General Counsel; James Decker, Policy Coordinator, Commerce, Manufacturing, and Trade; Andy Duberstein, Deputy Press Secretary; Brittany Havens, Oversight Associate, Oversight and Investigations; Ben Lieberman, Counsel, Energy and Power; Paul Nagle, Chief Counsel, Commerce, Manufacturing, and Trade; John Ohly, Professional Staff, Oversight and Investigations; Tim Pataki, Professional Staff Member; Mark Ratner, Policy Advisor to the Chairman; Chris Santini, Policy Coordinator, Oversight and Investigations; Dan Schneider, Press Secretary; Peter Spencer, Professional Staff Member, Oversight; Dylan Vorbach, Staff Assistant; Greg Watson, Staff Assistant; Christine Brennan, Press Secretary; Jeff Carroll, Staff Director; Tiffany Guarascio, Deputy Staff Director and Chief Health Advisor; Ashley Jones, Director of Communications, Member Services and Outreach; Rick Kessler, Senior Advisor and Staff Director, Energy and Environment; Chris Knauer, Oversight Staff Director; Una Lee, Chief Oversight Counsel; Elizabeth Letter, Professional Staff Member; and Adam Lowenstein, Policy Analyst.

Mr. Murphy. [presiding] Thank you and good morning. 1 now convene this hearing of the Oversight and Investigations 2 Subcommittee on Volkswagen Emissions Cheating Allegations: 3 4 Initial Questions. Let me start off by saying my first car was a Volkswagen. 5 6 It was a 1976 Volkswagen Beetle. I learned a lot about cars and 7 internal combustion engines. I could take that thing apart and 8 put it back together, and it actually continued to work. I did 9 all the maintenance myself, because the Beetle and the Volkswagen 10 had a legacy as the people's car, to be people-friendly. 11 I loved that car, loved it a lot, not so much as to call it 12 Brad, but I loved that car. 13 [Laughter.] 14 But I trusted the car to get me around, and I trusted that 15 Volkswagen would continue to build a reliable car. That word "trust" alone, as you know, is a key factor in building customer 16 17 loyalty, and that trust is what helped the Volkswagen because we 18 believed this company looked out for customers first. 19 Then, just three weeks ago, car owners around the world were 20 shocked to learn that Volkswagen AG, the world's largest automaker, admitted that it installed software for a number of 21 22 years in millions of its diesel models that effectively defeated

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the Environmental Protection Agency's public announcement on September 18th that it had sufficient evidence to support allegations that VW was cheating on its emissions tests.

As EPA reported at the time, when the cars were subject to emissions testing, the diesel vehicles switched into an operational mode designed specifically to pass the test and, then, switched back to a different mode during normal driving, a mode that emitting nitrogen oxides up to 10 and 40 times the federal limits.

In the United States alone, some 482,000 Volkswagen and Audi models were affected by the cheating software. Worldwide the software was used in an estimated 11 million vehicles involving several VW lines.

In the wake of this apparently massive deception, the Energy and Commerce Committee opened a bipartisan investigation to get answers for the American public. This investigation will seek to understand the facts and circumstances surrounding the VW actions, the impact of its decisions, and related issues about emissions compliance generally.

At this morning's hearing we will receive testimony from the head of Volkswagen's American operations, Mr. Michael Horn, and from EPA officials tasked with ensuring the automobiles on American roads meet federal environmental standards.

In addition, this subcommittee intends to pursue answers to critical initial questions concerning the troubling revelations about VW's actions, what happened, who was involved, and, most importantly, why.

Let me acknowledge that Mr. Horn is appearing before us voluntarily today, and I can say that I expect that he and the Volkswagen organization will continue to cooperate with our inquiry. This means providing documents and information to the committee as quickly as possible, including documents that have already been discussed publicly in connection with Volkswagen's various Board meetings in Germany.

As I said before, there are a number of core questions that we will begin to pursue today, both for Volkswagen and for the EPA, most critically, what happened, who was involved, why were these actions taken. We also have a number of questions concerning the impact of these decisions on customers, family-owned dealerships, and the American public.

I hope today Mr. Horn can provide some important context for us and expand upon the facts he represents in his testimony. We will look to him to explain the current understanding of VW executives about what exactly was done to these engines and was it done to deliberately deceive government regulations and regulators. And what is VW doing to fix the problem and make whole

those who have been affected by the actions.

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At some point prior to 2009, VW made a choice to move forward with engines that evidence now suggests were not compliant with U.S. emissions standards. The illegal software was initially deployed in the first generation of these diesel engines, which account for approximately 340,000 of the affected vehicles. However, despite apparent advancement in their emissions control systems in two future generations of these engines, the software remained in place. And if the technology was improving, what did the company understand about the software cheat and what does this mean for fixing these vehicles? Will some be easier than others? Of course, for EPA, we have questions about its compliance and recall programs. I hope we can get some clear answers today from that agency. Why did EPA standard compliance tests and audits fail to detect problems, especially in older technology? What is EPA doing to ensure any fix it requires of the automaker does not negatively affect vehicle performance?

There is some need for a sense of proportion regarding this matter. The 480,000 or so VW vehicles implicated in this scandal represent only .2 percent of the cars and light trucks on the United States highways. And so far, we have no evidence that the software similar to what was used by VW is present in any other U.S. vehicles.

93 The EPA's ongoing testing will help address this question, but I hope our witnesses from VW and EPA can understand where 94 confidence has been shaken. At root, the behavior to which VW 95 96 admitted represents a fundamental violation of public trust, and reverberations of this violation can be seen across the United 97 States and across the world, as people grapple with the 98 99 implications. 100 We need to develop a clear understanding of the facts and circumstances surrounding this case, and this hearing will be a 101 102 first important step towards that goal. 103 I now recognize the ranking member of the subcommittee, Ms. 104 DeGette, for five minutes. 105 Ms. DeGette. Thank you, Mr. Chairman. 106 In the spirit of bipartisanship of this investigation, I will 107 tell you my first car was also a Volkswagen. It was a 1960 VW Beetle with a rag top sunroof that I inherited from my grandmother. 108 109 And I will tell you that that 1960 Beetle, I still miss that car. 110 It didn't have any lines of computer code required to operate that 111 vehicle. 112 In this situation, fast forward to today, we know some things, but we don't know enough. And that is why I am glad we 113 114 are having this investigation.

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We know that in May 2014 West Virginia University published

a study commissioned by the International Council on Clean

Transportation that found that on-road emissions from Volkswagen

cars were well above VW standards. They also did not match the

emissions outputs found under testing conditions.

We know that VW tried to justify this discrepancy to regulators with explanations of technical issues and unexpected in-use conditions. We know that in December 2014 VW initiated a voluntary recall of nearly half a million vehicles to resolve, among other things, the emissions issues. Yet, when the California Air Resources Board tested the fixed vehicles, they found that the emissions were still above the legal standards.

And we know that, by July of this year, the EPA and CARB told VW that they would not approve the company's 2016 model year diesel vehicles for sale unless the emissions could be explained. VW was essentially forced to come clean, and they ultimately confessed that they had installed a defeat device in their diesel cars designed to circumvent EPA emission standard for certain air pollutants.

We know that this defeat device sensed when the vehicles were undergoing emissions testing and ensured emissions control systems were operating to pass. And we know that during normal road use the emissions controls were reduced and the cars were producing up to 40 times more nitrogen oxide than is allowed by

emissions standards. We know that almost half a million cars in the United States might be affected by this.

Now, Mr. Horn, I am glad you have come today to testify here because, while we know all of the things I just talked about, there are a lot more things we don't know and that we need answers for. For example, VW hasn't revealed how the defeat device affects the engine, why it was installed, and how it was able to evade emissions tests. You haven't revealed when and how the engines equipped with this defeat device will be fixed. You haven't told us whether this fix will affect fuel economy or performance of the vehicles.

You haven't revealed what Volkswagen told regulators over the last year, as EPA and the California Board were trying to figure out why the vehicles' emissions were out of compliance. You haven't revealed whether the voluntary recall that VW set in place in 2014 was just merely a ruse. Was the VW Group of America actually trying to find out what was wrong with the cars and fix them or did VW know that the cars had defeat devices on them and were only trying to buy time with the regulators?

You haven't revealed who is responsible for this scheme. We don't know if it came from Germany and who knew about it in the United States.

Now we have all seen the press reports, and we can all

speculate about what happened here and why. But, until

Volkswagen comes forward with some answers and provides some
assurances that we can trust about what they are saying, the

American people, the regulators, and Congress are all left in the
dark. So, I hope, Mr. Horn, that you come prepared to answer some
of these questions, and I also hope that VW will be prepared to
work with this committee as we move forward.

Hundreds of thousands of owners invested money and trust in VW. Many of them bought those cars specifically because they were seeking environmentally-friendly vehicles. Now they are left with cars with much higher levels of pollution. They don't have any answers about when or how their car will be fixed or what kind of car they will be left with.

Earlier this week, I visited a Volkswagen dealership in Denver. I saw the pollution control equipment on VW diesel vehicles firsthand. These cars account for almost 25 percent of the sales at that particular dealership and a significant percentage of sales at VW dealerships in Colorado and across this country.

Now, because they can't sell them, these cars are just sitting on the lots, which is a scene that is being repeated across the country. So, as, Mr. Chairman, you say, it is a small percentage of all the cars on the road in the U.S.; it is a

185 tremendous economic impact to these dealers and, also, to the consumers who don't know what is going to happen to their cars. 186 187 And so, that is perhaps the key answer that I am looking for today: 188 what do we do moving forward? Now, Mr. Chairman, this subcommittee has been here before. 189 190 In the last 15 years, we have had Ford and Firestone, Toyota, GM, 191 and Takata before this committee. We were able to get information 192 from all these companies to help us understand what happened. 193 But, most importantly, we have used this information to chart a 194 path forward and to help the consumers affected by this event. 195 I hope that Volkswagen can similarly tell us today what is 196 happening, and I hope that they will get beyond this series of terrible decisions and do something to restore the public trust. 197 198 Thank you, and I yield back. 199 Mr. Murphy. The gentlelady yields back. I now recognize the chairman of the full committee, the 200 gentleman from Michigan, Mr. Upton, for five minutes. 201 202 The Chairman. Good morning. Thank you, Mr. Chairman. 203 Fahrvergnugen, it makes a car a Volkswagen. That ad campaign

rotten in Wolfsburg and cheating and betrayal became part of that

swept the nation in the nineties. VW has long enjoyed an almost

cultish following, dating back to the Beetle, VW Van, and the

Rabbit. But, through the years, something apparently became

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game plan.

There is a lot that we don't know about VW's actions or their motivations in attempting to skirt emission standards. But, regardless of intent, they have betrayed the trust of regulators, dealers and suppliers, and, most important, the driving public.

Probably the most famous congressional hearing question is, "What did you know and when did you know it?", asked by Senator Howard Baker back in the seventies at Watergate. Now we learn that you knew some 18 months ago. So, we add, what did you really do to fix it and come clean versus simply going along?

Ultimately, this saying rings true: cheaters never prosper. And that is why we are here today. We have many questions about how we got here and the road ahead. Why would one of the world's largest automakers go to such lengths to avoid emissions requirements? Who was responsible for these decisions and why did they for years, even as the technology improved, continue that path?

If they were willing to cut corners here, what else have they done? How will you fix the flaw and when? Will the fix affect the performance of these vehicles? Unraveling these questions will take time, and I don't expect that we are going to discover all the answers today. But if VW is serious about rebuilding this broken trust, its leaders will need to demonstrate a serious

commitment to answer these and many other questions prompted by its actions.

This requires transparency, cooperation, and clear, consistent communication not only with this committee, the EPA, and other ongoing investigations, but also with its customers, suppliers, dealers, and the general public. VW will inevitably pay a steep price for this dirty little secret. How it responds to the failure will go a long way to rebuilding or further eroding the public's trust.

VW must also consider what implications these actions have for the thousands of Americans that it employs, including their facility in Auburn Hills, Michigan. Every single one of us who has ties to Michigan is proud of our rich tradition that is so closely intertwined with the success of the automobile. In fact, Michigan is one of several states that have launched their own investigations. All automakers must advance by imagination and innovation, not by gaming the system and breaking the law.

We will get some additional insight today, but the committee's investigation is just beginning. This hearing is an important step. As we receive documents and information, new details are certain to emerge. I look forward to getting to the bottom of this issue as quickly as possible.

I take this very personally. As the author of the TREAD Act

to protect the public, Congress was very clear in our work to protect consumers from abuses from automakers, which included steep fines and, yes, criminal prosecution.

VW has betrayed a nation, a nation of regulators, loyalists, suppliers, and innocent customers. It is time to clean it up or get off the road.

I yield the balance of my time to Marsha Blackburn, the vice chairman.

Mrs. Blackburn. Thank you, Mr. Chairman.

Mr. Horn, thank you for being here, and I think it is completely appropriate that you come before the committee, that you apologize for the actions, and that you and VW take full responsibility for what has transpired. It is disappointing.

I am fully aware that our governor has been at the Chattanooga facility. And I know that the governor, state legislators, the other members of the congressional delegation, and I are quite concerned about this. You have got a lot of hard-working, honest Tennesseans who were at that Chattanooga facility, and we are quite concerned about the actions of a few, a few VW employees, not Chattanoogans and not Tennesseans.

We are going to be very precise with you and VW. It is, as the chairman said and as Chairman Murphy has said, it is basically the who, what, when, where, how, and why. Why you did it, how

277	you did it, when you did it, when you knew, who carried this out.
278	Where did this take place? Did it go across the brands? Was it
279	pointed at EU regulations? Was it pointed at some of the climate
280	regulations? Is the EPA to overburdened to have noticed this?
281	This is a systemic failure. And I will also point out some
282	want to say it is a safety issue. No, sir, this is an issue of
283	integrity.
284	So, we appreciate that you are here. We look forward to
285	hearing from you.
286	And I want to yield the balance of my time to the vice chair
287	of the subcommittee, Mr. McKinley.
288	Mr. McKinley. Thank you.
289	And thank you, Mr. Chairman, for ordering this meeting that
290	the others of you have talked about the car. My first was a 1957
291	Volkswagen. I think I have got everybody beat on that.
292	But, listen, there should be zero tolerance for this
293	unethical behavior and flagrant disregard of the U.S. laws, public
294	health, and the consumer. That is why this hearing is important
295	to us today. The impaired people need to understand what
296	happened, how it happened, and how it will be resolved.
297	And they feel in West Virginia that they have been deceived.
298	So, on Monday there was action taken by the attorney general to
299	file action against this.

300	I also just want to touch on the University. At West
301	Virginia University they use a fraction of the money that we spend
302	with EPA, just a fraction of the money to make this discovery.
303	And they found out, as you know, that one of the cars that they
304	tested was 15 to 35 times more emissions than they were allowed.
305	Another was 5 to 20 times more emissions.
306	So, Mr. Chairman, I want to touch on the fact that this
307	opportunity about WVU and what its research, how research dollars
308	can work. And this is what happened, not the EPA, but this was
309	a university that would have accomplished this.
310	So, I am looking forward to this hearing and getting some
311	clarity as to what this is. I thank you very much for holding
312	this session
313	Mr. Murphy. Thank you.
314	Mr. McKinley and look forward to the conversation.
315	Mr. Murphy. Thank you.
316	We now recognize the ranking member of the committee, Mr.
317	Pallone, for five minutes.
318	Mr. Pallone. Mr. Chairman, thank you for holding this
319	hearing.
320	We are here today because Volkswagen lied. They lied to
321	regulators, they lied to their customers, and they lied to the
322	American people.

We all have many important questions that deserve answers. What did Volkswagen do to its cars? Why did they do it? And who knew this was happening, both in Germany and here in the United States?

This whole scheme makes me question how much we should trust Volkswagen. To be honest, this committee's investigations over the last five years make me question how much we should trust the auto industry in general.

Let me remind the committee of the difficult history the American driver has had with the auto industry in recent years.

In 2010, this committee investigated Toyota's recall of 9 million vehicles worldwide for unexplained cases of sudden unintended acceleration. Dozens of people died in accidents linked to runaway Toyota vehicles. Our committee held multiple hearings and, in the end, it was determined that Toyota knew about certain problems with their vehicles that, if fixed early, would likely have saved lives.

In early 2014, we launched an investigation of General Motors' ignition switches that killed many people. Our committee's investigation found that individuals within GM knew about the deadly ignition defect for nearly a decade before the company initiated a recall.

Later in 2014, we learned of the exploding Takata airbags

installed in vehicles made by at least 11 auto manufacturers. The recalls for airbag problems began as early as 2008. Yet, Takata and NHTSA continued to investigate whether additional recalls are still necessary, and Takata still has not determined the root cause of the defect, which has killed a number of people worldwide and injured hundreds more.

And now, we have Volkswagen, a company that told regulators that their vehicles met emission standards, but had actually installed defeat devices to bypass emission controls.

Over the past five years, the world's three largest automakers have come before this committee to admit that they have cheated the system and lied to American customers. This seems to be a pervasive culture of deception in the auto industry, and it has to stop now.

Mr. Chairman, the American people need to know that they are safe on our roads, and they need to know that when they decide to buy a car, they are actually getting what they paid for. The auto industry has deliberately chosen to perpetuate lies and mislead consumers, but the American public are not crash-test dummies and cannot be treated as such.

Mr. Horn, I understand that you won't have all the answers here today, but please don't hide behind an internal investigations excuse. It is time for Volkswagen to be

forthcoming with its customers, regulators, and Congress about what you did to these cars and why. We deserve an explanation.

And I would like to yield, Mr. Chairman, my remaining time to Ms. Schakowsky.

Ms. Schakowsky. Thank you for yielding, Mr. Ranking Member.

We will hear a lot from Volkswagen today. We will hear apologies, I'm sure, for Volkswagen's deliberate deception of the American people and federal and state public health agencies. We will hear a pledge to get to the bottom of this issue without delay and to fully cooperate with investigators. We will hear how the use of so-called defeat devices is incompatible with Volkswagen's corporate culture. And I want to tell you, Mr. Horn, I don't buy it.

The American people, the EPA, and their counterparts around the world have been defrauded by Volkswagen. The company's word isn't worth a dime.

The only thing I want to hear today is exactly how will Volkswagen make this right by consumers. Saying it will take time to design and implement a fix is insufficient and I think unacceptable. People shouldn't have to wait to get the fuel economy, the low emissions, and performance that they already paid for. If they wanted, every Volkswagen clean diesel vehicle owner should be able to get their money back, all of it.

392	The American people deserve answers. Yes, there are a lot
393	of questions, but there are also thousands of owners of clean
394	diesel Volkswagens out there, and what they are wanting to know
395	is what are you going to do for them and when. And I say now.
396	So, I expect those answers to be provided today.
397	And I yield back to the ranking member of the full committee.
398	Mr. Pallone. Thank you, Mr. Chairman.
399	Unless anyone else on this side would like the time, I am
400	going to yield back. I yield back, Mr. Chairman.
401	Mr. Murphy. Thank you. The gentleman yields back.
402	I also ask unanimous consent that the written opening
403	statements by other members of the committee be introduced into
404	the record, and without objection, the documents will be entered
405	into the record.
406	Mr. Murphy. You are aware that the committee is holding an
407	investigative hearing, and when doing so, has the practice of
408	taking testimony under oath, Mr. Horn. Do you have any objections
409	to testifying under oath?
410	Mr. Horn. No.
411	Mr. Murphy. Thank you.
412	The Chair then advises you that, under the rules of the House
413	and the rules of the committee, you are entitled to be advised
414	by counsel. Do you desire to be advised by counsel during your

415	testimony today?
416	Mr. Horn. No.
417	Mr. Murphy. Then, in that case, will you please raise your
418	right hand and I will swear you in? Stand and raise your hand.
419	[Witness sworn.]
420	Mr. Murphy. Thank you.
421	Let the record show the witness answered yes. You are now
422	under oath and subject to the penalties set forth in Title 18,
423	Section 1011 of the United States Code.
424	You may now give a 5-minute summary of your written
425	statement. If you will please make sure your microphone is on
426	and pull it close to you, so we can hear you? You have to press
427	the button. Is it on?

STATEMENT OF MICHAEL HORN, PRESIDENT AND CHIEF EXECUTIVE OFFICER,
VOLKSWAGEN GROUP OF AMERICA

Mr. Horn. Thank you very much, Chairman Upton, Chairman Murphy, Ranking Member Pallone, Ranking Member DeGette, other members of the committee. Thank you for inviting me here today to testify before the committee.

My name is Michael Horn, and I am president and CEO of Volkswagen Group of America, a subsidiary of Volkswagen AG, headquartered in Germany, in Wolfsburg.

I volunteered to come here before this committee at the very outset of these inquiries in an effort to show our commitment to cooperation. We have not had the opportunity to review all aspects of this matter. Indeed, the investigation is just beginning. Therefore, my testimony and my answers to your questions will be, by necessity, have to be considered preliminary and based on my best current recollection and information.

On behalf of our company and my colleagues in Germany and me personally, I would like to offer a sincere apology, sincere apology for Volkswagen's use of a software program that served to defeat the regular emissions testing regime.

In the spring of 2014, when the West Virginia University study was published, I was told that there was a possible emissions

non-compliance that could be remedied. I was informed that EPA regulations included various penalties for non-compliance with the emissions standards and, also, that the agency could conduct engineering tests on their own which could include analysis on defeat devices or other auxiliary equipment.

Let me be very clear about this. While I was told about the EPA process, I was not then told, nor did I have any reason to suspect or to believe, that our vehicles included such a device.

I was also informed that the company engineers would work with the agencies to resolve the issue. Later in 2014, I was informed that the technical teams had a specific plan for remedies to bring the vehicle into compliance and that they were engaged with the agencies about the process. And you mentioned this, also, in your statements.

On September 3rd, 2015, Volkswagen AG disclosed at a meeting with the California Air Resources Board and the U.S. Environmental Protection Agency that emission software in four-cylinder diesel vehicles for model years 2009 until 2015 contained a defeat device in the form of hidden software that could recognize whether a vehicle was being operated in a test laboratory or on the road. The software made those vehicles emit high levels of nitrogen oxides when the vehicles were driven in actual road use rather than laboratory testing.

In Volkswagen's recent, ongoing discussions with the regulators, we described to the EPA and CARB that our emissions control strategy also included a software feature that should be disclosed to and approved by them as an Auxiliary Emissions Control Device, which is also called AECD, in connection with the certification process. As a result, in order to show that we acted immediately, we have withdrawn the application for certification for all model year 2016 vehicles and we are now working with the agencies to continue the certification process.

These events -- and I fully agree on this -- are deeply troubling. I did not think that something like this was possible at the Volkswagen Group. We have broken the trust of our customers, dealerships, employees, as well as the public and the regulators. And let me be very clear. We at Volkswagen take full responsibility for our actions and we are working with all the relevant authorities in a cooperative way.

I am here to offer the commitment of Volkswagen AG to work with this committee to understand what happened and how we will move forward. EPA, CARB, the U.S. Department of Justice, state attorneys general, as well as other authorities are fulfilling their duties to investigate this matter, and we are determined to make things right.

This includes accepting the consequences of our acts,

providing a remedy, and beginning to restore the trust of our customers, dealerships, employees, the regulators, and the American public. We will rebuild the reputation of a company that more than 2 million people worldwide, including dealers and suppliers, rely upon for their livelihoods.

Our immediate goal is to develop a remedy for our customers. While much work is still to be done, I would like to talk today about how we get from where we are now to that goal.

First, we are conducting investigations on a worldwide scale on how these matters could have happened. Responsible parties will be identified and held accountable. Thorough investigations have already begun, but any information development at this stage is preliminary. We ask for your understanding as we complete this work.

Second, it is important for the public to know that, as the EPA has said, these vehicles do not present a safety hazard and remain safe and legal to drive.

Third, technical teams are working tirelessly to develop remedies for each of the affected group of vehicles. These solutions will be tested and validated and, then, shared with the responsible authorities for approval.

There are three groups of vehicles involved, each containing one of the three generations of the two-liter diesel engine. Each

will require a different remedy, but these remedies can only be our first step to our customers.

Fourth, we will examine our compliance processes and standards at Volkswagen and adopt measures to make certain that something like this cannot happen again.

Fifth, we commit to regular and open communication with our customers, dealers, employees, and the public as we move forward. And as first steps, we have set up a designated service line, website, micro-site, to be a channel for this communication. And I have sent a personal letter to every affected customer.

I can offer today this outline of a path forward towards the goal of making things right. Nevertheless, Volkswagen knows that we will be judged not by our words, but clearly by our actions over the coming weeks and months.

These events are fundamentally contrary to Volkswagent's core principles of providing value to our customers, innovation, and responsibility to our communities and our environment. They do not reflect the company that I know and to which I have dedicated 25 years of my life. It is inconsistent that this company involved in this emissions issue is also a company that has invested in environmental efforts to reduce the carbon footprint in our factories around the world, where our plant in Tennessee is the best factory in this respect.

543	In closing, again, I apologize on behalf of everyone at
544	Volkswagen. We will fully cooperate with the responsible
545	authorities. We will find remedies for our customers and we will
546	work to ensure that this will never happen again.
547	Thank you again for allowing me to testify today, and I look
548	forward to your questions. Thank you.
549	[The prepared statement of Mr. Horn follows:]
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552 Mr. Murphy. Thank you, Mr. Horn. I now recognize myself for five minutes of questioning. 553 On September 3rd, 2015, VW admitted to CARB and EPA that it 554 555 had installed defeat devices in certain model year 2009 and model year 2015 vehicles. To the best of your knowledge, did VW install 556 557 this software for the express purpose of defeating emissions 558 controls? 559 Mr. Horn. To our understanding -- and this is also part of 560 the investigation -- it was installed to this purpose, yes, for 561 this purpose. 562 Mr. Murphy. Now in your written testimony you noted that 563 you were made aware of potential emissions compliances in the spring of 2014. 564 565 Mr. Horn. Uh-hum. 566 Mr. Murphy. You also noted discussions at the time about penalties for non-compliance and the EPA's ability to test for 567 568 defeat devices. At that time were you aware or informed that 569 these vehicles contained defeat devices? 570 Mr. Horn. No. 571 Mr. Murphy. When did you first learn, then, that VW vehicles contained a defeat device? 572 Mr. Horn. Around the September 3rd meeting, a couple of days 573 574 before.

Mr. Murphy. And then, why were you having discussions about defeat devices in the spring of 2014, then, if there was no knowledge or at least a concern that these vehicles contained a defeat device?

Mr. Horn. So, the University of West Virginia made the study. There was a Jetta and Passat in there and another off-road vehicle. I don't want to name the brand now. And the results were communicated. In this context, I was told by our experts in the Auburn Hills office -- and it was also, you know, into this market -- that, of course, you know, not complying with the mission standards is relating to fines, and hefty fines, specifically here in the U.S., and that those experts, including the German Technology Department, will check on the study and the study results.

As you also mentioned, it was a small team. Results have been published with all the emissions, which went overboard, and that they will check this, point 1.

Point 2 is they would also look with all the responsible departments, and there was a number of experts at the Department in Germany, and then, how to possibly fix this. And then, there was the notion in this communication that, also, the EPA or the agencies could check also on their own, which to my degree is normally around the world that agencies check once in a while on

their own, for auxiliary devices, including defeat devices.

At that point of time, I had no understanding what a defeat device was and I had no indication whatsoever that a defeat device could have been in our cars.

Mr. Murphy. So, let me go back. Mr. Horn, the new Chief Executive, Volkswagen, Mr. Mueller, has been quoted in media reports this morning saying that only a few people were involved with the deception. Now I have to say that I don't take much comfort in that, especially knowing that Volkswagen has been know for superb engineers and mechanics, who I wonder shouldn't they have picked up on this. But isn't it true that the technology was installed in the automobiles at least initially because the cars could not meet the new, more stringent emissions standards for diesel engines?

Mr. Horn. Yes, to your last question, this appears to be this way, and to newspaper articles about possible quotes of Mr. Mueller, I don't want to quote this.

As I said, also, the investigations are preliminary. One week our group revision did the investigation from September 22nd to October 1st. And then, the entire investigations on this matter is turned over to an external agency, a law firm called Jones Day, an American company, which is now going through the systems, outside advice, outside counsel.

Mr. Murphy. I think what we find amazing is that West 621 Virginia University discovered this, and your army of brilliant 622 engineers and talented mechanics didn't know something was amiss. 623 624 And I am sure we will have more questions about that. But I want to ask you this: in terms of VW's status for 625 626 remedying these defeat devices, who is responsible for developing 627 and testing the solution? 628 Mr. Horn. The responsibility for developing and testing the 629 engine and drivetrain software lies within the Engine and Drivetrain Division in Germany, in Wolfsburg, for the 630 631 two-cylinder, for the four-cylinder TDI engines. 632 Mr. Murphy. Now will this require a software patch or changes to the actual vehicle's architecture and hardware? 633 634 Mr. McKinley. Yes, thank you for this question. I think 635 we have to do a different change now into the three groups of cars. You've mentioned that roughly 500,000 cars are affected. Out of 636 637 those, round about 430,000 cars are the Gen 1 vehicles, which were 638 the very early vehicles, started here in 2009. For those cars, we believe that a software-only solution will not be possible 639 because, also, to be quite frank and logic, you know, if it would 640 641 have been possible, they would have done it in the first place. 642 So, for those cars, we are working on both software and hardware solutions, and there are different strategies about an 643

644	additional NOx catalytic converter as well as an SCR Urea Tank.
645	But this is something which is hardware engineering, which is a
646	little bit it's complex and it takes time to develop and to
647	test this. This is one of the strategies.
648	The Generation 2 vehicles, which is just the Passat model,
649	I feel there are 90,000 cars here in the U.S. This will be most
650	probably a software solution. This is tested now, and could
651	involve one or the other, let's say, sensor. But whatever I
652	explain to you now, anyway, this is being discussed in a timely
653	manner now in the next couple of weeks with the California Air
654	Resources Board and the CARB.
655	For the Generation 3 vehicles, so the actual
656	Mr. Murphy. Can I ask, because I have gone way over time
657	
658	Mr. Horn. Sure, sure.
659	Mr. Murphy. I am sure other colleagues are going to be
660	asking some more detailed questions that we will get today.
661	Mr. Horn. Okay.
662	Mr. Murphy. But I now need to yield five minutes. I
663	recognize Ms. DeGette for five minutes.
664	Ms. DeGette. Thank you, Mr. Chairman.
665	Now, Mr. Horn, your company acknowledged that it installed

666

667	correct?
668	Mr. Horn. Sorry, I have a problem understanding with all
669	this noise stuff.
670	Ms. DeGette. Oh, Mr. Chairman, Mr. Chairman, can you please
671	have quiet in the room, so Mr. Horn can understand me?
672	Mr. Murphy. Yes. Thank you.
673	The room will please be quiet, especially upfront. Thank
674	you. So, you are not distracted. Thank you.
675	Ms. DeGette. All right. I will ask that again. And if I
676	can have the clock reset to five minutes?
677	Mr. Horn, your company has acknowledged that it installed
678	these defeat devices on a number of models back to 2009, yes or
679	no?
680	Mr. Horn. Yes.
681	Ms. DeGette. And do you know how the various defeat devices
682	installed in the cars actually work at this point?
683	Mr. Horn. Personally, no, I'm not an engineer.
684	Ms. DeGette. Does someone at VW know how these defeat
685	devices work?
686	Mr. Horn. I believe this is also within the investigations,
687	and I believe that
688	Ms. DeGette. Can you please give us the information when
689	you find out?

690 Mr. Horn. We will. We will if we have it. Ms. DeGette. Thank you very much. 691 Now you mentioned this West Virginia University study that 692 693 was conducted in May of 2014 which found that there real NOx 694 submissions on several Volkswagen vehicles exceeded EPA standards 695 by as much as 35 times. Following publication of that study, VW 696 represented to the California Air Resources Board, or CARB, and to the EPA that the increased emissions were due to technical 697 issues and unexpected in-use conditions. Correct? 698 699 Mr. Horn. I'm sorry, you guys cough here all the time, and 700 I have trouble --701 Ms. DeGette. All right. I will ask the question again. 702 Mr. Horn. Thank you. 703 Ms. DeGette. After that study by West Virginia University, 704 isn't it true that VW told the EPA and the California Board that 705 the increased emissions were due to technical issues and 706 unexpected --707 Mr. Horn. Yes. 708 Ms. DeGette. -- in-use conditions? 709 Mr. Horn. Yes. 710 Ms. DeGette. Yes. 711 Mr. Horn. True. 712 Ms. DeGette. And those representations at that time were,

713 in fact, incorrect and false, weren't they, sir? Mr. Horn. Yes. 714 715 Ms. DeGette. Yes, they were. 716 Now, to your knowledge, did anybody at the Volkswagen Group 717 of America know at that time that, in fact, those discrepancies 718 were due to these defeat devices when they made those 719 representations to the regulators? 720 To my knowledge at this point of time, no. Ms. DeGette. No one in the U.S. did? 721 722 Mr. Horn. No. 723 Ms. DeGette. Okay. Now, in December 2014, VW proposed a 724 recall of 500,000 vehicles to resolve the, quote, "technical 725 issues". Is that correct? 726 Mr. Horn. Uh-hum. 727 Ms. DeGette. And, in fact, a number of those vehicles were recalled. Is that correct? 728 729 Mr. Horn. Yes, most of them. 730 Ms. DeGette. But, after they were recalled, the California 731 regulator still said that that fix did not work, isn't that 732 correct? Mr. Horn. That is correct. 733 734 Ms. DeGette. Now, to your knowledge, did anyone at the Volkswagen Group of America know about the existence of these 735

defeat devices when the company announced that recall in December

736

of 2014? 737 Mr. Horn. To my best knowledge today, no. 738 739 Ms. DeGette. Mr. Horn, when did you personally learn of the defeat device and under what circumstances? 740 741 Mr. Horn. Around the meeting on September 3rd with CARB and 742 EPA. 743 Ms. DeGette. Okay. Now you talked, when the chairman asked you about these cars -- I am concerned about what we are going 744 745 to do about the 500,000 cars we have on the road in the U.S. And 746 the first thing is, as you just testified, about 430,000 of those 747 cars cannot be fixed by a software-only solution. Is that 748 correct? 749 Mr. Horn. Yes. 750 Ms. DeGette. And that is because of the way that the engine 751 is designed in these vehicles. Correct? 752 Mr. Horn. I would say not the engine is designed, but all 753 the after-treatment systems. 754 Ms. DeGette. Right. And I have got to say, I have got to acknowledge my wonderful dealer Fred Emich, who is here today. 755 756 And he let me come and talk to his wonderful mechanics on Monday. 757 They gave me this chart right here. I tried to take the card itself, but it was too heavy and they told me I would have to 758

probably pay them \$2,000 if I lost it. So, I decided to take the 759 chart instead. 760 761 This is the chart of the exhaust on these 430,000 cars. 762 as I could clearly see, you can't do a minor little fix to fix this problem. So, what is VW going to do for these 430,000 cars, 763 764 so that the users can use them and so that they can pass the 765 emissions test? 766 Mr. Horn. So, from this distance, I can't see the chart, 767 but I believe it is maybe something out of our service literature 768 or customer literature. 769 Ms. DeGette. It is the exhaust system for these cars. 770 Mr. Horn. Yes, but --Ms. DeGette. What can be done to fix that? 771 772 Mr. Horn. There's two scenarios next to the software 773 adjustments and one scenario --774 Ms. DeGette. But these are for the cars that can't have, 775 that the software adjustments will not work. 776 Mr. Horn. We are talking now about Generation 1 cars, the 777 430,000 cars. 778 Ms. DeGette. That's right. 779 Mr. Horn. The picture you have shown and the treatment,

done it right in the first place.

software alone doesn't work because, otherwise, they would have

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782 Ms. DeGette. Right. So, what are you going to do for those 783 cars? 784 Mr. Horn. Two technical scenarios. Either a Urea Tank, SCR 785 Tank, to put, add glue in there, or a specific catalyzer for the NOx. Two technical scenarios. 786 787 Ms. DeGette. Okay, but those cars don't have the Urea Tank 788 right now? 789 Mr. Horn. No. That's why it has to --790 Ms. DeGette. So, this would be a major fix, correct? 791 Mr. Horn. Yes, ma'am. 792 Ms. DeGette. Now what is the timeframe VW has set for that 793 fix? 794 Mr. Horn. We are still working on the timeframe, and it's 795 too early to say when this fix exactly is going to take place. 796 Ms. DeGette. When are these dealers going to be allowed to 797 sell these cars? Mr. Horn. The dealers, the issue with the dealers, as Fred 798 799 Emich told you, is that we have not the model year '16 certified 800 and we have stopped sale on our own, on our own --801 Ms. DeGette. Right. When is that going to be fixed? Mr. Horn. The model year '15 --802 803 Ms. DeGette. So you are going to be able to sell those cars? 804 Mr. Horn. There's two scenarios. A scenario, we are now

805	trying to get a conditional approval with the EPA until we have
806	the final software fix beginning of next year.
807	Ms. DeGette. The beginning of next year? And in the
808	meantime, what are the dealers and the customers supposed to do,
809	the ones who have these cars?
810	Mr. Horn. Well, in the meantime, no customer can buy a car
811	because it's not available for them. And with the dealers, we
812	have very early started a program to work with them to also help
813	them financially and to communicate with them
814	Ms. DeGette. Okay, but the 430,000 cars that are already
815	on the road, what are those customers supposed to do? Their cars
816	cannot pass the emissions test.
817	Mr. Horn. The EPA has said, and they have repeated this also
818	in their statement, that these cars are legal and safe to drive.
819	Mr. Murphy. Thank you.
820	Mr. Horn. Until now, there's no indication that they didn't
821	pass any emissions test.
822	Mr. Murphy. Thank you. The gentlelady's time has expired.
823	Now we need to recognize the chairman of the full committee,
824	Mr. Upton of Michigan, for five minutes.
825	The Chairman. Thank you, Mr. Chairman.
826	I want to go back to the specifics of the defeat device. So,
827	I live in Michigan. Where I live we don't need to test our cars

828 for emissions on an annual basis, as many states require. 829 Certainly, in this region here in D.C. I know they do. So, how is this defeat device actually set up, so that it 830 831 was different when an individual drove it down the road versus taking it to a service station and getting the emissions sticker 832 833 that is often required in the states that require such? 834 Mr. Horn. So, I'm --835 The Chairman. I've been told a couple of things, but I just 836 want to know if you can walk --837 Mr. Horn. I can't tell you --838 The Chairman. -- me through how that could change the 839 emissions system. What happens? 840 Mr. Horn. I can share my best knowledge, but I'm not an 841 engineer, neither, a software engineer. 842 The Chairman. Well, I --843 Mr. Horn. But let me try to explain. Let me try to explain. My understanding at this point of time is that the software was 844 845 designed that the vehicle or the software could detect whether 846 it was on a dyno, in a testing laboratory environment, or whether 847 it was on the street. 848 And one example of this, as experts have explained to me, is that the software could detect whether the steering wheel made 849

an angle. So, there might have been and there will be other

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851	parameters, like maybe speed and, then, change of speed and those
852	things.
853	The Chairman. Maybe the weight of the driver in the driver's
854	seat?
855	Mr. Horn. I don't think so, but maybe. I don't know.
856	The Chairman. So, wouldn't it be easy to develop the
857	software that would just remove that?
858	Mr. Horn. Yes. This will be, this software will be ready
859	
860	The Chairman. But, of course, when that happens, the car
861	isn't going to meet the emissions test.
862	Mr. Horn. Regarding the model year '16 and '15, which were
863	the Generation 3 cars, which we are discussing right now with the
864	agencies, the defeat device will be either switched off, and from
865	January onwards will be completely taken out of the car. And
866	those cars will pass the emissions test.
867	The Chairman. So, how many vehicles will not pass the
868	emissions test or the ones that you have identified?
869	Mr. Horn. Now, I mean, my question
870	The Chairman. So, you will be able to do that with the later
871	versions, right?
872	Mr. Horn. We have
873	The Chairman. But not the earlier versions of the vehicle?

They won't be able to pass? By turning off the device, the defeat device, there will be a number of cars that, in fact, will not meet the current standards. And that is your big goal.

Mr. Horn. The burn standards, yes, you're right.

The Chairman. And how many of those vehicles are there on the road?

Mr. Horn. Well, we have a total of 500,000; 430,000 Generation 1 vehicles, 95,000 Generation 2 vehicles, and then, it's around 70,000 Generation 1 vehicles. And so, you know, all of these cars are out of the legal compliance, clearly. But, as EPA has said, all these cars are legal and safe to drive for the owners. So, we are not selling the cars, but the owners can legally drive and safely drive their cars.

The Chairman. So, your dealers across the country, they have their finance plans, where they have quite an inventory, I would guess, of cars that they are now unable to sell. They have paid in advance for those under the financing plan that dealers have, and they are not going to be able to sell them for a number of months, perhaps even as long as six months at a minimum, until the fixes can be done.

What type of remedies are you offering the dealers in terms of financial incentives, knowing that they have paid for these cars and, frankly, lost a boatload, I would imagine?

897 Mr. Horn. Yes, and this is also --898 The Chairman. That inventory has got to be a pretty big 899 loss. 900 Mr. Horn. This is also one of the things which troubles me 901 personally very much because the last one, yes, we've worked very 902 hard and we've brought profitability up and all of those things. 903 But I'll tell you exactly. On Friday, the 18th, the Notice of Violation was communicated. We had a call with the National 904 905 Dealer Counsel. Some of the folks are sitting behind me. On 906 Monday, we issued our first financial relief aid. So, we put all 907 the TDIs, used cars, CPO cars, and new cars on free flooring. 908 took all the bonus thresholds out for car sales. So, we paid maximum bonus for each car sold, and we took also out the customer 909 910 satisfaction targets objectives and we paid maximum customer 911 satisfaction bonus on those cars. And this is more than \$1,000, \$1,500 per car. 912 913 Coming towards October now, we provided every dealer around

Coming towards October now, we provided every dealer around the U.S. with a discretionary fund, with a discretionary fund which was explained to them through the District Managers, the Sales Operations Managers, and which was wired to the dealers on October 1st.

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I don't want to call out the number, but it is a significant amount of money in order for them to have flexibility. So, no

accountability towards us; flexibility to solve the most urgent 920 921 customer cases or to invest or to put the money where they think 922 it would be fit. 923 And now, when I come out of this congressional hearing, on 924 Friday we look at the next programs in order how can we help the 925 dealers with the cashflow of their cars, for the cash position. 926 Because one thing is very, very clear -- and I'm damned sincere 927 about this -- the dealer profitability of this country is my first 928 objective. And I said this on January 1st and I continue to say 929 this. So, this is one part. 930 And also, on Friday we look very intensively into the 931 customer remedies and what we need to do to the customers. And there will be the first scenarios on the table. 932 933 Mr. Murphy. All right. Thank you. The gentleman's time 934 has expired. 935 I now recognize the ranking member of the full committee, Mr. Pallone, for five minutes. 936 937 Mr. Pallone. Thank you, Mr. Chairman. 938 Mr. Horn, your statements so far don't give me much confidence that we are ever going to see a fix for these vehicles 939 940 that are impacted. You know, you say that you can't be fixed by a software-only solution. You don't have the necessary timetable 941 942 as to when the fix is going to begin.

Have you been given enough information about how the defeat

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device affects the engine to actually make informed judgments on 944 whether the fix will actually work? I mean, how do we know that 945 946 what you are proposing to do is actually going to work? Mr. Horn. Whatever I tell you here today is agreed and is 947 948 coming from the Technical Engineering Department in Wolfsburg. 949 And alongside our actions in Europe, we have to have our actions in the U.S. And the technical --950 951 Mr. Pallone. No, I understand, but is it fair to say that 952 you really don't know whether you can fix these vehicles to achieve 953 the emissions standards? 954 Mr. Horn. We know that we can fix these vehicles to achieve 955 emission standards. 956 Mr. Pallone. All right. But, then, what happens with 957 regard to other things like fuel economy, engine performance? You know, people bought these vehicles thinking that they were 958 going to meet the emissions standards. They were going to have 959 960 good fuel economy. They were going to have good engine performance. Can you guarantee that any fix you make to the 961 962 vehicles doesn't affect fuel economy or engine performance or 963 both? 964 At this point of time, my understanding is, if we correct the nitrogen oxide emissions to the emissions 965 45

standards, the customer will get the MPG on the Monroney label. That's my current understanding. Whether the full performance of the car -- and this is something also our Chairman Matthias Mueller or CEO Matthias Mueller said in Germany -- maybe on top speed they might be, one or two miles per hour might be missing, but this is, of course, something which we will share with the agencies. But current understanding is that the customer will keep the Monroney label miles per gallon.

Mr. Pallone. I mean, the concern I have is, you know, when you buy one of these cars, you are relying on not only the emissions standards, but the fuel economy is good and the performance is good. I think you get to the issue of damages here. In other words, if I am an owner and the fix doesn't achieve good performance, good fuel mileage, then I am going to expect to be compensated in some way if that is not the case.

And I just remain concerned that any fix is going to substantially change the cars and that it is unfair to the consumers who bought the cars and relied on them because they expected them to perform a certain way. But you are telling me that the fix will guarantee good performance and will guarantee good fuel economy?

Mr. Horn. I said, to my current understanding, in achieving the emissions standards, the Monroney label miles per gallon will

be achieved. There might be a slight impact on the performance. And this is naturally not only the discussions with the agencies, but, of course, we will look into compensating our customers. And, of course, if there would be significant differences, this would be part of the discussion.

Mr. Pallone. Well, let me get to another issue. What about the impact on clean air? I mean, we know that there's all kinds of health impacts, asthma, other respiratory illnesses that can seriously affect people, send them to the hospital that get sick because of NOx and these other problems. I mean, you obviously agree that NOx pollution can result in serious health and environmental effects. I would assume you would agree with that.

Mr. Horn. I have also read the EPA statement, that in general, and not specifically to Volkswagen, they have indicated that there might be respiratory problems which could also lead -- I mean, I am quoting yesterday, basically -- to hospital visits.

Mr. Pallone. Well, what are you going to do to rectify that? How do you plan to mitigate the harm caused by this excess pollution emitted into the air over the last seven years? My understanding is that the NOx emissions from the affected vehicles are up to 40 times the allowable limit. So, what are you going to do with regard to this excess pollution and the impact it may have had?

1012	Mr. Horn. I think there's, first of all, many different
1013	studies. And so, I would like to go back to the EPA yesterday,
1014	of what they said. I think it will be part of the discussion.
1015	But I would also like to point out that, if you look at 100
1016	percent of nitrogen oxide emissions in the U.S., the car and truck
1017	industry is having 5 percent. Our group here in the U.S. has 4
1018	percent of the 5 percent, which is .2 percent. And of this, 20
1019	percent is TDI, which is .05. And now, we can multiply this, which
1020	is not belittling this and it's clearly unacceptable. But,
1021	within this context, clearly, the discussion will come up and
1022	needs to be addressed.
1023	Mr. Pallone. All right. Thank you.
1024	Thank you, Mr. Chairman.
1025	Mr. Murphy. I now recognize Ms. Blackburn for 5 minutes.
1026	Mrs. Blackburn. Thank you, Mr. Chairman.
1027	Mr. Horn, you said profitability is your top priority when
1028	you were speaking of the dealers and
1029	Mr. Horn. For the dealers, yes.
1030	Mrs. Blackburn. Yes. I would hope that safety, quality,
1031	integrity are top priorities, and profitability comes along there
1032	as a part of that picture.
1033	Let me ask you about this. Are you going to buy back the
1034	inventory that the dealers have?

1035	Mr. Horn. No, our plan is not to buy back
1036	Mrs. Blackburn. No?
1037	Mr. Horn the inventory.
1038	Mrs. Blackburn. Not to buy back? Okay.
1039	Mr. Horn. Our plan is to fix the cars.
1040	Mrs. Blackburn. Okay. Let me move on with you. Have you
1041	identified the individual or group of individuals that are
1042	responsible for the defeat device?
1043	Mr. Horn. These investigations are ongoing.
1044	Mrs. Blackburn. You have known about this since the spring
1045	of 2014, a year and a half.
1046	Mr. Horn. We know about this since September 3rd, that the
1047	violation is there. And since this time and since the September
1048	18th Notice of Violation, the Board has acted and has asked Jones
1049	Day to investigate.
1050	Mrs. Blackburn. But you have known that there was some
1051	activity around this defeat device since the spring of 2014,
1052	correct?
1053	Mr. Horn. No, I did not know. As I have said
1054	Mrs. Blackburn. Okay. So, you did not know it in the spring
1055	
1056	Mr. Horn. No.
1057	Mrs. Blackburn of 2014?

1058	Mr. Horn. No, again.
1059	Mrs. Blackburn. So, you just learned about it September
1060	3rd, 2015?
1061	Mr. Horn. Around the September 3rd events, yes.
1062	Mrs. Blackburn. Okay. All right. Let's go to your
1063	six-point remedy plan. You have talked some about point 3, which
1064	is that they are developing remedies. And I would assume, if this
1065	landed on your plate September 3rd, that you all have put all
1066	efforts and energy into this plan, correct, into the remedies?
1067	Mr. Horn. Yes, correct.
1068	Mrs. Blackburn. Very good.
1069	All right. Then, let's go to point No. 1. You state that
1070	Volkswagen will examine its compliance processes and standards
1071	and adopt measures to make certain that something like this cannot
1072	happen again.
1073	Mr. Horn. Uh-hum.
1074	Mrs. Blackburn. So, why don't you give us a little bit of
1075	specificity on that and what, if any, steps are currently underway
1076	to handle this compliance issues? What did you start as of
1077	September 3rd, 2015 and what is your timeline? How long is it
1078	going to take you to bring this into compliance?
1079	Mr. Horn. So, as I am the CEO of Volkswagen Group of America,
1080	I can only report to you on what is managed by Volkswagen

1081	headquarters worldwide at this point of time. And as I've said,
1082	it's Jones Day. They manage all the investigations in terms of
1083	who did what, when, how, and why, and what do we need to do in
1084	order to rectify this for the future in terms of process
1085	adjustments and compliance adjustments.
1086	Mrs. Blackburn. So, then, you are saying that, as of now,
1087	you do not have a plan?
1088	Mr. Horn. As of now, we are still in the investigation
1089	phase.
1090	Mrs. Blackburn. Okay. When can we expect you to have a plan
1091	to handle compliance, to make the owners of your vehicles whole,
1092	if you will, to make the dealers that have trusted in you, to make
1093	them whole? Also, the individuals that are employed by your
1094	facilities, when are they going to have some certainty as it
1095	relates to the jobs?
1096	So, you all say you are still investigating. So, on your
1097	timeline, when do you expect that you are going to be able to say
1098	this is the way forward?
1099	Mr. Horn. You mentioned six points, and we started with the
1100	first point, compliance. I don't have a timeline for this yet.
1101	Mrs. Blackburn. Okay.
1102	Mr. Horn. We are working instantaneously with the dealers
1103	and developing plans by the week as we go, as we go. And you can

1104 ask those folks behind me on whether this works or not. 1105 And for the customer, it depends on the technical remedies. So, again, this is Generation 3. January this year, January next 1106 1107 year -- sorry -- we will start to give the software to the agencies. 1108 Generation 2, the middle of the year; most probably Generation 1109 3, due to the technical complexity, will be a little bit later. 1110 So, there's different timings, and I apologize not for having a 1111 full-fledged plan of the Board by Volkswagen company right now 1112 here in my pocket. 1113 Mrs. Blackburn. So, you are certain it is going to be a 1114 multi-year plan? 1115 Mr. Horn. Excuse me? 1116 Mrs. Blackburn. You are certain the remedy will end up being 1117 a multi-year approach? 1118 Mr. Horn. Yes. If you look alone at 430,000 cars and the repairs might take 5 to 10 hours even in order to fix this, you 1119 know, technical fixes, and if you look at your recall history in 1120 1121 this market, also with NHTSA, then these actions take, you know, 1 or 2 years minimum -- minimum -- when the fix is available for 1122 1123 everybody, including parts and discussed with the agencies and 1124 agreed to. 1125 Mrs. Blackburn. Okay. Let's see, my time has expired. 1126 I do have one other question about point 2 in your remedy

1127 plan. Mr. Chairman, I will submit that and yield back the time. 1128 Mr. Murphy. Thank you. Thank you very much. Now I recognize Ms. Castor for 5 minutes. 1129 1130 Ms. Castor. Well, thank you, Mr. Chairman, for calling the 1131 hearing. 1132 Mr. Horn, according to reports, VW's defeat device is found 1133 in nearly 500,000 vehicles. Are you confident in that number? Could it be more? Could it be less? 1134 1135 Mr. Horn. We are very confident in this number. 1136 Ms. Castor. Pardon me? 1137 Mr. Horn. We are very confident in this number. 1138 Ms. Castor. Okay. Have you calculated the loss in value 1139 to customers, car owners? 1140 Mr. Horn. No, not yet. That's a matter of not only the 1141 investigations, but the calculations are ongoing. And on Friday, 1142 we will look at the first scenarios. 1143 Ms. Castor. Okay. You have called your investigation 1144 preliminary, but you have known about this for a year and a half. 1145 The problems first came to light in May 2014, is that correct? 1146 Mr. Horn. No, this is not correct. As I explained, the 1147 study was published, and I had no reason to believe that there 1148 was a defeat device in those cars. 1149 Ms. Castor. Well, you found out, according to reports, in

1150	2014 that there was an issue, isn't that correct?
1151	Mr. Horn. An emissions issue, yes, that's correct.
1152	Ms. Castor. So, what did you do at that point in time?
1153	Mr. Horn. At that point of time, a plan was asked for from
1154	the engineers. And in July 2014, middle of the year, they
1155	presented a plan to me which was and this is very important
1156	also which was agreed and discussed with the Product Safety
1157	Committee worldwide. And these are those guys who manage all the
1158	recalls, all the service actions worldwide, including technical,
1159	procurement, legal, service, and those things.
1160	They came back with a plan, first of all, acknowledging that
1161	those results were correct and, secondly, with a clear timing on
1162	when those cars would get a software fix, which was also mentioned
1163	in one of the opening statements, as of the end of last year.
1164	Ms. Castor. Do you feel like you have been personally
1165	deceived now, after you found out subsequently that the defeat
1166	devices
1167	Mr. Horn. Yes. Yes, and
1168	Ms. Castor. Explain that.
1169	Mr. Horn. Look, I worked 25 years for this company. And
1170	beyond my personal objective of dealer profitability, integrity,
1171	quality, you know, and not cheating, was always for me a given
1172	for this company.

1173	Ms. Castor. And another
1174	Mr. Horn. When I learned this, I am as touched and moved
1175	sorry as my employees and as my
1176	Ms. Castor. Another group feeling the effects of the VW
1177	defeat device defrauding are the VW dealers and their hard-working
1178	employees all across this country, in addition to consumers. A
1179	recent Associated Press article noted that dealers are facing,
1180	quote, "a lot of angry calls, emails, et cetera, from Volkswagen
1181	owners" who feel betrayed because they believed they had bought
1182	a car that polluted less without sacrificing all the good gas
1183	mileage and the performance that comes with a diesel engine.
1184	Mr. Horn, how many VW dealerships are there in the U.S.?
1185	Mr. Horn. We have round about 650 VW dealers and 350 Audi
1186	dealers.
1187	Ms. Castor. And on average, how much of a VW's business do
1188	these diesel models
1189	Mr. Horn. Twenty-five percent.
1190	Ms. Castor. And these dealers are now the frontline
1191	Mr. Horn. Yes.
1192	Ms. Castor for unhappy customers who feel betrayed by
1193	the Volkswagen brand. And a media account yesterday quoted one
1194	dealer as saying, "This is the biggest fraud I've ever seen."
1195	What do you have to say in response to that? What do you tell

1196	these business owners and their employees whose livelihoods
1197	depend on
1198	Mr. Horn. I went immediately out with the Dealer Counsel
1199	on a call. I made a dealer video which was sent out, and the
1200	dealers even showed it to their children, and their families, and
1201	their employees, because they said that's the right thing on what
1202	we are approaching this.
1203	Ms. Castor. So, detail for us how VW is informing dealers
1204	about the defeat devices and the solutions to fix cars that feature
1205	these defeat devices.
1206	Mr. Horn. As soon as we have the information necessary
1207	already and have discussed this with EPA and CARB about the timing
1208	or alongside, the dealers will be naturally informed.
1209	Ms. Castor. They are not getting any information right now?
1210	Mr. Horn. No, of course, they get information.
1211	Ms. Castor. So, detail that for us.
1212	Mr. Horn. First of all, they get the information that we
1213	financially help them through this crisis. Secondly, the first
1214	thing is we took the bonus thresholds out. They have free
1215	flooring. They got the discretionary fund. We have increased
1216	the incentives by \$2,000 for a loyal customer, for loyal
1217	Volkswagen customers, you know, a loyalty program.
1218	Ms. Castor. What does that mean?

1219 Mr. Horn. That means we get them started and don't let them 1220 dry out in the field. 1221 Ms. Castor. Is that a direct payment to customers or to 1222 dealers? 1223 The first two points, the bonus payments and the 1224 floor plan, is directly to the dealers. The discretionary funds 1225 is directly to the dealers. And the incentives are, for them, this is a certain cash incentive that they can manage to bring 1226 1227 loyal customers in, whether that is a TDI customer or a gas 1228 customer. 1229 Ms. Castor. So, is the intention there for the dealers, 1230 then, to contact customers who have purchased cars since the model 1231 year 2009? 1232 Mr. Horn. Yes, as one of the possibilities, sure, yes. 1233 Ms. Castor. Well, VW is not giving any direction to dealers 1234 and their employees on contacting customers at this point in time? 1235 Mr. Horn. No, of course, we are having -- we have set up 1236 frequently-asked questions. We are guiding the dealers with 1237 real-time the same information we have, and which goes to all call centers as well, because those, you know, I have visited the call 1238 1239 center in Auburn Hills. Those people are also frontline. They 1240 need the same information, and as soon as we have it, the other 1241 people get it as well.

1242	Ms. Castor. All right. What has VW told dealers about how
1243	existing Volkswagen models will be affected, cars that dealers
1244	have already sold and cars that are now sitting on the lots?
1245	Mr. Horn. We've informed the dealers directly on September
1246	18 in a call to the National Dealer Counsel. We followed up with
1247	letters and videos to do this.
1248	Mr. Murphy. Thank you.
1249	Ms. Castor. Okay, I am out of time.
1250	Mr. Murphy. The gentlelady's time has expired.
1251	I now recognize Mr. Barton for 5 minutes, from Texas.
1252	Mr. Barton. Thank you, Mr. Chairman. And thank you and Ms.
1253	DeGette for organizing this hearing.
1254	I am not a Registered Professional Engineer anymore, but at
1255	one time I was. I still am an engineer by training. My daughter
1256	drives a Volkswagen Beetle. My former stepdaughter drives a
1257	Volkswagen Jetta. I don't think they are diesel; I think they
1258	are gasoline-powered, but they are both Volkswagens.
1259	I have always had the highest respect for Volkswagen. I
1260	think it is a fine company engineering-wise, you know,
1261	product-wise. But I must tell you, sir, that it is extremely
1262	disappointing to look at the I don't know the right word to
1263	use immorality of the corporate decision to knowingly and
1264	willfully cheat on U.S. emissions standards.

1265 I mean, Volkswagen is one of the premiere name brands of auto manufacturing in the world, and it is a reputation that has been 1266 gained over the last 50 or 60 years. And to have a company of 1267 1268 your stature knowingly and willfully make a decision at the 1269 highest levels of the company to put a software program in your 1270 products that are meant intentionally to deceive or to cheat on 1271 U.S. emission standards, to me, I wouldn't have believed it if 1272 it wasn't factually proven. 1273 So, my first question to you is, I am told that this was a 1274 decision made in Germany at the corporate level. Is that correct? 1275 Mr. Horn. Two answers to this. First of all, the 1276 investigations are ongoing, but this was not a corporate decision, from my point of view. To my best knowledge today, the 1277 corporation in no Board meeting or no Supervisory Board meeting 1278 1279 has authorized this, but this was a couple of software engineers who put this in, for whatever reasons. And I would also like to 1280 1281 find out, and I fully agree to your other statement. 1282 Mr. Barton. And this is an oversight hearing, so I assume 1283 that you are testifying under oath, is that correct? 1284 Mr. Horn. I am under oath. I understand this, sir. 1285 Mr. Barton. Okay. So, what you are saying is that the senior, the president of Volkswagen International did not know 1286 1287 about this when it happened?

1288	Mr. Horn. What I said was, to my understanding, this was
1289	not a corporate decision. This was something individuals did.
1290	Mr. Barton. Okay. Now that is not what I was led to
1291	believe, but I take you at your word. So, I will ask the second
1292	question.
1293	When did senior management, i.e., the president of
1294	Volkswagen International, the executive vice present, whoever
1295	your senior day-to-day corporate officers are, when did they learn
1296	of this action?
1297	Mr. Horn. To my understanding, also around the September
1298	3rd notification of the agencies.
1299	Mr. Barton. But it occurred years ago.
1300	Mr. Horn. Yes, sir.
1301	Mr. Barton. Do you really believe, as good, as well-run as
1302	Volkswagen has always been reported to be, that senior-level
1303	corporate managers/administrators had no knowledge for years and
1304	years?
1305	Mr. Horn. I agree it's very hard to believe.
1306	Mr. Barton. Yes.
1307	Mr. Horn. And personally, I struggle as well, yes.
1308	Mr. Barton. That is an honest answer. I appreciate that.
1309	Well, I don't know what to do, but I do know that you can
1310	have an honorable disagreement about emissions standards, and we

1311 have had that on this committee. But, as somebody who voted for the Clean Air Act Amendments and as a conservative who believes 1312 1313 that, if it is the law, it should be implemented, and corporate, 1314 especially international corporations should honor those laws, 1315 your company has not. I don't know what the penalty should be, 1316 but it should be more than just a slap on the wrist. 1317 I mean, I am going to listen to the rest of the testimony 1318 and the questions and the staff recommendations, but in every 1319 other case since I have been a Congressman, when we have had 1320 problems with manufacturers, automobile manufacturers, in every 1321 case it has been something happened that was really a mistake, 1322 an accident, that they just didn't foresee it. That is not the 1323 case here. 1324 Mr. Horn. Yes. 1325 Mr. Barton. There was a knowingly and willful decision to 1326 deceive in one of the most important markets in the world, and 1327 that, sir, is just wrong. 1328 And with that, I --1329 Mr. Horn. We agree. 1330 Mr. Barton. Thank you, sir. 1331 Mr. Murphy. Thank you. I now recognize Mr. Kennedy for 5 minutes. 1332

Mr. Kennedy. Thank you, Mr. Chairman.

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1334 Mr. Horn, thank you for being here today. 1335 I understand you have said several times your testimony is 1336 preliminary and there are investigations ongoing. So, I 1337 appreciate that and I recognize that. 1338 I do want to go back to what a number of my colleagues has 1339 gone to with regard to the timeline here. My understanding, and 1340 from your testimony, was that in the spring, I think specifically 1341 May of 2014, was when Volkswagen became aware that there was some 1342 issue with regard to emissions, is that right? 1343 Mr. Horn. Yes. 1344 Mr. Kennedy. And then, it was from May to December that CARB 1345 and EPA launched investigations into those, the emissions, and 1346 the company itself, VW, started an investigation as to what led 1347 to the oddities, if you will, with regard to the emissions testing, 1348 right? 1349 Mr. Horn. I can't answer this really. I mean, I know that 1350 the actions to remedy these findings were discussed with CARB and 1351 Whether they have undergone their own investigations between May 2014 and December 2014, I don't know. I know they 1352 did this afterwards, when we started to flesh the cars with the 1353 1354 new software. Mr. Kennedy. So, okay. If I tell you that EPA and CARB 1355 1356 continued an investigation after that preliminary report from May

and they continued their investigations, then December 2nd, 2014, VW shared test results with EPA and CARB and proposed a recalibration fix, is that accurate?

Mr. Horn. Yes.

Mr. Kennedy. And then, VW initiated a voluntary recall of approximately 500,000 vehicles to try to deal with that recalibration issue. In May, CARB commenced testing, May 6th, I believe, 2015, CARB commenced testing to discern whether the fix that VW had proposed adequately and accurately fixed the underlying issue.

Mr. Horn. Uh-hum.

Mr. Kennedy. May 6th through July 2015, CARB conducted laboratory and on-road testing to confirm the efficacy of the recall. What I am getting at here, sir, is July 8th CARB shared test results with VW and the EPA, prompting a series of technical meetings, from my understanding. And according to CARB, in the course of those meetings, VW disclosed that there were several issues, that Gen 1, Gen 2, and the 2015 model of the improved SCR vehicle known as Gen 3 had a second calibration intended to run only during confirmatory testing. So, there was some knowledge at least in July of this year that there was some manipulation of software code with regard to the testing, was there not?

Mr. Horn. This meeting you're referring to, I don't know.

1380 I can tell you that the first issue that got back to me and to 1381 my attention was on the 20th of July when my people of Product 1382 Marketing came to me and said we don't get the model year '16 diesel 1383 certified. 1384 And then, I immediately wrote a letter or an email to Dr. 1385 Jakob Neusser, the EDP for Research and Engineering in Wolfsburg, 1386 and I escalated this. And the explanation was twofold. (A) There was new systems, and I don't know whether this is rights, 1387 1388 and (B) there is still information missing. So, also my teams in Herndon with the National Science Company did not have this 1389 1390 information. And then, only in the weeks afterwards it started 1391 to unfold. 1392 Mr. Kennedy. And so, sir, if I am understanding kind of the 1393 broad aspects of your testimony correctly, this is something --1394 as you have said a number of times, this was not a company decision; 1395 this was a decision made by a number of individuals yet to be 1396 ascertained underneath at some other levels of the company that

Mr. Horn. That's my understanding, yes.

Is that accurate?

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Mr. Kennedy. So, as of now, at least according to press reports as of this morning, there's four individuals that have been suspended. Is that right?

does not affect a corporate decision by the Board, by yourself.

1403	Mr. Horn. I don't know. This is press reports.
1404	Mr. Kennedy. To your knowledge, has anybody been suspended
1405	to this point?
1406	Mr. Horn. I can't share names with you. There is no
1407	information
1408	Mr. Kennedy. I am not asking for names. Has there been
1409	anybody that has been suspended at this point? Has anybody, as
1410	of now, after Volkswagen, for knowing at least of some
1411	inconsistencies with test reports for the past 18 months, has
1412	anybody been suspended or lost their job?
1413	Mr. Horn. To my understanding, there have been three people
1414	suspended, but I cannot share the names here, due to German law.
1415	Mr. Kennedy. And I am not asking for the names, sir.
1416	You mentioned the figures, roughly, that this would take one
1417	to two years, 5 to 10 hours per car, in roughly 430,000 cars. Do
1418	you have any estimate at this point as to what the direct losses
1419	for Volkswagen would be because of this incident?
1420	Mr. Horn. I think the losses are depending (A) on the fines
1421	we will get and we will have to pay, and then, also, (B), on how
1422	much money it takes to fix those cars, and (C) on how much money
1423	we will have to pay to compensate the customers for what we did.
1424	And this is a whole lot of money, I'm quite sure.
1425	Mr. Kennedy. And so, sir, I think the overall question that

1426 you are sensing from myself and colleagues is that I understand 1427 that this was a decision that you are indicating was made by people 1428 underneath you. It does get to the overall corporate integrity 1429 of the company. And so, what, if you can say, is going to be done 1430 to restore faith in the overall corporate structure of Volkswagen? 1431 Mr. Horn. First, a very important clarification. It was not done by people under me. I'm the CEO, president and CEO of 1432 1433 Volkswagen Group of America. And those things have been 1434 developed in the relevant software departments in Germany, which 1435 is totally out of my jurisdiction or steering. 1436 And the second, to get your answer hopefully in the right 1437 way, with the compliance investigations, we have to streamline 1438 our processes and this company has to bloody learn and use this 1439 opportunity in order to get their act together. And 600,000 1440 people worldwide have to be managed in a different way. 1441 very, very clear. 1442 Mr. Kennedy. Thank you, sir.

Mr. Murphy. I recognize the vice chair of the full committee, Mr. McKinley, for 5 minutes.

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Mr. McKinley. Well, thank you, Mr. Chairman.

Several things. First, you opted not to challenge the WVU decision, the research that was done. So, you have not challenged the research that was done. Everyone has recognized you did

1449	knowingly, then, violate, is that correct?
1450	Mr. Horn. I don't understand this question, sir. I'm
1451	sorry.
1452	Mr. McKinley. You opted not to challenge or appeal the
1453	findings from the WVU. So, does that mean
1454	Mr. Horn. From?
1455	Mr. McKinley that you knowingly violated?
1456	Mr. Horn. No. No, sir.
1457	Mr. McKinley. You did challenge and appeal the WVU
1458	findings?
1459	Mr. Horn. I did not challenge because software actions,
1460	recalls, service complaints, in the millions for this company,
1461	is normally doing business. I was worldwide Service and Parts
1462	executive for Volkswagen worldwide. I've been to the Product
1463	Safety Committee. I know how the system is working with all the
1464	experts and that we got a seal of approval onto those actions,
1465	and I'm not the technical experts.
1466	Mr. McKinley. Okay.
1467	Mr. Horn. It has enough people in the system
1468	Mr. McKinley. Let me get to the crux more of my question.
1469	I know the EPA fines. We just had a situation where a small
1470	poultry farm was fined \$17,000 a day because they were allowing
1471	dust to come out of their chicken house out into the neighbor.

And we have seen steel mills being fined \$3, \$5, \$7 million daily 1472 1473 until they clean up their discharge into a river. We have seen coal mines and other operations. 1474 1475 So, there has to be, I think you can understand there ought 1476 to be consequences for this violation. So, I am curious, I assume 1477 you are accruing something on your financial sheets for what could 1478 be a fair, what could be an expected penalty for having violated 1479 the laws here of the United States. Can you share with us or will 1480 you share with us what you are accruing on your balance sheet for 1481 penalties, expected penalties? 1482 Yes, yes. For the time being, I mean, there an 1483 official information that the company has accrued directly 6.5 1484 billion euros in the first step in this year. Maybe this is 1485 enough; maybe this is not enough. I don't know. And the rest 1486 will have to be worked out with the specific experts, as we have 1487 hired enough experts, I can tell you. 1488 Mr. McKinley. Thank you. 1489 Now, when you import your vehicles in, you have to provide 1490 a Certificate of Conformity with the EPA standards. And from what I understand, the defeat device was not included in that 1491 Certificate of Conformity, is that correct? 1492 1493 That's my understanding, yes, sir. Mr. Horn.

Mr. McKinley. Can you share with us why someone tried to

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deceive the American Government, why that wasn't included in the 1495 application of conformity? 1496 1497 Mr. Horn. Because those people who did the applications 1498 most probably did not know, did not know that it was in there. 1499 Mr. McKinley. Can you share with us who is responsible for 1500 this failure to include a description? Is this limited to one, 1501 two people? We have an office which is called EEO in Auburn 1502 1503 Hills which is directly linked to the German Research and 1504 Development Department. They work together. They get all the 1505 informations, all the results testing things, technical 1506 specifications, and then, they file the applications for conformity and all those. 1507 1508 Mr. McKinley. Mr. Horn, thank you for testifying before us. 1509 Just one question is, we have all, many of us have been 1510 talking about this defeat device. For the American public to understand what this is, can you explain what this defeat device 1511 1512 is and how it functions? Mr. Horn. Yes. To my understanding, the defeat device is 1513 not a device, but it's a software code in the engine and exhaust 1514 system management which detects, this software detects whether 1515 a car is on the dyno testing environment or whether the car is 1516 1517 on the road being driven.

1518	And one example, for instance, is the steering wheel angle
1519	and how many times it has been changed. Because once a car is
1520	on the dyno, it is on the dyno; nothing changes. And if the car
1521	is on the street, the steering wheel changes. And that since
1522	there's so many sensors in there, these are one of the examples
1523	people gave me on how this device, which is a software code again,
1524	worked, but hidden in million of software codes. So, if you don't
1525	know this, it is very difficult to detect, from my limited
1526	technical understanding.
1527	Mr. McKinley. Thank you. I yield back my time.

Mr. Murphy. Thank you. The gentleman yields back.

I now recognize Ms. Schakowsky for 5 minutes.

Ms. Schakowsky. Thank you, Mr. Chairman.

I have in my hand a letter from Volkswagen that was sent to one of my senior staff because she is an owner of your car. I remember when she bought the car and how excited she was about the clean diesel.

The letter says, "Your vehicle remains both safe to drive and legal to drive. You do not need to take any action at this time. All we ask is for your patience."

I have to tell you, if I were a driver of one of these vehicles that is contributing up to 40 times the amount of emissions, I would want that addressed right away. I have a son and a

1541	grandchild who regularly uses an inhaler. I am not excited about
1542	contributing to or driving a car that has that kind of emissions.
1543	So, how much patience is my staff supposed to have? What
1544	is the timeline here? What is the best scenario and the worst
1545	scenario in terms of timeline for fixing this?
1546	Mr. Horn. For the Generation 3 cars, this is model years
1547	'16 and '15, the timeline is beginning of next year a complete
1548	fix. For the Generation 2 cars, it's still under development.
1549	This won't start, from my judgment, before the middle of next year.
1550	And for the Generation 1 cars, which is the biggest feat, I cannot
1551	give you a date right now, but within the next couple of weeks
1552	we will start discussing those scenarios with EPA and CARB, and
1553	alongside the development guys will have to do that
1554	Ms. Schakowsky. So, these cars unfixed could be on the road
1555	for more than a year, let's say?
1556	Mr. Horn. Yes.
1557	Ms. Schakowsky. Or two years?
1558	Mr. Horn. More than a year, definitely.
1559	Ms. Schakowsky. I wanted to follow up on a question that
1560	Mr. Pallone asked. It sounded like you were saying that the fix
1561	could manage fuel economy, engine performance, and emissions,
1562	that all of that could be fixed. If that is so, why didn't
1563	Volkswagen do that initially? Why wouldn't you make a car that

1564	would achieve those goals?
1565	Mr. Horn. I think it's a great question.
1566	Ms. Schakowsky. I mean, I can only assume that maybe
1567	cheating was cheaper?
1568	Mr. Horn. To my understanding, what I've learned, some
1569	people have made the wrong decisions in order to get away with
1570	something which will have to be found out.
1571	Ms. Schakowsky. Let me ask you this: have you considered
1572	financial compensation; for example, allowing customers to
1573	actually return the car for what they paid for it?
1574	Mr. Horn. This is one of the areas we're looking into right
1575	now in terms of how to compensate our customers, yes.
1576	Ms. Schakowsky. Providing rebate for lost value of the car?
1577	Mr. Horn. Sure.
1578	Ms. Schakowsky. And what about right now, if I had one of
1579	those cars and I wanted a loaner, would you compensate the dealer
1580	to give me a loaner instead of having to drive that polluting car?
1581	Mr. Horn. We would have to discuss and consider this.
1582	Right now, I would say no, honestly, because the EPA has said these
1583	cars are legal and safe to drive.
1584	Ms. Schakowsky. And so, even you know that there is up to

40 times more pollution, if I went to my dealer, who might because

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a loaner," the company would not do anything to make ultimately 1587 1588 your customer happy? 1589 Mr. Horn. So, there's a general policy, and this is exactly 1590 the reason why we gave the dealers the discretionary funds which 1591 they could use at their discretion in order to help customers, 1592 very significant cases. And whether they do a loaner car program 1593 for the specific customer or whether they take them out of the 1594 car, or whatever they think is best in this specific customer's 1595 situation, they can do it with this money. No questions asked, 1596 yes. 1597 Ms. Schakowsky. But there is no policy that dealers could 1598 say that loaners would be available? I realize 500,000 loaners 1599 would be probably a hard thing to do. Mr. Horn. Right. 1600 1601 Ms. Schakowsky. But you see how that would be a desirable 1602 remedy for many people? 1603 Mr. Horn. I understand your point, yes.

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Ms. Schakowsky. Yes. Well, I just want to tell you, as a consumer advocate all of my life, this is pretty shocking for people to find out that a company -- we have had a number of recalls. I have had a recall on one of my cars. But to find out that a company has deliberately cheated, it seems to me that asking customers for patience is just really not sufficient.

I heard people on the radio who were repeatedly saying, "I just want you to take back my car and give me the amount of money that I paid for it. I don't want that car. I don't want a fix because it may not provide exactly what I thought I was buying in the first place." I would hope that your company would consider that as a primary remedy.

And I yield back.

Mr. Murphy. Thank you.

The Chair recognizes Dr. Burgess for his 5 minutes of questioning.

Mr. Burgess. Thank you, Mr. Chairman.

And let me just stress that I am as far ideologically from Jan Schakowsky as possible, and I am not here to provide you advice, but I think she is giving you good advice. I have been on this subcommittee for over 10 years.

I have been through Toyota. I have been through General Motors. And now, we are doing this investigation. And let me just suggest to your corporate structure in Germany, that being dismissive and minimizing the problem that is faced by consumers, dealers, suppliers is not in your best interest and it will hurt you. So, I would be aggressively compliant and aggressively trying to make it right for your customers, dealers, and suppliers because in the grand

1633	scheme of things I actually believe that will be less costly in
1634	terms of dollars, in terms of reputation, and just in terms of
1635	the endurance of the brand in the United States, which you have
1636	already heard from members of this committee is significant. Our
1637	histories with your company all are significant. They go back
1638	a significant way.
1639	Now that I have gotten that off my chest, let me just ask
1640	you once again you have been asked before but are these
1641	vehicles safe to drive?
1642	Mr. Horn. Yes. Yes, the EPA has said these vehicles are
1643	safe to drive.
1644	Mr. Burgess. So, this is unlike some of the other recalls
1645	that we have talked about in this subcommittee, problems with
1646	airbags, problems with electronic throttle controls. These do
1647	not pose an immediate jeopardy to the life of the driver or the
1648	passengers?
1649	Mr. Horn. I trust the judgment of the EPA, yes.
1650	Mr. Burgess. Now, trusting judgment, that is what we are
1651	doing here today, is we are talking that trust factor has been
1652	eroded.
1653	Let me just ask you, when you stress that you are the CEO
1654	for Volkswagen of America, is that correct?
1655	Mr. Horn. Yes, sir.

1656	Mr. Burgess. But do you travel back and forth to Germany
1657	from time to time?
1658	Mr. Horn. Too often right now not much.
1659	Mr. Burgess. Yes, well, have you been in the month of
1660	September?
1661	Mr. Horn. Yes, usually once a month, yes.
1662	Mr. Burgess. Usually once a month? So, as this problem has
1663	evolved or the information about this problem, have you gone to
1664	the engineers over in Germany and said, "Guys, what's up here?
1665	How did this happen?" Have you looked at any lines of software
1666	code where someone has identified for you this has happened or
1667	have you held in your hand a defeat device that was added to an
1668	automobile?
1669	Mr. Horn. Personally, I have taken out Mr. Mueller of
1670	conference rooms, Dr. Diess out of conference rooms, and
1671	personally talking intensively to the engineers on how we make
1672	this right. And to other questions, you know, "How is this
1673	possible?", "Who has done what?", they said, "We didn't know
1674	ourselves."
1675	Mr. Burgess. Yes, but do you understand how that just defies
1676	credulity? I mean, here is a software program
1677	Mr. Horn. Yes.
1678	Mr. Burgess that wasn't just written, I mean, I am

1679 suggesting here it was written by one person in their basement in the dark of night. I mean, this had to be a team of people 1680 1681 who were working on this. 1682 You have got these rascals over here at the EPA in the United 1683 States, and they are just hard to deal. So, we want to do 1684 something that we will be able to sell our cars and we will just 1685 trick them. We will just trick them. And then, somehow you are 1686 going to integrate that into the supply chain of a multinational 1687 corporation and nobody knows a darn thing about it? I mean, that is what you are asking us to believe. And you understand why, 1688 1689 and you have heard it from a number of members, the incredulity 1690 that that could, in fact, happen in a large multinational 1691 corporation. 1692 Mr. Horn. I fully agree, sir. 1693 Mr. Burgess. Have you asked that question to the people --1694 Mr. Horn. Yes. Mr. Burgess. -- who are superior to you at Volkswagen in 1695 1696 Germany? 1697 Mr. Horn. Who was superior to me, the guy is not onboard any longer. He is called Christian Klingler. He resigned due 1698 to other reasons. 1699 1700 Mr. Burgess. Well, I almost just don't know what to say. 1701 Apparently, in the public domain in the early or middle part of

the last decade there was some suggestion that Volkswagen, in an effort to try to sell its diesel high-mileage vehicles in this country, was in the process of leasing software to deal with this emissions problem from another company, is that correct? Blue Tech Software I believe is the name that is used.

Mr. Horn. I have read this in the newspapers, yes.

Mr. Burgess. Okay. So, it is in the newspapers. Have you, yourself, looked at why did they look at this and, then, stop those negotiations for those leases? What changed? Did we develop some technology at Volkswagen? Did we develop a defeat device at Volkswagen? I mean, these are some of the questions that are just going have to be answered.

Mr. Chairman, let me just say that I recognize and I appreciate Mr. Horn being here. I think that we are doing this hearing prior to the time that your document production deadline expired. So, we recognize that you are here voluntarily and it is your sincere effort to comply with the wishes of the committee.

But let me just say, all of us represent dealers, consumers, suppliers, and their lives and livelihoods are extremely important to us. And that is what we have got to keep first and foremost.

- 1723 I yield back, Mr. Chairman.
- 1724 Mr. Murphy. Thank you.

1725	And the Chair recognizes the gentleman from Texas, Mr. Green,
1726	for 5 minutes.
1727	Mr. Green. Thank you, Mr. Chairman.
1728	And for our witness, we have other subcommittees going on.
1729	So, you will see members come in and out during the day.
1730	When I first heard about it, I was amazed that a company that
1731	is as great as Volkswagen could let this happen, and even to the
1732	executives maybe who didn't know, because the image of the
1733	company, not only in our country, but in Europe and around the
1734	world, is so great.
1735	Our committee wants to get some answers, and I would like
1736	to understand more about Volkswagen's own investigations in your
1737	efforts to find the cause of the debacle. News reports discuss
1738	several internal and external investigations initiated by
1739	Volkswagen. Mr. Horn, please explain Volkswagen's own
1740	investigations into this incident and how they are different from
1741	each other.
1742	Mr. Horn. The investigations started I talked yesterday
1743	to our head of Group Revision on September 22nd, this year,
1744	went on with our own Group Revision Department, Group Compliance
1745	Audit Department until September 29th, for one week. And then,
1746	all the documents, all the preliminary documents were turned over
1717	to the American law firm Tanas Day who is imposting the white an

1748	behalf of our Supervisory Board.
1749	Mr. Green. Okay. News reports have discussed several
1750	internal and external investigations. So, that was the only one
1751	you had, that was the auditors from September the 22nd to the 29th?
1752	Are there any other investigations Volkswagen is conducting?
1753	Mr. Horn. To my understanding, after the Notice of
1754	Violation, and from September 18th, from CARB and EPA, these
1755	investigations have started right away. And this is what I have
1756	told you, to my best knowledge. I don't know of any other
1757	investigations.
1758	Mr. Green. Do you know if the actions are in the United
1759	States or Germany or in both or everywhere where Volkswagen has
1760	sold these vehicles?
1761	Mr. Horn. Worldwide.
1762	Mr. Green. Okay. Would you commit to sharing these
1763	investigations with the committee, the results of these
1764	investigations?
1765	Mr. Horn. I commit to get as much information as possible
1766	to this committee, yes.
1767	Mr. Green. Okay. Thank you.
1768	Last week one news outlet reported that, quote, "The Steering
1769	Committee of the carmaker's Supervisory Board met last Wednesday
1770	to discuss the preliminary findings of the probe into the scam."

1771	And that is a quote. What were these preliminary findings that
1772	were revealed last Wednesday?
1773	Mr. Horn. Sorry, I'm still a little bit confused by those
1774	folks here down there clicking all the time. Could you please
1775	repeat your question, please?
1776	Mr. Green. Okay. There is a quote, "The Steering Committee
1777	of the carmaker's Supervisory Board met last Wednesday to discuss
1778	preliminary findings of an internal probe into the scam." What
1779	were these preliminary findings that were released last
1780	Wednesday?
1781	Mr. Horn. Our own Supervisory Board of Volkswagen AG. I
1782	don't have access to these preliminary findings.
1783	Mr. Green. Can you get a copy of it and share it with our
1784	committee?
1785	Mr. Horn. I can definitely try, sir.
1786	Mr. Green. Pardon?
1787	Mr. Horn. I can try, sir.
1788	Mr. Green. Okay. You are the CEO.
1789	Mr. Horn. I am the CEO of this company, and then, there's
1790	the Supervisory Board and there's a group of people who are quite
1791	above me in Germany, and the Supervisory Board has to make this
1792	decision.
1793	And I think, you know, with the commitment that our company

1794	has, there is a very good chance that the company will provide
1795	at one point of time the necessary documents to provide more
1796	clarity into these facts here and to this issue.
1797	Mr. Green. Again, like my colleague, I appreciate you being
1798	here voluntarily, but it would be great if we could actually get
1799	that in our committee for our investigations.
1800	According to a September 30th news report, Volkswagen's
1801	Supervisory Board member Olaf Lies said, quote, "These people who
1802	allowed to this happen or who made the decision and saw this offer,
1803	they're acting criminally. They must take personal
1804	responsibility." Mr. Horn, do you agree with that?
1805	Mr. Horn. Yes, sir.
1806	Mr. Green. Okay. Do I have your commitment to full
1807	cooperation in finding and addressing the roots of the deception?
1808	Mr. Horn. Sure. Yes, sir.
1809	Mr. Green. And again, our committee is ongoing, our
1810	investigation. And I appreciate your being here.
1811	Mr. Chairman, I will yield back my time.
1812	Mr. Murphy. Thank you. Thank you.
1813	For the rest of the members with questions, I know we have
1814	got a break here in 20 minutes, but we have got seven people that
1815	want to speak. So, we are going to be very short on the timeframe

1816

with this.

But the Chair recognizes Mr. Griffith for a short list of questions.

Mr. Griffith. Thank you. I appreciate it.

As you have heard from others who have owned cars and learned to drive, I am one of those as well. My mother was able to afford her first new car, which was a Volkswagen Squareback. And that is what I learned to drive on. It was a manual. I have inherited my grandmother's 1972 Super Beetle, which I still have.

In the eighties I drove a Rabbit. In the nineties, I bought a gas-powered Jetta. When it got close to 200,000 miles, my mother convinced me that even Volkswagens couldn't go on forever. She might have been wrong. I sold that car and bought a 2003 gas-powered Passat, which I drove until this summer and got 376,225 miles. And the people who bought it from me are going to tell me when it crosses 400,000. They think that there won't be any problem in doing that.

As a backup to my 2003 Passat that was going and going and going like the Energizer rabbit or bunny, I bought a 2012 Volkswagen diesel. So, everybody else is talking about what are consumers thinking. You are looking at him. I am your consumer. I am your Volkswagen driver who has always trusted your company, and I am very disappointed.

So, what are we going to do? First, you have indicated --

and there could be some differences in understanding in language — you have indicated that you have notified the customer. I have checked with the previous owner. I bought the car from a friend. They have not received any notice that this 2012 diesel Passat is affected. When you go to the website, it says that you all received notice from the EPA that some of your two-liter, four-cylinder TDI vehicles don't comply, and among the included vehicles, of course, is the 2012.

Because I am not skilled like Chairman Murphy, I am not skilled and I couldn't take a car apart. I had a hard enough time figuring out how to get the top off, the plastic lid off of the engine to try to take a look at it.

But, when you see that and it says some of the cars are affected, and here's one, and the original articles referenced the '14s and '15s, but didn't say anything about the '12s and the '13s, and then, you see a Volkswagen document that says discrepancies relate to vehicles with Type EA 189 engine, and I am looking in my manual and I am looking at things on the engine block, and it doesn't say anything about an EA 189 engine.

Now the team on the committee here and, then, my staff have figured out I am affected. We know that. But this was done at great trouble. I have received no letter. I can't tell for sure.

And I will tell you what was interesting was we found that

1863 there was actually a site in the UK -- and I know you are just 1864 America and I am just talking about America -- where you can 1865 actually plug in your VIN number and it will tell you if you are 1866 affected. I would encourage you to consider that because, while 1867 you may think you have notified everybody, not everybody is 1868 capable of taking apart the engine and figuring out if they are 1869 an EA 189. 1870 And then, the other big question is, am I Generation 1 or 1871 Generation 2? They tell me I am Generation 2, which I found surprising based on the numbers that you have testified here 1872 1873 today. Can you confirm that I am a Generation 2? 1874 Mr. Horn. If you have 2012 Passat, I would think so now, 1875 right. 1876 Mr. Griffith. Okay. 1877 Mr. Horn. Yes. 1878 Mr. Griffith. And so, this is something else that you might want to put into your -- it is a pretty simple website that takes 1879 1880 the VIN numbers that are affected and says you are Generation 1, 1881 you are Generation 2. Because it sounds like the fix, as I am 1882 listening today, the fix to the Generation 2 is more simple than

1885 Mr. Horn. Yes.

1883

1884

the fix to the Generation 1. Am I correct in hearing that today?

It is a simpler fix for Generation 2 than for 1?

Mr. Griffith. And then, I would have to echo what

Representative Schakowsky and Dr. Burgess had to say. You know,

when you buy a vehicle, even if you bought it used, and you are

looking in the manual and it says, "Under Federal Emissions

Control System Defect Warranty, was designed, built, and equipped

so as to conform at the time of sale with all applicable

regulations of the United States Environmental Protection Agency

(EPA), and is free from defects in material," et cetera, I believe

that I was sold something that was different than what it was

purported to be.

And my friend didn't do the defrauding. It was the Volkswagen company. I think you are much better off to come up with a program that buys these cars back because, you know, I understand it wasn't your folks in Chattanooga that made this mistake; it was the folks in Germany. But you have got to restore trust, and one of the ways to do that is to stand behind your vehicle.

One of the reasons that I have liked the company is that on my 1990s version something was wrong with the paint. No questions asked. When I took it into First Team Auto Mall in Roanoke, they said, "Not a problem. We'll take care of it." And it was done. Never had another problem.

This is a much bigger problem, but Volkswagen needs to stand

1909	up and say, "Okay, we understand. We will buy your car back at
1910	what the fair market value of that vehicle was prior to this notice
1911	coming out."
1912	With that, I see my time is up and I yield back.
1913	But thank you for being here.
1914	Mr. Murphy. Again, thank you again. We have now 12
1915	minutes. So, I am asking those again, please, to keep their
1916	questions short.
1917	The Chair recognizes Mr. Yarmuth from Kentucky.
1918	Mr. Yarmuth. Thank you, Mr. Chairman.
1919	Thank you for appearing, Mr. Horn.
1920	I suspect that I should be feeling a sense of schadenfreude
1921	here today because Ford Escapes and Lincoln MKCs are made in my
1922	district, and presumably, we will be selling some more of those
1923	while you are out of the marketplace. But I am not really taking
1924	any joy in any of this.
1925	I just have a couple of quick questions. The article I read
1926	said that there were about 11 million vehicles worldwide affected
1927	by this.
1928	Mr. Horn. Yes.
1929	Mr. Yarmuth. So, they contain the defeat device. I guess
1930	there is no added cost to put it in since it is just a line of
1931	computer code. Would that be right?

1932 Mr. Horn. It seems very logic, sir, yes. 1933 Mr. Yarmuth. Yes. So, my question is, how many countries that these 11 million vehicles were sold in have emission 1934 1935 standards that would have been defeated by this device? I mean, 1936 if the United States we are talking about a half a million cars, 1937 roughly, out of 11 million, what are Germany's emission standards, 1938 for stance? Are they stricter than the United States? 1939 Mr. Horn. I mean, there's many countries affected. All the 1940 countries in Europe are affected. The emission standards for diesel cars in Europe are different to the U.S. You have 1941 1942 currently the E05 and going into E06 here. You have been 5. 1943 And there's two differences. First of all, nitrogen oxides 1944 are much more stringent here. It's 5 grams, I think, per mile, 1945 or whatever. And in Europe it is now 32 to 40. So, this is quite 1946 -- it is higher. It is higher in Europe, but in Europe what is stricter is the diesel part of the particle filter emissions. 1947 There are these little diesel particle filters coming out. 1948 1949 that, the European laws are much stricter than the U.S. 1950 Mr. Yarmuth. My question is, would this defeat device that is 11 million vehicles have helped deceive the European countries' 1951 standards as well? 1952 1953 Mr. Horn. I can only give you my understanding at this point 1954 of time. But, as you know, there's lots of European countries investigating this, and we are

1955	working with those agencies; also, with the German KBA, which is the responsible agency. People had to
1956	report there, and this is being investigated.
1957	Since the standards are different, my understanding is that the defeat device is in those cars as well,
1958	but to what degree it is really affecting the emission laws, I
1959	don't know.
1960	Mr. Yarmuth. Okay. I appreciate that answer.
1961	And I just want to say before closing that it is very
1962	refreshing to hear my colleagues from the other side defend the
1963	Clean Air Act and talk about emissions. I appreciate that. It
1964	is a rare occurrence.
1965	I yield back.
1966	Mr. Murphy. Mr. Collins is recognized for 5 minutes.
1967	Mr. Collins. Thank you, Mr. Chairman.
1968	Since I am always, and again this time, one of the last to
1969	question you, I guess what I have picked up here, and I hope you
1970	can relay back to your Board, the folks running Volkswagen back
1971	in Germany, is that the response so far is inadequate.
1972	I would tell you from my perspective it is a sign of
1973	arrogance. It is a sign of not admitting yet the severity of your
1974	problem.
1975	I will tell you I am an engineer and I have a way of thinking.
1976	And I cannot accept VW's portrayal of this as something by a couple
1977	of rogue software engineers.

1978	I would begin by saying, isn't intellectual property and
1979	patented work a very important part of what makes VW VW? You are
1980	constantly looking for breakthrough technology that you can
1981	patent? That is a big part of your company, isn't it? You pride
1982	yourself on that engineering.
1983	So, you are having us believe and I think this is the way
1984	an engineer's mind works back in 2009 you were trying to figure
1985	out a way to have clean diesel, top performance, and your engineers
1986	got stumped. The NOx emissions were not even close. Would that
1987	be true?
1988	Mr. Horn. What is stumped?
1989	Mr. Collins. Stumped, confused. They couldn't get through
1990	it. It was an insurmountable roadblock. They couldn't give
1991	performance and emission control at the same time. They were 40
1992	times over the NOx emissions.
1993	Mr. Horn. It seems to be logic, what you are saying
1994	Mr. Collins. Right.
1995	Mr. Horn but I don't know.
1996	Mr. Collins. So, then, if I am working in VW engineering
1997	and I am always looking for intellectual property that I can patent
1998	and give me a competitive advantage and I know this is a problem,
1999	and I have to tell you this problem was going way up the chain.

2001 need to be. We can't do it." "Well, go work harder. Go find a solution." 2002 People are coming back. "We still can't find a solution." 2003 2004 The Engineering Manager, "We can't find a solution." 2005 And then, all of a sudden, two software engineers, like they 2006 found pixie dust, come in and say, "We found a solution. 2007 got it. We fixed it." 2008 Now you are telling me these two engineers snuck that 2009 computer code into the software and no one said, "This is 2010 breakthrough technology. I think we need to run this up the 2011 ladder with our attorneys and our engineers. We need to patent 2012 This is intellectual property that is going to give us an advantage. We can meet the NOx standards and the performance 2013 standards, and we had a breakthrough. We went from 40 times the 2014 2015 emissions to we met the emissions"? 2016 And VW is trying to get the United States of America to believe these are a couple of rogue engineers? I categorically 2017 2018 reject that. Either your entire organization is incompetent when 2019 it comes to trying to come up with intellectual property -- and 2020 I don't believe that for a second -- or they are complicit at the 2021 highest levels in a massive coverup that continues today. 2022 Because just the very 5 minutes that I have been here, and

to, with this being true, why didn't we look for patents? Why didn't we ask the questions what the pixie dust was? They have fixed this thing miraculously. This didn't happen in one day. This didn't happen in one month. Your engineers were looking at this, I can tell you, for many months. They were stumped. They couldn't come up with it.

And then, all of a sudden, the solution is there, and VW is trying to tell us in the United States of America, in this Congress, that it was a couple of rogue engineers. Well, if that is true, then your entire Patent Department should be terminated because this would have been massive breakthrough technology that would have given VW a true advantage, not by cheating, but a true advantage in clean diesel technology.

I would like you to take that back to your Board and have them ask that question: what was going on in the patent world? What was going on in the engineering world? Because I can tell you personally I categorically reject everything that VW is saying about a couple of rogue engineers. And I can tell you that suspending three folks, it goes way, way higher than that.

And what I would like to conclude with, sir -- again, I am also a financial guy; I am an entrepreneur -- I would suggest that you be honest to your shareholders. Six point five billion euros is off by an order of magnitude. Five hundred thousand vehicles

2047	at \$40,000 apiece, if you were to buy those back and I would
2048	suggest you start doing that tomorrow that is 20 billion there.
2049	I would suggest you are off by an order of magnitude. And if you
2050	had told us today you had set aside 68 billion, I would say you
2051	are probably in the ballpark. Six point eight, not even close.
2052	With that, Mr. Chairman, I yield back.
2053	Mr. Murphy. The gentleman yields back.
2054	I now recognize Mr. Welch for 5 minutes.
2055	Mr. Welch. Thank you very much.
2056	Sir, thank you for coming in. But I just want to express
2057	to you some of the things that I have been hearing from Vermonters.
2058	First of all, we have got VW customers, we have got VW dealers
2059	in red states and in blue states, and they are mad as hell. Some
2060	of the questions that came to me from Vermonters, and I want to
2061	submit this to the record and ask you, VW, to answer these
2062	questions from Vermonters.
2063	Mr. Welch. But let me just give a reflection of what these
2064	say.
2065	No. 1, "What will you, VW, be reading when you are in jail?"
2066	No. 2, "I just wonder what the hell you were thinking."
2067	Three, "How can we help out Vermonters who got these lemons?"
2068	Four, "Why should the U.S. allow you to sell vehicles in this
0.0.60	

2069

country?"

Five, "VW is the Lance Armstrong of the industry."

2070

2071 These questions go on and on and reflect the white-heat anger 2072 that folks have about the deception. 2073 One last question, "How do you sleep at night? How do you 2074 call yourself a member of the human race when you knowingly 2075 poisoned the planet?" 2076 And then, I talked to some of our VW dealers. They care about 2077 their customers, and I know you individually do as well. And one 2078 of the dealers said this is on the scale of Enron and Bernie Madoff. 2079 That is how deceitful and unnecessary and willful it was. 2080 They will stand by their employees, our VW dealers, but this 2081 is going to be an expense to them because they are not selling cars that are bringing in profits. So, they are going to have 2082 to pay out of their own pocket, and they will do that because they 2083 2084 are loyal to their employees. 2085 But I have one major question. Just last week, BP reached 2086 a settlement with the Justice Department over the massive 2010 Gulf oil spill that killed 11 workers and devastated the 2087 2088 environment and the economy of the Gulf Coast. That settlement 2089 allowed BP to shift more than half of its \$21 billion fine to the 2090 American taxpayer by taking advantage of a loophole in the U.S. 2091 Tax Code. In my view, that is wrong. The wrongdoer, not the 2092 taxpayer, should pay all of the settlement.

2093	And the question I have is this: will you commit here today
2094	under oath that VW will not use this loophole to write off any
2095	future settlement payments related to the fraudulent and
2096	deceptive activity to which VW has already admitted, sir?
2097	Mr. Horn. If you want a clear answer under oath, I would
2098	have to really understand these tax loopholes, and I don't
2099	understand them. But I
2100	Mr. Welch. Let me explain it very simply. BP got to write
2101	off about half of the cost of that, and that shifts the burden
2102	to the taxpayer instead of their shareholders.
2103	Mr. Horn. My understanding is that we will work very hard
2104	in order to get this right and that there should not be a burden
2105	to the taxpayers should not be.
2106	Mr. Welch. Thank you.
2107	Another question, taking up where Mr. Collins was, I know
2108	you individually are appalled at what happened at VW, and you have
2109	asked your question, "How did it happen?" Someone somewhere made
2110	a decision to make it happen.
2111	Mr. Horn. Uh-hum.
2112	Mr. Welch. Someone somewhere implemented that decision.
2113	You have asked yourself how that happened, correct?
2114	Mr. Horn. Yes, sir.
2115	Mr. Welch. And your answer to yourself is what?

2116	Mr. Horn. My answer to myself is that I do everything, and
2117	I don't sleep at night, to help our dealers, to help our customers,
2118	and to be there for my company and my employees to get us through
2119	this crisis here in the U.S.
2120	Mr. Welch. I appreciate that and I know that is true. You
2121	individually have a very good reputation, sir.
2122	Mr. Horn. Thank you.
2123	Mr. Welch. But I asked you another question. You know the
2124	company. You have asked yourself who and how. And in your own
2125	mind, I am asking you to share with us your own view about who
2126	and what, that it could happen in the corporate structure of VW.
2127	Mr. Horn. I think this is a speculation if I would start
2128	now. But, you know, I'm reading newspapers as well, and there's
2129	been lots of articles around there. And from my personal feeling,
2130	this was pressure in the system to get resolutions and, also, in
2131	conjunction with cost pressure as well. This was discussed
2132	already here in one of the other instances.
2133	And I think it is dead wrong if you put corporate profits
2134	before people, and I think we have to get to the point that we
2135	put people first and not the pressure and corporate profits.
2136	Mr. Murphy. Thank you.
2137	Mr. Welch. What people in what department my time is up?
2138	Mr. Murphy. Yes, your time is up.

2139 Mr. Welch. I yield back. 2140 Mr. Murphy. Thank you. 2141 I now recognize the gentleman from Texas, Mr. Flores, for 2142 5 minutes. 2143 Mr. Flores. Thank you, Mr. Chairman. 2144 Mr. Horn, thank you for joining us today in an obviously tough 2145 situation for your company. 2146 VW's actions damaged the trust of the American people as well 2147 as the environment for billions around the globe. They have also 2148 economically damaged their customers, their dealers, and their 2149 shareholders. And I hope that VW will continue to work on the 2150 correct and fair resolution of those issues. 2151 I want to get more in the weeds now to try to go through and 2152 fill in the blanks in the record on some dates and the who, what, 2153 where, when, as we have talked about before. 2154 In May of 2014, independent researchers published a report 2155 that first identified higher-than-expected on-road emissions in 2156 VW vehicles, which prompted the investigations by CARB and the 2157 EPA. 2158 So, question No. 1 is, when did VW first become aware of this 2159 research? 2160 Mr. Horn. The end of April when it was published. To my knowledge, it was published the 2161 end of April. Mid-May I got information about this.

2162	Mr. Flores. Okay. What steps did VW take to evaluate the conclusions of the research at that time?
2163	Mr. Horn. First of all, to acknowledge that emission violations or higher emissions are not legal.
2164	Secondly, the engineering departments were supposed to recheck those testing results on our own equipment in
2165	order to validate this. And then, thirdly, to correct this with respect to software actions which have
2166	been implemented in the end of last year.
2167	Mr. Flores. Okay. Now where was this done? Was this done
2168	Volkswagen Germany or Volkswagen U.S.? And who did that? Who
2169	was responsible for that?
2170	Mr. Horn. The software applications management for the
2171	engines and, also, for the exhaust systems are being done in
2172	Germany at the Engine and Drivetrain Department within the
2173	Research and Development Division.
2174	Mr. Flores. Okay. The EPA and CARB both described a series
2175	of presentations or discussions with VW in the wake of the research
2176	in May of 2014. Who for VW was interacting with EPA and CARB?
2177	Were those individuals part of VW America or VW AG or both?
2178	Mr. Horn. That's something I would have to check, and maybe
2179	this is also in the records provided to you next week.
2180	Mr. Flores. Okay. Great.
2181	What did VW America understand about the cause of the higher
2182	on-road emissions between May of 2014 and the voluntary recall
2183	in December 2014? In other words, what did you and your team at

Mr. Horn. That they have, to my understanding, validated those test results and developing software fixes in order to get this back in line, and three different tech talk versions which I didn't understand, to be also very honest, in order to bring this in the car.

But, also, as I said, all these things are vetted through this Product Safety Committee which is worldwide responsible for this and which is also looking at the track, for instance. And in this context, I trusted those guys and those processes, that everything was according to the book 100 percent.

Mr. Flores. Okay. So, at that time, nobody in VW America knew that there was cheating going on in the software design?

Mr. Horn. To my understanding, no.

Mr. Flores. Okay. Then, in December of 2014, VW conducted a voluntary recall that, at least in part, sought to address the higher on-road emissions in the model year 2009 through model year 2014 vehicles that were subject to the allegations. Would you explain what you understand this recall was intended to do?

Mr. Horn. To correct the studies of the University, I think the results of the study of the University of West Virginia, our retesting to bring the cars, all the cars, back into compliance.

Mr. Flores. Okay. But that fix to the emissions problems that was implemented as part of that recall didn't resolve the

2208	issue of higher on-road emissions. So, the question is, who was
2209	responsible for developing that technical solution that was
2210	implemented in December of 2014?
2211	Mr. Horn. The same Engine and Drivetrain Division within
2212	the Engineering and Development Department or Division in
2213	Germany.
2214	Mr. Flores. The folks in Germany? Okay.
2215	And so, what role did VW of America have in developing or
2216	validating that solution?
2217	Mr. Horn. We just have this office in Auburn Hills who do
2218	the applications. There's also a testing facility in Oxnard in
2219	California who also had those folks in testing, but, to my
2220	understanding, dyno testing, as far as the legal situation was
2221	concerned.
2222	Mr. Flores. Okay. So, just to be clear, VW America did not
2223	develop the solution or played no part in development of the
2224	solution?
2225	Mr. Horn. No.
2226	Mr. Flores. Okay. It may have helped validate the
2227	solution?
2228	Mr. Horn. I don't think so.
2229	Mr. Flores. Okay. You don't think so? Okay.
2230	And at that time, did you or anyone in VW of America have

2231	any knowledge of the alleged defeat device?
2232	Mr. Horn. At which point of time?
2233	Mr. Flores. At the time, December of 2014
2234	Mr. Horn. No.
2235	Mr. Flores when you were beginning to roll out the
2236	recall solution, did you have any knowledge of the
2237	Mr. Horn. No.
2238	Mr. Flores. Anybody in VW America, to the best of your
2239	knowledge?
2240	Mr. Horn. To my understanding, not, because, otherwise, I
2241	would have hoped that they would inform me about this.
2242	Mr. Flores. Thank you. I yield back.
2243	Mr. Murphy. Thank you.
2244	I now recognize Ms. Clarke of New York for 5 minutes.
2245	Ms. Clarke. Thank you, Mr. Chairman.
2246	And I would like to thank you, Mr. Horn, for taking the time
2247	and giving us as much background and as much knowledge of what
2248	has taken place, to the best of your ability.
2249	I have heard a couple of my colleagues on the other side of
2250	the aisle refer to what has occurred as cheating, but I would like
2251	to say to you that I believe it was an intentional deception. And
2252	I think we need to say it as it is. This wasn't a game. This
2253	was an intentional deception to bring something on the market that

2254	did not meet standards.
2255	I want to go back to something my colleague just raised about
2256	your testing center at Oxnard. I understand that, for the better
2257	part of the past year, VW was interacting with CARB about
2258	discrepancies related to the high emissions that were discovered
2259	in 2014 involving your vehicles. What is the purpose of the
2260	Oxnard facility? And is it, as the article suggests, developed
2261	to help Volkswagen meet emission standards?
2262	Mr. Horn. To my understanding, yes, and it's directly
2263	connected to the Research and Development Department in Germany
2264	to help them to get the cars into legal compliance and to the U.S.
2265	standards.
2203	Standards.
2266	Ms. Clarke. How many employees are there?
2266	Ms. Clarke. How many employees are there?
2266 2267	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.
<ul><li>2266</li><li>2267</li><li>2268</li></ul>	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?
<ul><li>2266</li><li>2267</li><li>2268</li><li>2269</li></ul>	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?  Mr. Horn. Just everything
2266 2267 2268 2269 2270	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?  Mr. Horn. Just everything  Ms. Clarke. What was the role of the Oxnard facility in
2266 2267 2268 2269 2270 2271	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?  Mr. Horn. Just everything  Ms. Clarke. What was the role of the Oxnard facility in understanding the test results presented by CARB showing
2266 2267 2268 2269 2270 2271 2272	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?  Mr. Horn. Just everything  Ms. Clarke. What was the role of the Oxnard facility in understanding the test results presented by CARB showing unexpectedly high on-road emissions? What was its role once it
2266 2267 2268 2269 2270 2271 2272 2273	Ms. Clarke. How many employees are there?  Mr. Horn. Oh, I would have to guess this number.  Ms. Clarke. Okay. If you could just provide us with that?  Mr. Horn. Just everything  Ms. Clarke. What was the role of the Oxnard facility in understanding the test results presented by CARB showing unexpectedly high on-road emissions? What was its role once it had that information?

2277	compliance, for the applications and everything.
2278	Ms. Clarke. So, as you have mentioned Auburn Hills, what
2279	is the role of that office?
2280	Mr. Horn. Excuse me?
2281	Ms. Clarke. What is the role of the Auburn Hills office?
2282	Mr. Horn. And to do the compliance and the application for
2283	certification with the U.S. authorities, and they work directly
2284	on a working level, on a management level, on a daily basis with
2285	EPA and CARB.
2286	Ms. Clarke. And so, do the Oxnard and Auburn Hills
2287	facilities work together?
2288	Mr. Horn. Now, yes, there's a structural change in terms
2289	of
2290	Ms. Clarke. So, prior to the unveiling of this deception,
2291	they were separate entities? They didn't interface?
2292	Mr. Horn. Well, I think they worked together. My
2293	explanation is about the structure of the situation of these
2294	facilities. And they are now under one roof.
2295	Ms. Clarke. Okay, but they collaborate?
2296	Mr. Horn. I hope so.
2297	Ms. Clarke. They are collaborators? Because, you know, my
2298	concern is that, if we have these facilities designed specifically
2299	to address the issues of emissions, of testing, and they failed,

2300	that speaks to a whole other level of perhaps collusion with
2301	respect to this whole software debacle.
2302	Have you looked at or done any internal investigation with
2303	respect to these facilities?
2304	Mr. Horn. That's part of the internal investigation, but
2305	my understanding is they're just testing on the basis of the legal
2306	test requirements.
2307	Ms. Clarke. So, the engineers would not have known software
2308	code? Is that what you are saying?
2309	Mr. Horn. I think that they have tested the dyno situation
2310	for the cars and they didn't do independent road tests. That's
2311	what I allude to.
2312	Ms. Clarke. Okay. Let me jump to the whole idea of the
2313	environmental impact. How seriously does Volkswagen take its
2314	commitment to the environmental responsibility?
2315	Mr. Horn. This is deeply also, maybe it's difficult to
2316	understand now in this context but it is deeply embedded in
2317	our corporate culture. We have three values which is innovative,
2318	valuable, and responsible, and responsible towards our employees
2319	and the environment.
2320	Our plant in Tennessee is a Platinum LEED certification.

This is the most clean and energy-efficient plant in the world.

2321

2323	by 25 percent in 2018. And whether these plants are in India,
2324	newly built, or in China, they are always up really to the highest
2325	Volkswagen standards, which go beyond sometimes conventional
2326	standards.
2327	Ms. Clarke. So, if this is part of the corporate culture
2328	<del></del>
2329	Mr. Horn. Yes.
2330	Ms. Clarke I am assuming that that is throughout,
2331	including your engineers and scientists, that this is sort of a
2332	part of the ethos. How do you explain this deviation, a massive
2333	deviation?
2334	Mr. Horn. Myself and the majority of all Volkswagen
2335	employees, which is 600,000, asked the same question, the same
2336	question, and it's a relevant question. And I hope that these
2337	investigations will definitely find out what drove those people,
2338	beyond newspaper articles and what we read out there, what drove
2339	those people into these decisions, into these actions.
2340	Ms. Clarke. Hope it won't be profits.
2341	I yield back, Mr. Chairman.
2342	Mr. Murphy. Mr. Tonko is recognized for 5 minutes.
2343	Mr. Tonko. Thank you, Mr. Chairman.
2344	Mr. Horn, these vehicles promised unrivaled fuel economy and

2346	diesel. I know other members have asked about how Volkswagen
2347	intends to make consumers whole, and I do want to lend my voice
2348	to that briefly.
2349	Because consumers, including people in my district,
2350	purchased a car believing it would be a clean,
2351	environmentally-friendly choice, they have every right to feel
2352	defrauded. Consumers were sold a bill of goods that simply does
2353	not exist.
2354	And I think it is likely that whatever fixes to comply with
2355	emissions standards will hurt the vehicles' performance in other
2356	ways. This is not what consumers thought they were buying, and
2357	it is not what dealers thought they were selling. Worse still,
2358	the resell value on these vehicles, which I am sure was a selling
2359	point, has certainly been destroyed. So, Volkswagen has a lot
2360	to think about, I believe, in terms of how it intends to make right
2361	by consumers.
2362	Now let me ask, typically, when deciding whether to issue
2363	a recall and develop a solution, does Volkswagen conduct its own
2364	emissions testing?
2365	Mr. Horn. Yes.
2366	Mr. Tonko. And did you try to recreate or confirm the
2367	results of the ICCT study from May of 2014?
2368	Mr. Horn. I can't speak to this, what they specifically

2369	tested. In July 2014, I was informed that they have basically
2370	acknowledged the testing results and were developing those fixes
2371	in order to bring those cars back into compliance.
2372	Mr. Tonko. Now a lot was said about defeat devices, and we
2373	are talking about a defeat device here. Has the Volkswagen
2374	operations been impacted by defeat devices in the past?
2375	Mr. Horn. I have, in the context after September 3rd,
2376	understood that there was an issue, for instance, here in 1974,
2377	yes. That's what I understand.
2378	Mr. Tonko. And so, what measures were taken by the company
2379	to make certain that there was better scrutiny, better oversight
2380	of the potential for defeat device application?
2381	Mr. Horn. At that point of time, that's a great question,
2382	and I can't get you the answer now.
2383	Mr. Tonko. But was something done?
2384	Mr. Horn. In 1974, I was 12 years old. I don't know.
2385	Mr. Tonko. Well, history is history. We missed some of
2386	that. So, we reach to the books and read about it. What was done,
2387	if anything
2388	Mr. Horn. Yes.
2389	Mr. Tonko to address defeat device application?
2390	Mr. Horn. And I think the investigations will go back into
2391	this time and

2392	Mr. Tonko. Well, I don't think we need to investigate that.
2393	Did a corporate measure get put into play to address defeat
2394	devices?
2395	Mr. Horn. Back then, I don't know the answer, no, sir.
2396	Mr. Tonko. I would hope you could provide that to the
2397	committee. I am certain the record will be open.
2398	Mr. Tonko. And if I could just confirm some of the
2399	information we have received, Volkswagen initiated a voluntary
2400	recall in December of 2014 that was intended, in part, to address
2401	the issue of excess NOx emissions, is that correct?
2402	Mr. Horn. Excuse me. Could you repeat the question,
2403	please?
2404	Mr. Tonko. Right. Volkswagen initiated a voluntary recall
2405	
2406	Mr. Horn. Yes.
2407	Mr. Tonko in December of 2014?
2408	Mr. Horn. That's correct, yes.
2409	Mr. Tonko. That's correct? Who at Volkswagen proposed the
2410	recall?
2411	Mr. Horn. The Technical Engineering Department in
2412	conjunction with the Product Safety Committee worldwide, which
2413	is steering all the recalls campaigns and voluntary recall actions
2414	out of Wolfsburg essentially for all the markets.

2415	Mr. Tonko. And what explanation was given to consumers
2416	about why that December 2014 recall was necessary?
2417	Mr. Horn. I would have to look into the document on what
2418	we wrote to those consumers. I don't know now.
2419	Mr. Tonko. You will provide that to the committee, please?
2420	Mr. Horn. Definitely. It's public. It's public anyhow.
2421	Mr. Tonko. And what explanation was given to regulators
2422	about why that December 2014 recall was necessary?
2423	Mr. Horn. That's also something we will have to provide in
2424	the document, with the documents.
2425	Mr. Tonko. And what fix did the Volkswagen organization
2426	implement for cars brought in under that recall?
2427	Mr. Horn. All have been software fixes. New software
2428	versions have been fleshed into the specific onboard steering
2429	units.
2430	Mr. Tonko. And who at Volkswagen developed that fix?
2431	Mr. Horn. The Engine and Drivetrain Development, Software
2432	After-Treatment Departments in Germany, Wolfsburg.
2433	Mr. Tonko. And did they know at the time that it would not
2434	work?
2435	Mr. Horn. I don't know that. My understanding was that it
2436	would work and, otherwise, also the work by the Product Safety
0.405	

2437

2438	the markets.
2439	Mr. Tonko. Well, I thank you for your responses. I look
2440	forward to the additional information you owe to the committee.
2441	And again, I would say on behalf of the consumers of the 20th
2442	Congressional District of New York, those of the country, and
2443	around the world impacted by this, they deserve a sound
2444	explanation and a fix that will respond to the environmental
2445	damage done here and the consumer fraud.
2446	Mr. Horn. Yes, sir. Thank you.
2447	Mr. Murphy. Thank you.
2448	Ms. DeGette has one final question real quick, and then, we
2449	have got to leave.
2450	Ms. DeGette. First, Mr. Chairman, I ask unanimous consent
2451	to put Mr. Welch's document into the record.
2452	Mr. Murphy. So ordered.
2453	Ms. DeGette. I just have on last question, Mr. Horn, because
2454	you told a whole bunch of us on this committee that, after that
2455	West Virginia University study in May of 2014, everybody was
2456	running around trying to figure out what was going on with these
2457	cars and why there was a discrepancy between the tasks; that your
2458	engineers didn't know the answer. But, in fact, the discrepancy
2459	was because of a willful act of some engineers in Germany in the
2460	first place, correct?

2461	Mr. Horn. That's my understanding, yes.
2462	Ms. DeGette. And those people, that information about that
2463	discrepancy never made it to Germany, so they could tell your
2464	people what was wrong? Is that what you are testifying to here
2465	today?
2466	Mr. Horn. I don't understand what you're trying to say.
2467	Ms. DeGette. Well, you said your people were trying to
2468	figure out why there was a discrepancy.
2469	Mr. Horn. Right.
2470	Ms. DeGette. But there were some people who knew, and those
2471	were the people who wrote that deceptive code in the first place.
2472	Are you telling me that they never told your U.S. people what the
2473	problem was and why there was a discrepancy?
2474	Mr. Horn. The people who investigated the study in detail,
2475	the study and developed those software fixes were also the
2476	colleagues in Germany. Of course, they were informing their U.S.
2477	colleagues in Auburn Hills.
2478	Ms. DeGette. So, did they tell the U.S. colleagues that
2479	there was this deceptive code and that was what was causing the
2480	discrepancy, yes or no?
2481	Mr. Horn. I don't think so. I don't think so.
2482	Ms. DeGette. Thank you.
2483	Mr. Horn. Otherwise, we would be much earlier here.

Mr. Murphy. Thank you.

2484

2485	Mr. Horn, that concludes our questioning for now. This
2486	hearing is not over, but we would appreciate more questions
2487	will be coming from committee members we would appreciate a
2488	quick and honest response to those as well.
2489	Mr. Murphy. This hearing is going to adjourn for a couple
2490	of hours, to recess excuse me for a couple of hours while
2491	the Republican Conference is meeting. We will reconvene about
2492	15 minutes after the call of the Chair after that meeting.
2493	Thank you much. We will be back.
2494	Mr. Horn. Thank you.
2495	Mr. Murphy. And thank you.
2496	[Whereupon, at 12:18 p.m., the subcommittee recessed, to
2497	reconvene at 1:39 p.m., the same day.]
2498	Mr. Murphy. All right, we reconvene this Subcommittee of
2499	Oversight and Investigations hearing on Volkswagen's Emissions
2500	Cheating Allegations: Initial Questions.
2501	We have Mr. Grundler and Mr. Brooks here as witnesses.
2502	And let me just go into this, as we reconvene this hearing.
2503	You are aware that the committee is holding an investigative
2504	hearing, and when doing so, has the practice of taking testimony
2505	under oath. Do you have any objections to testifying under oath?
2506	Mr. Brooks. No.

2507	Mr. Grundler. No.
2508	Mr. Murphy. Both witnesses say no.
2509	The Chair then advises you that, under the rules of the House
2510	and the rules of the committee, you are entitled to be advised
2511	by counsel. Do either of you desire to be advised by counsel
2512	during your testimony today?
2513	Mr. Brooks. No.
2514	Mr. Grundler. No.
2515	Mr. Murphy. Both witnesses indicate no.
2516	In that case, would you please rise and raise your right hand,
2517	and I will swear you in?
2518	[Witnesses sworn.]
2519	Mr. Murphy. Thank you.
2520	For the record, both witnesses have indicated yes. You are
2521	now under oath and subject to the penalties set forth in Title
2522	18, Section 1001, of the United States Code.
2523	We will now allow you each to give a 5-minute summary of your
2524	opening statement.
2525	Mr. Grundler, you may begin.

2526 JOINT STATEMENT OF CHRISTOPHER GRUNDLER, DIRECTOR, OFFICE OF 2527 TRANSPORTATION AND AIR QUALITY, OFFICE OF AIR AND RADIATION, U.S. ENVIRONMENTAL PROTECTION AGENCY, AND PHILLIP BROOKS, DIRECTOR, 2528 2529 OFFICE OF CIVIL ENFORCEMENT, AIR ENFORCEMENT DIVISION, OFFICE OF 2530 ENFORCEMENT AND COMPLIANCE ASSURANCE, U.S. ENVIRONMENTAL 2531 PROTECTION AGENCY 2532 2533 Mr. Grundler. Chairman Murphy, Ranking Member DeGette, and 2534 other members of the subcommittee, we appreciate the opportunity 2535 to testify on the matter of the Environmental Protection Agency's 2536 Notice of Violation issued to Volkswagen. 2537 I am Chris Grundler and I direct the EPA's Office of Transportation and Air Quality, which is responsible for EPA's 2538 2539 Air Pollution Compliance Program for all mobile sources, 2540 vehicles, engines, and equipment, including cars, trucks, and 2541 fuels. 2542 I am joined today by my colleague Phil Brooks, Director of 2543 the Office of Civil Enforcement's Air Enforcement Division. 2544 EPA's Civil Enforcement Program develops and prosecutes civil 2545 administrative and judicial cases. 2546 On September 18th, 2015, EPA sent a Notice of Violation, an 2547 NOV, of the Clean Air Act to Volkswagen, including Volkswagen AG, Audi AG, and Volkswagen Group of America, alleging that 2548

four-cylinder Volkswagen and Audi diesel cars sold in the U.S. for model years 2009 to 2015 include software that circumvents EPA's emissions standards. Volkswagen manufactured and installed software in the electronic control module of these vehicles that sensed when the vehicle was being tested for compliance with EPA emissions standards. Put simply, these cars contain software that turns off or significantly reduces the effectiveness of emissions controls when driving normally and turns them on when the car is undergoing an official emissions test.

This is known as a defeat device. This design feature results in the car's emitting up to 40 times the emissions that are allowed to ensure public health is protected. These devices contain essentially a switch that senses whether the vehicle is being tested or not based on various inputs, including the position of the steering wheel, vehicle speed, the duration of the engine's operation, and barometric pressure. The NOV that EPA issued covers roughly 482,000 diesel cars.

All new cars sold in the United States must have an EPA-issued Certificate of Conformity demonstrating that the car meets applicable federal emissions standards to control air pollution. By making and selling vehicles with defeat devices that allow for higher levels of air emissions than were certified to EPA, VW

violated multiple important Clean Air Act provisions. These violations are very serious not only because the illegal defeat device results in excess emissions many times the allowable standard, but also because, after the high emissions were discovered, VW concealed the facts from EPA, the State of California, and from consumers.

These vehicles are emitting more nitrogen oxides, or NOx, than regulations allow. NOx pollution contributes to ground-level ozone and particulate matter. We know that exposure to these pollutants has been linked with a range of serious health effects, including increased asthma attacks and other respiratory illnesses that can be serious enough to send people to the hospital.

We are in the midst of an ongoing investigation into VW's actions. We will be working closely with the U.S. Department of Justice throughout this investigation, and determinations regarding potential penalties and other remedies will be assessed as part of the investigation. However, at this point we are unable to provide further details of the investigation because the release of such information could jeopardize this ongoing enforcement investigation.

EPA will continue to work closely with the California Air Resources Board during the investigation. CARB led and

contributed much of the effort to get us to this point. Our agencies work very closely together on the implementation and oversight of the Vehicle Emissions Program.

As part of the investigation, we intend to assess the scope of VW's liability under the Clean Air Act and whether there are additional vehicles with defeat devices. We also intend to assess the economic benefit to VW of a non-compliance and pursue appropriate penalties, as well as to assess the excess pollution from VW's violations and the appropriate ways to mitigate them.

While our enforcement authority concerns air pollution, we are acutely aware of the impact of these violations on consumers, and we have provided frequently-asked questions and answers for consumers on our website, such as whether the cars are safe to drive and whether EPA is officially recalling the vehicles at this point.

On September 25th, my office sent a letter to all auto manufacturers notifying them that we are stepping up our testing activities in response to these alleged violations. Over the 40-plus-year history of our program, we have continuously updated and adapted our approaches to compliance oversight as technologies and situations have changed. We take very seriously our responsibility to oversee the implementation and enforcement of our regulations.

2618	It is this oversight that ensures the benefits of clean air
2619	emissions standards are realized and that the industry is
2620	competing on a level playing field, and the consumers are getting
2621	what they pay for.
2622	Again, thank you for the opportunity to appear as witnesses
2623	this morning. We welcome your questions.
2624	[The prepared statement of Mr. Grundler and Mr. Brooks
2625	follows:]
2626	
2627	****** INSERT 2******

2628	Mr. Murphy. Thank you.
2629	Mr. Brooks, you don't have a statement? You issued a joint
2630	statement, correct?
2631	Mr. Brooks. That is correct.
2632	Mr. Murphy. Okay. Thank you.
2633	Now I am going to recognize myself for 5 minutes.
2634	When you speak, just make sure you turn the mic on and bring
2635	it as close to your mouth as possible.
2636	So, Mr. Grundler, in December of 2014, VW conducted a
2637	voluntary recall to address the on-road emissions, as you know.
2638	What information did VW convey to you about the cause and the
2639	proposed solution for the higher emissions in advance of that
2640	recall?
2641	Mr. Grundler. Thank you, Mr. Chairman.
2642	Throughout the 2014, once California and EPA learned of these
2643	excess emissions, there were numerous technical conversations
2644	between the California Air Resources Board and Volkswagen.
2645	California took the lead on exploring what the problem was with
2646	these vehicles, and my understanding is that they received
2647	multiple different stories, plausible reasons why these vehicles
2648	may not be performing as they are supposed to, chemical-based
2649	reasons, physical-based reasons.
2650	At the end, the remedy that was proposed was described to

fix a problem with the vehicle concerning how it is operated under different temperatures, what kind of dosing sensors were used to make the emissions control, the system work properly, and that they were confident in the fix.

At the time, they were told by the State of California to proceed, but that California was going to test these vehicles to make sure that the fix was effective. And it was not effective, based on the subsequent testing by the California Air Resources Board.

Mr. Murphy. Thank you.

Did you conduct any further evaluation of their conclusions and proposed solutions in advance of the recall? So, what was the operational process you had in interacting with them, discussions/conversations that go back and forth?

Mr. Grundler. So, EPA and California have a very strong partnership when it comes to oversight and compliance. Sometimes California takes the lead on these matters. Sometimes EPA takes the lead on these matters. For example, last year we had the lead with respect to the Hyundai/Kia investigation and subsequent action. California volunteered to take the lead on this matter.

And what happened during 2014 is essentially what is happening right now as we speak, which is trying to determine what is the right recall solution to address these excess emissions.

2674	It was VW's responsibility to identify what was wrong and to
2675	propose a fix. They did so. That fix did not work.
2676	So, most of these interactions were between California and
2677	the company. EPA, my team, participated in some of them. We
2678	became much more actively involved in 2015, when California
2679	produced their test results on the supposed fix of these vehicles
2680	and that data showed that there still remained very high and
2681	unexplained excess emissions.
2682	Mr. Murphy. Who did you have these conversations with, with
2683	VW, going back and forth, communicating while they are working
2684	or they are talking to you about these results? Do you recall
2685	who that was?
2686	Mr. Grundler. So, I want to be clear. I was not part of
2687	those conversations. It was my team and the California
2688	counterparts. My understanding is those conversations included
2689	both officials from VW of America as well as officials from
2690	Germany.
2691	Mr. Murphy. Do you know their names for the record?
2692	Mr. Grundler. I do not.
2693	Mr. Murphy. Can you identify those? Are those things you
2694	could get for us?
2695	Mr. Grundler. Yes.
2696	Mr. Murphy. Would you please do so? That would be

2697 important.

Mr. Murphy. Now I have a technical question. I am not sure if either of you can answer this. So, here is this switch that, when it is in one position for an emissions test, it made a change in how this was operational, so the emissions would be lower; in the other position, the emissions were quite high. Is it possible to just keep that switch in the position of low emissions, and then, they could be in compliance or does that damage the engine or reduce power significantly? Do you have any idea?

Mr. Grundler. Well, those are exactly the same kind of questions we are asking Volkswagen right now. It's not actually a switch, sir. It is what we call a dual-calibration strategy. So, the vehicle is programmed to work two different ways. And when the vehicle senses when it's on a test, it very quickly goes into clean mode, and when it does not sense the very specific parameters that are specified in our federal test procedures, it goes into a high-pollution mode.

So, I think what you're asking is --

Mr. Murphy. Yes, that's what we --

Mr. Grundler. -- can you just take this software and will the vehicle operate normally? And we don't know yet. We're asking those questions. And the answers will depend, as you heard this morning, on which generation of diesel engines we're talking

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2720
          about.
                  We believe that the newer generation, the so-called
2721
          Generation 3 engines, will be much easier to fix than the older
2722
          versions.
2723
               Mr. Murphy. Thank you. I am out of time now.
               Ms. DeGette, 5 minutes.
2724
2725
               Ms. DeGette. Thanks.
2726
               Just to continue along, the newer versions, they have these
          Urea Tanks.
2727
               Mr. Grundler. Right.
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2729
               Ms. DeGette. And so, it is a system that you can both adjust
2730
          the NOx filters and the Urea Tanks? And in fact, the VW dealer,
2731
          the dealer in Denver and also their mechanics told me they feel
2732
          like it would be a pretty easy adjustment, even just in the codes,
2733
          to fix it in the 2015 and 2016 models. Is that your understanding,
2734
          Mr. Grundler?
2735
               Mr. Grundler. I don't want to speculate that.
2736
               Ms. DeGette. Yes.
2737
               Mr. Grundler. That seems logical to us.
2738
               Ms. DeGette. Right.
2739
               Mr. Grundler. We want to see the software. We want to test
          the vehicle before --
2740
2741
               Ms. DeGette. Obviously, yes.
2742
               Mr. Grundler. -- any further action is taken.
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2743	Ms. DeGette. Yes, obviously.
2744	Mr. Grundler. You can imagine that we're skeptical.
2745	Ms. DeGette. But it is the agency's position that these
2746	vehicles do need to be fixed, right?
2747	Mr. Grundler. Absolutely.
2748	Ms. DeGette. I mean, they are non-compliant under both
2749	federal law and California State law?
2750	Mr. Grundler. That is correct.
2751	Ms. DeGette. You know, I think some of the impressions given
2752	by Volkswagen is, well, you know, they are safe to drive. They
2753	might be safe to drive, but they don't comply with the emissions
2754	standards, right?
2755	Mr. Grundler. That's right.
2756	Ms. DeGette. So, for the cars between 2009 and 2014, the
2757	fix is a bigger problem because they don't have the Urea
2758	Containers. And so, it is harder to see how, without major
2759	structural changes to these cars, how they could be brought into
2760	compliance? Is that your understanding?
2761	Mr. Grundler. That is correct. They will require a more
2762	substantial engineering solution.
2763	Ms. DeGette. They are either going to require installation

of a Urea System or different NOx filters or both. So, that is

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2765

2766 pretend to be one, but I went over and looked at this. And it looked like a very knotty problem to me. 2767 Mr. Grundler. What California and EPA have directed 2768 2769 Volkswagen to do is to present more than one option on how to address these excess emissions. And we want to look at these 2770 2771 options very carefully, particularly with respect to what impacts 2772 they will have on the owners. 2773 Ms. DeGette. Right. And have you given VW any kind of a 2774 deadline for coming up with that fix or have they indicated to 2775 you when they might be able to come up with this? This is 2776 something that really concerned the panel in the earlier 2777 conversations today. 2778 Mr. Grundler. I can assure you we have a very strong sense 2779 of urgency. We are pressing Volkswagen for that plan and for 2780 those solutions. We're meeting with them on practically a daily 2781 basis. We hope to get a proposal very, very soon. But we want 2782 to make sure that it's effective. So, there's some risk in 2783 rushing, but we expect to see something as early as next week with respect to the Generation 2 vehicles. 2784 2785 Ms. DeGette. And has the company told you that they believe 2786 they can fix the affected vehicles without affecting fuel economy, 2787 engine performance, or both?

Mr. Grundler. They have not said so.

2788

2789	Ms. DeGette. Okay. So, I just want to say one last thing,
2790	which is oftentimes we have the EPA in here, and sometimes it is
2791	not the most pleasurable experience testifying. But in this case
2792	the Director of the International Council on Clean
2793	Transportation, which was the organization that commissioned the
2794	West Virginia study, said, quote, "This is a powerful affirmation
2795	of U.S. federal and California vehicle emissions regulations and
2796	of the agencies. Clear protocols, in-use requirements for the
2797	useful life of vehicles, clear enforcement follow-through, the
2798	authority to fine and force recalls, these are the best practices
2799	that regulations worldwide should incorporate, and today's
2800	announcement shows why." End quote.
2801	So, thank you and your agency for your efforts here.
2802	I want to ask you, Mr. Grundler, in light of VW's deception,
2803	are you adjusting testing going forward?
2804	Mr. Grundler. Yes, and we already have.
2805	Ms. DeGette. And what have you done?
2806	Mr. Grundler. Well, we have learned from this episode for
2807	sure. We wish we had found it sooner. As soon as we learned of
2808	this data, CARB and EPA focused
2809	Ms. DeGette. So, how are you adjusting the testing going
2810	forward?
2811	Mr. Grundler. The bottom line, madam, is that we are going

2812	to be unpredictable. What is required for a robust compliance
2813	and oversight program is both testing of new vehicles in the lab,
2814	testing of what we call in-use vehicles in the lab as on-road
2815	measurements.
2816	Ms. DeGette. Thanks. I don't have much time.
2817	Mr. Brooks, are you adjusting enforcement efforts going
2818	forward and, if so, how?
2819	Mr. Brooks. Thank you for the question. The answer is yes,
2820	although I think the prosecution, the investigation of this matter
2821	will proceed along our normal path. I think what we will see is
2822	we will be getting a lot more phone calls from people. And so,
2823	in that way, it will change. We will have more to respond to.
2824	Ms. DeGette. Thank you.
2825	Thank you very much, Mr. Chairman.
2826	Mr. Murphy. I think Mr. Griffith is next. Mr. Griffith,
2827	you are next for 5 minutes.
2828	Mr. Griffith. Thank you very much, Mr. Chairman.
2829	And I appreciate you all being here and appreciate the
2830	questions that have already been asked.
2831	Obviously, there are a number of us, if you were listening
2832	to the previous testimony, you know I am one of the people who
2833	owns one of the diesel Volkswagens. And so, I have some questions
2834	in that regard.

2835 I think it is important that you change your testing methods. 2836 The first question I am going to ask you is, do you think it might 2837 be helpful in doing your job if we passed some legislation that 2838 would allow a portion of the fine money in a fraud case like this 2839 to go to the university that discovered it? I mean, WVU 2840 discovered the problem. You all didn't. 2841 Believe it or not, I don't think the EPA can and should do 2842 everything, and that this might be of some assistance. Just like 2843 we do with certain bad actors in other criminal-type settings who 2844 are committing fraud on consumers or selling drugs, we take some 2845 of their ill-gained goods. We take it away from them, and the 2846 government gives it back to some of the folks who helped discover 2847 it, law enforcement and prosecutors. Do you think that might be 2848 a helpful piece of legislation for us to take a look at? Either 2849 one of you, or both. Mr. Brooks. Well, I don't think I could comment on what 2850 2851 legislative changes might be necessary. I do understand that in 2852 the criminal context those kinds of remedies have been imposed 2853 before. Mr. Griffith. So, the question is, if you have that power 2854 2855 now, please tell us. 2856 Mr. Murphy. Excuse me one second.

Could you speak close to the mic? None of us can hear you.

2857

2858	You are going to have to sit forward and into the mic.
2859	Mr. Griffith. If you currently have that power, then let
2860	me know that. But, if you don't have that power, in other words,
2861	whenever you come up with the fine that is appropriate for
2862	Volkswagen, it would seem to me and I don't know that you have
2863	that authority now to give WVU, West Virginia University, that
2864	uncovered this problem part of the fine to help them continue their
2865	research. I mean, that is what we do with prosecutors. We do
2866	that with law enforcement agencies who uncover crime. We do that
2867	in some securities cases. There are different ways that is done.
2868	Do you all think that would be an authority that would be
2869	helpful for the people of the United States of America?
2870	Mr. Brooks. Well, I can take that back and we can respond
2871	in writing.
2872	Mr. Griffith. All right.
2873	Mr. Griffith. It sounds like a good idea to me, I will just
2874	tell you.
2875	It is interesting that WVU found it and that you all did not,
2876	but I understand you can't do everything. And you have answered
2877	some questions about how you are going to go forward.
2878	Let's go to the other side of this. Now I will, whatever
2879	you all come up with and whatever Volkswagen comes up with, I will

2880

to debate whether it is better to fix it or to sell it back to the company because it is not doing what it is supposed to.

But I am just curious, at some point -- and right now, I understand you are not doing that -- but, at some point, am I going to be subject, or other consumers in my shoes, are they going to be subject to penalties from the EPA for driving a vehicle that doesn't meet the standards that were supposed to be in place when they bought the vehicle?

Mr. Grundler. That question depends on where the particular owner of a Volkswagen, of one of these vehicles, lives. If you live in an area that does regular emissions tests, that the State conducts these inspections, emissions inspections, some states require that, in order to re-register the vehicle, if it is subject to a recall, to show that the fix has been made. Other states do not have that requirement. It depends on where you're living.

Mr. Griffith. Okay. So, for some people who may not be paying attention to whatever notices they might get or, for whatever reason, aren't following the news -- and believe it or not, there's a whole bunch of those folks out there who don't follow day-to-day news -- they could actually end up with some kind of a penalty from their state. But, currently, there is nothing nationally?

Mr. Grundler. That's right.

2904	Mr. Griffith. Would you anticipate that the EPA would go
2905	in the direction of some kind of a national program if enough of
2906	the cars did not get bought back or fixed after a certain number
2907	of months?
2908	Mr. Grundler. We certainly will be encouraging consumers
2909	to
2910	Mr. Griffith. I understand that. You are going to get the
2911	word out as best you can?
2912	Mr. Grundler. That's right, but
2913	Mr. Griffith. But they don't get the message; there's still
2914	a million cars or 100,000 cars, I think.
2915	Mr. Grundler. I would not anticipate
2916	Mr. Griffith. You would not anticipate that?
2917	Mr. Grundler EPA going after individuals.
2918	Mr. Griffith. But it is a possibility?
2919	Mr. Grundler. I don't think that's a possibility under the
2920	Clean Air Act.
2921	Mr. Griffith. Because let me tell you one of my concerns
2922	is and it doesn't have anything to do with you all, and it is
2923	a rhetorical question, so you don't have to answer it. I will
2924	tell you that upfront. But yesterday we had an EPA official in
2925	and we were talking about the Clean Power Plan and the
2926	cap-and-trade scheme, which they didn't call it the cap-and-trade

scheme; they kept resisting that. But it talks about putting a limit on emissions and, then, being able to make trades. So, it sounds like cap-and-trade.

And what was interesting about it was that I had a list of quotes from Lisa Jackson in 2011; Gina McCarthy, 2011, Gina McCarthy, 2013; Gina McCarthy, 2014, that said they were never going to consider, and, in fact, it wasn't allowed under the law, to do a cap-and-trade scheme. And then, I am looking at some cap-and-trade scheme.

So, I am a little concerned, not for me. I am going to do what I need to do to make my car right or get rid of it. But there are going to be a lot of folks out there who may be caught, and I just want to make sure that the EPA isn't doubling down on their damages, because every one of us that bought one of these vehicles is damaged in some form or another.

So, I appreciate you listening to that. If you want to answer, I will give you a chance to answer. Mr. Brooks looks like he wants to answer.

Mr. Brooks. I will assure you that I am aware of absolutely no provision of the Clean Air Act which would allow a prosecution for the things that you are talking about.

Mr. Griffith. And that is exactly what Lisa Jackson told us two or three years ago, but that is okay. We will move on.

2950	You know, last but not least
2951	Mr. Brooks. I'll say it won't happen.
2952	Mr. Griffith. Yes. On Gen 1 cars, I have read somewhere
2953	that it is going to take it is a more complicated fix, we heard
2954	this morning, but it is also going to take up some of the space
2955	probably in the trunk area of the vehicle. Have you all heard
2956	that?
2957	Mr. Grundler. Sir, that would depend completely on what the
2958	remedy would be. And as I said earlier, we are going to take a
2959	very careful look at what impact this is going to have on owners
2960	and consumers. That will be central to how we review the options
2961	that Volkswagen comes forward to. So, we don't know that yet.
2962	Mr. Griffith. All right. I appreciate it very much.
2963	Thank you all for being here.
2964	I yield back.
2965	Mr. Murphy. The gentleman yields back, and I recognize Mr.
2966	Pallone for 5 minutes.
2967	Mr. Pallone. Thank you.
2968	Mr. Grundler, one of the concerns that I raised with Mr. Horn
2969	earlier was this concern about whether we might find these defeat
2970	devices or similar problems with other cars. So, I wanted to ask
2971	the question, do yo have the tools and authority you need to ensure
2972	there are no other cheaters out there?

2973	Mr. Grundler. Yes, we do.
2974	Mr. Pallone. But I am also concerned about and maybe this
2975	is for Mr. Brooks about the comments that Mr. Horn made where
2976	he suggested, you know, there were a couple of rogue engineers
2977	that may have done this, but suggested that there was no corporate
2978	responsibility.
2979	Is it the EPA or is it the AG? Who goes after the
2980	individuals, corporate or otherwise, that might be responsible
2981	for this? Or do you at some point envision even bringing charges,
2982	you know, like criminal charges against the corporation itself
2983	for this intentional deceit?
2984	Mr. Brooks. Thank you for the question. I can't speculate
2985	now as to exactly what course all the enforcement actions will
2986	take. I can tell you that my office has already taken the initial
2987	enforcement action, and I can tell you that we are working with the Department of Justice on these matters.
2988	Mr. Pallone. But I guess what I am asking and I won't keep repeating, but one more time you
2989	know, we keep talking about the fines because of what happened. But does this rise to individual
2990	responsibility for those responsible? And is there such a thing as criminal action against the corporation?
2991	mean, I know I am speculating, but are those possibilities?
2992	Mr. Brooks. Let me be careful in answering that. First of all, I think that the concern that has been
2993	expressed here by members is exactly our concern. Who, what, when, where, why, how? And so, I'm quite
2994	certain that the investigations that are ongoing and that will be begun will get into exactly that.
2995	I think it would be unfair for me to say much more about what the end result might be.

2996	Mr. Pallone.	But it is a possibility?

Mr. Brooks. Certainly it is a possibility.

Mr. Pallone. Okay. You know, I was glad that Mr. Horn actually said that he understood the impact of these emissions and they could have health and safety impacts. I mean, he did say that.

But does it go beyond that? I mean, in other words, you know, he is admitting that this took place and that there could be some health and safety impacts because of the increased emissions. How does the EPA hold Volkswagen responsible for the environmental effects of their decision to evade emissions standards? In other words, does the EPA consider, is it possible that they could be held responsible for the impact on essentially dirtier air, not just fix the cars, but that there might be some damages or some kind of payment that would have to be made because the air was made dirtier or that people's health and safety were impacted?

Mr. Brooks. Thank you for that question. The answer to that is yes. While it may go by different names, we tend to talk about it in terms of mitigation, but the concept there is exactly what you articulated.

We're looking for the opportunities, the ways in which the damage that has been done to the environment, and which consequently has impacts on public health, can be addressed.

Obviously, we can't go back in time and take that pollution back out of the air, but many of our settlements look forward and ask the question, how is it that we can make air quality better than what the law minimally requires in any given instance? And that additional reduction in pollution is what we refer to as mitigation, and we have many, many consent decrees that go about doing that in many different ways.

Mr. Pallone. So, for example, you could impose some penalties that might be used to mitigate air pollution in other ways possibly, not by VW, but, you know, that the EPA would use that money somehow to mitigate air pollution in some other way? Just give me an example, and then, I will stop asking, because

3019	my time is almost up anyway.
3020	Mr. Brooks. Okay. A lot of the power plant cases we have
3021	had projects, for example, where the company has had to go out
3022	and find a third party to implement a wood stove changeout program,
3023	so that cleaner burning stoves, more efficient wood stoves are
3024	substituted for dirtier stoves. And that has a direct impact on
3025	air quality in communities because there are lots of communities
3026	out there, as I'm sure you know, that rely very heavily on
3027	wood-burning devices. So, that's one example.
3028	Mr. Pallone. All right. Thank you very much.
3029	Thank you, Mr. Chairman.
3030	Mr. Murphy. The gentleman yields back.
3031	I recognize Dr. Burgess for 5 minutes.
3032	Mr. Burgess. Thank you, Mr. Chairman, and I apologize for
3033	being out of the room for part of the hearing. So, I am going
3034	to ask a couple of questions. If they have been asked before,
3035	please bear with me and try to give an answer that is consistent
3036	with how you answered previously.
3037	First off, what is the budget for the EPA currently?
3038	Mr. Grundler. I don't have the budget for the entire EPA.
3039	I can give you the budget for my organization.
3040	Mr. Burgess. Sure, we will take that.
3041	Mr. Grundler. So, it's roughly \$100 million a year and 340

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full-time people that work in my organization.

3042

3043 Mr. Burgess. The overall budget for the EPA -- and I am just 3044 relying on memory, which is dangerous -- but I think it is close 3045 to \$15 billion. So, the EPA has resources available. It has funding available. 3046 3047 Mr. Grundler. I do want to correct that. I think EPA's 3048 budget is around \$7 billion and about 15,000 people, roughly. 3049 Mr. Burgess. Nevertheless, West Virginia University had a 3050 budget for this research project, my understanding is, around \$50, 3051 \$60, \$70 thousand, is that correct? 3052 Mr. Grundler. We are extraordinarily grateful for the work 3053 that West Virginia University and the ICCT did. And I am not going 3054 to blame our budget for the fact that we missed this cheating. 3055 I do think we do a very good job of setting priorities at 3056 EPA. Once we learned of this excess emissions, we focused on it. 3057 We didn't ignore it. And then, we have also immediately changed 3058 how we are doing our testing regime to be more unpredictable, so 3059 this doesn't happen again in the future. 3060 Mr. Burgess. Well, with all due respect, just looking at the situation, I think the American people ought to ask that we 3061 3062 fire you and hire West Virginia University to do our work. They 3063 certainly are much more cost-effective than this part of the 3064 federal agency.

3065	Let me ask you this: I sit on another subcommittee. We have
3066	jurisdiction over the National Highway Traffic Safety
3067	Administration. So, I am familiar with safety recalls, but we
3068	heard Mr. Horn testify earlier today that this is not a safety
3069	issue with these cars as they are driven. There are emissions
3070	issues, but there are not safety issues. Is that correct?
3071	Mr. Grundler. That's correct.
3072	Mr. Burgess. So, does EPA do its own kind of recall that
3073	is separate and apart from the National Highway Traffic Safety
3074	Administration?
3075	Mr. Grundler. We do.
3076	Mr. Burgess. And would this be <a href="www.recalls.gov">www.recalls.gov</a> that is the
3077	website that consumers can go to, to find out information about
3078	the recall or the possible recall on their vehicle?
3079	Mr. Grundler. We have not ordered a recall yet. When we
3080	do, we will provide that information for sure.
3081	Mr. Burgess. That information will be on your website?
3082	Mr. Grundler. Yes.
3083	Mr. Burgess. So, I went to the website. In truthfulness,
3084	staff went to the website. They printed it off for me. I am very
3085	grateful for that.
3086	You can get information about pesticides, pesticide
3087	websites, EPA emissions recalls where I assume this would fall.

3088 Is that correct? Mr. Grundler. Yes. 3089 3090 Mr. Burgess. When you click on that link, you get a "Page 3091 not found. Website improvements underway." So, can you let 3092 consumers know when they are likely to be able to get that 3093 information off of your website? 3094 Mr. Grundler. Again, sir, we have not ordered a recall. 3095 So, there is no recall information. We have information on our 3096 website that talks about our Notice of Violation, what vehicles 3097 are covered, and what consumers need to know today, which is that 3098 they can drive these cars. These cars are safe to drive. 3099 will not be held responsible for any repairs. That would be the 3100 responsibility of the company. Mr. Burgess. Let me ask you this because Mr. Pallone was 3101 3102 asking you things about payment and damages, and because of the 3103 issue that the air was dirtier and health and safety have been 3104 impacted. So, it is, in all likelihood, Volkswagen of America 3105 is going to face some significant fines and penalties by the 3106 Environmental Protection Agency, are they not? 3107 Mr. Grundler. I think that's very likely. 3108 Mr. Burgess. And you heard my admonition to the CEO of 3109 Volkswagen of America: don't be dismissive. Don't run from the 3110 fact that this has happened. You need to be aggressively

3111	compliant. And I hope they will be.
3112	But I have got to tell you, this summer I went to Silverton,
3113	Colorado on my own dime and looked at what had happened to the
3114	Animas River, went to the Gold King Mine. And that was entirely created
3115	and caused by the Environmental Protection Agency.
3116	So, I have had a lot of people ask me, that if a private company had done that and turned the Animas
3117	River yellow, they would be held the same thing we are talking about here there would be fines; there would
3118	be mitigation costs. Does the EPA hold itself to the same standard to which it holds private corporations and,
3119	if not, why not?
3120	Mr. Grundler. Are you asking me to testify about the Gold
3121	King Mine situation?
3122	Mr. Burgess. Just in general. The EPA causes a problem.
3123	Should they be held to the same standards? And, no, I am not
3124	asking you to testify.
3125	In fact, Mr. Chairman, I think we should have a hearing on
3126	that as a separate issue.
3127	But just answer the question. Should EPA be held to the same
3128	standards to which you are going to hold a private corporation?
3129	Mr. Grundler. All I can say, sir, because I'm not familiar
3130	with all the details, is I certainly have seen and read that the
3131	Administrator has taken full responsibility for that situation
3132	and we're acting accordingly.
3133	Mr. Burgess. It looked like a scene out of Ghostbusters.

3134	I will just tell you that.
3135	Thank you, Mr. Chairman. I will yield back.
3136	Mr. Murphy. I do want to acknowledge that the gentleman from
3137	Virginia and the gentleman from Texas are both touting my
3138	neighboring state, West Virginia University, a rival of Pitt, but
3139	it is nice to see them get the accolades for doing such good work.
3140	I now recognize Ms. Castor for 5 minutes.
3141	Ms. Castor. Thank you, Mr. Chairman.
3142	Gentlemen, on September 18th, the EPA issued a Notice of
3143	Violation against Volkswagen. The notice alleges that certain
3144	Volkswagen and Audi diesel cars for model years 2009 to 2015
3145	include software that circumvents EPA emissions standards for
3146	certain air pollutants. According to EPA, the software produced
3147	by Volkswagen is a defeat device, as defined by the Clean Air Act.
3148	Mr. Grundler, I understand that VW admitted in August to
3149	installing defeat devices on their vehicles. That is correct?
3150	Correct? It is accurate?
3151	Mr. Grundler. I would describe it in mid-to-late August
3152	California and we got a heads-up that they had, in fact, installed
3153	a defeat device, and we were officially notified on September 3rd.
3154	Ms. Castor. From Volkswagen?
3155	Mr. Grundler. Correct.
3156	Ms. Castor. And what specifically did VW tell EPA they had

3157	done to the engines to circumvent emissions standards?
3158	Mr. Grundler. We were informed that the vehicles had a
3159	dual-calibration strategy on their engine control units which
3160	allowed the vehicle to operate one way when it sensed it was being
3161	tested by the EPA and in a completely different way when the
3162	vehicle was on the road.
3163	Ms. Castor. And has VW provided EPA with an engine map that
3164	shows specifically how the defeat device works for each model car
3165	in which it was installed?
3166	Mr. Grundler. That is my understanding, but I would like
3167	to double-check that for you.
3168	Ms. Castor. Okay. I understand the affected vehicles fall
3169	into three generations based on the model and the year. The
3170	defeat devices may work differently for each of these generations
3171	of vehicles.
3172	Mr. Grundler, at this point, does the EPA have a full
3173	understanding of how the defeat devices work in each of these
3174	generations of vehicles?
3175	Mr. Grundler. We do not. We still have many questions for
3176	Volkswagen to answer.
3177	Ms. Castor. Okay. So, what else do you need and has VW been
3178	helpful? What else do they need to provide EPA to give you the
3179	information that you need?

3180 Mr. Grundler. The information that we're focused on now 3181 like a laser is what are they going to do to address these excess 3182 emissions and take this software off these vehicles, so that they 3183 comply. We don't need to know specifically how they cheated with 3184 each line of code. We have got some information on that, but I 3185 think the most important thing going forward is that those defeat 3186 devices are removed, that these vehicles are addressed in a way that will work for consumers and the environment. 3187 3188 Ms. Castor. But you have said you have learned some lessons 3189 here. 3190 Mr. Grundler. We have. 3191 Ms. Castor. Does EPA have the expertise right now in-house 3192 or do you hire consultants that --3193 Mr. Grundler. We do. We don't need to unpack 100 million 3194 lines of code to find these defeat devices. The bottom line is 3195 testing them in unpredictable ways, so that we activate these 3196 devices. That's the bottom line, is what's coming out of the 3197 tailpipe and does it meet our standard? 3198 Ms. Castor. Are you taking broader action now that you have 3199 learned these lessons about how software code can be deceptively

Mr. Grundler. Yes, we do.

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used to avoid emissions standards? Do you have the expertise now

to go and look at other code in other automobiles and trucks?

3203	Ms. Castor. Are you going to do that?
3204	Mr. Grundler. We are.
3205	Ms. Castor. Can you explain that a little bit further?
3206	Mr. Grundler. Yes. So, we have a number of different kinds
3207	of testing we do. So, we test every new model of vehicle. I'm
3208	sorry. We require the manufacturers to test every new model of
3209	vehicle and submit that data to us, which we review along with
3210	design. We audit a certain percentage of those by testing them
3211	in our laboratory on prescribed test cycles. And we also audit
3212	by measuring real-world emissions using these mobile devices.
3213	And it is going to be, going forward, a combination of both
3214	laboratory testing, activity testing we know how to download
3215	this software as well as this real-world monitoring.
3216	Ms. Castor. And back to VW, does EPA know yet whether VW
3217	can successfully fix the cars here in the U.S.?
3218	Mr. Grundler. We don't know that yet.
3219	Ms. Castor. Okay. And VW has a number of ongoing internal
3220	and external investigations. Has Volkswagen committed to
3221	sharing the results of those investigations with EPA?
3222	Mr. Grundler. They have not.
3223	Ms. Castor. Have you asked them
3224	Mr. Grundler. Let me defer to my colleague here to confirm
3225	that.

3226	Ms. Castor. Okay. So, have you asked them for that
3227	information?
3228	Mr. Grundler. They have not agreed at this time.
3229	Ms. Castor. Don't you think that would be a good have
3230	you asked them whether or not they would share that information
3231	with EPA?
3232	Mr. Brooks. We have outstanding official document
3233	requests, and we will be promulgating more of those. Today we
3234	learned from this morning's session about one particular
3235	investigation, and that is certainly one that we
3236	Ms. Castor. Okay. Will you let the committee know if VW
3237	does not provide the results of their internal investigation?
3238	Mr. Brooks. Yes, we will.
3239	Ms. Castor. Thanks.
3240	And to Representative DeGette and Representative
3241	Mr. Murphy. I'm sorry, we have a vote coming up, although
3242	if you have another question
3243	Ms. Castor. I just wanted to make one point here and submit
3244	this with unanimous consent. Drew Kojak, the executive director
3245	from the International Council on Clean Transportation, the
3246	nonprofit that discovered the issue, said the easiest solution
3247	is to give EPA more resources, so it can perform the real-world
3248	testing, which may be more expensive, but he said you don't want

3249	to rely on the happenstance investigation of a small NGO to trigger
3250	one of the largest global recalls around. So, that is the last
3251	thing for all of us.
3252	Mr. Murphy. Without objection.
3253	Mr. Murphy. We have got three members who need to ask
3254	questions. I have got eight minutes and 50 seconds. Let's do
3255	it. So, if you can shorten your questions out of respect for the
3256	other members, please do. So, that takes us down to zero.
3257	How many votes do we have?
3258	Ms. DeGette. Two votes.
3259	Mr. Murphy. Two votes?
3260	All right. Dr. Bucshon?
3261	Mr. Bucshon. Yes, on September 25th, 2015, the agency
3262	announced that it would be conducting additional testing to
3263	evaluate use of defeat devices in all vehicles. What is the
3264	current status of the testing?
3265	Mr. Grundler. Thank you for that question. Our first
3266	priority is to test all light-duty diesel vehicles. We are in
3267	the midst of that testing. We have teamed up with California and
3268	Environment Canada, both who have the capabilities, as we do.
3269	Mr. Bucshon. And how many vehicles have you tested so far?
3270	Do you know?
3271	Mr. Grundler. We are still testing the first batch of

2070	
3272	vehicles.
3273	Mr. Bucshon. Okay. What are you seeing so far?
3274	Mr. Grundler. I have not seen any data yet, sir.
3275	Mr. Bucshon. Okay. And what criteria are you using and
3276	what is the procedure for implementing the testing, this testing?
3277	Mr. Grundler. We're being careful not to share with the
3278	automakers how we're going to do this new testing because we want
3279	to be unpredictable. But it will be a combination of both these
3280	five cycles that we test on today, what we call off-cycle dyno
3281	testing as well as this real-world onboard monitoring.
3282	Mr. Bucshon. And does this include all light-duty vehicles
3283	or just diesel technology?
3284	Mr. Grundler. We're starting with diesels.
3285	Mr. Bucshon. And then, would you be willing to commit to
3286	keeping the committee informed of your progress and provide us
3287	associated details regarding the testing procedures, data, and
3288	results?
3289	Mr. Grundler. Yes.
3290	Mr. Bucshon. And do you think that this is an isolated
3291	incident or do you have concerns with diesel technology in
3292	general?
3293	Mr. Grundler. I don't have concerns with diesel technology
3294	in general. I don't expect to find widespread problems, but we

3295	are going to be taking a very close look.
3296	Mr. Bucshon. Okay. I yield back, Mr. Chairman.
3297	Mr. Murphy. Ms. Schakowsky is next, yes.
3298	Ms. Schakowsky. Thank you.
3299	Mr. Murphy. And we had asked members if you don't have a
3300	lot of questions to ask because we only have six minutes to get
3301	to the Floor.
3302	Ms. Schakowsky. Okay.
3303	Mr. Murphy. Thank you.
3304	Ms. Schakowsky. Mr. Grundler, whose job is it to make
3305	consumers whole?
3306	Mr. Grundler. We are not the Consumer Protection Agency.
3307	There are other federal agencies and state agencies that have that
3308	responsibility. But, as I testified earlier, the consumer is
3309	going to be central to how we are reviewing the options to address
3310	these excess emissions.
3311	Ms. Schakowsky. So, let me ask you about the excess
3312	emissions now are violating the EPA standards, right?
3313	Mr. Grundler. Correct.
3314	Ms. Schakowsky. But we just heard testimony from
3315	Volkswagen, and I have a letter sent to owners that says you can
3316	still drive them. So, under what authority, then, does the EPA
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3318	amount to continue to be on the road?
3319	Mr. Grundler. Well, the responsibility and the liability
3320	for those excess emissions lies with Volkswagen, and that's why
3321	we're conducting this investigation and learning what the remedy
3322	is, and then, pursuing mitigation to address the environmental
3323	harm.
3324	Ms. Schakowsky. But you already said that some states, if
3325	they were to bring their car in and for some reason that defeat
3326	device were not on, then the consumer actually could be
3327	responsible for the increased emissions. Is that right?
3328	Mr. Grundler. It's our understanding and belief that this
3329	defeat device will also defeat those state inspections. So, we
3330	do not expect these vehicles, were they to be called in for an
3331	annual or biannual inspection, to fail.
3332	Ms. Schakowsky. So, in the meantime, though, there are half
3333	a million cars running around that are emitting greater emissions.
3334	Mr. Grundler. Yes.
3335	Ms. Schakowsky. So, what, then, does the EPA do? We heard
3336	it could be for a year, maybe more than a year, before there is
3337	any real fix.
3338	Mr. Grundler. So, I don't know how long it is going to take
3339	to get the real fix, but the goal of our enforcement action will

certainly be to make the environment whole. That is our job.

3340

3341	Ms. Schakowsky. Okay. So, you know already that there are
3342	half a million cars
3343	Mr. Grundler. Yes.
3344	Ms. Schakowsky that consumers are told they can
3345	legally drive that are emitting more than your rules say?
3346	Mr. Grundler. Right.
3347	Ms. Schakowsky. So, what is happening now to hold them
3348	accountable for that? You don't have to test them. You know that
3349	they are already over the line.
3350	Mr. Grundler. The owners of these vehicles are innocent in
3351	this matter.
3352	Ms. Schakowsky. Right.
3353	Mr. Grundler. And we are working intently with California
3354	and the company to identify how to make these vehicles compliant.
3355	Once we are confident that we have the right remedy, we will order
3356	those recalls, and it will be the company's responsibility to fix
3357	those vehicles.
3358	Ms. Schakowsky. And in the meantime, will they be penalized
3359	for having these non-compliant cars?
3360	Mr. Grundler. The consumers?
3361	Ms. Schakowsky. No.
3362	Mr. Grundler. The company?
3363	Ms. Schakowsky. The company.

3364	Mr. Grundler. No. No, that will be the result of our
3365	ongoing investigation. That's what will be determined by the
3366	ongoing investigation.
3367	Ms. Schakowsky. What part of this don't you know already?
3368	What part don't you know already? You know that all those cars
3369	are exceeding your rules. I don't get it.
3370	Mr. Grundler. Well, there are many things we don't know.
3371	We don't know the why, the what, the where, who was responsible.
3372	Ms. Schakowsky. No, you know the fact of it, though.
3373	Mr. Grundler. But we know the fact. The fact is that
3374	Volkswagen designed and installed illegal software on
3375	Ms. Schakowsky. And the consequence you know, that they are
3376	emitting all these extra emissions?
3377	Mr. Grundler. We have not done that calculation yet, but
3378	we know that they can be anywhere from 10 to 40 times.
3379	Ms. Schakowsky. Right.
3380	Mr. Grundler. We have not done the math to figure out what
3381	those excess tons are and how we are going to mitigate them.
3382	Ms. Schakowsky. I yield back.
3383	Mr. Murphy. The gentlewoman yields.
3384	Right now, Ms. Clarke, you are recognized for 5 minutes.
3385	Ms. Clarke. Thank you, Mr. Chairman.
3386	Gentlemen, I would like to pick up on the point just raised

by my colleague Ms. Schakowsky with respect to the emissions testing. New York State is one of those states that requires emissions testing. And typically, if your vehicle fails an emissions test, you can be fined, right? So, we know that, because of the defeat device, most likely those vehicles would not be detected?

Mr. Grundler. Correct.

Ms. Clarke. However, that doesn't change the fact that under normal circumstances these vehicles would not be permitted on the road. So, to have your agency say, "Well, because it's not your fault, you can continue to drive," doesn't it sort of undermine the state's requirement for certain emissions levels to be contained? For you to then undermine that with the ability for people, notwithstanding the fact that it is not their fault, most people, when their vehicle has an emissions problem don't recognize it and don't typically think it is their fault, either. However, we have to remedy it before we can take our vehicles on the road. Otherwise, we are fined. We receive stickers, and those stickers indicate whether our vehicles are in compliance.

Here we have these stealth vehicles running around in certain jurisdictions that do fail that, that would fail that under normal circumstances. How do you reconcile that?

Mr. Grundler. The fines are a matter of state law.

3410 Ms. Clarke. Right.

Mr. Grundler. The way to reconcile that is to identify an effective remedy, and once that remedy is fixed, those vehicles will pass those state inspections and those owners will not be subject to fines.

Ms. Clarke. The challenge is the fact that this has been happening with vehicles since 2009. We have no idea when this remedy is going to be cooked up. We don't know whether the remedy is going to be hard and fast, something that we can rely on. We are hoping, but there is going to be testing. There is going to be concerns going forward because of the deception of how all of this occurred. I mean, we are talking about software here, right?

Mr. Grundler. That's right.

Ms. Clarke. How do we reconcile that? And let me ask, in addition to that, are we able to determine those states that do require -- we know California, for instance. There are probably other states with emissions testing. How many vehicles, how many of the 500,000 vehicles are resident within those states, and what the effect or the immediate impact would be to the environment of the people that reside in those states? Have we been able to get a sense of that?

Mr. Grundler. That's all going to be determined as a result of our investigation. It is knowable where these vehicles are

3433	registered
3434	Ms. Clarke. Yes.
3435	Mr. Grundler and where they reside. It is not
3436	knowable yet how it is going to be fixed. We want to have the
3437	confidence that it will be effective, but that will require some
3438	time.
3439	Ms. Clarke. Do you anticipate that you will be hearing from
3440	states' attorneys general and other concerned entities within
3441	these states, probably their own environmental protection
3442	organizations at the state level, to try to get a handle around
3443	this? Because, you know, there are certain areas where this type
3444	of emission exacerbates already-troubled circumstances for
3445	individuals who have health compromised. I mean, do we see a
3446	sense of urgency for really dealing with this?
3447	Mr. Grundler. We've already heard from both state attorneys
3448	general and state environmental
3449	Ms. Clarke. I'm sure.
3450	Mr. Grundler. I met with all the state environmental
3451	directors just this week in New Orleans. The air directors, they
3452	are concerned. They want to help and they are very anxious, as
3453	are we, to identify how these excess tons, this excess air
3454	pollution will be mitigated. And that will all go into part of
3455	how we are going to resolve this once and for all We want to

3456 get to the bottom of it. 3457 Ms. Clarke. In closing, Mr. Chairman, when you have been 3458 able to complete your analysis, if you can get to this committee 3459 a breakdown by state, that would be very helpful. We may have 3460 seen spikes in public health issues that have been exacerbated 3461 in some form or fashion based on clusters and where these cars 3462 reside. And we would like to be able to attribute that in some 3463 form or fashion to maybe the changes that occurred in the 3464 atmosphere as a result of maybe a cluster of ownership in a 3465 particular jurisdiction. I think that is going to be very 3466 important for us to know. 3467 Mr. Grundler. I understand, and we will do whatever we can to serve the committee's work here. 3468 3469 Ms. Clarke. Very well. 3470 I yield back, Mr. Chairman. 3471 Mr. Murphy. Thank you. 3472 I just want to add, on top of the questions Ms. Clarke just 3473 gave, if you gather information with regard to state rules, with regard to anti-tampering laws, fines, and also whether it is 3474 criminal penalties and other aspects along those lines, we would 3475 3476 appreciate that, as you are gathering this information for us. This would be helpful for the committee. 3477 3478 I want to say I ask unanimous consent that the contents of

3479	the documents to be introduced into the record and authorize staff
3480	to make any appropriate redactions. So, without objection, the
3481	documents will be entered into the record, and any redactions that
3482	staff determines are appropriate.
3483	Mr. Murphy. And I want to thank the witnesses for coming
3484	today. We appreciate your time and your attention in this
3485	difficult matter, but it is important to us. And thank you for
3486	the testimony and to the members for their devotion to this hearing
3487	today.
3488	The committee rules provide that members have 10 days to
3489	submit additional questions to the record to the witnesses, and
3490	we hope you will respond promptly to that.
3491	With that, this hearing is adjourned.
3492	[Whereupon, at 2:32 p.m., the subcommittee was adjourned.]