## \*\*Preliminary Hearing Transcript\*\*

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HEARING ON MANUFACTURERS OF FEMA TRAILERS
AND ELEVATED FORMALDEHYDE LEVELS

Wednesday, July 9, 2008

House of Representatives,

Committee on Oversight and

Government Reform,

Washington, D.C.

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## **Committee Hearings**

of the

## U.S. HOUSE OF REPRESENTATIVES



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The committee met, pursuant to call, at 10:00 a.m. in room 2154, Rayburn House Office Building, the Honorable Henry

A. Waxman [chairman of the Committee] presiding.

Present: Representatives Waxman, Cummings, Kucinich,
Davis of Illinois, Tierney, Clay, Watson, Murphy, Sarbanes,
Welch, Davis of Virginia, Burton, Shays, Souder, Issa,
Bilbray, Sali, and Jordan.

Also Present: Representatives Donnelly and Lampson.

Staff Present: Phil Barnett, Staff Director and Chief Counsel; Kristin Amerling, General Counsel; Karen Lightfoot, Communications Director and Senior Policy Advisor; Greg

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21 Dotson, Chief Environment Counsel; Erik Jones, Counsel; Earley Green, Chief Clerk; Jen Berenholz, Deputy Clerk; Caren Auchman, Press Assistant; Ella Hoffman, Press Assistant; Zhongrui ''JR'' Deng, Chief Information Officer; Leneal Scott, Information Systems Manager; Rob Cobbs, Special Assistant; Miriam Edelman, Special Assistant; Mitch Smiley, Staff Assistant; Lawrence Halloran, Minority Staff Director; Jennifer Safavian, Minority Chief Counsel for Oversight and 28 Investigations; Keith Ausbrook, Minority General Counsel; Ellen Brown, Minority Senior Policy Counsel; Larry Brady, Minority Senior Investigator and Policy Advisor; Benjamin Chance, Minority Professional Staff Member; John Cuaderes, Minority Senior Investigator and Policy Advisor; Adam Fromm, Minority Professional Staff Member; Todd Greenwood, Minority Professional Staff Member; Patrick Lyden, Minority Parliamentarian and Member Services Coordinator; Brian McNicoll, Minority Communications Director; and Molly Boyl.

Chairman WAXMAN. The Committee will please come to order.

Today the Committee is holding its second hearing on formaldehyde in FEMA trailers. A year ago the Committee examined how FEMA responded to reports that the families living in Government trailers were being exposed to hazardous levels of formaldehyde. Our hearing revealed that the FEMA staff out in the field said that they needed to test these trailers so the dangerous levels of formaldehyde would not adversely affect the families living in these trailers, but FEMA, itself, in Washington refused to do that. One FEMA lawyer directed: ''Do not initiate any testing. Once you get results and should they indicate some problem, the clock is running on our duty to respond.''

Well, what we learned at that hearing outraged Americans all across the Country. FEMA had a duty to protect families living in its trailers and it failed them. I expect today's hearing will also generate a sense of outrage.

The largest supplier of FEMA trailers by far was a manufacturer named Gulf Stream. In the weeks after Hurricane Katrina struck, Gulf Stream received contracts from FEMA worth more than \$500 million to supply over 50,000 trailers for displaced residents of the Gulf Coast.

FEMA failed by ignoring the dangers of formaldehyde and resisted testing. Gulf Stream's problem is different. The

company did test trailers after hearing the first reports of high formaldehyde levels. It found pervasive formaldehyde contamination in its trailers and it didn't tell anyone.

The Committee received thousands of pages of internal documents from Gulf Stream. The documents show that Gulf Stream regarded the high levels of formaldehyde in its trailers as a public relations and legal problem, not a public health threat.

There is a confusing array of formaldehyde standards used by Federal agencies. Here are some of the key numbers:

Ten to thirty parts per billion is the level of formaldehyde found in most homes. Exposure at this level does not cause acute health effects like burning eyes, shortness of breath, or nausea.

A hundred parts per billion is the level at which acute health effects begin to appear in healthy adults. The Centers for Disease Control, the Environmental Protection Agency, the Consumer Products Safety Commission, the National Institute of Occupational Safety and Health, and the World Health Organization all recognize 100 parts per billion as a level that can cause acute adverse health effects. Of course, if it is a vulnerable individual like a child or an elderly person, or somebody who is chronically ill, they can experience effects even below this level.

Five hundred parts per billion is the level at which

OSHA requires medical monitoring of employees. This is an old standard adopted during the first Bush Administration.

Seven hundred fifty parts per billion is the maximum workplace exposure level allowed by OSHA. It is also an old standard.

Nine hundred parts per billion is an EPA standard for hazardous response teams of industrial workers. EPA says that no one should be exposed to more than 900 parts per billion for more than eight hours in a lifetime.

And here's what Gulf Stream found. Over two years ago, it tested 11 occupied trailers. Every single trailer had levels at or above 100 parts per billion, the level at which acute health effects begin to occur. Four of the trailers had levels above 500 parts per billion, the level at which OSHA requires medical monitoring. Gulf Stream also tested nearly 40 unoccupied trailers. These were trailers that were sitting in FEMA lots waiting to be given to displaced families. Over half of these trailers had formaldehyde levels above 900 parts per billion, the level that EPA says no one should ever be exposed to more than once in a lifetime. Several had levels over 2,000 parts per billion. One had levels over 4,000 parts per billion.

Gulf Stream never told any family living in its trailers about these test results. The company did spend a month carefully crafting a letter to FEMA about the test results.

113 The letter told FEMA there was no problem in Gulf Stream 114 It said: ''Our informal testing has indicated trailers. 115 that formaldehyde levels of indoor ambient air of occupied 116 trailers fall below the OSHA standard of 750 parts per billion.'' 117 118 Gulf Stream did not tell FEMA that all 11 occupied 119 trailers had levels above 100 parts per billion. It did not 120 tell FEMA that four of the eleven occupied trailers had 121 levels above 500 parts per billion, and it did not tell FEMA 122 that over half of the unoccupied trailers had levels far in 123 excess of 750 parts per billion. 124 Gulf Stream did say that it would share its testing 125 results with FEMA, but, of course, FEMA didn't want to know 126 and apparently never asked for those results. 127 The press asked Gulf Stream about its formaldehyde 128 Gulf Stream retained a Washington public relations 129 firm, Porter Novelli, and spent days crafting a statement. 130 The statement read: ''We are not aware of any complaints of 131 illness from our many customers of travel trailers over the 132 years, including travel trailers provided under our contracts with FEMA.'' 133 134 Gulf Stream did not tell the media that in March 2006, a 135 month before Gulf Stream released its statement, an occupant 136 of a Gulf Stream trailer in Louisiana told the company, 137 'There is an odor in my trailer in Louisiana that will not

go away. It burns my eyes. I am getting headaches every day.

I have tried many things, but nothing seems to work.

Please, please, please help me.''

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The FEMA contract was lucrative for Gulf Stream. In fact, the company's top executives saw their compensation double to over a million per year in 2005 and 2006. But revenue growth does not justify the conduct we have found. Gulf Stream had results that showed its trailers were a public health threat and the company never told the families living in its trailers.

The company also examined the conduct of three other trailer manufacturers. One of the companies, Pilgrim, apparently took the FEMA approach. Despite widely publicized reports of dangerous formaldehyde levels in FEMA trailers, Pilgrim never conducted any testing at all. The other two companies, Forest River and Keystone, did not test any trailer purchased by FEMA, but they did do some limited testing of other trailers and found high levels. case, a contractor hired by Forest River reported finding formaldehyde levels of over 1,500 parts per billion in a The contractor told the company it should post trailer. signs on the outside of the unit stating: 'Hazardous, do not enter.'' And, like Gulf Stream, these manufactures did not tell the public or FEMA about their test results.

My staff has prepared an analysis of the evidence before

the Committee, and at the appropriate time I will ask that the analysis and the documents it cites be made part of the hearing record.

What this hearing will show is that no one was looking out for the interests of the displaced families living in FEMA trailers. FEMA failed to do its job, and the trailer manufacturers took advantage of the situation.

Our Committee has held many hearings on waste; fraud, and abuse. In one sense today's hearing can be looked at as another example of Government procurement gone astray. The taxpayers paid \$2 billion for trailers that now have to be scrapped for junk. But in this case, the health of thousands of vulnerable families was jeopardized.

During today's hearing the trailer manufacturers will be asked hard questions, and I think they understand this. But I also want them to know that I appreciate their cooperation with the Committee and their willingness to appear voluntarily.

[Prepared statement of Chairman Waxman follows:]

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Chairman WAXMAN. I would like to ask unanimous consent 183 184 that the staff report, Trailer Manufacturers and Elevated 185 Formaldehyde Levels--'' 186 Mr. DAVIS OF VIRGINIA. Mr. Chairman, we would also ask 187 unanimous consent that the minority staff analysis be put in 188 the record, as well. 189 Chairman WAXMAN. We have no objection to your unanimous 190 consent request. 191 Mr. DAVIS OF VIRGINIA. We have none to yours. Chairman WAXMAN. And let me further ours that we want 192 the documents, as well, that the report refers to be made 193 194 part of the record. 195 Mr. SOUDER. Mr. Chairman, I have a concern about the 196 documents that were and would object to the documents all 197 being inserted that were provided to the Committee without having a further discussion about whether all those documents 198 199 need to be released. Many of them contain private 200 information. 201 Chairman WAXMAN. Well, we will withhold all the 202 unanimous consent requests and then see if we can offer it at 203 a later time. 204 Mr. Davis, I want to recognize you for an opening statement. 205 206 Mr. DAVIS OF VIRGINIA. Thank you, Mr. Chairman. 207 As the third anniversary of Hurricane Katrina's landfall

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approaches, we have the opportunity to focus oversight attachment non disaster preparedness and effective response. Katrina still has important lessons to teach about emergency shelter and longer-term housing for disaster victims.

The Committee's two-year investigation into formaldehyde in FEMA travel trailers could yield important information about the need for clearer purchase requirements, better product safety standards, effective trailer storage practices, and a more rapid coordinated response to public health issues. But by narrowly focusing today on four trailer manufacturers, the Committee risks missing broader causes of variable potentially toxic air quality in emergency housing units. The problem was and remains confusion among Federal agencies, not some conspiracy by trailer makers.

As we learned from testimony and exhibits at our hearing on these issues a year ago, FEMA lawyers advised against a proactive response to questions about formaldehyde raised by the occupants and by the trailer vendors in 2006. To this day, far more confusion than clarity emerges from any discussion of relevant formaldehyde exposure standards. Published guidelines on exposure under various circumstances, durations, temperatures, and atmospheric conditions range from eight parts per billion to one thousand parts per billion, with nine standards in between. This chart here illustrates that.

For the record, Gulf Stream went to FEMA for guidance when they uncovered problems. They didn't cover it up from their customer. They went to the customer. It is FEMA--who is not here, unfortunately, and ought to be answerable for the results in this case--that didn't want to make an issue of this.

The closest thing to a standard for travel trailers is one set for larger manufactured housing units by the Department of Housing and Urban Development at 400 parts per billion. There isn't even agreement on the appropriately validated testing methodologies to determine how to measure indoor formaldehyde levels that might be elevated above whatever standard is being used.

The Federal agency witnesses who might help explain this Formaldehyde Tower of Babel aren't here today. FEMA is focusing all its attention on Midwest flood relief. The Occupational Safety and Health Administration, the Environmental Protection Agency, the National Institute of Occupational Safety and Health, the Consumer Product Safety Commission, and HUD also have information relevant to our discussion this morning. But they were only invited to participate late last Thursday, as Federal offices were closing for the holiday weekend. They declined to participate without more time to prepare.

We should have actually taken this hearing and moved it

so we could have had everyone involved here and had a discussion over what these standards should have been and what happened and hear how the Federal Government, who I think has the largest culpability in this, messed this up.

That is unfortunate, because those agencies could help us interpret results from multiple Government-sponsored tests of occupied and unoccupied FEMA trailers and component materials. The test data suggests some wood products obtained from new sources, including China, yielded higher than expected formaldehyde readings. Under pressure to meet emergency trailer production demand, some of that wood may have been put into trailers before the normal off-gassing could occur. Poor ventilation during storage and use, particularly in hot climates, then trapped and concentrated gases that might otherwise leach off harmlessly.

So what happens to a trailer after it is manufactured may have as much to do with its subsequent safety as the inclusion of unregulated wood products in the first place. Remember, formaldehyde is a widely used chemical in consumer products. It is also the natural byproduct of many natural processes, like combustion, and a constant element of basic metabolic functions. It is in our bloodstream. Each of us releases some formaldehyde in this room when we exhale.

Eliminating formaldehyde isn't the issue. The goal is to keep sustained formaldehyde exposure below the levels

suspected to cause health effects. According to some groups that may be 100 parts per billion or less for most people.

So where do FEMA trailers score? According to data recently released by the Centers for Disease Control and Prevention, the average level of formaldehyde in occupied trailers fell between 72 and 91 parts per billion--72 and 91. Our staff did some random tests around the Capitol with a hand-held meter and we got a reading of 80 parts per billion right next to this Committee anteroom. But some trailers tested much higher, some lower.

Since the CDC tests didn't account for any contribution from background levels like those we found here, it is even less clear how much formaldehyde came from the wood in the trailers. That leaves trailer occupants already victimized by one storm caught in a legal tempest of post-Katrina political scapegoating, bureaucratic finger-pointing, and litigation. Once again, the Committee risked being used as a discovery proxy for plaintiffs suing companies called to testify before us, and that is wrong. Instead, we should be asking FEMA why contract requirements for habitable mobile units weren't more specific, why inspection procedures weren't consistent, and why health concerns couldn't trigger standardized testing and, where necessary, prompt remediation.

We should be asking Federal science and health agencies

how to establish and measure workable standards for formaldehyde exposure in realistic settings so that this sad 309 310 event never occurs again. 311 We will have the opportunity today to ask 312 representatives of the travel trailer industry whether they 313 will be able or willing to ramp up production to meet 314 emergency demand when FEMA calls again. I hope their answer 315 doesn't mean we will have even fewer options to meet critical housing needs after the next inevitable disaster. 316 317 Thank you. 318 [Prepared statement of Mr. Davis of Virginia follows:]

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320 Chairman WAXMAN. Thank you, Mr. Davis. 321 Let me ask unanimous consent that Representatives 322 Donnelly and Lampson be permitted to join us at today's 323 hearing and to ask questions after all members of the 324 Committee have had that opportunity. 325 Without objection, that will be the order. 326 Mr. Souder, you had some reservations about the 327 documents being put into the record. Let me just make a 328 unanimous consent request that the staff minority and 329 majority reports be made part of the record, and we will 330 continue to talk to you about the documents. 331 Mr. SOUDER. Thank you for your consideration. 332 Chairman WAXMAN. Without objection, that unanimous 333 consent will be agreed to. 334 [The Minority and Majority Staff Reports follow:] 335 \*\*\*\*\*\*\* INSERT \*\*\*\*\*\*\*

Chairman WAXMAN. We will, without objection on questions, proceed with our first witness with a ten-minute round controlled by the Chair and a ten-minute round controlled by the Ranking Member, and then for all other witnesses, including the second panel, we will go back to the five-minute rule.

Without objection, that will be agreed to.

Our first witness today is Dr. Michael McGeehin. Dr. McGeehin is the Director of Environmental Hazards and Health Effects Division of National Center for Environmental Health within CDC. Dr. McGeehin has worked with CDC for nearly 30 years focusing on issues related to environmental health.

Dr. McGeehin, we are pleased to welcome you to our Committee hearing today. It is it practice of this Committee that all witnesses that testify before us do so under oath, so please rise.

[Witness sworn.]

Chairman WAXMAN. The record will indicate that the witness answered in the affirmative.

Your prepared statement will be in the record in its entirety. We would like to ask you to proceed and stay as close to five minutes as you can. We will run the clock. It will be green for four minutes. It will turn orange for one minute, and then red when the time is up. When we see the red light, we would like to ask you to see if you can

conclude at that point. 361

362 STATEMENT OF MICHAEL MC GEEHIN, DIRECTOR, ENVIRONMENT HAZARDS

363 AND HEALTH EFFECTS, NATIONAL CENTER FOR ENVIRONMENTAL HEALTH,

364 CENTERS FOR DISEASE CONTROL AND PREVENTION

## STATEMENT OF MICHAEL MC GEEHIN

Mr. MCGEEHIN. Good morning Chairman Waxman, Mr. Davis, and other distinguished members of the Committee. Thank you for the opportunity to be here today.

I am Dr. Michael McGeehin, Director of Centers for Disease Control and Prevention's Division of Environmental Hazards and Health Effects in the National Center for Environmental Health. My testimony today will focus on the results of CDC investigations related to FEMA-supplied temporary housing units following Hurricane Katrina. It will focus on two particular studies: the final report of the formaldehyde levels in FEMA-supplied travel trailers and the Lawrence Berkeley National Laboratory Interim Volatile Organic Compound Report Final Occupied Trailer Study.

From December 21, 2007, to January 23, 2008, CDC conducted testing to establish levels of formaldehyde in occupied FEMA-supplied travel trailers and mobile homes in Louisiana and Mississippi. CDC randomly selected 519

trailers and mobile homes for testing. These units represented a cross-section of the trailer types and manufacturers most frequently used by FEMA in the Gulf Coast. Interim results were announced in 2008, and a final report was released on July 2nd. The final report included additional analyses of data such as temperature, humidity, and ventilation, but did not change the conclusions and recommendations from those in the interim report.

The average levels of formaldehyde in all the travel trailers and mobile homes tested was 77 parts per billion. CDC concluded from the study that: one, formaldehyde levels found in some trailers and mobile homes could affect the health of residents; travel trailers had significantly higher average formaldehyde levels than mobile homes; temperature, humidity, trailer type, and brand, keeping windows open, and the presence of mold were associated with formaldehyde levels; and the levels measured likely under-represented the exposure, since levels were likely higher when the trailers were first issued and during warmer months.

CDC recommended that FEMA relocate residents before the weather became hot, with priority based on those experiencing symptoms, children, the elderly, those with chronic diseases, and persons living in trailer types that had higher formaldehyde levels.

The Lawrence Berkeley Report, CDC hired Lawrence

Berkeley National Laboratories to study indoor emissions of volatile organic compounds, including formaldehyde, in four vacant FEMA-supplied travel trailers. The study looked at air levels for the whole trailer and gases released from specific component parts of the trailers such as the walls, floors, ceilings, tables, and cabinets. After Lawrence Berkeley and CDC took measurements of air inside the trailers at FEMA's Purvis, Mississippi, storage yard, CDC staff then took each trailer apart, collected, packaged, and shipped the parts to the Lawrence Berkeley National Labs, where laboratory staff tested the parts and determined the type and extent of VOCs that each part emitted.

The four trailers tested were Pilgrim, International; Gulf Stream Coach Cavalier; Four Industries Dutchman; and Coachman's Spirit of America. Analysis at the LBNL Labs found 33 VOCs, volatile organic compounds, in the air of the trailers. Of those, only formaldehyde, phenol, and TMPDDIP, a substance used to make plastic, were found at higher levels in trailers than commonly found in site-built or manufactured homes. Neither phenol nor TMPDDIP were found at levels that are considered to be health hazards.

LBNL found that the amount of formaldehyde given off by each of 44 of the 45 component parts that were tested were usually no higher than that given off by similar materials used in site-built or manufactured homes; yet, measurements

inside each of the four trailers before they were disassembled revealed formaldehyde levels that were higher than those normally found in site-built or manufactured homes. This may be because the trailers used more composite wood products, have more composite wood products in a smaller space, or let in fresh air, or a combination of all these factors than the site-built or manufactured homes.

While the results of this study cannot be generalized to the entire fleet of FEMA-supplied travel trailers because of the small sample size, CDC's study of four travel trailers provides information to help guide future research to understand the effectiveness of using materials that emit lower levels of formaldehyde during construction and increasing the ventilation rates in the trailers.

That is a summary of the two major studies that we have done. We have ongoing work and some future work that we will be doing with Lawrence Berkeley that I will be happy to talk about during the questions.

I thank you for the opportunity to present this information to you today. We recognize that more needs to be done to understand the health and safety issues for all the people living in trailers and parks and mobile homes, both in FEMA temporary housing and in other units bought commercially.

CDC has initiated discussions with FEMA and HUD on these

issues. Since some trailer types had relatively low levels, we believe that construction practices are available that could ensure safe and healthy conditions. We hope to provide technical input to help achieve that kind of housing for all Americans who live, learn, and work in these units.

I would be happy to answer any questions.

I would like to add, Mr. Chairman, that when I flew up here I flew up with your colleague, Congressman John Lewis in the seat next to me, and I told him that I was going to be appearing before this Committee, and he said, well, that is good. And I said, well, perhaps. And he said, I am sure they will treat you kindly. So I kind of consider that a promise.

[Laughter.]

[Prepared statement of Mr. McGeehin follows:]

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Chairman WAXMAN. That is our intention to treat you kindly, because all we want to do is get the facts.

I will start off the questions.

Dr. McGeehin, I want to ask you about these regulatory standards, because there are a lot of different standards that are out there that apply to formaldehyde. According to the Centers for Disease Control and Prevention, outside air typically has formaldehyde levels of two or three parts per billion; is that right?

Mr. MCGEEHIN. That is what the information shows.

Chairman WAXMAN. Okay. And we have a chart that we are going to put on the screen that shows the outdoor airs, but conventional homes, most homes have formaldehyde levels that typically range from 10 to 30 parts per billion; is that correct?

Mr. MCGEEHIN. In the more recent studies, yes, sir.

Chairman WAXMAN. And we could add that to the chart. Busy city streets generally have formaldehyde levels that range from 20 to 40 parts per billion; is that right?

Mr. MCGEEHIN. If you are downtown on a corner and you basically are at gridlock, you can see those sorts of levels, yes, sir.

Chairman WAXMAN. The next level I want to ask you about is 100 parts per billion. At this level, some people can suffer acute health effects like burning eyes, shortness of

breath, and nausea. Is that an accurate statement?

Mr. MCGEEHIN. Yes, sir. There are a number of studies that have shown that sensitized individuals have those symptoms, can have those symptoms at levels of 100 parts per billion.

Chairman WAXMAN. How about people who are not sensitized?

Mr. MCGEEHIN. The studies show that sensitized individuals can. Non-sensitized individuals can have those symptoms. I mean, it is possible that they could have symptoms at that level. That is not what the studies have shown. That would be at higher levels.

Chairman WAXMAN. Okay. CDC is not the only agency that regards 100 parts per billion as a potentially dangerous level. The Environmental Protection Agency and the Consumer Product Safety Commission have also identified 100 parts per billion as a level at which negative health effects can occur. And the World Health Organization has also issued guidelines for formaldehyde saying that in non-occupational settings people should not be exposed to formaldehyde at 100 parts per billion for more than 30 minutes; isn't that correct?

Mr. MCGEEHIN. That is true, sir.

Chairman WAXMAN. Now, I want to ask you about the test results that Gulf Stream found over two years ago when it

tested nearly 50 FEMA trailers. Gulf Stream was the largest supplier of FEMA trailers. In fact, they received a contract worth more than \$500 million to provide 50,000 trailers to FEMA. First Gulf Stream tested 11 occupied trailers and it found that every occupied trailer had levels above 100 parts per billion. Four of the trailers, nearly 40 percent of those tested, had levels above 500 parts per billion. At that level, Federal regulations required medical monitoring of workers.

Dr. McGeehin, were you aware of these findings?
Mr. McGEEHIN. No, sir, I was not.

Chairman WAXMAN. As a public health expert, do these findings concern you? Should families be living in trailers with formaldehyde levels above 100 and 500 parts per billion?

Mr. MCGEEHIN. Sir, we would recommend that families living in trailers with above 100 parts per billion, 500 parts per billion, that they be offered alternative housing.

Chairman WAXMAN. Gulf Stream conducted this testing in March of 2006, more than two years ago, and yet the company never told the families living in these trailers. Do you think that families should have been informed about formaldehyde risks?

Mr. MCGEEHIN. Sir, I think that people should be aware of the risks of where they are living, yes. I am a firm believer that people should be aware of any information that

we have that could affect their health.

Chairman WAXMAN. If you were living in one of these trailers for two years after the company knew that it might have been formaldehyde levels of over 100 and maybe 500 parts per billion, what would your reaction be if they hadn't told you about it?

Mr. MCGEEHIN. As a scientist or as a resident?

Chairman WAXMAN. Give me either one.

Mr. MCGEEHIN. Well, sir, I would think that if we have information that people may be exposed to levels of formaldehyde that may cause symptoms in sensitized adults and may have an effect on children who are growing up in the environment, that we should share that with the residents, and I think that it should be shared in a way that they understand what we are talking about and so they can make an informed decision.

Chairman WAXMAN. Okay. Gulf Stream also tested unoccupied trailers. The levels it found were even higher. Nearly half of the trailers had levels over 900 parts per billion. EPA says that no one should be exposed to that level more than once in a lifetime. One trailer had levels above 4,000 parts per billion. Do you believe that these are dangerous levels of formaldehyde?

Mr. MCGEEHIN. I think that some of those levels, sir, just about every person would have symptoms of upper

respiratory irritation, and those would be levels that we would be concerned about. Yes.

Chairman WAXMAN. Well, Gulf Stream never told FEMA that the unoccupied trailers had such high levels of formaldehyde. The result was that FEMA continued to put these trailers into service. Thousands of unoccupied Gulf Stream trailers were given to families after Gulf Stream knew they contained these incredibly high levels of formaldehyde. I suppose once they are occupied they can open the windows and the formaldehyde levels would be reduced, but, given their findings, would that concern you that FEMA was never informed, that families weren't informed, FEMA was never informed?

Mr. MCGEEHIN. Again, sir, I would have to go back to what I had said earlier. I think that if we have information that may affect people's health, that we should share that information with the people. I don't know what the correspondence was that went back and forth--and you and all the Committee knows more about that than I do--between FEMA and the various trailer manufacturers. I am not aware of that.

Chairman WAXMAN. Okay. Well, we learned a year ago that FEMA failed the families in the Gulf Coast. They refused to test the trailers because they didn't want to know the results and then have to take action to protect these families. I think that is a shameful failure of Government.

Today we are learning that the largest maker of travel trailers did some testing and did know that its trailers had dangerously high levels, but it didn't warn anyone, and I think that is also a shameful failure.

I have three and a half minutes, and I am going to reserve that and now recognize Mr. Davis.

Mr. DAVIS OF VIRGINIA. Mr. Chairman, I am going to start with Mr. Souder, yield him as much time as he may consume.

Mr. SOUDER. I thank the Ranking Member.

I would prefer my questions stick with the science and that we don't speculate. Politicians speculate, lawyers speculate, but we need to focus on the science.

There were some assumptions in the questions there that were not science. Gulf Stream did a desiccator test, which is not an accurate test, more of a snapshot, just like taking a formaldehyde tester in this room is a snapshot, not science, and then attempted to raise that question with FEMA. They went beyond the call of duty to do that, but it is not an accurate, scientific test, and it was presented to you as though they had scientific evidence rather than a snapshot, which still should have been followed up on but, nevertheless, is different than having a control group or an actual test with that.

Now, I have had some correspondence, both verbal through my staff and in the two hearings at Homeland Security as well

as the previous one here, with Centers for Disease Control.

I want to ask on the record why there was not a control group at the time to see how much was related to other things in the area, as opposed to the trailer. The response we got from CDC was it was compared to the national rather than what was happening at Katrina at the time or the region. Is that scientific--

Mr. MCGEEHIN. Yes, sir.

Mr. SOUDER.--to not have a control group?

Mr. MCGEEHIN. Yes, sir. I mean, you wouldn't have a control group on that, I think. What we were asked to do was to look at the various types of various temporary housing units that were being used and see what the formaldehyde level was. The ambient air has been measured in many parts of the Country by a number of different researchers and has been found to be consistently at two, three, and four parts per billion.

One other thing about formaldehyde that I think is important to remember, and that is that no scientists that have looked at formaldehyde consider ambient air a driver of indoor formaldehyde levels.

Mr. SOUDER. Let me ask you this question. Your office this morning said that you had no reason to question the Tulane study that studied the ambient formaldehyde air levels within site-built homes in Louisiana that averaged 370 parts

per billion, more than four times that found in FEMA trailers. That would suggest, since your office is aware of that, that you know there are differences in Louisiana than elsewhere, because I don't believe that site-built homes are testing that high nationally. And that, furthermore, you are aware that in the Hancock study by your office in Mississippi that there was no measurable difference between those people who were in trailers and were in other. That might suggest that other phenomena were occurring other than just the trailers.

- Mr. MCGEEHIN. Sir--
- 660 Mr. SOUDER. You have two studies--
- 661 Mr. MCGEEHIN. Right.

- Mr. SOUDER.--that suggest that the non-trailers had higher levels, or at least equivalent levels.
  - Mr. MCGEEHIN. Can I answer?
- 665 Mr. SOUDER. Yes.

Mr. MCGEEHIN. The second study, the Hancock study, did not look at exposure. It was tremendously handicapped by the absolute destruction of so many medical records. We did not have a base on which we could compare rates, so we were able to do what we could in what is called an EpiAid investigation, which is led by a trainee and is conducted in a three-week period of time. With that in mind, as a secondary objective, it did look at whether or not we would

see a difference in the children's respiratory symptoms, those having reported living in trailers and those that did not live in trailers, and we did not see a difference.

Do I attribute that at all to formaldehyde levels? I do not.

The first study that you talked about, the Leamer study, I have reviewed that study and it appears to be a well-done study. It used the NIOSH sampling method that we used, which is the gold standard sampling method. It was slightly different than the one we used, but it was the NIOSH method. Its results were well reported, I thought. It was a well-written article. And its conclusions were, again, having nothing to do with ambient air outside in Louisiana. The conclusions were--and I am doing this from memory, but the conclusions were along the lines of, We need to increase the ventilation in these homes, we need to look at what furniture products and wood products are being used in these homes. Its conclusions were strikingly similar to the conclusions that came out of our occupied study.

So when I was asked to review the Leamer study I found that it was a well-done study and well written and that its conclusions were justified.

Now, if you were to ask me why did that study find elevated levels of formaldehyde in those homes when many studies at the same time around the Country did not, I do not

699 have an answer for that.

As you suggested in your opening statement and as I responded to Chairman Waxman, I am going to stick to the science. I did not know what the correspondence was between the manufacturers and FEMA so I didn't comment on that, and so I don't know the answer, Congressman, as to why those levels were higher. But I will tell you that the science will tell you that ambient air is not a driver of formaldehyde in indoor environments.

Mr. SOUDER. Well, let me ask you a couple of other questions, because in your testimony you suggested that some of the things here are concentration; in other words, there has been this mis-notion that somehow, like, these manufacturers spray formaldehyde on things. The products they put in, it's not unique to a trailer. It is unique to size and the wood and the wood quality, which we are debating.

Now, in a site-built house or a manufactured home, you said that the thing which we learned apparently, at least, from this one study different in this particular environment, and you don't know why. It could be heat. It could be the number of people in it. It could be other patterns that occur in the house such as cooking, the intensity. Would you not think, based on your own statement, that, for example, when you put a new kitchen in, because much of this is

cupboards, depending on whether it has veneer or vinyl, can quadruple the parts coming off of a particular piece? When you put a new kitchen in a house, for a brief period until it dissipates, that kitchen area may have higher levels of formaldehyde?

When you put new carpet in a room, particularly if it is a smaller bedroom, you are going to go up and down, that this is not an uncommon thing even everywhere, including in our own offices, including elsewhere? It is not unique to trailers other than that they are small, and any alternative housing that we would use, such as a tent, a small wood shelter, unless it uses pure, natural wood with no adhesive, with no repellant, the smaller the area and the newer it is, the greater problem you are going to have?

Mr. MCGEEHIN. Absolutely. The component parts are what lead to formaldehyde. In my old house I brought this desk in and I put it together, and it was this beautiful desk that was perfect for the room, and I remember smelling the formaldehyde as I was unpacking it, which means at that time I was dealing with formaldehyde of at least above 500 parts per billion. So what you bring into a house can definitely affect the formaldehyde levels. Absolutely true.

Mr. SOUDER. I also want to establish for the record you said NIOSH is the gold standard. Is it true that their plus or minus is 19 percent?

749 Mr. MCGEEHIN. I don't know what their numbers are, but 750 NIOSH is the gold standard. And if you look at the 751 literature on the measurement of formaldehyde for all of the 752 studies, they almost invariably use the NIOSH standard. 753 Mr. SOUDER. I would like to insert into the record the 754 formaldehyde on the NIOSH standards. The reason is because 755 when we start to get down to really fine lines here, those 756 variations become very significant. 757 We will reserve the balance of the time. I yield back. 758 Mr. DAVIS OF VIRGINIA. How much time do we have, Mr. 759 Chairman. 760 Chairman WAXMAN. You have 1:47. 761 Did you want to put something in the record, Mr. Souder? Without objection, your request will be granted. 762 [The referenced information follows:] 763

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765 Chairman WAXMAN. Mr. Davis? 766 Mr. DAVIS OF VIRGINIA. Dr. McGeehin, again thanks for 767 being here. 768 What is the Federal standard for indoor ambient air 769 levels of formaldehyde in trailers? 770 Mr. MCGEEHIN. In residences? 771 Mr. DAVIS OF VIRGINIA. In travel trailers? 772 Mr. MCGEEHIN. There is none. 773 Mr. DAVIS OF VIRGINIA. There is none. Are there 774 formaldehyde standards for the manufacturing housing 775 industry? 776 Mr. MCGEEHIN. There is for manufactured housing.

There 777 is for the component parts.

778 Mr. DAVIS OF VIRGINIA. And I think that there are 779 component part standards but not an indoor ambient air 780 standard; is that correct?

Mr. MCGEEHIN. That is true, Congressman.

Mr. DAVIS OF VIRGINIA. The indoor levels of 400 parts per billion are target levels based on wood emission standards, as I understand it, and these have been in place for 24 years.

Mr. MCGEEHIN. Are you talking about the HUD language?

Mr. DAVIS OF VIRGINIA. Yes, sir.

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788 Mr. MCGEEHIN. Yes, that is language and is not a standard. The way you described it seems accurate to me. 789

Mr. DAVIS OF VIRGINIA. And from the CDC that is not an appropriate standard, is it?

Mr. MCGEEHIN. It is not a standard, right. It is, from what I understand from HUD--and it is lonely at this table--the language, when they announced their component part numbers, the language said 400 parts per billion. I have had many discussions with HUD, and they do not consider 400 parts per billion a standard.

Mr. DAVIS OF VIRGINIA. In your discussions have you worked toward promulgating any standards, any levels, any regulations that would define these so when the Government contracts out contractors know what the rules are, people who are utilizing trailers know what the rules are? Has the CDC been proactive in that at all?

Mr. MCGEEHIN. The CDC is trying to get Government agencies together to address the formaldehyde issue. My boss, Dr. Howard Frumkin, is leading a group to try to do that. I think you know, Congressman, and I think you would agree with this, that CDC is not a standard-setting agency.

Mr. DAVIS OF VIRGINIA. Right.

Mr. MCGEEHIN. I think it is in the best interest of the American public and the Congress that CDC never become a standard-setting agency because we can go in and look at something solely from the public health perspective.

However, there right now are no standards by which a

815 manufacturer or anyone can say this is the ambient indoor air 816 standard for formaldehyde in the United States. 817 Mr. DAVIS OF VIRGINIA. So as far as you know, then, what was delivered here was not not meeting standards because 818 819 there were no standards, unfortunately? 820 Mr. MCGEEHIN. They are not only are no standards for travel trailers for indoor ambient air for formaldehyde, but 821 822 there are no standards to my knowledge--and I have been 823 immersed in this for the last 15 months -- there are no standards for travel trailers for component parts because the 824 825 HUD component part standards only apply to manufactured homes 826 and not to travel trailers. They are exempted from that. 827 Mr. DAVIS OF VIRGINIA. Thank you. 828 Mr. MCGEEHIN. That is my understanding. 829 Chairman WAXMAN. Thank you, Mr. Davis. Mr. Cummings? 830 831 Mr. CUMMINGS. Thank you very much, Mr. Chairman. One of the things, just following up on what was just 832 833 stated, clearly the United States of America should not be 834 purchasing trailers that are going to bring harm to the 835 American people. Would you agree with that? 836 Mr. MCGEEHIN. Of course, sir. 837 Mr. CUMMINGS. Regardless of standards. We are talking about things like watery eyes; burning sensations in the eye, 838

nose, and throat; nausea; coughing; test tightness; wheezing;

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840 skin rashes and allergic reactions. Formaldehyde exposure 841 may also trigger attacks of those with asthma. high levels of exposure to formaldehyde can immediately be dangerous to one's health and life. No matter what the standard is, the American people were purchasing trailers 844 that could bring harm to other American people. That is the 846 face of this.

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In Katrina we had people who were victimized at least Their Country failed them, except for the Coast Guard, and then living in these trailers was failing them also.

I don't know what John Lewis said. I am not here to But I want to make sure we keep the focus on I have said too many times over and over again our Country is becoming mired in a culture of mediocrity and failure to be empathetic to human beings. So we can talk about standards here, there, and everywhere, but the question still remains: do we get what we bargain for, or are we getting something that does harm?

No, I understand you are not familiar with all the letters and the correspondence that went back and forth, but, Dr. McGeehin, Gulf Stream sent a letter to FEMA that read in part--and I just need your opinion on this very quickly--this is what the letter said. It is dated May 11, 2006. It said: ''We wanted to follow up on our recent conversations

regarding travel trailers supplied to FEMA. As we have previously indicated, we wanted to again let you know that we remain committed to providing high-quality products. No particular information on ventilation or standards for indoor air quality, including formaldehyde, are required by Government regulations relating to travel trailers; however, even though not required, Gulf Stream has taken the added step of specifying low-emission standards.''

Now listen to what they said. 'We would like to reiterate our willingness to assist you in addressing any concerns about our products. Our informal testing has indicated that formaldehyde levels of indoor ambient air of occupied trailers far below, for instance, the OSHA standard of .75 parts per million--'' now what that means is 750 parts per billion--'we are willing to share these informal test results with you and, as mentioned during our meeting, if FEMA wishes to conduct formal testing protocols on any designated units, we are willing to participate in that testing.''

Now, did you hear that?

Mr. MCGEEHIN. Yes, sir.

Mr. CUMMINGS. All right. What impression did you get from the letter? Does it sound like Gulf Stream is aware that its trailers have high formaldehyde levels? I mean, from what you just heard?

Mr. MCGEEHIN. No, sir.

Mr. CUMMINGS. And let me tell you that Gulf Stream did not disclose it in that May 11, 2006, letter. This is what they didn't disclose. Gulf Stream did not disclose that, of 11 occupied trailers it tested, every one of them showed formaldehyde levels at or above 100 parts per billion. It did not disclose that four of the eleven occupied trailers had formaldehyde levels over 500 parts per billion, which is OSHA's regulatory action level. OSHA requires medical monitoring of employees exposed to levels over 500 parts per billion. Should Gulf Stream have disclosed that information to FEMA?

Mr. MCGEEHIN. Sir, that is very hard for me to talk about, a correspondence that I had nothing to do with and don't know anything about.

Mr. CUMMINGS. If you were in their position, would you have disclosed it, as somebody expecting certain things from folk who are selling things to the American people with their hard-paid tax dollars, would you have expected it?

Mr. MCGEEHIN. I would go back, sir, to what I said to the Chairman, that I think that sort of information should be shared and that is a good thing to share that.

Mr. CUMMINGS. And Gulf Stream also did not disclose that its testing of unoccupied trailers showed even higher levels of formaldehyde. A large number of these showed levels well

915 over 750 parts per billion in unoccupied trailers. Should 916 Gulf Stream have disclosed that information, do you think? 917 Mr. MCGEEHIN. I think if they had that information on 918 formaldehyde that was above 750 parts per billion that that 919 would have been a good thing to let FEMA know. 920 Mr. CUMMINGS. Clearly, Gulf Stream spent over a month 921 putting together this letter. They carefully crafted it, and 922 this is what they came up with. 923 Thank you very much. 924 Again, this is about people. This is about human 925 beings. 926 Thank you, Mr. Chairman. Chairman WAXMAN. Thank you, Mr. Cummings. 927 928 Now to the Republican side. Mr. Issa? 929 Mr. ISSA. Thank you, Mr. Chairman. 930 Doctor, you are going to be the only scientist we have 931 The next panel, as the Ranking Member said, basically 932 are people being sued as a result of the hysteria that may or may not be valid around formaldehyde. Let me ask the first 933 934 Is there a universal standard, or is there a 935 number that you would set here today to say we should make 936 sure trailers never have in them under ordinary conditions? Mr. MCGEEHIN. Sir, I would think that if we are going to 937 938 talk about--

Mr. ISSA. No, no. Is there a number?

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Mr. MCGEEHIN. I am sure there is. It is not one that--

Mr. ISSA. Okay. You are not prepared to give it.

Mr. MCGEEHIN. That is true.

Mr. ISSA. Okay. The second one--and I want to keep it short because I only have the five minutes--so today the Government, you are not prepared to give a number, so 700, 500, 100. But let's take HUD's number for a moment. HUD said that basically you can outgas at 300 parts per billion out of plywood. Is that number too high?

Mr. MCGEEHIN. For travel trailers?

Mr. ISSA. No. It is a standard for wood.

Mr. MCGEEHIN. It is a standard for wood? Well, we have shown in our--

Mr. ISSA. No, it is the standard for outgassing of wood, because once you make the wood, people aren't going to make a lot of different plywoods. There is only so much MDF and plywood going to be made. Once you have a standard for home, travel trailers, they are going to tend to use the same in these industries. Is the standard of basically the glue used to bond together either MDF or plywood, is that an unreasonable standard, or are you prepared to answer is that a good number?

Mr. MCGEEHIN. Sir, I will tell you what our study showed. I am not going to say whether that is an unreasonable number. I will show you that 44 of the 45

component parts met the HUD standard, and yet for those four travel trailers the levels were in the multiple hundreds of parts per billion.

Mr. ISSA. Okay. So we have a standards problem today, based on that, in my opinion.

Let me ask another question. You take plywood, carpet, plastic, you name it, the components that all produce formaldehyde, you put them in a closed, air-tight oven, you heat them up to 160 degrees. Are you going to get a concentration of formaldehyde inside the air chamber?

Mr. MCGEEHIN. You are going to get a lot of different contaminants, probably. Yes.

Mr. ISSA. Okay. But, in fact, that is what a closed-up trailer is in the hot sun, no matter who made it, no matter what they used. That is what you have. One, the elevated levels are to be expected in a closed-up, hot trailer, which means we shouldn't be testing them that way. There has to be a standardized test. Can the CDC come up with a standardized test, or should some agency come up with a standardized test so that we can be comparing apples and apples for levels of ventilation, et cetera? Because it sounds like the Government hasn't provided that yet, either.

Mr. MCGEEHIN. Well, I think if an agency moves towards setting a standard they will have to give guidance on how that standard would be measured.

Mr. ISSA. Okay. The trailer manufacturers are going to be here after you, and Gulf Stream is the gold standard by most people. I know you have a gold standard of testing equipment, but they are the gold standard for trailers, commercial, off-the-shelf trailers, been around forever, well regarded. Most people know that name more than the other three manufacturers. Did you find anything in your testing of those other trailers that showed that these trailers were materially different than what the commercial public buys and happily works with on a regular basis?

Mr. MCGEEHIN. We weren't able to look at whether or not these were different from that. I mean, there are the off-the-lot models that were sold to FEMA and used, and there are the spec models that were sold to FEMA and used.

Mr. ISSA. Okay. Now, in your opening statement you said something that I think was very significant that I hope we can all focus on here today. You talk about mold creating formaldehyde, the relationship between the two. I will set up the question fairly narrowly. Louisiana, Mississippi, there is a huge flood, stagnant water sitting there, unfortunately in some cases with sewage and all kinds of other things. It is wet. It is rainy. It is hot. It is humid. Everything gets wet, including the people going in and out to try to salvage things. Mold is pervasive. In fact, is that a major contributor in all likelihood to the

general unhealthy atmosphere that existed in that area of the south after Katrina?

Mr. MCGEEHIN. I think that mold in an indoor environment is not a good thing. I think that what we found in our multiple regression was that mold was associated with formaldehyde levels, not causative of formaldehyde levels. There is a difference.

Mr. ISSA. So you are saying that plywood causes mold?

Mr. MCGEEHIN. No, sir. I am saying that the indoor air contamination may be related to both of them at the same time.

Mr. ISSA. I see. Now, in your test you tested for formaldehyde. Because you had a large amount of people in a terrible situation post-Katrina, did you test for anything else? I can't find any other testing for the effects of mold, mildew, all the other chemicals, including sewage that backed up. What test can you provide us with that shows the other things that may have caused the same symptoms more or less that are being reported and blamed on only one chemical, formaldehyde?

Mr. MCGEEHIN. Sir, we went to the field as rapidly as we could to answer the question that was pervasive at the time, which was formaldehyde. The study was aimed at formaldehyde. We controlled for smoking and some other factors with a questionnaire, but we tested for formaldehyde.

1040 Now, if you wanted to look at other VOCs that may be in 1041 the air of these trailers, we looked for 80 different VOCs in the Lawrence Berkeley study, found 33 that were measurable, 1042 found 3 that might be considered elevated, and the focus 1043 1044 ended up being on formaldehyde. 1045 Chairman WAXMAN. Thank you, Mr. Issa. 1046 Mr. ISSA. Thank you, Mr. Chairman. 1047 Chairman WAXMAN. Mr. Davis? Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. 1048 1049 Chairman. 1050 I want to talk specifically about unoccupied trailers. Between March and May of 2006 Scott Pullen, one of Gulf 1051 1052 Stream's vice presidents, tested occupied and unoccupied FEMA 1053 trailers for formaldehyde. All totaled, he tested about 50 1054 He tested Gulf Stream trailers, and he also tested 1055 trailers made by other manufacturers. Mr. Pullen tested over 1056 35 new travel trailers that had not yet been deployed for 1057 displaced residents. Of those trailers, over 25 were manufactured by Gulf Stream and 7 by other companies. 1058 1059 levels of formaldehyde in these unoccupied trailers were 1060 remarkable. Over 10 Gulf Stream trailers contained 1061 formaldehyde levels in excess of 900 parts per billion. 1062 Dr. McGeehin, is there any question that exposure to 1063 formaldehyde at that level is dangerous?

Mr. MCGEEHIN. Sir, most studies show that when you get

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up above 800 parts per billion or so that most people will have symptoms at that level of formaldehyde.

Mr. DAVIS OF ILLINOIS. And so certainly at 900 it would be dangerous?

Mr. MCGEEHIN. The word dangerous has connotations to it that I am not really comfortable with. One of the things that we have tried to do in all our reports is to stay away from words that cause alarm. I would say that at that level we could expect a good proportion of the population to have symptoms that were described earlier.

Mr. DAVIS OF ILLINOIS. Then let me just go on. The Environmental Protection Agency has established 900 parts per billion as an acute exposure guideline level. This level is designed to guide emergency responders in understanding the risks from a once in a lifetime exposure such as might occur after a chemical spill. According to EPA, a one-time exposure to formaldehyde at levels exceeding 900 parts per billion could lead to irreversible harm.

Let me ask you, would it be appropriate to allow families to move into an unoccupied trailer that had formaldehyde levels of 900 parts per billion?

Mr. MCGEEHIN. I would say, Congressman, a family should not reside in a trailer that has 900 parts per billion formaldehyde.

Mr. DAVIS OF ILLINOIS. One Gulf Stream trailer had

formaldehyde levels of 2,690 parts per billion. Other makes
of travel trailers contained similarly high levels of
formaldehyde, with seventeen trailers having formaldehyde
levels over 900 parts per billion and one trailer having
levels of 4,480 parts per billion.

Is it safe to allow families to move into trailers with

Is it safe to allow families to move into trailers with these levels?

Mr. MCGEEHIN. Those levels are starkly higher than what we measured in our occupied trailers. I don't know how those samples were taken, but across the board, if you have levels like that, it would be an environment where many people, if not all people, would have the types of symptoms that we have talked about.

Mr. DAVIS OF ILLINOIS. Well, Dr. McGeehin, I have been informed that Gulf Stream did not inform FEMA that it had tested unoccupied trailers, nor did it disclose the remarkably high levels of formaldehyde in these trailers. In March of 2006 thousands of trailers were yet to be deployed. Gulf Stream knew that there was a major problem, but they remained silent, and as a result those unoccupied trailers became occupied trailers. Families moved in and families lived in those trailers, and undoubtedly many suffered the consequences.

I believe that somebody should be held accountable. Whether it is FEMA or whether it is Gulf Stream or both,

1115 somebody should be held accountable for not alerting those 1116 families that they were moving into hazardous situations. 1117 I thank you very much and I yield back the balance of my 1118 time. 1119 Chairman WAXMAN. Thank you very much, Mr. Davis. 1120 Mr. Jordan? 1121 Mr. JORDAN. Mr. Chairman, I have questions for the 1122 second panel, so I would be happy to yield my time to Ranking 1123 Member Davis. Mr. DAVIS OF VIRGINIA. Thank you very much. 1124 I would start by yielding to my friend, Mr. Issa. 1125 1126 Mr. ISSA. Doctor, the 900 parts per billion that was 1127 talked about in a closed-up trailer, with what you would 1128 consider in a normal healthy environment -- home, mobile home, travel trailer -- of air exchange, this closed-up amount would 1129 1130 drop off to something between the two parts per billion that 1131 should be ambient and whatever was in that trailer; isn't that true? 1132 Mr. MCGEEHIN. It would drop off when you opened up the 1133 1134 trailer, to some extent. Mr. ISSA. So if you open up a trailer and you have 1135 1136 positive exhaust, either through an air conditioner that 1137 ducts in outside air or an exhaust fan which trailers always come with, what would you expect 900 parts per billion and 1138

outside of 2 to equalize at when it was properly ventilated?

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1140 Mr. MCGEEHIN. I have no idea.

Mr. ISSA. Okay. But in a nutshell, if you are
exchanging the air once every several minutes, or a couple
times an hour, wouldn't you expect it to drop off to
essentially whatever the constant emission is at the highest,
that it would be whatever is being outgassed, because your
ambient of two is coming in. You would end up down in the
less than 100, wouldn't you?

Mr. MCGEEHIN. Eventually you are going to achieve an equilibrium with the gasses that are coming off the component parts.

Mr. ISSA. Thank you.

Mr. DAVIS OF VIRGINIA. Thank you.

Everyone here is appalled at what happened to some of these poor victims of Katrina, that they ended up in trailers with high formaldehyde, people became sick. I don't think anybody up here is anything but appalled by this. What concerns me today is we only have a small piece of the puzzle. We very much appreciate you being here lending your expertise on this. It is a very important part of it.

But it seemed to me we had a crisis, you had to get a lot of product online very, very quickly, and the Government went out to the private sector, and there were really no set standards. The private sector is able to testify, I think, they had to go to new sources to try to bring the product

online very quick, some of it from China and the east. There was no checking. There were no clear standards of what is going on at points when the issue was raised by some of the companies. FEMA tended to look the other way.

What is so sad today is we are focusing just on the manufacturers and not on the Government, which I think has a lot of culpability here. Not the CDC, I might add, but other agencies who, through time, have not promulgated standards, who haven't done the appropriate inspections, who I think were so concerned about getting product that they didn't look through appropriate regulation and inspection that should have occurred.

What concerns me is: are we changing this in the future when the next Katrina hits and we need to bring a lot of product online? I dare say a lot of these companies that have provided this in the past are probably unlikely to respond.

What is being done to put standards up so everybody knows what they need? Do you have any idea, Doctor? You said that CDC is having discussions at this point.

Mr. MCGEEHIN. Right. I don't know if that will lead to standards or not, but I would like to take this opportunity, if I might, just to talk. The members of this panel look at things in one way, and maybe the public health agency looks at it in a slightly different way. I look at it from this

standpoint, being immersed in this since last May: I look at it that I think we need to find out what the exposures were and what the effects of these exposures were on the people residing in these trailers. That is what--

Mr. DAVIS OF VIRGINIA. Just stop there. You never found any 900 parts per billion in any of your inspections, correct?

Mr. MCGEEHIN. The highest level that we found, sir, was 590 parts per billion in the occupied trailer study.

Mr. DAVIS OF VIRGINIA. Okay.

Mr. MCGEEHIN. So that is the one thing. And the other thing that has kind of driven me over the last few months is to try to figure out a solution for this for the future. We went out and we met. I am probably going to go over and I am going to probably mess up everybody's time, but we went out and we met with the RVIA and the other industry in Indiana and had a very good eight-hour session to talk about what we are doing and what they are doing. I think that somehow we have got to solve this problem, and I think it is going to have to be a Government-industry sort of solution to this problem so that we have some sort of temporary housing units for the next time--and I hope this doesn t happen for a very long time--the next time we have a Katrina-size issue hit.

The idea that we don't solve this and that we are faced with this in whatever period of time I think is abhorrent to

1215 all of us.

So pretty much what I have been focused on is trying to assess what happened to the people, and we are going to try to do that with the children's health study; and, secondly, how can we make sure that this doesn't happen any more.

My solution to that--and I am not an enforcement agency and I am here by myself as a public health agency--my solution to that, I think it has to be Government and industry working together to figure this out.

Mr. DAVIS OF VIRGINIA. I agree.

Let me just say, Mr. Chairman, what concerns me is, because of the slant of this hearing, without having the Government here--and we have seen this time and time again--I have had companies, experts, global companies where the Government will go to them and say, we need your help in Iraq. And they say, why are we to do business with the Government with the exposure of coming before a Committee, the lawsuits, and everything else? It is a high risk for some of these companies. We forget that. If we had appropriate standards and oversight this wouldn't happen. I hope it doesn't happen again. I think it has been very constructive. Thank you.

Mr. MCGEEHIN. It is not comfortable for any of us, sir.

Mr. DAVIS OF VIRGINIA. Yes. Thank you.

Chairman WAXMAN. Mr. Murphy?

Mr. MURPHY. Thank you very much, Mr. Chairman.

I take some comfort today in what seems to be a growing bipartisan consensus around this idea that we need to have standards, we need to have some level of enforceability, and that both industry and Government have to be part of that solution. Because this seems to be, as Mr. Davis said, a very clear example in which the absence of that regulatory structure has led to some very damaging situations for families and a very uncomfortable situation for Government and its affiliated agencies.

And in a town in which there is a lot of derision thrown onto Government regulation, this seems to be a perfect example of an area in which there is a very appropriate role for the Government to step in, to make sure that we have the safety of residents, especially in a crisis area such as the Gulf, at the forefront of our discussions. For all of the aspersions that get cast on the regulatory structures the Government may impose, we have examples like this which suggest that there are still places in which we need to step up to the plate.

Mr. McGeehin, I just wanted to get back to the science for a moment. We have heard a lot of efforts on behalf of members of this Committee and of some of the companies that produce these trailers to explain away the levels of formaldehyde. Understanding, as you have said, that there

are lots of different explanations for why a real world trailer or home might have elevated levels of formaldehyde, what we do have is your study. I want to just get at some of these alternative explanations, to the extent that they were factored in to the work that you have done.

The chairman of Gulf Stream asserts in his written testimony that we have before us today that cooking fish, for instance, is a substantial source of formaldehyde in indoor air. I want to go through a couple of these potentially alternative explanations.

In the research that you have done on the trailers, have you come across any indication that the formaldehyde levels in these trailers were caused by abnormally high levels of cooked fish or other cooked products that would have been found in these trailers?

Mr. MCGEEHIN. No. For a number of reasons, we did ask the residents who participated in the study whether or not they had cooked in their trailer for a period of time prior to that, not only because the product that they are cooking could give off formaldehyde, but also the type of gas they use for cooking may, so we controlled for that and did not find that to be a factor in our analysis.

Mr. MURPHY. The president of Keystone RV states in his testimony that formaldehyde is ''found in household cleaners, antiseptics, cosmetics, and medicines.'' Again, any

indication in the trailers that you have tested that the high levels of formaldehyde are caused by cosmetics or household cleaners?

Mr. MCGEEHIN. No. We did ask about use of a number of different household cleaners and did not find that to be a factor.

Mr. MURPHY. Finally, there is a suggestion here that--again, I wanted to let you restate this--that mold and potentially backed-up sewage can also lead to some levels of toxicity or high levels of formaldehyde. Any indication that in the trailers you tested that mold or sewage led to the high levels of formaldehyde?

Mr. MCGEEHIN. We measured mold in two different ways, through the walk-through with trained personnel, and also we asked the residents about mold, and mold was a factor in the multi-varied analysis that we did. I don't believe mold was the source of the formaldehyde. I think the quality of the air that leads to high formaldehyde levels also leads to mold.

Mr. MURPHY. Thank you very much, Doctor. I understand the nuance conversation here about the different factors that can contribute to high levels of formaldehyde, but we are dealing with science. We are dealing with studies that have been done by a trusted agency that have controlled for these very factors, and it is a legitimate conversation to have

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except for the fact that we have a study in front of us that shows us that we have unacceptable levels of formaldehyde, even controlling for many of these factors that have been brought before us. I yield back the balance of my time.

Chairman WAXMAN. Thank you very much.

If the gentleman would permit me.

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Mr. MURPHY. I would yield to the Chairman.

Chairman WAXMAN. I do want to point out, because we have had several complaints that we haven't had Government witnesses here, we invited other Government witnesses. invited FEMA. We have invited all the Government agencies that have been requested by Mr. Davis and other members of the Committee. They did not agree to come here. But we did have a hearing on this subject with FEMA.

Mr. DAVIS OF VIRGINIA. Mr. Chairman?

Chairman WAXMAN. Yes.

Mr. DAVIS OF VIRGINIA. My understanding from FEMA and HUD is they didn't get the invitation until Thursday before the weekend to come here for this hearing, and that is why I still wish they could have been here. I they declined. think it would have added a lot, but I think it would have helped to have been able to get them all here at the same time.

Chairman WAXMAN. I don't disagree with you, except I do

want to point out I think you are misinformed. They were invited at the same time that CDC was asked to come here, and we have CDC represented here, and FEMA refused to come. But we did hear from FEMA last time around, and what we heard from FEMA is they didn't want to know about the problem. They just didn't want anybody to do any evaluations because they were afraid they would find high levels.

If I can yield myself another 30 seconds of my own time that I reserved before, we heard the statement we ought to have Government and industry working together to protect the consumers. I think we have a good example here of Government and industry working together to hurt the consumers.

Government didn't want to know the information. FEMA didn't want to know what levels of formaldehyde were in these trailers. And then we have Gulf Stream trailer manufacturers who don't feel any moral or other responsibility to let FEMA and the families know that they have done tests on these trailers and they find high levels of formaldehyde, which they obviously knew were thought of as excessive and harmful to people's health.

So what we have is Government failure and industry failure. If we passed laws with standards, I think that is great, but what we have got to make sure is that the representations that are made to the Government are about what is actually happening, and the Government asks the

questions, and they work together to make sure the public is protected.

I think what we have seen here is no regulation and no self-regulation by the industry, as well.

I now want to yield to Mr. Burton five minutes.

Mr. DAVIS OF VIRGINIA. Would the gentleman yield me just 20 seconds?

Mr. BURTON. Yes.

Mr. DAVIS OF VIRGINIA. Let me just note again for the record I ask unanimous consent, this is a chart from our minority report, 98.8 percent of the temporary housing units tested by the CDC in Louisiana and Mississippi met the HUD ambient air targets for formaldehyde. One of the problems here is that that target level is probably too high and it ought to be changed. But the customer in practically 99 percent of the cases met it, and there were inspections in some of the other instances.

So as we take a look at this, I think that we need to focus on what the Government did as the buyer. There was no direct selling between the trailer manufacturers and the end users; they sold to the Government, and the Government had bad standards in some cases. And in other cases, when the manufacturers went to the Government and said there was a problem, the Government said, Let's not talk about it.

Thank you.

1390	Chairman WAXMAN. If the gentleman might permit, that HUD
1391	standard is not an adequate standard. It is not even
1392	Mr. DAVIS OF VIRGINIA. I just made that point, Mr.
1393	Chairman. It is not an adequate standard, but why beat up on
1394	the customer.
1395	Mr. BURTON. Reclaiming my time, Mr. Chairman.
1396	Chairman WAXMAN. Mr. Burton, your time.
1397	Mr. BURTON. Thank you.
1398	I am not going to take very much time. I would like to
1399	have my whole statement presented for the record.
1400	[Prepared statement of Mr. Burton follows:]
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Mr. BURTON. I have been familiar with the travel trailer and trailer industry since I was a kid, and I haven't seen any evidence that they have violated any rules and haven't done their job to perfection. There are over eight million people in this Country that live in mobile homes and RVs and travel around the Country with no problems with the formaldehyde issue we are talking about today, and so instead of beating on the manufacturers I think we ought to give them a little vote of confidence because they have such a good track record in the past.

With that I yield to my colleague, Mr. Souder from Indiana.

Mr. SOUDER. I thank my friend from Indiana.

While there may be differences of opinion, I really am deeply concerned about the use of the word moral to apply to people who worked overtime to provide units to people who were in housing crisis. They may have worked their people hard. They did it under great pressure. We had tremendous hiring challenges in Indiana, training challenges, but they worked overtime to try to meet the standards at half the cost of a normal unit. I believe the Chairman was more referring to a question, and I think that as we try to make sure that people live in safe homes and that people work in safe plants, this debate is not about emotional rhetoric, it is, in fact, about science.

One of the core fundamentals that is being tossed around here is whether Gulf Stream's test constitutes science. It was a flash test with a desiccator method, which is not the way that you test.

Now, should FEMA have responded to then do scientific tests? We can't pretend and keep asking Dr. McGeehin how he would have reacted to something that was a flash warning test like you do with the formaldehyde test or that type of thing. We are making big judgments here on the morals of people based on the fact that one company did have concerns with a shipment of wood, then did a flash test on that, did say a range but didn't give all of it because the variation is far too great to be scientific with the method that they used.

Now, I also want to make sure that when Mr. Murphy asked some questions, that it isn't really scientific to say, when he asked did you test, to say the individuals were asked, because, in fact, you didn't test to see whether other things caused the standards, you asked them whether they did anything.

Mr. MCGEEHIN. I think I stated that we did it with a questionnaire and that we controlled for it in the analysis. I think I exactly said those words.

Mr. SOUDER. It shouldn't be taken here that there was a test done on other things. That was a self-dependent referral rather than an actual scientific test to see what

1452 | else was there.

We come back to this Tulane study that said the ambient air study in Baton Rouge was 390 parts per billion. That was the average, which means they had four times what you were finding in these trailers average. Would you recommend that 390 average, which means probably some of them were in the 500-600 range, that everybody who lives in that region should move out?

1460 Mr. MCGEEHIN. I would recommend exactly what the authors
1461 of that recommended.

Mr. SOUDER. Which is?

Mr. MCGEEHIN. People should look to ventilate their houses more, that they should look at what component parts they are putting in and what additional work they are having done on their house.

Mr. SOUDER. And that is then your recommendation for the trailers, as well, not panic?

Mr. MCGEEHIN. I am sorry, sir. I didn't hear that.

Mr. SOUDER. In other words, if they are averaging 390 in Louisiana in a general site-built house, which is higher than the average here, would you make the same recommendations for emergency FEMA trailers that you just made to Baton Rouge? Why are we having a double standard on this group and not basically the same level of concern about possibly the entire southern region there.

1477 Mr. MCGEEHIN. Congressman, we did make that 1478 recommendation. We recommended that FEMA move the people out 1479 of these units before the weather became hot and the levels 1480 went back up. In the meantime, we did recommend that people 1481 ventilate their trailers more, be careful, do not smoke 1482 inside their trailers--1483 Mr. SOUDER. Taking back my time, did you recommend the 1484 same thing to the people in Baton Rouge? 1485 Mr. MCGEEHIN. Sir, we didn't do that--Ms. SOUDER. It's 390. 1486 1487 Mr. MCGEEHIN. -- study, sir. 1488 Mr. SOUDER. Okay. You already testified you felt it was 1489 an accurate study. The question is why would you make a 1490 recommendation to one group and not the other? 1491 Mr. MCGEEHIN. Sir, that was a study that was done nine 1492 years ago that was given to me two days ago. I can't go back 1493 and recommend to the citizens who are in those homes that 1494 they move out. I mean, that is not what we do. This is a 1495 study that I was asked what did I think about this study, and 1496 I gave you that assessment. 1497 Chairman WAXMAN. The gentleman's time is expired. 1498 Now Mr. Sarbanes. 1499 Mr. SARBANES. Thank you, Mr. Chairman. 1500 You may have covered this. I apologize if you have. 1501 But when you do a test to determine if the standard is being

satisfied whether a trailer is safe or not safe, do you do it with the windows closed? Do you do it with the windows open?

Do you do it with the fan running?

Mr. MCGEEHIN. For our occupied study what we wanted was for people to set their trailers up the way they normally have their trailers when they are sleeping, so we asked them to set it up, and if they keep their windows open three inches, if they keep their windows wide open, if they keep the air conditioning running, however they set their trailers up for that period of time, that is how we asked them to set their trailers up and that is how we sampled. We wanted it to be the most realistic exposure that we could.

Mr. SARBANES. But that would mean you would sort of end up on a trailer-by-trailer basis coming up with what--

Mr. MCGEEHIN. We were interested in what the human beings were being exposed to for formaldehyde.

Mr. SARBANES. Okay. The second question I have is in terms of sustained exposure, so day after day after day. In somebody who is exposed to, let's say, 250 parts per billion for 50 days in a row at a higher risk of some kind of harm than somebody who is exposed to 250 parts per billion for 10 days in a row and then are not exposed to that subsequent?

Mr. MCGEEHIN. Essentially what you are doing when you look at human exposure to any contaminant is, in one way or another, you are basing it on an index, and the index is

based on the intensity of the exposure -- in this case, the 1527 level of formaldehyde that you are mentioning -- and the 1528 1529 duration of exposure, how long they are exposed. When you 1530 are dealing with contaminants, I think the rule of thumb is 1531 to try to decrease either of those components as much as you 1532 can. Either decrease the intensity by decreasing the amount 1533 of exposure that they have to formaldehyde, and/or decrease 1534 the duration of exposure. 1535 You don't want people being exposed to a contaminant 1536 that causes symptoms, and the more you can decrease either 1537 one of those you decrease the exposure index. 1538 Mr. SARBANES. So there is a cumulative dimension of potential harm that can come? 1539 1540 Mr. MCGEEHIN. Particularly when you get into the 1541 carcinogenic potential of formaldehyde. Formaldehyde by the 1542 International Agency for Research on Cancer, IARC, is 1543 considered a human carcinogen, and when you have human 1544 carcinogens you really want to try to decrease the person's 1545 exposure as much as possible. 1546 Mr. SARBANES. All right. So it becomes relevant the use 1547 for which a trailer is being put? 1548 Mr. MCGEEHIN. Well, we absolutely believe that. Mr. SARBANES. Yes. 1549 1550 Mr. MCGEEHIN. One of the recommendations when we were 1551 talking to FEMA is that, while you don't want to get into a

specific number when people are living in a unit, one of the issues is how is that unit being used. If you have a family with young children and they are in the unit 24 hours a day, as some of the families in the parks were, that is different than a person who has a unit parked outside their home who spends eight hours at work and then comes home and spends four and a half hours repairing the roof to try to move back into their home. So the use of the trailer is an important part of the level of exposure.

Mr. SARBANES. You know, people keep referring to the emergency circumstances as an excuse/explanation for folks being put in harm's way where there were these high formaldehyde levels. But, leaving that aside for a minute, would you agree that if the alarm had been sounded earlier and more consistently by both the manufacturers and FEMA, that we would have gotten started much earlier on doing the kind of thinking you say you have been doing about how we can fix this problem going forward and think about the kinds of housing that should be available to people in these disaster recovery situations?

Mr. MCGEEHIN. I think it is fairly easy to imagine the time line that we currently have being moved up.

Mr. SARBANES. Yes.

Mr. MCGEEHIN. And then moving everything up whatever number of months that may have been.

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1577 Mr. SARBANES. I mean, I am running out of time, but FEMA 1578 has only just recently come up with a national disaster housing plan. Actually, it is just a preliminary blueprint, I guess, and Congress called for it two years ago. 1581 would have included and should have recommendations on 1582 creating different kinds of inventory of housing inventories 1583 in these disaster situations. We could have gotten started 1584 much earlier on that if people had come clean earlier with 1585 the information on these kinds of exposures. I yield back my time. 1586 1587 Chairman WAXMAN. Thank you, Mr. Sarbanes. Mr. Shays? Mr. SHAYS. Thank you. I will first yield to my Ranking Member, and then I will 1591 take the rest of the time. 1592 Mr. DAVIS OF VIRGINIA. Mr. Chairman, we had talked about 1593 notification. I have letters from you to Steve Preston, the 1594 Secretary of HUD; Steve Johnson, the Administrator of EPA; 1595 John Howard from OSHA; Ed Faulk from OSHA; and Nancy Nord 1596 from the U.S. Consumer Product Safety Commission July 3rd--that is last Thursday--inviting them to come to testify before the Committee. 1598 I understand there was a letter slightly earlier than that to FEMA, but they told us they didn't get it until 1600

The manufacturers have been on the hook here for a

1602 month, have known that they were coming here.

So this isn't trying to get everybody together at one table to discuss this. This was almost an afterthought, and as a result of that we have an incomplete hearing.

This was a tragedy what happened here to some of the families that had these high levels. It shouldn't happen. It shouldn't have happened. It should never happen again. And we ought to focus on what we can do. But the Government bears the prime responsibility here for not appropriate inspections, not reacting to what some of the manufacturers had told them early on that there were problems, not going through proper inspections, even with a moving and very uncertain standard.

So that is the difficulty here. When you have lawsuits outstanding against some of these companies, we know how this works. We are all adults. You are going to have lawyers put in testimony from some of the Members of Congress and some of the staff reports into the record before juries to try to get high awards, and so they are trying this. We have seen this happen before, unfortunately. We understand the politics of that, but that is so unfortunate here about not having the Government here and working toward a solution instead of trying to frame a lawsuit. That is my major concern with this.

What happened was a tragedy. It shouldn't happen again.

Thank you, Mr. Shays.

1628 Mr. SHAYS. Happy to yield.

First, Doctor, thank you for coming. Thank you for your good work. This is a very important issue, and we appreciate your expertise and talents.

I would like to ask about what happens in the future.

FEMA has specified a new procurement specification of 16

parts per billion regarding formaldehyde in FEMA trailers.

First, do you think this new procurement number of 16 parts

per billion is reasonable?

Mr. MCGEEHIN. We weren't asked, Congressman, to comment on that before FEMA came out with that. I know on which that is based, which is based on a NIOSH standard that was based on formaldehyde being considered a carcinogen, and at that point 16 parts per billion I believe was the lowest level that could be detected by the analysis of air sampling at that time. I think 16 parts per billion across the board for temporary housing is going to be a difficult mark to make.

Mr. SHAYS. Thank you.

Let me ask you, in your interim report figure two depicts 100 parts per billion of formaldehyde as an intermediate range and 1,000 parts per billion as a higher range. Does CDC still stand by the figure? In light of the mean result from the CDC trailer study being 77 parts per billion, wouldn't it be inappropriate and misleading to

classify trailer formaldehyde levels as high?

Mr. MCGEEHIN. What we tried to do with that was have a sliding scale so that people understood that it wasn't just a one-time measurement of formaldehyde that determined whether or not an environment was safe and healthy or not, that there were other factors involved. What CDC has done from the beginning of this is to look at the literature and to go by what the literature says, that levels of formaldehyde in an indoor environment may cause symptoms, and at those levels that is how we basically have approached this problem.

Mr. SHAYS. Right. But in your interim report it is basically 100 to 1,000, but 100 being kind of the low range, which is still higher than the 77 parts per billion. So do you need to adjust that number down of 100?

Mr. MCGEEHIN. No. I think that was done by the graphics people because it made some sense to have 100 and 1,000. If you are looking at the colored version of that you will see a gradation in that between 100 and 1,000 where various symptoms occur. I don't think we need to adjust that particular graphic, because we have been consistent in what we have said from the very beginning that at 100 parts per billion sensitive individuals show symptoms. There are a number of studies that show 300 parts per billion, and at 100 parts per billion there are a number of agencies--WHO, EPA, ASHRAY--that talk about that as the level that action should

be taken. So I am very comfortable at the 100. If you are concerned about the 1,000--

Mr. SHAYS. No, I am not concerned; I am just making the point. I think you have answered it. The 100 to 1,000 is an illustration, but 1,000 is pretty low, and there are some symptoms that show at that point.

Mr. MCGEEHIN. You mean 100.

Mr. SHAYS. It does suggest that it is certainly higher than 16 or 77.

Mr. MCGEEHIN. Right. The 77 was the geometric mean that we found across the board. I think what you need to do when you look at that study is that you also have to look that for some manufacturers 56 percent of theirs were above 100.

Mr. SHAYS. Okay.

Chairman WAXMAN. The gentleman's time has expired.

Ms. Watson?

Ms. WATSON. Thank you, Mr. Chairman, and I want to thank Dr. McGeehin.

I would like to ask you about a CDC study where you worked with the Lawrence Berkeley National Laboratory. As I understand it, you actually deconstructed four travel trailers that were purchased by FEMA, and these trailers were taken apart so you could test the emission level of volatile organic chemicals from the component parts of the trailers. These tests showed that formaldehyde was being emitted inside

the travel trailers from the component parts; is that right?

Mr. MCGEEHIN. Yes, ma'am.

Ms. WATSON. Yes. They also show that formaldehyde was the only volatile chemical in the travel trailers that was at a level high enough to negatively impact human health; is that correct?

Mr. MCGEEHIN. Yes, ma'am.

Ms. WATSON. Yes. Were you aware that the Gulf Stream also conducted the test of its component parts two years ago?

Mr. MCGEEHIN. No, I was not.

Ms. WATSON. Okay. Based on documents that were obtained by this Committee, it appears that they did, and the company actually hired another company called Progressive Engineering to test individual samples of the paneling, and Gulf Stream, itself, appeared to have tested the fiber board, vinyl, and the drawers to determine their formaldehyde levels. That sounds similar to the tests that you conducted; is that so?

Mr. MCGEEHIN. Yes, it does, depending on what type of chamber testing they did, but yes, it does.

Ms. WATSON. Yes. Let me tell you what this company found as a result of its testing. Progressive Engineering found elevated levels of formaldehyde emitting from the paneling, and if we were reading Gulf Stream's notes correctly, they found high levels from the other components, as well.

1727 If you had been informed of this information two years 1728 ago, would it have raised concerns for you? 1729 Mr. MCGEEHIN. Well, again, I will go back to what I have 1730 reiterated. Yes, ma'am, any information that shows levels of 1731 formaldehyde at levels that can cause symptoms would have 1732 been of concern to us. 1733 Ms. WATSON. I know some of this is redundant, but I am 1734 trying to move forward. 1735 Mr. MCGEEHIN. No, that is fine. That is fine. Ι 1736 understand. 1737 Ms. WATSON. Would it have been beneficial for FEMA or CDC to have this information when it began investigating 1738 1739 these issues? I have heard you say earlier that if we had 1740 that information we could have moved on it, correct? 1741 Mr. MCGEEHIN. I think any information early on would 1742 have been of great benefit. 1743 Ms. WATSON. Okay. So the problem is that the company 1744 did not tell FEMA about these component tests, and Gulf 1745 Stream had a contract with FEMA that was worth \$550 million to manufacture these travel trailers. When it learned in 1746 1747 2006 that there was a formaldehyde problem with the trailers 1748 it manufactured, the company chose to remain silent. FEMA has been rightly criticized for its response to 1749 1750 Hurricane Katrina and its response to the formaldehyde 1751 problem, but it should not bear all the blame, so we need to

be talking to each other openly, honestly, in a transparent That is the reason why we have these Oversight 1753 1754 Committee hearings, so a tragedy like this and our response 1755 will not have been as flawed as it was. Mr. Chairman, I will yield back my time, but I wanted to 1756 1757 make that point. 1758 Thank you, Doctor. 1759 Mr. MCGEEHIN. Can I ask a question? 1760 Chairman WAXMAN. Go ahead. 1761 Mr. MCGEEHIN. If those data are available, we would love 1762 to see them, because one of the things that we want to do in 1763 follow-up to the work that we just did with Lawrence Berkeley 1764 is to try to get some of the original component parts and see what they off-gas and see if we can model to see what 1765 1766 happened over the two-year period. 1767 Ms. WATSON. Mr. Chairman, through the Chair if we can 1768 ask staff to provide the Doctor with that information. 1769 Chairman WAXMAN. We will certainly try to make that 1770 available to you. 1771 Ms. WATSON. Great. 1772 Chairman WAXMAN. I think it is a reasonable request, and 1773 I would assume the manufacturers would agree with that. 1774 Mr. MCGEEHIN. Okay. Thank you. Ms. WATSON. Thank you. I yield back. 1775

Chairman WAXMAN. Mr. Souder, you have not taken your

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1777 | five minutes. Do you want to proceed now?

Mr. SOUDER. Okay. I thank the Chair.

I think it is really important, because I know that you get questions directed at you, and some of these you weren't familiar with, that the Gulf Stream test was a desiccator test, not a chamber test. There was no chamber test done, which your agency says has to be done multiple times. They hired a firm to try to do this test, because they suspected that the wood may have a problem. They tried to alert FEMA. They told them a general range because it is not scientific.

Mr. MCGEEHIN. Yes.

Mr. SOUDER. You used the word chamber. Do you agree that chamber testing is the way to do scientific testing?

Mr. MCGEEHIN. That would be the gold standard for this.

Mr. SOUDER. And would you agree that the other is probably not even a bronze, particularly if you just do it once and you flash test, because number of people, what may be happening that day? You said yourself 100 to 1,000 because there may be temporary things occurring.

Mr. MCGEEHIN. Well, sir, I don't know whether or not it has been compared to the standard, but if there were data that showed whatever testing they did was compared to the standard, then we could make that assessment.

Mr. SOUDER. Right. In other words, we don't have that assessment?

1802 Mr. MCGEEHIN. I certainly don't.

Mr. SOUDER. Well, they didn't either, because they didn't do chamber testing.

Mr. MCGEEHIN. Right.

Mr. SOUDER. All they were really alerting FEMA to is hey, there may be some problem. Now, Lawrence Berkeley Labs said this: as containing high levels of formaldehyde probably resulted from cheap wood used by the manufacturers under permissive Government standards. Do you think, from you own testing, that the variations—because most of them fell here—were resulting from probably a certain type of wood, or are you willing to agree with how Lawrence Berkeley is probably the best we can come up with there?

Mr. MCGEEHIN. I think the Lawrence Berkeley report is the best data that we have on the component parts used.

Mr. SOUDER. So, while there may be other variables, to the degree we had a problem there, it appears to have been aggravated, at least, by the wood.

Mr. MCGEEHIN. Yes.

Mr. SOUDER. You used a very understated term. You said it would probably be pretty hard to achieve a 16 level?

Mr. MCGEEHIN. Right.

Mr. SOUDER. That is probably true, since the average rooms that have been tested here, not in chamber tests, are between 30 and 70, which means that we had better not put

anybody in our House office buildings in an emergency, so probably saying 16 is a pretty under-stated statement. I appreciate you pointing that out.

I want to come back, because the Hancock study and the Tulane study were not by you. Well, the Mississippi one was. You explained the difficulties with that, because we have been going back and forth here today between chamber tests, non-chamber tests, different agencies, using something from a flash test that is nowhere near a gold standard that was used in quoting some high figure, and we go back and forth between ambient air and testing of the wood. We go back and forth between ones that people are living in and ones that have been packaged up with no ventilation, some new, some old. We don't have the VIN numbers. The agencies don't appear to have those numbers to be able to match up. It appears that the numbers didn't even match up right in some of the cases with the manufacturers, that there are significant problems.

Now, I want to come back because in Hancock, where it tested ambient air, with the limitations, there wasn't a difference between the trailers and the housing. And in the Tulane study, which is NIOSH and what you said was gold standard, the average was 390, where the average on these trailers was 77 or 87.

Now, to come back to this, it is not your agency and you didn't do that study. You only reviewed it two days ago.

1852 But if we are panicked about what we keep hearing of 400, 200 1853 could be exposure, 100 could be, wouldn't that be suggesting that CDC and others ought to be checking everything in the 1854 1855 State of Louisiana and elsewhere since they are four times 1856 the average standard of these trailers? The average is four times higher. Why isn't there panic about the whole region 1857 1858 if we are panicking about 100 and 200? 1859 Mr. MCGEEHIN. Well, sir, there must be something unique about the houses that were tested in that study. Ambient air 1860 is not a driver for formaldehyde in indoor air. 1861 1862 Mr. SOUDER. Let me ask the question. Do you have any 1863 scientific evidence that there was anything unusual about 1864 their test? 1865 Mr. MCGEEHIN. No. I think the testing process that they 1866 used, according to the article that I read, was fine. 1867 Mr. SOUDER. Then your answer was not scientific in saying it must be something else, because, in fact, they were 1868 site-built homes; that, in fact, we could have a problem with 1869 1870 all site-build homes. You don't know the answer to the 1871 question. 1872 Mr. MCGEEHIN. Except that I am familiar with formaldehyde, sir, and outdoor air is not a driver for indoor 1873 1874 formaldehyde. 1875 Mr. SOUDER. Well, their test didn't suggest it was.

Mr. MCGEEHIN. But if you read their conclusion, sir,

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1877 they are not suggesting that it is ambient air, either. They 1878 are suggesting that it is some product inside, either a 1879 ventilation issue or the products that are used inside the 1880 home. 1881 Mr. SOUDER. Which is the same question that we have 1882 here--1883 Mr. MCGEEHIN. Absolutely. 1884 Mr. SOUDER. -- with these trailers. 1885 Mr. MCGEEHIN. Absolutely. 1886 Mr. SOUDER. My point isn't that the ambient air--I am 1887 sorry if I confused the ambient air, because that was 1888 questioned a little more potentially over in Hancock--that 1889 the question is that if they got these results that are four 1890 times higher, which could be the wood, which could be the 1891 ventilation, why aren't we concerned and looking at those 1892 houses like we are concerned about these houses, because it 1893 might not just be the poor people here; it may be the poor 1894 people all over that zone, and it may be the poor people in other types of homes, because we are, in my opinion, picking 1895 1896 on one industry without really having a balance. 1897 Chairman WAXMAN. The gentleman's time is expired. 1898 Mr. SOUDER. Thanks, Mr. Chairman. 1899 Chairman WAXMAN. Was that a question? Did you have a 1900 response to that?

Mr. MCGEEHIN. I want everybody on the panel to know that

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CDC and I are not picking on an industry at all. 1902 I mean, we 1903 have had good conversations with the RVIA and other industry. They have attended our Scientific Oversight Panel meetings 1904 1905 I think that our people have gone out to their 1906 factories to see how they operate. From our standpoint, there is no industry bashing going 1907 on with CDC in any way, shape, or form. I simply state, as I 1908 stated before, that we are trying to get the answers for 1909 1910 this, we are trying to provide good data. I, quite frankly, think that the LBNL study that we just 1911 completed and just published should be something that 1912 1913 industry jumps on and looks at very carefully, because I 1914 think it gives a lot of guidance as to what the problems 1915 might be and how they might be solved. I just want to make that statement. 1916 1917 Chairman WAXMAN. I think that is an excellent point. 1918 The gentleman's time has expired. Mr. Tierney? 1919 Mr. TIERNEY. No questions. 1920 Chairman WAXMAN. Would the gentleman yield me some of 1921 his time? 1922 Mr. TIERNEY. I certainly yield to the Chairman. 1923 Chairman WAXMAN. I want to point out the situation, 1924 1925 because we have heard complaints about some other witnesses from other agencies not being here. The manufacturers were 1926

invited, because this is a hearing about the manufacturers, on June 9, 2008. On July 1, our staffs, bipartisan staffs, heard from CDC because CDC was doing a study about formaldehyde levels as a result of our first hearing with FEMA over a year ago. As a result of our hearing where we questioned why FEMA didn't do anything about this problem, FEMA said, Oh, we are going to ask CDC to do an evaluation. So CDC was ready to report its evaluation and to release it on July 2.

So when our staffs talked to--I don't know if it was you, Dr. McGeehin.

Mr. MCGEEHIN. It was.

Chairman WAXMAN. I guess it was--and heard what the report was, Republican staff said, Well, let's invite FEMA back, as well as CDC. So we sent an official invitation to FEMA and to CDC on July 1. This was an official invitation to come.

Some time later in the week, the minority then said, Well, wait a second. We ought to have HUD, as well, to come in and talk about these standards, in order to get all the relevant witnesses regarding standards. Well, our staff replied, This isn't a hearing about standards; this is a hearing about whether the manufacturers had information that they should have shared with the Government, FEMA, and whether they should have shared it with the people living in

1952 the trailers.

But, nevertheless, we sent an invitation to HUD, NIOSH, EPA, CPSC, and OSHA on July 3. Now, that is awfully late, and they said they weren't available to come. FEMA said they couldn't come at all because they were busy with the emergencies that are going on.

I want to make that point very clearly and yield to Mr. Davis if he wants to add anything further.

Mr. DAVIS OF VIRGINIA. Thank you, Mr. Chairman.

First of all, let me just note the CDC report was final, I think, July 2nd, but we had information July 1, but that was the final report. The interim report was in February, as I understand, and there wasn't a substantial change, was there, between the two?

Mr. MCGEEHIN. No.

Mr. DAVIS OF VIRGINIA. So this has been common knowledge. We have had plenty of time to plan for this.

Secondly, I mean, the difficulty here is when a contractor responds to standards from the Government and doesn't meet those standards they ought to be held accountable, because we have standards, we know. in this case we didn't have standards. You had conflicting standards throughout Government over what, where, and ambient air standards between HUD and EPA and everybody else.

Chairman WAXMAN. But if I could reclaim my time, that is

an odd issue to raise. It is confusing, because we have so many different standards, but when we have different standards we can look and see, Well, does that make sense to have the standards we have. But what we are concerned about is the health and well-being of people living in these trailers, and the Centers for Disease Control, which has not established standards, is giving us their professional judgment about when it is a risk for people living in those trailers.

Even if we took the report from the manufacturers of over 100 parts per billion, CDC, Dr. McGeehin, has testified over and over again that he think that is an awfully high amount of formaldehyde for people to be living with.

Now, HUD has a different standard, and it is a different number that people can live with more formaldehyde than what Dr. McGeehin is pointing out. We have heard complaints that the manufacturer's study wasn't adequate, it wasn't done professionally, it as only a flash study. I don't know. We will go into that with the next panel. But what they knew from their evaluation, however complete it was, is that there was a problem going on; that they were getting very high ratings of formaldehyde in these trailers. Knowing that, they mislead—I believe actually mislead—FEMA when they said, We are not getting complaints, when, in fact, they were, and we have done some studies, but the impression was

it is not a big problem but we will share our studies with you. So they had some sense that maybe FEMA wasn't going to ask, and they would share it, I presume, if they were asked, but FEMA didn't ask, which is not a good point for FEMA, and the trailer manufacturer didn't share the information but seemed to say we have got some studies but we haven't had any complaints.

If what they knew is that it was more than 100 parts per billion, and they knew it was way in excess of that, they should have had some suspensions—in fact, I believe they had some suspicions—that people were at risk.

Mr. DAVIS OF VIRGINIA. Mr. Chairman, in the next panel the companies can take care of themselves, and we ought to ask those questions there, but there is also ample evidence that in many of these cases they passed on this information to FEMA and FEMA either ignored it or didn't want to address the situation.

As I noted before, almost 99 percent of the temporary units that were tested by the CDC in Louisiana and Mississippi met the HUD ambient air targets for formaldehyde standards. And these standards I think were bad standards and we ought to focus on changing these standards.

Chairman WAXMAN. What kind of an argument is that to make that the manufacturers knew they met a standard that wasn't a good standard, and therefore it was okay for them

not to share the information? I don't believe they shared the information with FEMA. They invited FEMA to ask them further information. FEMA never asked.

Mr. DAVIS OF VIRGINIA. Well, we can settle that with the next panel, but if you are holding contractors to some moving standard, I don't think you will ever get anybody to do business with the Government again. That is the difficulty.

Chairman WAXMAN. Whether this is a standard or not, I think a manufacturer of a product has a responsible not to harm the people using the product.

Mr. DAVIS OF VIRGINIA. We all agree with that. There is no question about that. But the question here is, if you are meeting a standard and it is the wrong standard, is that the Government's fault for setting the wrong standard or is it the contractors' problem for meeting a standard? I think we can have that argument, but you seem to want to put ex post facto standards into account, and I don't think that is appropriate.

Chairman WAXMAN. There was no standard. We can all agree to that. There was no standard for them to meet.

Mr. DAVIS OF VIRGINIA. Well, there was a HUD standard, and they met it 99 percent of the time. But we can have this discussion with the next panel. It is not my intention to defend anybody.

Chairman WAXMAN. They have test results over 2,000 and

4,000 parts per billion, which is over and above any of the standards, all of the standards. It is worse than any of the--

Mr. DAVIS OF VIRGINIA. Mr. Chairman, there was no finding of any delivered trailer that had anything close to that, as Dr. McGeehin has testified. The highest standards they had is I think you had a couple over 500.

Chairman WAXMAN. I am talking about what the manufacturers reported.

Mr. DAVIS OF VIRGINIA. I am talking about what they delivered to the Government. That is what we are talking about, not what they found in reports.

Chairman WAXMAN. Well, Mr. Tierney's time has expired and it is now Mr. Clay's opportunity to pursue questions.

Mr. CLAY. I am so glad I have some time left, Mr. Chairman. Thank you. Last winter CDC tested levels of formaldehyde in a group of randomly selected travel trailers and mobile homes. CDC finalized its report on these testing results just last week.

Doctor, CDC found that trailers manufactured by Forest River, Gulf Stream, Keystone, and Pilgrim all had elevated levels of formaldehyde; is that right?

Mr. MCGEEHIN. Yes, sir.

Mr. CLAY. The CDC study states that formaldehyde levels tend to be higher in newly constructed trailers and during

2077 | warmer weather; is that correct?

Mr. MCGEEHIN. Yes, sir. That is pretty well accepted.

Mr. CLAY. So, in your expert opinion, would the elevated levels that CDC discovered in the winter of 2007 been even higher two years ago in 2005?

Mr. MCGEEHIN. Yes, sir.

Mr. CLAY. And, in your expert opinion, would the formaldehyde levels that CDC discovered in the winter of 2007 have been even higher during the summer?

Mr. MCGEEHIN. Temperature and humidity are direct drivers of formaldehyde levels, so I would say yes, sir.

Mr. CLAY. The CDC study provides us with a spapshot of what families were exposed to last winter, but when we account for the passage of time and temperature fluctuations, these families were likely exposed to even higher levels of formaldehyde than indicated in your report; is that correct?

Mr. MCGEEHIN. Yes, sir. That is in our report.

Mr. CLAY. It is in your report?

Mr. MCGEEHIN. Yes, sir. That exact language is in our report.

Mr. CLAY. You know, what is so troubling about the decision by Gulf Stream not to inform the residents of its testing more than two years ago is the fact that no one was made aware who lived in these trailers and mobile homes.

Gulf Stream found that every trailer it tested had

formaldehyde levels higher than 100 parts per billion and found that some had as high as 500 parts per billion. We all know that FEMA failed miserably in the wake of Hurricanes Katrina and Rita. But these poor hurricane victims have now been subjected to a second disaster and years of unnecessary and harmful exposure to a known carcinogen.

Do you think they should have been notified a little sooner?

Mr. MCGEEHIN. Again, sir, I will say what I said in the beginning, that as much information as could be given to residents about effects that might be harmful to them is a good thing. I mean, we believe in disseminating that sort of information. I am not commenting on any of the results that we are talking about because I haven't seen the testing methodology, but your question is that sort of knowledge is a good thing for people to have, yes.

Mr. CLAY. Is there a difference in a family taking a weekend trip in one of these homes or camping out in the homes as compared to someone living in the homes for over a year?

Mr. MCGEEHIN. Dramatically different. Yes, sir.

Mr. CLAY. Dramatically different. And have you documented any of that?

Mr. MCGEEHIN. No, but, again, when we go back to you are looking at exposure to environmental contaminants, which I

have done for the last 25 years, you are looking at two basic things: the intensity of exposure and the duration of exposure. These units weren't designed or built for people to live in for two and a half years. And somebody going with their fly rods with their children up to fish for a weekend, obviously your duration of exposure is much less, and also most of the time those people are spending outside of the unit. They are outside. They are hiking. They are camping.

If we are talking about these units being used on large lots where people who are living with their children 24 hours a day, both the intensity and duration of exposure is high.

Mr. CLAY. Thank you for your response.

Mr. Chairman, I yield back.

was a direct read instrument.

Mr. ISSA. Would the gentleman yield?

Mr. CLAY. I yield to the gentleman from California.

Mr. ISSA. Just for full disclosure, since you said it would be good for us to know, and I think you are right, I want to reiterate that in the room we are in right now we are at 80 parts per billion based on measuring with your gold standard meter, so please be aware that you are breathing at that level, and if you need to leave let us know if anyone needs to leave early.

Mr. MCGEEHIN. What sampling methodology was that?

Mr. ISSA. I don't know what sampling methodology. Tha

Chairman WAXMAN. What is the sampling methodology that we are being told--

Mr. ISSA. It was the same methodology as Gulf Stream, and that was the reason that our staff did it and got the 40 to 80, depending upon what part of the Capitol you are in. I just wanted everyone to be aware that we could be off plus or minus 19 percent, but we do want people to know that this carpet apparently, along with anything else that has been put in this over the years, that it emits. We apparently are well beyond the 16. I think full disclosure, you are absolutely right.

Mr. DAVIS OF VIRGINIA. Mr. Chairman, people in the anteroom will be relieved they are not here in the main room.

Chairman WAXMAN. The gentleman's time has expired.

All members of the Committee have asked questions, and Mr. Donnelly is with us, and I want to give him any opportunity he wishes to take at this point.

Mr. DONNELLY. I want to thank the Chairman for letting me be present today. I will submit a written statement for the record. I want to thank the Ranking Member, as well.

[Prepared statement of Mr. Donnelly follows:]

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2174 Mr. DONNELLY. I guess I want to thank the Chairman also 2175 for inviting FEMA. I think FEMA's absence here to explain 2176 their standards and their actions, that they really have 2177 eliminated a part of the answer here. I wish that they were, 2178 in fact, present. 2179 Dr. McGeehin, what I want to ask you is, When you did 2180 your testing for the trailers, did you do any comparison 2181 tests by taking trailers off the lots from places here in 2182 Maryland or Virginia that were built in regular production? 2183 Mr. MCGEEHIN. It depends on which you are talking about. 2184 The occupied trailer study had parts of trailers in it that 2185 were off the lot, and the Lawrence Berkeley National Labs had 2186 two spec trailers and two off-the-lot trailers. 2187 Mr. DONNELLY. Ones that were just being sold at, like, 2188 Maryland Trailer Sales, or nothing special that was built for 2189 FEMA, but, in fact, was regular production? 2190 Mr. MCGEEHIN. Off-the-lot trailers. That is my understanding. 2191 2192 Mr. DONNELLY. Did you test those? Mr. MCGEEHIN. We did. They were part of both studies. 2193 2194 Mr. DONNELLY. Did you find any difference between 2195 off-the-lot trailers and trailers that were designed for 2196 FEMA? 2197 Mr. MCGEEHIN. Well, I want to be cautious in this. We 2198 did a study with Lawrence Berkeley that only had four

2199 trailers, and so therefore I don't want to make any generalizations from this. We did look at the two spec 2200 2201 trailers and the two off-the-lot trailers, and the two spec 2202 trailers on the whole unit levels of formaldehyde were 2203 higher, and the two off-the-lot trailers were lower, but this 2204 study was not designed to look at that difference and I don't 2205 want that generalized because that would be a mistake and it 2206 would be taking the science beyond what it was designed to 2207 be. Mr. DONNELLY. Did you know of any different production 2208 standards for--2209 2210 Mr. MCGEEHIN. I don't know that. 2211 Mr. DONNELLY .-- trailers that were used for families in 2212 Louisiana or Mississippi or trailers that were simply shipped 2213 to dealers who have been dealers for years of these 2214 companies? 2215 Mr. MCGEEHIN. I have no knowledge about any separate 2216 manufacturing process for the spec trailers versus the off-the-lot. I don't know anything about that. 2217 2218 Mr. DONNELLY. Let me ask you this: 44 components were 2219 tested. 2220 Mr. MCGEEHIN. Forty-five. 2221 Mr. DONNELLY. Forty-five. Forty-four met all HUD 2222 standards? 2223 Mr. MCGEEHIN. Right.

Mr. DONNELLY. Okay. And did FEMA provide, as far as you 2224 know, any standards to these companies in regards to 2225 formaldehyde to follow? 2226 2227 Mr. MCGEEHIN. It seems that everybody on the Committee 2228 is more familiar with the correspondence between FEMA and the 2229 manufacturers than I am, so I really can't answer that. 2230 not aware of that, and you are all probably more aware of it 2231 than I. 2232 Mr. DONNELLY. So you don't know of any standards that 2233 were violated in any way in regards to formaldehyde? Mr. MCGEEHIN. I can't really comment on that. I don't 2234 2235 know of anything about that at all. 2236 Mr. DONNELLY. Let me ask you this: in regards to the 2237 Tulane study, do you know anything unique that would have 2238 been about site-built homes that were tested in that study? 2239 Mr. MCGEEHIN. I do not know anything unique about the 2240 site-built homes. 2241 Mr. DONNELLY. And the results of 370 parts per billion 2242 is, in fact, higher than what some of the trailers were at; 2243 isn't that correct? 2244 Mr. MCGEEHIN. Sure. Yes. 2245 Mr. DONNELLY. So I quess one other question is: why 2246 didn't we test site-built homes also? 2247 Mr. MCGEEHIN. Well, there have been a number of very 2248 large studies that tested site-built homes around the

2249 Country, well-done studies.

2250 Mr. DONNELLY. In regards to the Katrina situation?

2251 Mr. MCGEEHIN. Well, it doesn't have to be in regards to

2252 the Katrina situation. There are site-built homes, and they

2253 were tested with the same methodology that we used, and those

2254 results are comparable.

2255 Mr. DONNELLY. Well, what I am asking is, In regards to

2256 homes in the Katrina region at the same time that these

2257 trailers were down there, was there any test done to

2258 compare--

2259 Mr. MCGEEHIN. No.

2260 Mr. DONNELLY. -- the levels of those homes as opposed to

2261 the levels of the trailers?

2262 Mr. MCGEEHIN. No. The report is as it was: 519

2263 occupied FEMA-supplied trailers.

2264 Mr. DONNELLY. Okay.

2265 Mr. Chairman, thank you very much, sir.

2266 Chairman WAXMAN. Thank you, Mr. Donnelly.

Dr. McGeehin, thank you very much for your testimony.

2268 We very much appreciate it. If there are further questions,

2269 we may submit them in writing to you for a response for the

2270 record.

2271 Mr. MCGEEHIN. Thank you for the opportunity.

2272 Chairman WAXMAN. Our next panelists will consist of the

2273 following individuals:

2274 Mr. Jim Shea, Junior. Mr. Shea is the Chairman of Gulf 2275 Stream Coach and has been with Gulf Stream for more than 2276 three decades and is responsible for the company's housing division. 2277 2278 Mr. Steve Bennett is the President of Pilgrim 2279 International. 2280 Mr. Ronald Fenech is the President and chief executive officer of Keystone RV. Keystone RV is a subsidiary of Four 2281 2282 Industries. 2283 And then Mr. Peter Liegl is President of Forest River. 2284 He founded the company in 1996. 2285 We welcome each of you to our hearing today. Your 2286 prepared statements will be put into the record in their 2287 entirety. We will ask each of you to limit your oral 2288 presentation to five minutes. There is a little device on 2289 the table that will turn green for four minutes, yellow for 2290 the last minute, and then turn red when the time is up. When 2291 you see that it is red, you should realize your time is up 2292 and try to make your concluding comments. 2293 It is the practice of this Committee that all witnesses 2294 who testify before us do so under oath, so please rise and raise your right hand and I will administer an oath to you. 2295 2296 [Witnesses sworn.] 2297 Chairman WAXMAN. The record will indicate that each of

the witnesses answered in the affirmative.

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Mr. Shea, why don't we start with you.

2300 STATEMENTS OF JIM SHEA, CHAIRMAN, GULF STREAM COACH, INC.;
2301 STEVE BENNETT, PRESIDENT, PILGRIM INTERNATIONAL, INC.; RONALD
2302 J. FENECH, PRESIDENT, KEYSTONE RV, INC.; AND PETER LIEGL,
2303 PRESIDENT AND CEO, FOREST RIVER, INC.

## 2304 STATEMENT OF JIM SHEA

Mr. SHEA. Good morning, Chairman Waxman, Ranking Member Davis. My name is Jim Shea and I am Chairman of Gulf Stream Coach. I appreciate the opportunity to discuss the travel trailers that our company produced and sold to FEMA. I have some brief opening remarks, but ask that my full statement be made part of the hearing record.

Gulf Stream is a small-town American company committed to manufacturing quality recreational vehicles for its customers. Our travel trailers are built by hard-working, dedicated Americans in the heartland of our Nation. Safety is a key component to our success.

Just two days before Hurricane Katrina hit the Gulf Coast, Gulf Stream received an urgent call from FEMA to provide 25,000 travel trailers to house possible hurricane victims. Gulf Stream was prepared to meet FEMA's critical request, because at the time we were the only manufacturer

approved for rail shipment of travel trailers.

Almost every year since 1992, FEMA has purchased Gulf Stream Postal products from independent dealers to respond to natural disasters. In 2005 for the first time FEMA contracted directly with Gulf Stream to provide a total of 50,000 emergency travel trailers. It is important to note that FEMA's specifications did not include any requirement with respect to formaldehyde emission levels.

The FEMA travel trailers we manufactured followed the same specifications as those we delivered to hurricane victims in 2004. In order to meet FEMA's urgent request, Gulf Stream ramped up its production capacity and realigned its plant operations immediately upon receipt of the purchase order. We took special care to provide safe and quality product for the hurricane victims who temporarily were going to live in the travel trailers. Our FEMA units had four emergency egress windows instead of the required minimum of two. It was Gulf Stream's practice to do additional life safety systems testing, including electrical, gas supply, smoke detection, and carbon monoxide detection beyond what we would do for our regular production for regular customers.

In addition to what was routinely performed on the units for the manufactured public, and FEMA inspectors were on site at our Indiana plants during the manufacturing process, and FEMA performed inspections at the hurricane zone staging

areas. Furthermore, Gulf Stream had representatives on site in Louisiana to do additional inspections after shipment.

Today, just as when we produced travel trailers for FEMA, there are no Federal standards governing formaldehyde in the manufacture of travel trailers. The lack of such a standard leaves our industry with no clear definitive guidance on the issue. Although there are still no formaldehyde standards for covering travel trailers, Gulf Stream in 2007 voluntarily adopted the stringent product standard for formaldehyde emissions proposed by the California Air Resources Board. To our knowledge, Gulf Stream is the first RV company to receive a third-party certification of our applicable wood materials documentation, control processes, and related verification testing.

Even without a Federal standard, Gulf Stream has had a longstanding policy to purchase wood products that satisfy the HUD low-formaldehyde emissions level for manufactured housing, even though HUD standards do not apply to the manufacture of travel trailers.

Several design aspects of our travel trailers also increased ventilation beyond what was required by the FEMA specifications.

Gulf Stream received the first complaint regarding formaldehyde concerning these FEMA travel trailers in March 2006. Obviously, we were concerned about the complaints and

2371 tried to be as proactive as possible by taking the following 2372 steps: 2373 First, we sought information regarding complaints 2374 received by FEMA; 2375 Second, we addressed the few complaints Gulf Stream 2376 received regarding its travel trailers, but were instructed by FEMA in May 2006 not to directly contact trailer 2377 2378 occupants; 2379 Third, we attempted to gather information on ways to 2380 identify and reduce ambient levels of formaldehyde through better ventilation solutions and processes; 2381 2382 Fourth, we provided FEMA representatives with 2383 information related to ventilation of travel trailers and 2384 other measures to reduce formaldehyde levels for sensitive 2385 people; 2386 Fifth, we offered to participate with FEMA in joint testing of the travel trailers. FEMA did not accept our 2387 2388 offer to do so; and 2389 Sixth, we offered to share with FEMA the results of some informal, non-scientific screenings of FEMA-occupied travel 2390 2391 trailers performed in late March and April 2006. 2392 not accept our offer. Gulf Stream has demonstrated its commitment to quality 2393 2394 and safety for the residents from the beginning. Our record 2395 shows that we were ready, willing, and able to assist FEMA

with any resident concerns.

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Mr. Chairman and members of the Committee, on behalf of Gulf Stream and our dedicated employees, that concludes my opening remarks. I am happy to answer your questions the members of the Committee may have.

[Prepared statement of Mr. Shea follows:]

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2403	Chairman WAXMAN. Thank you very much, Mr. Shea.
2404	Mr. Bennett?
2405	Mr. BENNETT. I have no opening statement.
2406	Chairman WAXMAN. No opening statement.
2407	Mr. Fenech?

## 2408 STATEMENT OF RONALD J. FENECH

Mr. FENECH. Mr. Chairman and members of the Committee, my name is Ron Fenech and I am proud to be here this morning to represent the 3,000 men and women who work assembling recreational vehicles for Keystone RV and our thousands of customers.

After the Gulf Coast hurricanes of 2005, as with all Americans, our employees sympathized with the hundreds of thousands of people who overnight found themselves homeless. Emergency workers were faced with an incredible challenge as they scrambled to rescue survivors, account for the missing, to feed those in need, and there was an immediate critical need for basic shelter.

We have been invited here today to discuss the CDC finding with regard to formaldehyde in trailers. When it comes to assessing safe levels of formaldehyde, there is no consistent Government standards. And, as the CDC, itself, stated in its February 2008 formaldehyde report, there is no specific level of formaldehyde that separates safe from dangerous.

The recreational vehicle industry cannot address the formaldehyde issue alone. It is much broader. In fact, the materials that Keystone uses to assemble its trailers are

generally the same types of materials used in home construction and can be found in local home improvement stores.

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We are looking to the Government to evaluate the science and provide industry with the uniform standard. Once that standard has been developed, we hope the home construction industry will join us in adopting that standard. Together, these actions can lead to a workable national approach to this issue.

We join with others in applauding the recent announcement by the EPA that they will conduct a comprehensive review and will, we hope, announce a clearly articulated standard that our industry and our suppliers can follow. Until then, we have not and we will not stand by idly. The Recreational Vehicle Industry Association has recently announced compulsory standards that require manufacturers to build all units using CARB compliant wood by January 1, 2009, and CARB certified wood by July 1, 2010. And at Keystone we intend to beat those deadlines. We have informed our suppliers that as quickly as possible we will only purchase supplies that meet CARB standards.

Hurricane Katrina was the worst natural disaster in modern U.S. history. Hundreds of thousands of Americans needed temporary shelter, and I am proud to say that our industry was part of the solution. I sincerely hope that

there will never again be another disaster that requires our vehicles to be used under such extreme conditions for such lengthy periods of time, but if there is, the lessons learned from this process will inform both industry and Government to ensure a sound response to any need that may arise.

With that, I thank the Committee for the opportunity to appear here today and to answer any questions that you may have.

[Prepared statement of Mr. Fenech follows:]

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Chairman WAXMAN. Thank you very much, Mr. Fenech.

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Mr. Liegl?

## 2468 STATEMENT OF PETER LIEGL

Mr. LIEGL. Thank you, Mr. Chairman and members of the Committee. My name is Peter Liegl. I am President of Forest River. On behalf of more than 5,000 employees, thank you for the chance so we can tell you about what our company does. I am especially proud to tell you how Forest River workers pitched in to help the victims of Hurricane Katrina.

We started Forest River in 1996. It began in the part of Indiana where people of different backgrounds share a strong work ethic and what we call Hoosier values. We think that because of what we do lots of American families are able to get closer to the outdoors and to travel and explore this great Country. Today, 12 years later, we currently have 5,000 employees who work in more than 60 locations. Forest River has plants in Indiana, California, Michigan, Texas, Georgia, and Oregon. Last year we built and sold over 100,000 units. We are still learning and we are still improving. Our folks still work hard and still care what they do.

They cared in 2004 when hurricanes hit Florida. Forest River employees built 800 units to FEMA's specifications, and our folks were proud. We never received a complaint about one of them.

They cared in 2005 when Hurricane Katrina and Rita devastated the Gulf Coast. Like other Americans, Forest River employees wanted to help, and, again, they did. This time we were asked to build 35,000 RVs. We had to decide what made sense for our workers, our suppliers, our dealers, and our customers, so our team at Forest River came up with a production schedule that would allow us to build 5,000 trailers to help the victims, and Forest River workers built those trailers on the same production line using the same materials, the same components, the same quality standards, the same inspectors as they do for the product they build every day. The quality was the same as all the other units we build.

The units we built for the Gulf Coast received the RVIA seal because they met RVIA standards.

Of course, our folks couldn't build these 5,000 units for free. Like every business, we have to pay our workers and our suppliers. We have to earn enough to keep things going, but we never thought about charging higher prices. We sold the FEMA trailers at the same modest profit levels as our normal sales. Our overall profit that year was about the same as it was in the years before and the years after Katrina.

Today's hearing involves formaldehyde. We all know there is some formaldehyde in wood products, carpeting,

fabrics used in the RVs. It is also used in building homes, apartments, and office buildings. We all agree we don't want formaldehyde or, for that matter, any other substance to reach levels where it is a serious health threat. Most of us aren't doctors or scientists, and those people who are doctors and scientists don't agree on the level of formaldehyde that are safe or not safe. There isn't an agreement on how to measure formaldehyde levels.

No one has all these answers yet. Certainly I don't. But what I can tell you is Forest River's experience.

First, formaldehyde has not historically been an issue. Over the dozen years we have been in business, we have made and sold over one million units. Out of those million-plus units, I think we only had three instances where customer concerns actually required our testing of the vehicles. In two of the cases, the formaldehyde level tested quite low. In the third it was pretty clear at the end of the day that whatever the problem was coming from, it wasn't on the manufacturer's end.

Given that experience, literally less than a handful of instances of this sort out of a million units, I think you can understand why I say that formaldehyde has not historically been an issue with Forest River products and customers.

The second point is we have not been sitting idly by

waiting for doctors and scientists to figure out the answers.

We may not know the answers, but we know that it can't hurt

by moving closer to the California stricter formaldehyde

standard for wood products even before it was recommended in

the industry, which we have done.

In closing, I want to thank you again for your allowing us to share Forest River's story. Our employees are proud of the product we make and the company they have helped build.

I must also tell you candidly that many of our workers are now confused and hurt about the charges about the quality of RVs, but they know when it comes to Forest River products nothing can be further from the truth. But I think they also have the faith, as I do, that responsible people will be fair and will make the decisions on fact.

Thank you, Mr. Chairman and the Committee, for letting me tell you my story. I will answer any questions that you might have.

[Prepared statement of Mr. Liegl follows:]

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2560 Chairman WAXMAN. Thank you, Mr. Liegl.

We are now going to recognize Members to ask questions for five minutes apiece, and I will start off the questions.

Mr. Shea, I wrote to Gulf Stream on February 14th of this year and I asked your company's help in understanding why a Gulf Stream travel trailer sold to FEMA would have high levels of formaldehyde, and I want to read what Gulf Stream said in response to my question on March 7th. Here is what they said: ''Gulf Stream respectfully disagrees with the premise of the Committee's question, i.e., that formaldehyde levels in the trailers it sold to FEMA following the Gulf Coast hurricanes of 2005 were high.''

Given what we know now, I find this response astonishing.

In March of 2006 trailer occupants began to complain about formaldehyde. On March 21, 2006, Steven Miller of FEMA e-mailed your brother Dan Shea and asked him if Gulf Stream had 'the capability to put this to bed.' Were you aware of this e-mail?

Mr. SHEA. Yes, sir.

Chairman WAXMAN. Your brother responded that he would send a person to Baton Rouge to test units. From the end of March until May 2006 Gulf Stream Vice President Scott Pullen tested FEMA trailers. He tested approximately 50 trailers, including 11 occupied trailers. Mr. Pullen's test indicated

formaldehyde levels at or above 100 parts per billion within every occupied travel trailer he tested. Four of the eleven occupied trailers had levels above 500 parts per billion.

Mr. Pullen also tested over 25 new Gulf Coast travel trailers that had not yet been deployed for displaced residents, and over 10 of these trailers contained formaldehyde levels in excess of 900 parts per billion. One Gulf Stream trailer had formaldehyde levels of 2,690 parts per billion.

In 2006, Gulf Stream knew better than anyone that formaldehyde levels in the travel trailers it made for FEMA were high, and just last week the Centers for Disease Control confirmed that even in the winter of 2007 and 2008 56 percent of Gulf Stream's travel trailers had elevated levels of formaldehyde.

I have one question for you, Mr. Shea. Do you still disagree that formaldehyde levels in FEMA's Gulf Stream trailers were high?

Mr. SHEA. Well, Mr. Chairman, when I reviewed the CDC report, the most recent CDC report on occupied trailers, I see that our levels of occupied units fell--

Chairman WAXMAN. We cannot hear you.

Mr. SHEA. Yes. I would just like to repeat, sir, that what we saw in the occupied unit testing that the CDC did was that our units fell in what they would term the intermediate

Chairman WAXMAN. How about your own testing?

2610 level.

Mr. SHEA. We did not do testing, sir. We used an informal device, a screening device. It is not a scientific device. It is not accepted by NIOSH. It is not accepted by any organization. It could have been used by anyone, any company, any agency. It is not testing, sir. It is a screening device that picks up many other components,

chemical components. It is not testing.

Chairman WAXMAN. Whatever the validity was of that test, it certainly gave you an indication of very high levels of formaldehyde in your own trailers, didn't it?

Mr. SHEA. Let me tell you, we were a proactive company, sir. One of the first things we did--in fact, Mr. Pullen, a long-time technical employee, vice president of this company went into the field, was in the field on other matters, and he canvassed and talked to other occupants, to varied trailer residents. They asked them what their experience was, and they said they were very happy with their trailers. They weren't having any problems. They were enjoying their trailers. There were no issues.

Now, at the time that he did that he did quickly take a snapshot deployment with this tool. It was not screening. It was not testing. It was a quick snapshot that would have reflected anything that the residents would have done in the

2635 unit at the time.

I remind you that they were not complaining. There were not symptoms. He also--

Chairman WAXMAN. Well, you did have some complaints, because I just read one of the complaints. In fact, one of the people said please, please, please help me. I have got this formaldehyde, and it is causing problems in my breathing--to paraphrase it.

Mr. SHEA. Yes, sir. I would like to--

Chairman WAXMAN. And, notwithstanding that, you did the testing and you told FEMA you didn't get any complaints, and you told them you got some test results, but you didn't tell them what they were. They didn't ask. You told them if they asked, then you would share it. But your own test results showed high levels of formaldehyde.

Mr. SHEA. Yes. I would like to set the record straight there, sir. We communicated with FEMA. Actually, we asked FEMA, Do you have any complaints? We wanted to assist. We wanted to visit people. We wanted to lend whatever we could for sensitized individuals. We had three complaints come in directly to ourselves in that March period after the initial news reports, and we investigated all three of them. Then in mid-March, after we had asked FEMA for what complaints they had, which they directed two people to us, two of those people--none of them had formaldehyde complaints. What they

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had was one complained on odor from an improperly hooked-up sewer. The other was concerned about wanting to buy her unit and she had security concerns. Those are the two complaints that we received from FEMA.

Chairman WAXMAN. Mr. Shea, my time is up, but I do want to tell you that if you have done some kind of testing and you see the kind of high levels, even over 2,000 parts per billion, in some of your trailers, the response, I think, of a responsible businessman should have been to test further, to find out what is going on, to take some kind of responsible action and not to come before Congress and say FEMA didn't tell me they had complaints—of course, they didn't know what you knew—and therefore you didn't have to do any more testing yourself, even though you got these alarming results. That is what you didn't do. You didn't do more tests. You didn't tell FEMA there is a problem. And you didn't take the action that I would think would be a responsible action of a responsible business.

Mr. SHEA. I would love to respond to that, sir. Sir, there is a difference here between testing and screening. There is a difference between unoccupied units and occupied units. We did unoccupied unit screening to better be able to inform FEMA how to properly ventilate units. We also were utilizing some optional devices that we were using in the unoccupied screenings because we could generally screen for

how indoor air quality changed. I would remind you there are many components, as Dr. McGeehin said, in indoor air. This unit would have been sensitive to many of them. So what we were unable to do is we could advise FEMA better. Our counsel asked us to make sure what we said to FEMA was as accurate as possible. We tested the performance of the ventilation systems that we provided with the unit, plus some optional systems to help with sensitive individuals.

There is a difference between what we did with occupied units versus the screenings of unoccupied units.

Chairman WAXMAN. My time is over. I am just going to say it sounds like you handled it very carefully as a public relations and as a legal problem, but I think you had more of a responsibility to the health of the people that were living in your trailers.

Mr. Davis?

Mr. DAVIS OF VIRGINIA. I would yield my five minutes to Mr. Souder.

Mr. SOUDER. And I would ask the Chairman to be generous if I go over just a little bit, as well.

First I want to welcome all of you as fellow Hoosiers and having huge facilities in my District and employing lots of people who are already hundreds losing their jobs because of the gas prices, the mileage restrictions, the ability to get vehicles that can tow. Ten percent of Americans of some

Sort of vehicle. Most are from northern Indiana and Congressman Donnelly and my Districts. It is the danger of how we do something like this is, as our guys try to meet these standards, try to follow whatever the Government says, you have inspectors on your sites, you just push these kind of jobs to China where they don't meet these kind of inspections, where there is no conscience, and we wonder why we lose American jobs.

It is incredibly frustrating. We all want to find out

It is incredibly frustrating. We all want to find out what the truth is.

Mr. Shea, wasn't FEMA at the plants all day?

Mr. SHEA. I am sorry, sir?

Mr. SOUDER. Weren't they at your facilities all day?

Mr. SHEA. Yes. During the course of our production, as I understand, because we were a direct manufacturer, they had an inspector in each plant every day receiving units as they came offline and inspecting them.

Mr. SOUDER. Without getting into confidential information, and I am not asking you to disclose this, but the type of test you did on these trailers, how expensive was it to take the desiccator test that you did that is not the gold standard, that has a wide variation of accuracy?

Mr. SHEA. This is a device that is called a formaldemeter. It is not a scientific tool. It is not really what they would call a desiccator test, which is

another imprecise type of testing. This is a quick snatch method, and it is just a screening tool. If you look in the directions to the piece of equipment, it is a screening tool. It doesn't claim to be a testing tool. It tells you that there are other components that it absorbs.

Our individual wasn't experienced in using it. It did provide some benefit in terms of seeing how indoor air changes occurred, but it is certainly not testing, and we didn't employ that. And certainly at our plant location with FEMA inspectors there was no issue about that. It was never an issue with FEMA inspectors. This was during the time that we were producing these units.

Mr. SOUDER. Would this have been an expensive test for FEMA to conduct?

Mr. SHEA. Well, anybody could have used one of these devices, any organization. FEMA did OSHA testing in fall of 2005, so they were familiar with closed-up units, unoccupied units. They did more OSHA testing, I think the record shows, in March, late March, after this became an issue. I think those results are available. So they knew what closed-up, sealed-up units that had been cycled to 80 to 100 degrees of hot boxes would do. Any structure that was closed up, even a house that was closed up and sealed up and cycled to 80 to 100 degrees would have decreased indoor air quality. There is just no two ways about it.

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Mr. SOUDER. Well, the scary thing about if we are not careful in hearings and we aren't trying to look at fundamental questions with accurate science, one of our challenges here is that I met with nine of the ten companies named in the early lawsuit total. They had the three complaints that you had talked about. Then the lawsuits started, and all of the sudden legal liability starts. Now you are being criticized for doing a very simple test that could have been done by the Government, and the question what employer or company in America is going to comes: expose themselves to voluntary cooperation if this is the end result, that the proliferation of suits all over America right now--you know, people say, I heard in Katrina, I read in the newspaper, I heard on TV, not on any science, as we are learning. The 390 parts per billion, we keep sliding between parts per million and parts per billion, don't have any standards. You are trying to cooperate. Instead, you get your head beat in.

Do you plan to ever deal with the Government again?

Mr. SHEA. Sir, this is an incredible quandary. We have seen a specification--it is not a standard--put forth by FEMA in their latest standards. It is 16 parts per billion. Of course, very recent studies with new technology show that this is within the range of human breath. This is within the range of normal human breath, what people normally breathe

2785 out from their normal metabolism, irrespective of what is in 2786 the air.

Well, how can a company, why would a company take on that kind of liability? It would be so easy for something to occur either naturally or from new sources that would double or triple this specification. This company would never take that liability on, sir.

Mr. SOUDER. Within the broad definitions of five minutes
I have one more supplemental question. You have done FEMA
before. It has been a significant part of your business.

Mr. SHEA. Yes. We have provided units through dealerships since 1992. FEMA came directly to us and asked us for a direct quotation and proposal at the beginning of this hurricane before the hurricane actually hit New Orleans.

Chairman WAXMAN. Thank you, Mr. Souder. Your time has expired.

Mr. Cummings?

Mr. CUMMINGS. Thank you very much, Mr. Chairman.

Mr. Shea, you know, I know the Chairman referenced a letter from a lady in which she said, 'There is an odor in my trailer that will not go away--'

Mr. SOUDER. Mr. Chairman?

Mr. CUMMINGS. ''It burns my eyes, and I am getting headaches every day. I have tried many things, but nothing seems to work. Please, please help me.'' You are familiar

2810 with that, are you not, Mr. Shea?

2811 Mr. SHEA. It would be helpful for me to see the exact
2812 customer that you refer to, sir. That would refresh my

2813 | memory.

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Mr. CUMMINGS. Well, you heard the words. If that was your wife, would you be concerned about her living in a trailer?

Mr. SHEA. I can give you the letter that we responded
to, sir, to FEMA. When we got that report and we
communicated with FEMA, my recollection is it was with regard
to a Mr. Reeser.

2821 Mr. CUMMINGS. Okay.

2822 Mr. SHEA. Here is what we said, if I can quote.

2823 Mr. CUMMINGS. Very briefly, because I have got a lot of 2824 questions and a little bit of time.

Mr. SHEA. Yes, sir. ''I do want to take the opportunity to reinforce our position previously communicated to FEMA that Gulf Stream is ready, willing, and able to work with FEMA with regard to any complaint, including sending a representative within 24 hours to work with your contractors to inspect, test--

2831 Mr. CUMMINGS. Good.

2832 Mr. SHEA. ''--or do whatever is reasonably necessary 2833 to--''

2834 Mr. CUMMINGS. Mr. Shea, you are coming right where I

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want you to be, because I want to talk about some of your correspondence, not in addition to what you just read. I would like to share with you what Gulf Stream disclosed to FEMA--and I know you are familiar with this--related to formaldehyde in its travel trailers in May 2006. It has been referenced quite a bit here. And Gulf Stream sent a letter to FEMA and said, ''We want to follow up on our recent conversations regarding the travel trailers supplied to FEMA. We would like to reiterate our willingness to assist you in addressing any concerns about our products. Our informal testing has indicated formaldehyde levels of indoor ambient air of occupied trailers far below, for instance, the OSHA standard of .75 parts per million, 750 parts per billion. are willing to share these informal test results with you and, as mentioned during our meeting, if FEMA wishes to conduct formal testing protocols on any designated units, we are willing to participate in that testing." Now, you spent a lot of time, I am sure, in drafting that letter. The documents that we received show that you spent over a month getting the wording right. How do you interpret your own letter? And are you saying that your testing showed a formaldehyde problem, or are you saying that your testing did not show a problem? Mr. SHEA. Well, sir, going back to the framework of the

time, there were two regulatory standards that I was familiar

with. One was the OSHA permissible exposure level for workers that would be exposed for their working life; the other was the HUD target regulatory level. Those were the two. Those are the two now. There was one that came up in the press. That was referenced as a .1 EPA ''safety level'' by some activist groups. But when I looked that up it said above this level sensitive individuals may experience symptoms. It wasn't a safety level, and I did ask some experts did EPA have a standard. They told me that EPA didn't have an outdoor standard for formaldehyde at the time, it didn't have an indoor standard for formaldehyde at the time.

So in terms of how--

Mr. CUMMINGS. You understand that before you sent that letter that the CDC had said that they thought that the levels of 100 were dangerous? You knew that, right? You didn't know that? I see people shaking their heads behind you.

Mr. SHEA. I have no recollection of--the CDC came out with their interim report and took a position. The original ATSDR position was that after the EPA testing that was done in the fall was that .3 parts per million was acceptable. They changed that later, but that was well after this time, sir. That was in 2007. That was in, like, February of 2007 after EPA did testing of unoccupied units in September of

2885 2006.

2886 Mr. CUMMINGS. So this is not the record on April 24, 2887 2006, Gulf Stream's outside counsel sent both Jim and Dan 2888 Shea a 1997 document created by the Consumer Product Safety 2889 Commission entitled, ''An Update on Formaldehyde.'' The 2890 document included the following information: formaldehyde is 2891 a colorless, strong-smelling gas. When present in air at levels above .1 ppm it can cause watery eyes, burning 2892 2893 sensations in the eyes and nose and throat, nausea, coughing, 2894 chest tightening, wheezing, sick skin rashes, and allergic 2895 reactions. You are saying that is not accurate? Is that 2896 what you are saying?

Mr. SHEA. That is the language that came off of the EPA sensitivity recommendation. As I recall, sir, that is for sensitive individuals. And we have always been concerned to help with any individuals that had sensitivities. We know that there are sensitive people, sir.

2902 Mr. CUMMINGS. All right.

2903 Chairman WAXMAN. Thank you, Mr. Cummings.

2904 Mr. CUMMINGS. Thank you very much, Mr. Chairman.

2905 Chairman WAXMAN. Your time has expired.

2906 Mr. Burton?

2907 Mr. BURTON. Thank you, Mr. Chairman.

This home test kit, this formaldemeter, how accurate is

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2910 Mr. SHEA. Well, sir, it varies. It can be up and down. if you sprayed an air freshener and then took a screening it 2911 would be eight parts per million sometimes. It is reactive 2912 2913 to ethanol, methanol, phenol, all kinds of things. It is an 2914 indicator of air flows, ventilation, but in terms of absolute 2915 testing, nobody would accept it. NIOSH doesn't accept it. It is not acceptable in a court of law. Some people may be 2916 more accurate than others. Our individual wasn't well 2917 2918 trained in this or trained in calibrating it. Mr. BURTON. So it is an indicator, but it is not really 2919 2920 scientific? 2921 Mr. SHEA. It is an indicator that formaldehyde is likely 2922 present. 2923 Mr. BURTON. Now, in these 11 units that were checked 2924 with the formaldemeter, there were four that were above five 2925 hundred, but the other seven were below the five hundred 2926 level? 2927 Mr. SHEA. That is correct, sir. Mr. BURTON. But that wasn't scientific? 2928 2929 Mr. SHEA. No, it wasn't scientific. Of course, we recognize that if anybody had smoked a cigarette an hour 2930 2931 before or cooked or something, that influences the level, but 2932 what our main thing was, these people were very happy. One person was described by Mr. Pullen as being ecstatic that he 2933 finally had a place where he could go to, a refuge, something 2934

that was air conditioned, a totally self-contained living unit, and everyone was happy. There were some people that were older people. There were some young children, toddler age. They were happy with their units. They were not complaining about their units. They were not experiencing symptoms.

We went back in that proximate time--Mr. Pullen did--to revisit with these people in that late April period before we asked FEMA to come in and talk to them further about these canvassing that we did.

Mr. BURTON. You know, I don't think you can answer this question, any of you, but if I took a HUD-produced house or HUD-funded house--and there are an awful lot of them around this Country right now that are vacant--and you closed it up, and you left it closed in very hot weather for, say, a couple of weeks or longer, would the parts per billion be equivalent to what you saw in a mobile home, manufactured housing?

Mr. SHEA. I do know this, sir: any structure, if you close it up, seal it up, cycle the temperature to 80 to 100 degrees, you are going to have a reduction of indoor air quality. There will be higher levels of chemical constituents, especially if you have attached garage with a car in it. I just went to a lean building seminar. The presenter said one of the best things you could do for indoor air quality was to have a detached garage. So any structure,

if you put it under these kind of conditions, is going to have decreased indoor air quality.

Mr. BURTON. And you used the kind of materials that are used in just about any kind of construction in these?

Mr. SHEA. The highest users of these composite wood products, like particle board, MDF, hardwood plywoods, if you look at the reports, most of it goes into the remodeling industry. If you go into these large remodeling stores, these products are stacked to the ceiling. So the RV industry and the manufacturing housing industry only use less than 1 percent of these kind of products.

Mr. BURTON. The point I am trying to make is you are not using anything out of the ordinary in producing these products; you are using what is normal in construction?

Mr. SHEA. These products are used in furniture making, cabinetry, home building.

Mr. BURTON. Let me just say I am going to yield to my colleague, Mr. Issa from California, but I just want to say I have known the Shea family probably for 30 years, and I know their business, and, Mr. Chairman, I want you to know they have impeccable credentials as far as conducting their business in an honorable way in Indiana. I don't represent that area, but I want you to know that I don't think they would ever do anything intentionally to harm the health of any individual.

2985 With that I yield to Mr. Issa.

2986 Mr. ISSA. I thank the gentleman.

2987 Mr. Bennett, how many people does your company employ 2988 typically?

Mr. BENNETT. Right now we employ approximately 100 people.

Mr. ISSA. About 100. And, Mr. Shea, how many would you have had at the peak of production for FEMA? How many people would you have employed?

Mr. SHEA. I would estimate about 2,000 people, sir.

Mr. ISSA. About 2,000. So we are looking at companies of 5,000, 3,000, 100, and 2,000, and I noticed that in the information that I received we only have two people that have made complaints, both about your company, Mr. Shea, and they seem to be about only one thing, which is the question about Norboard being made in China and that being the source of a lot of these problems. Earlier people talked about imported Chinese products. Do you know where Norboard is made? And do you know if it could be the cause of the problem?

Mr. SHEA. Norboard is a product that is made in Deposit, New York. It is an American product. It is made to what they call an ANTSY standard, which is equivalent to the HUD standard for particle board. But we asked this company to provide testing documentation on their product, and their product actually tested well below the standard that they

build to. It is actually about over 30 percent below the 3010 3011 standard. And it is almost what the upcoming CARB standard 3012 is for MDF that is upcoming for 2009. It is very close to that. So this was good product, good American product, and I 3013 3014 don't know what this individual was referring to relative 3015 to--3016 Chairman WAXMAN. The gentleman's time has expired. We 3017 will come back to you, Mr. Issa, in a minute. 3018 Mr. Danny Davis? 3019 Mr. DAVIS OF ILLINOIS. Thank you very much, Mr. 3020 Chairman. 3021 Mr. Shea, let me try and make sure I understand your 3022 testimony. How many Katrina-related trailers did your company build and supply to FEMA during this process? 3023 Mr. SHEA. Sir, we had two contracts. Each was for 3024 3025 25,000 units, sir. 3026 Mr. DAVIS OF ILLINOIS. Did you actually build and supply 3027 or sell to FEMA those 25,000 units? 3028 Mr. SHEA. Yes, we did, sir. 3029 Mr. DAVIS OF ILLINOIS. Did I understand you to suggest 3030 or to say that prior to the CNN new report, that you had only 3031 heard of possibly three expressions of concern, one which turned out to be a faulty connection of a sewer line? 3032 3033 Mr. SHEA. Sir, I am not sure as far as the CNN report. 3034 The time frame that I was referring to was a report that came

3035 out of Bay St. Louis on an individual that was in one of our 3036 units, and we contacted FEMA on that individual. 3037 us, because we wanted to assist or see what we could do, they 3038 said that they couldn't discuss it for privacy reasons with us, but that they had addressed his concerns by exchanging 3039 3040 for a different trailer. 3041 Now, I am not including that customer, sir, but--3042 Mr. DAVIS OF ILLINOIS. Okay. But you had no information 3043 that would suggest that formaldehyde was a problem in any of 3044 these units? 3045 Mr. SHEA. Before the report that came from Bay St. 3046 Louis, this had not been an issue that we had tried to deal 3047 with with agency FEMA units. Our travel trailers had not been this kind of concern, so this was surprising to us, very 3048 3049 surprising to us when this became an issue in the State of 3050 Mississippi at that time. 3051 Mr. DAVIS OF ILLINOIS. Thank you. Let me ask you, Mr. 3052 Liegl, how many trailers did your company supply to FEMA? 3053 Mr. LIEGL. We supplied 5,000 to FEMA specs, not directly to FEMA but through a Government-approved purchaser, and so 3054 3055 5,000 to the FEMA specs, but we also know that FEMA had 3056 bought trailers of Forest River off of dealers' lots. 3057 Mr. DAVIS OF ILLINOIS. Let me just ask, did I understand 3058 also that you were actually invited or there was some

discussion that you could supply 35,000?

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3060 Mr. LIEGL. That is correct. 3061 Mr. DAVIS OF VIRGINIA. And you decided not to do the 35? 3062 Mr. LIEGL. That is also correct. 3063 Mr. DAVIS OF VIRGINIA. Could you tell us why? 3064 Mr. LIEGL. Well, number one, we couldn't. Doing what we were told to do by FEMA, they wanted our units to be built in 3065 3066 the same standards that we build our typical RV, and so to do 3067 that we had to use the same plants, the same people, the same 3068 materials, et cetera. The most we could build was 5,000 in 3069 the time period they needed them. 3070 Mr. DAVIS OF ILLINOIS. So you were afraid that you might have to compromise something if you were to attempt to take 3071 3072 on that contract? 3073 Mr. LIEGL. Yes, sir. 3074 Mr. DAVIS OF ILLINOIS. The 5,000 that you actually built 3075 and sold, did you make any profit different than the profit that you probably would have made if you sold those to the 3076 3077 Danny Davis Enterprises? 3078 Mr. LIEGL. No. The margin of profit would have been 3079 about approximately the same what we made the year before and 3080 the years after. 3081 Mr. DAVIS OF ILLINOIS. Let me ask each one of you

gentleman if you would answer directly. Last week the CDC

ultimately ended up suggesting that people living in any of

issued a report about the results of its testing, and

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3085 these trailers exceeding 500 parts per billion, that they 3086 actually ought to be moved out and that they ought to move 3087 out immediately. Let me ask if you agree with that 3088 statement, and beginning with you, Mr. Shea. 3089 Mr. SHEA. Sir, I don't recall that 500--my understanding 3090 on the CDC was they really didn't define a level of when 3091 people should move out; they just recommended --3092 Mr. DAVIS OF ILLINOIS. Okay. So you couldn't comment on 3093 the statement that I just made because you wouldn't be aware 3094 of it. 3095 Let me go to the next gentleman. 3096 Mr. BENNETT. I would have to say that until a standard 3097 is agreed upon, that that is a difficult question to answer. 3098 Mr. DAVIS OF ILLINOIS. All right. So it is difficult. 3099 Let me go to the next. 3100 Mr. FENECH. Please ask the question again, sir, because 3101 I don't want to--3102 Mr. DAVIS OF ILLINOIS. Well, let me just ask this: 3103 you purchased an apple and cannot eat it, do you believe that 3104 you ought to pay for it? 3105 Mr. FENECH. Great question. No, I would probably not 3106 want to pay for that apple. 3107 Mr. DAVIS OF ILLINOIS. Well, my point is this: that if 3108 there were trailers that people can't live in now, that FEMA 3109 has purchased, should the taxpayers be paying for those

3110 trailers that cannot be used for the purposes for which they
3111 were purchased.

I thank you, Mr. Chairman, and yield back the balance of my time.

Chairman WAXMAN. The gentleman's time has expired.

Mr. Issa?

Mr. ISSA. Thank you.

Mr. Davis, I would be interested to know whether or not we would make more money on your purchase than on FEMA's purchase. That could be a whole separate hearing.

Mr. DAVIS OF ILLINOIS. But I am selling apples.

Mr. ISSA. Well, and we don't know today, unfortunately, whether or not this is an example of 50,000, 125,000 apples being bought and we have a couple of bad apples. I have several questions, but I would want to make sure we understand here today there is no test going on in every one of these trailers in the field. There is no standard if there was a test. And CDC just told us that, in fact, they only looked at one item and there is no standard for what level we should move people out of these trailers or how much ventilation would be enough to reduce it, and they weren't familiar with the high levels inside fixed homes in these areas of the south, particularly Louisiana.

So, having said that, I am going to look at you four business people and I am going to try and--I am not saying

3135 provide you relief. I think you will provide that for 3136 yourself in due course. But lest you be the last victims of 3137 Katrina--let's just put it that way--today do any of you have 3138 a standard in front of you other than the proposed standard 3139 that would cause you to make your trailers different? In 3140 other words, has FEMA come back to you other than this 3141 adopting of 16 parts per billion and given you any new 3142 guidance on how to make trailers if, in fact, a hurricane 3143 hits today? 3144 [No response.] 3145 Mr. ISSA. I will take no as the answer. I think I saw a 3146 no from everyone. 3147 Mr. Shea, in your case, speaking about trying to hit 3148 this level of parts per billion that is roughly equal to 3149 inhaling and exhaling and dramatically less than if one cat 3150 pees on the carpet, which would be far greater parts per 3151 billion just based on a kitty accident, the only thing you 3152 know of is something that could cause you to say no bid; is 3153 that correct? That if, in fact, 16 parts per billion becomes the standard, you are going to have to no-bid it because you 3154 3155 can't meet that standard? Mr. SHEA. No, sir, because even if you tested something, 3156 3157 and where we produce in Indiana, the time you moved it to 3158 Louisiana, totally different atmospherics, much more

humidity, much more heat on a constant basis, there is no

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3160 way. And that doesn't even include how residents differ and 3161 their use. Mr. ISSA. You know, I am an electronics manufacturer, so 3162 3163 my background is one in which we have standards for 3164 absolutely everything, and I was the chairperson of the 3165 Standard and Trade Association, the Consumer Electronics 3166 Association, before I came to Congress. Now, you all four 3167 are, I believe, members of the trade association for travel 3168 trailers; is that correct? Mr. SHEA. Yes. 3169 3170 Mr. BENNETT. Correct, sir. 3171 Mr. FENECH. Yes. 3172 Mr. LIEGL. Yes. 3173 Mr. ISSA. Okay. And is your association prepared to 3174 participate in standards setting if, in fact, the Government 3175 is willing to set standards? 3176 Mr. SHEA. Yes. 3177 Mr. BENNETT. Absolutely. 3178 Mr. FENECH. Yes. 3179 Mr. LIEGL. Yes. 3180 Mr. ISSA. Okay. Do you know if your association has reached out to try to have that engagement? Any one of you 3181 3182 that wants to speak? 3183 Mr. SHEA. I think that is very important to the 3184 industry, and they have said so. They are very interested in

3185 being able to have the kind of standard they can conform to. 3186 I am sure they will be leading the parade as attaining that 3187 standard. 3188 Mr. ISSA. So, again, in the spirit of lest Katrina have one more set of victims, all of you are saying today that you 3189 3190 do not have new standards on which to make trailers 3191 differently than you made them before and after Katrina, the 3192 only discussion of a new standard of 16 parts per billion is 3193 not achievable, and your association stands ready to work 3194 with, on a uniform basis, meeting these standards both for 3195 FEMA and for, as a matter of fact, the consumer public. 3196 that all correct? 3197 Mr. SHEA. Absolutely. 3198 Mr. BENNETT. Yes. 3199 Mr. FENECH. Yes. 3200 Mr. LIEGL. Yes.

Mr. ISSA. So we have hauled you all in here to talk about a standard that didn't exist, that you couldn't meet because it didn't exist, it doesn't exist today, and we are asking you to defend yourselves because you might have made a profit making trailers that in many cases were identical or actually were off-the-shelf trailers, because many of what FEMA bought were off-the-shelf trailers; is that correct?

Mr. BENNETT. Yes.

Mr. SHEA. Correct.

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3210	Mr. FENECH. Yes.
3211	Mr. LIEGL. Yes.
3212	Mr. ISSA. Okay. And I yield the remainder of my time to
3213	Mr. Burton.
3214	Mr. BURTON. I just want to ask, I was wondering if we
3215	could ask the EPA to test closed houses in this area down
3216	there to see what the parts per billion are in those houses
3217	compared to these motor homes that were there since Katrina.
3218	I think that would be a very interesting thing, and I would
3219	like to ask you, Mr. Chairman, if we could request that kind
3220	of a study.
3221	Chairman WAXMAN. Well, I will certainly take it under
3222	submission, but certainly you are free to ask for any
3223	information you wish.
3224	Mr. BURTON. I know, but you being Chairman I think it
3225	would carryI will co-request it with you, Mr. Chairman.
3226	Chairman WAXMAN. The gentleman's time has expired.
3227	Ms. Norton?
3228	Ms. NORTON. Thank you, Mr. Chairman.
3229	Mr. Shea, my question really goes to the duty of the
3230	manufacturer. We have spoken about FEMA here. You don't
3231	have to worry about FEMA. I am Chair of the Subcommittee
3232	with jurisdiction over FEMA. This Committee has, in
3233	addition, had FEMA before us way before we ever got to you
3234	over the past couple of years. My questions really go to the

duty to disclose in a free democratic free market society when a business wants to avoid liability, when a business wants to remain in business, when a business wants to maintain its reputation with the Federal Government and with customers, generally. I am perplexed by your approach to the 35 unoccupied trailers.

I have a letter here from March 2006, a letter from Gulf Stream where Gulf Stream was testing 35 unoccupied trailers. Leave aside the controversy about now standard, what standard, these tests showed levels in some of these trailers well over 2,000 to 4,000 parts per billion, and I don't think there is much controversy about that level. By anyone's standards that is a dangerous standard, and I don't think that that is subject to dispute or has been subject to dispute even here.

Now, Mr. Shea, you began testing in March, and FEMA, of course, was still in the process of activating its purchase of trailers. Indeed, after March 2006 when you were testing FEMA actually continued to activate trailers, thousands, which, of course, ended up in the Gulf with the results that are under scrutiny here today.

Let me ask you: did Gulf Stream provide FEMA with the vehicle identification numbers of the trailers that it had tested that had high levels of formaldehyde so that at the very least FEMA could ensure that those trailers were not

3260 distributed on the Gulf Coast?

Mr. SHEA. Well, There is various e-mails. I think if
you look in the record you will see discussions between FEMA
and e-mails between FEMA and Gulf Stream.

Ms. NORTON. Well, we have your letter, and your letter makes no reference to any results from the unoccupied trailers. Is it your testimony that you, in fact, told FEMA, e-mailed FEMA, wrote FEMA about the results in the 35 unoccupied trailers? Did you reveal these 2,000 to 4,000 parts per billion in the unoccupied trailers? I am simply trying to get whether you did or not.

Mr. SHEA. Well, we--

Ms. NORTON. Did you disclose this information or not?

Mr. SHEA. We didn't conclude that it was relevant,

3274 ma'am. We thought that it was irrelevant information.

Ms. NORTON. In what sense?

Mr. SHEA. Well, ma'am, we felt it was irrelevant information because, first of all, we provided information to FEMA in that letter relative to what our experience was with ventilation, what our experience was with looking at ventilation options for sensitive individuals. That--

Ms. NORTON. That is my point. You provided, indeed, in this letter you provided only the information that, of course, would reinforce the continuing purchase and activation of these trailers. I understand what you

provided. I am asking you why you thought it was 3285 3286 irrelevant--Mr. SHEA. Yes, I would love to respond to that. 3287 Ms. NORTON. -- to disclose any information about the 3288 3289 formaldehyde levels in the unoccupied trailers which you, yourself, were at that moment testing. Why was that 3290 3291 irrelevant? Mr. SHEA. First of all, FEMA had information on 3292 unoccupied units, ma'am. They had done OSHA testing and--3293 3294 Ms. NORTON. I am talking about your tests. You just 3295 said irrelevant. 3296 Mr. SHEA. Yes, we--Ms. NORTON. And I want to know why it is irrelevant. 3297 Mr. SHEA. It is irrelevant, ma'am, because FEMA knew 3298 3299 l about closed-up, tightened-up, heated-up units, what they would have been testing at, because they had NIOSH-certified 3300 persons that went out and did testing well before this. 3301 Ms. NORTON. This was unoccupied trailers about to be 3302 3303 distributed to actual human beings on the Gulf Coast. If you 3304 had to do it over again, would you disclose the information 3305 on the 35 unoccupied trailers to FEMA? 3306 Mr. SHEA. Anything that would have been helpful to public health in any kind of retrospect on this, we would 3307 have loved to have been able to shed more light on. We 3308 3309 support public health. But this is looking at it in a

retrospective, and our perspective at the time was--

Ms. NORTON. Well, you haven't been able to tell us why it was irrelevant. Indeed, you testified that in retrospect, if I could conclude, in retrospect this could have been helpful to maintain health. And, you know, my main concern here is not so much with what appears to be a cover-up, at least of this information, but with whether or not the companies have learned anything from this experience. I will try to conclude that your first answer about irrelevant is not your final answer, and that if you had to do it over again perhaps it should have been disclosed. That is giving you the best veneer I can on your answer.

I yield back the balance of my time.

Chairman WAXMAN. The gentlelady's time has expired.

Mr. Souder?

Mr. SOUDER. Thank you, Mr. Chairman. I have a couple of points that I want to make, but I want to follow up there.

Mr. Shea, it was not a scientific test; it was a snapshot, and it was a snapshot of sealed vehicles which could test at any different range. In retrospect, perhaps it would have been helpful for CDC to know, but, in fact, they probably wouldn't have had it be relevant, either, other than potentially to do more testing, because the test wasn't accurate. Wasn't that what you were trying to say?

Mr. SHEA. Yes. And, if you will remember, the EPA did

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testing, certified testing, several months after we would have done these screenings, in September, and they showed levels above these levels, equal to these levels that were shown by the screenings, which, of course, picked up all kinds of other chemical constituents. But it wasn't treated by Government as being relevant. They didn't say because we have these closed-up, heated-up, sealed-up units at these levels. They didn't come back and say, Well, everybody needs to be evacuated from units.

Mr. SOUDER. Because you have certainly said air them out.

Mr. SHEA. They said air them out, and the ATSDR did a report in February 2007. It wasn't until occupied unit testing was done 18 months after this approximately letter that Ms. Norton is referring to that there was a move to what the CDC said, quickly relocate residents. It wasn't after this EPA testing that was done well before that showed results in these sealed-up units.

Mr. SOUDER. I wanted to make a comment, and if any of you want to add to this, there is kind of a misunderstanding in applying the type of industry that has developed predominantly in Elkhart County from other industry associations and why the industry hasn't been more proactive. It is basically a start-up industry that was a collection of small companies.

Mr. Liegl, when you started what size was your company?

Mr. LIEGL. Well, when we began it was in 1996 and I

began with 20, 30 people.

Mr. SOUDER. And Forest River is now one of the biggest.

How many acquisitions would you say you have made in the last

24 months?

Mr. LIEGL. Acquisitions?

Mr. SOUDER. Yes. In other words, picking up other facilities.

Mr. LIEGL. We primarily grew from being organically grown and not through acquisition.

Mr. SOUDER. Mr. Fenech, Keystone came out of other companies in the area and was one of the most dynamic young companies. Four now has bought a whole number of companies in the District, including yours. Mr. Bennett's historically has been more typical, fairly small company that, as Government pressure comes in, and as we have more accountability, one of the byproducts of this is it is getting harder and harder for somebody to start a company of 90 employees or harder and harder to do what Keystone did without the capital, meeting all the different standards, and there are consequences to our actions. But in the ability of the association to fund their own R&D, what we have seen is a consolidation of this industry into larger companies, because, as you have to do this, you respond differently.

One of the great entrepreneurial counties--Elkhart

County is the highest percent manufacturing in America, one
of the last percent places.

One other thing that has come up, I have seen it in media reports, are shuttered buildings. I know another company which is not this, but Utilimaster, when I first visited them, sometimes operating in two buildings and sometimes they are operating in nineteen buildings, because buildings get shuttered because things are cyclical. That would be the wide range.

Mr. Shea is a little different, because your company historically has dealt more with FEMA. Has it always been significant, as opposed to Mr. Liegl is about 5 percent of yours? Is that what the trailers--

Mr. LIEGL. Correct.

Mr. SOUDER. Mr. Shea, what percent of FEMA would be a standard and what is your range that the green facilities tend to be extra cyclical? Could you kind of give an idea of how you go up and down because of the nature of your business is somewhat different than some of the others?

Mr. SHEA. Well, some years we provided 500 units to FEMA, some years we provided 14,000 units to FEMA for hurricane relief. This was the largest number we ever produced. Obviously, since that time the industry has gone downward in terms of its overall production. We have had to

adjust to that. This is going to be a very difficult year
for the industry. I have heard five or six companies already
go out of business, long-term companies, and some of the
industry segments are down 56 percent. So we do have to make
that kind of adjustment, but our utmost thing is to try to
preserve manufacturing jobs and do everything we can to do
that.

Mr. SOUDER. I have just a quick follow-up to that. The 2,000 figure was used. What would be the range of your employment?

Mr. SHEA. It could range between 1,000 and 2,000.

Mr. SOUDER. Thank you.

Chairman WAXMAN. Mr. Jordan?

Mr. JORDAN. I thank the Chairman.

I want to thank the panel, too, for coming. I represent the Fourth District of Ohio. We have Airstream, part of Four Industries, as well, in our District; Norcold, which I assume is a supplier for some of you guys. We do appreciate your being here and your industry.

I thought Mr. Issa did a nice summary when we talked about the standards. You talk about there is no test, there is no standard. In fact, in the previous panel Dr. McGeehin even said that, I think, if I got his quote right, the CDC is not a standards-setting agency. So it is a tough situation that you guys are having to deal with here.

I wanted to go to, I think, Mr. Liegl's reference. Ι 3435 didn't catch all your opening statements, but Mr. Liegl in 3436 his opening statement talked about his assistance to FEMA in 3437 past disasters. I know Mr. Shea, as well, with Gulf Stream 3438 has done that. 3439 Mr. Bennett and Mr. Fenech, have you guys also assisted 3440 FEMA in past hurricanes or past disasters? 3441 Mr. FENECH. We have never had a contract with FEMA, no. 3442 There have been some products that we have supplied, but it 3443 has been through the dealers. 3444 3445 Mr. JORDAN. And Mr. Bennett? Mr. BENNETT. We have never had a contract directly with 3446 FEMA. 3447 Mr. JORDAN. Okay. So just Gulf Stream and Forest River. 3448 3449 In your past dealings with FEMA, has there ever been problems? Have you had any complaints? Have things gone 3450 fine? 3451 Mr. FENECH. Could I go back? We did not have a direct 3452 contract with FEMA. 3453 Mr. JORDAN. You sold off your lots? 3454 3455 Mr. FENECH. No. We sold to American Catastrophe, which was an approved supplier. 3456 3457 Mr. JORDAN. Okay. Mr. FENECH. So it wasn't a direct deal with FEMA. 3458 Mr. JORDAN. Okay. But in your past dealings where your 3459

3460 units have assisted FEMA in dealing with disaster relief, have there been any problems with those units? 3461 3462 Mr. FENECH. In the past, absolutely none. 3463 Mr. JORDAN. And Mr. Shea? 3464 Mr. SHEA. We have had a very excellent relationship with 3465 FEMA over the years. We have had a laudatory letters 3466 relative to our performance, and we have worked closely with 3467 them. Mr. JORDAN. And the units that went out with Katrina and 3468 Hurricane Rita, the units that were sold there, is it 3469 3470 accurate to say they were the exact same units that you would 3471 send to your dealers and your dealers would sell to any 3472 citizen or any family who came to purchase those? 3473 Mr. FENECH. Yes, sir. 3474 Mr. JORDAN. Mr. Liegl? 3475 Mr. LIEGL. Definitely. 3476 Mr. JORDAN. Mr. Shea, same units? 3477 Mr. SHEA. We were the only manufacturer that was 3478 approved for rail transport, which was important to FEMA, and 3479 I think they shipped about 25,000 of our units by rail, so our units do have differences beyond what would be normal for 3480 our regular production. There are some differences, but all 3481 3482 the products use composite wood products like particle board and MDF and hardwood plywood. I mean, that is very much the 3483

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same for all of them.

Mr. JORDAN. And then Mr. Bennett and Mr. Fenech, same units that were part of Katrina, same units you would sell to any other customer?

Mr. FENECH. Absolutely.

Mr. JORDAN. Okay. Mr. Chairman, I yield back the balance of my time.

Chairman WAXMAN. Thank you very much.

That concludes the questioning by the Members of the Committee, and I do want to recognize Mr. Donnelly at this time.

Mr. DONNELLY. I want to thank the Chairman again for having the grace to let me be present at this hearing. And I want to welcome all of the gentlemen here for participating. There are headquarters located in our District. You have facilities located in our District. I think the other story that is here is the story of the number of families of the Gulf Coast region who were able to receive shelter from your products when they had nowhere else to put their head at night and who, because of the workers of your comps, were able to have their family have a place to stay and be able to shower and to eat and have somewhere that they could put their family unit back together.

And that the workers of your companies, the other untold story is the overtime work that was put in on a constant basis, the weekend work that was done because of the

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commitment of your workers and your companies to the people who live, their fellow Americans, down in the Gulf region.

I travel the highways of our District, as you know, and day after day almost every two or three minutes you could see another unit heading down to the Gulf region for another family.

So the one question I have is for you, Mr. Shea, and that is that the Government and scientific agencies have not seemed to be able to successfully come to a consensus as to a formaldehyde level for your products. In that absence, are you voluntarily implementing any standards, and what would they be?

Mr. SHEA. Yes, Congressman. In spring of 2007 we started implementing products that were equivalent to the upcoming CARB standards for product emissions that go into effect in 2009, and beyond that we have moved now to actually 2011 compliant products. So what we are producing now is two and a half years in front of the marketplace, as far as I know. That is where we like to be. We like to be ahead of the curve. We have been ahead of the curve in terms of using LFU products starting in the 1990s. And we also, to my knowledge, are the only manufacturer who has a third party organization that ensures our material acquisition, our supply processes, and does verification testing on products that we receive from vendors.

Mr. DONNELLY. Thank you very much.

3536 I have no other questions, Mr. Chairman.

Chairman WAXMAN. Thank you very much, Mr. Donnelly.

Some Members wish a second round, and I see Mr. Welch has just arrived and he hasn't done his first round, but let me recognize myself and then we will get to Mr. Welch down the road.

Last week CDC issued this report and we heard from CDC this morning in their testimony, and they said to us that levels of formaldehyde were elevated in these trailers, and some exceeded 500 parts per billion, which is the level that OSHA requires mandatory medical monitoring. It is that high so that they require medical monitoring. As a result of its testing, CDC recommended everyone currently living in these trailers be evacuated immediately, not just some residents, but all of them. CDC said that Government should prioritize its evacuation first to take out the elderly and children, those who are most sensitive, but then eventually get everybody out.

The witnesses on this panel that is before us right now representing the companies that sold these trailers, I would like to ask each of you, Do you agree with this Federal Government decision to evacuate these residents from your trailers if they exceed this 500 parts per billion? Mr. Shea, do you agree with that statement from CDC and

3560	recommendation?
3561	Mr. SHEA. CDC recommended that these persons be quickly
3562	relocated despite the levels. The levels were as low as
3563	three parts per billion, sir, and they ranged upwards
3564	Chairman WAXMAN. No, that is not my question. My
3565	question is we are being told that if people are living in
3566	trailers that exceed 500 parts per billion, that they be put
3567	into some other trailer, that they be relocated. Do you
3568	disagree with that?
3569	Mr. SHEA. I think that there should be all consideration
3570	for the safety of the persons. There are some statistical
3571	outlookers. There are very few of the units that I know were
3572	at that level. They average
3573	Chairman WAXMAN. But if they are at that level, do you
3574	agree with that recommendation? Yes or no?
3575	Mr. SHEA. Above that level, with the concerns that are
3576	being registered by the CDC, I would agree for public health.
3577	Chairman WAXMAN. Okay. How about you, Mr. Bennett?
3578	Mr. BENNETT. I would agree.
3579	Chairman WAXMAN. And Mr. Fenech?
3580	Mr. FENECH. I think that there are really some unusual
3581	circumstances in Louisiana, and absolutely. I mean, if it is
3582	unsafe they should be moved out.
3583	Chairman WAXMAN. Mr. Liegl?
3584	Mr. LIEGL. Yes, sir.

Chairman WAXMAN. Okay. Now, since you agree with this statement, let me ask you this: why should the Federal Government have to pay you for these trailers? The American taxpayers spent \$2 billion in trailers that can't be used. Shouldn't we get that money back if those trailers exceed those very high levels?

I don't see any of you jumping in to say yes.

Mr. SHEA. I would answer that question, sir. CDC testing totally depends on use. Anybody that would have smoked a cigarette or otherwise used the unit, it wasn't a protocol that was universal. They were totally dependent on what people did, whether they cooked fish, whether they smoked a cigarette, whether they did other things that raised these levels higher.

We are in favor not just of a standard, but we need also a protocol of testing to follow so that we know what we are comparing it to.

Chairman WAXMAN. Let me interrupt you. Two years ago you tested trailers and found that 40 percent of them exceeded that level. Mr. Fenech, CDC found that a trailer from your company, Keystone RV, had formaldehyde exposures of 480 parts per billion. Do you think that that is safe?

Mr. FENECH. Based on the information that we are hearing today, you would say that no, that doesn't sound like it is a safe level.

3610 Chairman WAXMAN. Okay. 3611 Mr. FENECH. Please let me complete my thought, if I might. But the implication then is that it is all the result 3612 3613 of the way the trailer was built, and that I don't agree with, to answer your question about the buy-back. 3614 3615 Chairman WAXMAN. But you don't think it is safe. 3616 Mr. FENECH. I am not a scientist. 3617 Chairman WAXMAN. Let me ask Mr. Bennett the question. 3618 CDC found that a trailer from your company, Pilgrim International, had 520 parts per billion. Do you think that 3619 is safe for people to live in? 3620 3621 Mr. BENNETT. I would have to state that this is long 3622 after the fact and at the time we built these units we had no 3623 standard to go by. We were building them the same way we 3624 build trailers, thousands of trailers. We had no reason to 3625 believe that these trailers were--3626 Chairman WAXMAN. But you don't think it is safe now. 3627 Mr. Shea, you are the chairman of Gulf Stream company. 3628 You provided the most trailers to FEMA. Your company was 3629 paid over a half billion dollars. CDC found that one of your 3630 trailers had formaldehyde levels 590, the highest level of any of the trailers that it examined. 3631 3632 The point that I am getting to is I don't think that a 3633 manufacturer of any product should say, well, if there is no standard I don't have to meet it. I think you have an 3634

3635 obligation to try to find out if your product is going to 3636 I think that is just the responsibility of any harm people. 3637 manufacturer that sells a product, no matter what it is, 3638 whether it is a toy or a trailer. When we hear from CDC that 3639 everyone living in these trailers at that level should be 3640 evacuated as soon as possible, nobody should live in those 3641 trailers with formaldehyde that high, it sounds like the 3642 companies who sold these trailers are not willing to say that 3643 they have some responsibility because there was no standard. 3644 I just don't accept that argument. 3645 My time has expired. Who wishes to be recognized? 3646 Bilbray? 3647 Mr. BILBRAY. Yes, Mr. Chairman. 3648 Gentlemen, this whole issue sort of is interesting how 3649 it has come around. As the Chairman knows, I served on the 3650 Air Resources Board in California, and we had major concerns 3651 about indoor pollution exposures. In fact, as far as I know 3652 right now in the 1990s we were looking at a different 3653 exposure, and that was the exposure caused by formaldehyde 3654 emissions from new purchased vehicles, new manufactured 3655 vehicles. I question, Does anybody know what the 3656 formaldehyde exposure is on a new automobile in the United

[No response.]

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Mr. BILBRAY. And is there a Federal standard of maximum

States left in the noonday sun for a few hours?

exposure for new automobiles?

[No response.]

Mr. BILBRAY. I would say, as far as I know, no, there isn't. And it is a concern and has been a concern of the Air Resources Board since the late 1980s. But do we hold automobile manufacturers responsible for that exposure and do we now open up the issue that automobile manufacturers should be held accountable for any exposure over a certain limit to new car purchasers, because I haven't bought a new car in a long time and, frankly, that new car smell is something that people talk about. But at the Air Resources Board we were addressing it.

My question is this: the formaldehyde emissions in these trailers--and in my family I was in Mississippi. I had a family home damaged in Mississippi. I saw the trailers coming in. The manufacturing products that were put in these trailers, are they products that are available in the open market at any Home Depot, at any lumber yard, or are these unique particle board and materials that are emitting formaldehyde? Gentlemen?

Mr. FENECH. I would be happy to answer that. It is off-the-shelf, standard stuff that is used every day in house building for all intents and purposes. Maybe we might get a different thickness of that material versus the standard half-inch versus we might get three-eighths, but it is

3685 off-the-shelf material.

Mr. BILBRAY. Anyone knows when the testing was done, was there any mitigation done to new construction exposed to the southern sun basically caused more aggravated emissions coming out of these particle board and other products, just like the new automobile left in the sun? In these records, what kind of application? How old were the units? And what was the parameters with which the tests were made that came up with these high numbers? Do you guys have any idea of what kind of parameters the Sierra Club used in doing these tests?

Chairman WAXMAN. You said the Sierra Club.

Mr. BILBRAY. Well, the data I had was that the Sierra Club felt there were evaluations and concerns about the exposure, Mr. Chairman. Am I wrong on that? The Sierra Club didn't have--

Chairman WAXMAN. I am misinformed, and I am sorry to have jumped in. I guess the Sierra Club did some very preliminary, early studies.

Mr. BILBRAY. And raised the concerns?

Chairman WAXMAN. Yes. The gentleman's question is based on an accurate statement.

Mr. BILBRAY. There were tests done by the Sierra Club and raised these concerns. And the testing done, the big question that is there is do we now go to all construction

material and start addressing the issue of formaldehyde in all construction material, and is that the way we could reduce this exposure, and basically say particle board may be outlawed in the United States or may not be used in construction where you have the potential for indoor pollution, which ARB in California has been talking about for over a decade.

Go ahead, sir.

Mr. SHEA. Yes, ARB is implementing, as I mentioned earlier, in 2009 new product standards which they say are the most stringent in the world. And yes, there is going to be standards certainly for our industry in using these common wood products. They need to be applied to home building, remodeling, apartments, furniture. Everyone needs to be on the same, because it is more difficult to ensure what products you are getting when there is all kinds of different products out there, so it would be helpful to have a national standard for these kinds of products.

Mr. BILBRAY. Okay. And remember, too, that the use of this particle board has actually been encouraged due to recycling of waste products from lumber activity so that waste products that would normally have been burned or thrown away are now recycled and put into this stream to be able to use it as construction material rather than using virgin material and going down and cutting down more trees. Is that

fair to say that this is how we ended up with so much particle board?

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Mr. SHEA. Yes, sir. There is a product that came into play well after our products were created. It is called environmentally preferable product. It has special standards, and they are low formaldehyde, but to be an environmentally preferable product it has to be a sustainable product and taken from the kinds of products you are talking about. In a lot of ways it is a green product.

Mr. BILBRAY. Mr. Chairman, I would just ask that when we look for a minimum standard here for exposure in a travel trailer which really does not apply to the mobile home because the exposure rate was assumed to be different, and I think there is a legitimate argument there that maybe we need to look at our own regs. But again, just as we did with medical implants and stuff, there has really got to be a line drawn here of what is the exposure or what is the responsibility of one person as opposed to another and where the source of the formaldehyde came from, and was it reasonable for somebody to feel that generally available construction material that is used universally across the construction industries in many different fields was somehow not appropriate at this location.

I think that is a debate, but I think there is a degree of back seat driving here, hindsight 20/20 that it is not a

trailer that was newly constructed that was in Minnesota during the winter where there might not have been any exposure at all. It happened to be a brand new trailer that was produced and then put into the sun in Mississippi and Louisiana in the middle of August, which really changes the whole dynamics there. That real-life application is something that we know now post-script, but to perceive that that was going to be a problem somewhere in the future I think is really second-guessing people to an extreme, especially with the fact that I still would say why are new automobiles exempt from the environmental air pollution exemption except for the fact that they are in the same clause here.

I say publicly if you own a new car don't jump into it after it has been sitting in the sun. Roll the windows down and let it air out, unless you want to get a good dose of formaldehyde. That is something that I think the consumers need to talk about back and forth. But we ought to be talking about that before the incident rather than coming back now and pointing fingers after the incident.

I yield back, Mr. Chairman.

Chairman WAXMAN. Thank you, Mr. Bilbray.

Mr. Welch?

Mr. WELCH. I thank you, Mr. Chairman.

3784 Mr. Shea, I want to ask you a little bit about a CNN

story. In April of 2006 I understand that Gulf Stream became aware that CNN was going to be doing as story on formaldehyde in FEMA trailers. You are familiar with that?

Mr. SHEA. Yes, I recollect that, sir.

Mr. WELCH. Well, it was a big deal. This was going to go to the heart of the quality of the trailers and whether people in your trailers were getting sick, right?

Mr. SHEA. Sir, I expressed earlier--I don't know if you were here--the experiences that we had with several complainants.

Mr. WELCH. Well, let me proceed here. I am saying the obvious here. As a company, you obviously want to defend the product that you put out, right? This is going to be a story raising questions about it, you are going to take that story seriously and prepare for it, right?

Mr. SHEA. As soon as the initial story came out in Bay St. Louis in mid-March, we were very much concerned with the story and the issue. Certainly.

Mr. WELCH. So Gulf Stream, your company, sent a statement to CNN in April 2006 about formaldehyde, and I want to quote from a portion of that, where it said, and we will put this up on the board if we can, 'We are not aware of any complaints of illness from our many customers of Cavalier travel trailers over the years, including travel trailers provided under our contracts with FEMA.'' Did your company

3810 make that statement? 3811 Mr. SHEA. And we are speaking retrospectively prior to 3812 the March issue when it started in March. We were talking 3813 about our experience with Florida hurricanes, and we had been 3814 building these since 1992, if you recall. 3815 Mr. WELCH. Did your company make that statement? 3816 Mr. SHEA. We did make that statement, yes, sir. 3817 Mr. WELCH. And did you make it in April of 2006? 3818 Mr. SHEA. It was made in April of 2006. 3819 Mr. WELCH. All right. So is it fair to conclude that 3820. any listener would hear your statement as asserting that your company was aware of no complaints prior to the issuance of 3821 3822 that statement? 3823 Mr. SHEA. Our intent with the statement was to describe our history of experience with this prior to this issue 3824 becoming about from Bay St. Louis in mid-March. 3825 3826 intent, sir. 3827 Mr. WELCH. Let's use English here. You made a statement 3828 in April, and as of that date I assume that you vouch for the 3829 integrity of the statement. 3830 Mr. SHEA. Sir, there were allegations. We are not even 3831 familiar with the medical aspects of any of these complaints. 3832 Mr. WELCH. So what you meant to say is that you are unaware of any substantiated medical complaints? 3833 3834 Mr. SHEA. We were aware of allegations; we were unaware

3835 of substantiated medical complaints, and we were speaking 3836 prior to the--Mr. WELCH. So why, if--3837 3838 Mr. SHEA. Previous experience in previous years, sir. 3839 Mr. WELCH. So why didn't you say you heard of 3840 allegations but not 'substantiated medical complaints'?? 3841 Mr. SHEA. Sir, we were trying to be as expressive of our 3842 history of dealing with this, and we thought that was what was important, but we were addressing the few complaints that 3843 3844 we received, sir, and the record shows that in that period we had--3845 Mr. WELCH. Let me tell you what the record does show. On 3846 3847 March 20 of 2006 on your Gulf Stream interactive website, you 3848 received a statement, you, Gulf Stream, and this is before 3849 you issued the no complaint statement -- and I will quote, and 3850 I think we can get that up here, as well--''There is an odor 3851 in my trailer that will not go away. It burns my eyes and I am getting headaches every day. I have tried many things, 3852 3853 but nothing seems to work. Please, please help me.'' 3854 Now, were you able to say that you had received no 3855 complaints because this did not come with a medical certificate? 3856 Mr. SHEA. Every complaint that we received, sir, we 3857 3858 investigated, we responded to, we asked persons if we could

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assist them.

3860	Mr. WELCH. That is not the question I am asking. I
3861	mean, I asked you how you square that statement, your
3862	statement to CNN, ''We are not aware of any complaints of
3863	illness,'' you made in April of 2006 with a statement from a
3864	customer on a website that was a complaint.
3865	Mr. SHEA. Sir, we received three complaints during that
3866	period. We addressed all of them. We were proactive on
3867	them. We asked FEMA to assist on any complaints they had.
3868	And we were
3869	Mr. WELCH. I don't want to be difficult, but
3870	Mr. SHEA. I don't want to be difficult, either, sir.
3871	Mr. WELCH. Had you received any complaints before April
3872	2006 when you issued your statement to CNN that you had no
3873	complaints?
3874	Mr. SHEA. The complaints related to this matter that we
3875	received were two for that period.
3876	Mr. WELCH. So the answer to my question is yes, you had
3877	received complaints prior to April, but you told CNN you had
3878	no complaints, correct?
3879	Mr. SHEA. We were speaking of our history with FEMA as a
3880	program, sir.
3881	Mr. WELCH. And that is a convenient way of saying that
3882	is the justification for saying something that was untrue.
3883	Mr. SHEA. Sir, I believe we have been very truthful in
3884	everything that we have done and what we have presented here

3885 today. 3886 Mr. WELCH. I will yield the balance of my time. 3887 Chairman WAXMAN. The gentleman's time has expired. 3888 Mr. Issa? 3889 Mr. ISSA. Thank you, Mr. Chairman. 3890 Mr. Liegl, I think I will switch to you and give Mr. 3891 Shea a bit of a break here. The Chairman earlier was talking 3892 in terms of shouldn't people get their money back, shouldn't 3893 the Government not pay, and so on. And I would like to set 3894 the record straight, as having been a manufacturer, myself. 3895 All of your companies -- I will ask you to answer for anyone, unless they want to pipe in, in particular -- all of your 3896 3897 companies are subject to various State lemon laws, right? 3898 Mr. LIEGL. Yes, sir. 3899 Mr. ISSA. Plus, you all have networks of dealer distributors, right? 3900 3901 Mr. LIEGL. Yes. Correct. 3902 Mr. ISSA. Now, if a customer is dissatisfied, and 3903 particularly if the customer either litigates or comes in 3904 with multiple valid complaints, if the distributor sees a 3905 problem they are going to call you up and say take this lemon back, repair or replace it, right? 3906 3907 Mr. LIEGL. I'd say that is correct. 3908 Mr. ISSA. Okay. So the industry you are in, including

the trade association norms for this industry, say if you

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make a product which is substantially defective, such as while it was on the trip to its destination somebody let it get soaked in water, or anything else that causes it to be materially different than the 10,000 other ones produced the same year, you take them back, you repair or replace them, you make them right; is that correct?

Mr. LIEGL. That is correct.

Mr. ISSA. And that is true of most of the sort of Elkhart group, if you will, of travel trailer makers. So when FEMA started having these problems, was there any doubt in any of your mind that if any of your trailers had material or workmanship failures in your design or in the materials you chose or in the work that your people did, that you would make it right by repairing or replacing it? Was there any doubt in your mind that you would do that?

Mr. LIEGL. I believe we would have.

Mr. ISSA. Okay. Has FEMA ever come to you and said,

Take back this trailer, it is defective in work that you did?

Mr. LIEGL. No, sir. Never.

Mr. ISSA. Okay. Now, you have evaluated trailers that had a myriad of problems that have been used and you were part of that evaluation of why does it have this level or why did mold produce, and so on, and so you are familiar with trailers that had a year or two down the road and have problems, right?

3935 Mr. LIEGL. Correct.

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3936 Mr. ISSA. Okay. So you have cooperated with FEMA, the 3937 Government agency that you sold to. You would take back the 3938 products if they were defective in material or workmanship, 3939 and, in fact, you have not been asked to nor have you been 3940 given a failure or any part of your spec or your material workmanship; is that correct?

Mr. LIEGL. If it was our problem, we definitely would stand behind it.

Mr. ISSA. Okay. And I would like just a nod. All the rest of you agree?

[No audible response.]

Mr. ISSA. So the norm in the industry, particularly when you are making something that feeds into State lemon laws and so on, as these things do, the norm is you make it right, you use your distributor network, your dealer networks to make it right if it is in the field without bringing it back. in fact, even though we are having this hearing today and we are talking about people suffering and so on--which I am not disputing that people have had health problems while living in these trailers, but in no way, shape, or form has the Government come to you and said you did this wrong as of today? No allegations against any of the four of you other than what you heard from the dias here today?

Mr. SHEA. Correct.

3960 Mr. BENNETT. That is correct.

3961 Mr. FENECH. Correct.

3962 Mr. LIEGL. Right.

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Mr. SHEA. Okay. I think, Mr. Chairman, that makes the 3963 3964 case that these are not the wrongdoers. Government may very 3965 well have failed the people of Louisiana and Mississippi. 3966 They may be continuing to fail them by not setting standards 3967 for the travel trailers or living accommodations, by not 3968 having ongoing testing. That may all be very true. 3969 Certainly, as a Californian, you and I share the leading edge 3970 of air quality that California is known for. But none of 3971 that is here today.

So I am not defending anyone, but I would like to thank all four of you for coming here today, for testifying honestly, and, in fact, for the fact that nothing has been said here that causes you to have done anything wrong. You may have tested and come up with high or low or different levels, but, again, as we heard from the CDC, these are all things we would like to do but Government, as of today, hasn't done it.

So, Mr. Chairman, since we are the Government Oversight and Reform Committee, now that we have, I think, completed most of our oversight, I would hope that we would join on a bipartisan basis to do the reform of making sure that the Government agencies responsible for air quality, whether it

is in manufactured items or in the air, itself, do their job and set appropriate standards and testing procedures so that we don't again haul in four CEOs of companies who, as of today, have not had one product returned as defective or somehow inappropriate to the design, and rather make sure that we have standards for the next one so that these four will competitively bid on a product that would be improved once we decide what improved means.

So, Mr. Chairman, I thank you for holding this hearing, but I do very strongly hope that on a bipartisan basis we will do that second leg and ensure that we set standards that people can manufacture to.

With that I thank you and yield back.

Chairman WAXMAN. Thank you, Mr. Issa.

I want to ask Mr. Burton and Mr. Souder if you wish to have a second round?

Mr. BURTON. Yes, I want one.

Chairman WAXMAN. Okay. Mr. Burton?

Mr. BURTON. I want to read to you what it says regarding the parts per billion and what HUD sets as a target. It says, ''HUD set a target of 400 parts per billion for indoor ambient air in manufactured homes. HUD's indoor ambient air target guideline of 400 parts per billion is based on component standards for plywood and particle board.

In the unoccupied units testing revealed baseline

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formaldehyde levels were at 1,040 parts per billion, but fell to an average of 390 when the air conditioner was turned on. The averages fell even lower to 90 parts per billion when the windows were opened. The baseline average is probably attributable to the fact that unoccupied trailers were sealed up in storage, they were in the sun, and had little or no air conditioning or exiting. In all occupied units, the average level was 77 parts per billion and 81 parts per billion for travel trailers specifically.''

I kind of am disappointed that we have you four here beating up on you, because I don't think you have done anything wrong. You have used standard materials off the shelf that is used in any kind of home construction or remodeling. I have had it done in my house. The location of the mobile homes in question was in an area that was extremely hot. They were sealed up and nobody was in them, and so when somebody went in them obviously the parts per billion would be much, much higher and it would take a while for them to cool off. And if they didn't open the windows, it would probably take even longer for them to get all the parts per billion down to where they should be.

Then you have to take into consideration how the occupants lived, if they had a dog in the house, if they bought additional furniture or different kinds of other things that might have formaldehyde in them. Did they smoke?

How did they cook? Did they like higher temperatures in their house or lower temperatures in their house? There is all kinds of imponderables that you have to take into consideration when you are talking about the parts per billion.

You know, in all of our houses we have carpet, we have furniture, we have construction material that you use in your products. And I am going to go home and try to find out how much I have got in my house, and when I exercise downstairs where I have it all closed up I am going to open the doors because I am concerned about my health.

I just think, you know, there is eight million of these units in use around the Country, very, very few complaints, if any, and I just think for us to call you in here and pound on you and infer that you are lying about your products and everything, I think is just unconscionable, and I want to thank you for being here, for being so forthright, and for providing an industry that helps people when they are in need and suffering like they did in Florida during the hurricanes and like they have done in places like Katrina in the south on the Gulf.

Obviously, the Chairman has a right to call a hearing on almost anything, but I am disappointed in much of the questioning that has gone on today, because it questions your integrity, and I don't think it should have been done.

4060	With that, I yield back.
4061	Chairman WAXMAN. Mr. Souder?
4062	Mr. SOUDER. Is Mr. Welch going to ask any more
4063	questions?
4064	Chairman WAXMAN. Why don't you just go ahead and take
4065	your second round?
4066	Mr. SOUDER. I would like to hear what other questions
4067	are before. I know the Chairman has a right to summarize,
4068	but if Mr. Welch has additional questions I would like to
4069	reserve.
4070	Chairman WAXMAN. Let me ask you this. If I make a
4071	concluding statement, do you want to make a concluding
4072	statement?
4073	Mr. SOUDER. You get to make the concluding statement. I
4074	wanted to know if Mr. Welch had another round.
4075	Chairman WAXMAN. Do you wish to be recognized at this
4076	time?
4077	Mr. WELCH. No.
4078	Chairman WAXMAN. Okay.
4079	Mr. SOUDER. Okay. I will just make my comments.
4080	Mr. WELCH. Thank you.
4081	Chairman WAXMAN. So we will both make concluding
4082	statements?
4083	Mr. SOUDER. Yes.
4084	Chairman WAXMAN. Okay.

Mr. SOUDER. Do you want me to go first?

Chairman WAXMAN. Whatever you want.

Mr. SOUDER. Well, you are the Chairman. You have a right to summarize. I just wanted to see whether you were going first.

Chairman WAXMAN. Why don't you wait and hear what I have to say and you will have the last word about the whole thing.

First of all, I want to ask unanimous consent that the staffs have discussed the release of documents and have reached a mutual understanding and so I ask unanimous consent that these documents be part of the record.

Mr. SOUDER. Reserving the right to object, I merely want to say that, while I have some concerns, I really appreciate the majority working with us. I will withdraw my objection.

Chairman WAXMAN. Okay. Thank you.

This is our second hearing on this issue of formaldehyde in these trailers. I thought it was the second hearing of the Congress, but it turned out that during the course of today's hearing we got a phone call, and that phone call was from a staff person who worked for this Committee in 1981, and he told us there was a hearing at that time on the question of formaldehyde in trailers, and at that time, at the conclusion of the hearing the Members of Congress said to the FEMA and to HUD and to the Consumer Product Safety Commission and OSHA they ought to set a standard. They ought

to set a standard for formaldehyde levels in trailers. That was 1981.

So I agree with my Republican colleagues when they say this is a failure of Government. Government should have set standards. Government should have protected the public from the dangers from formaldehyde, and the Government failed. But I also think this is a failure of industry, because some of you did testing and you found that there was a problem and then that was the end of it. We didn't hear anything more. Some of you didn't want to test at all, even though reports were coming out in the press about high formaldehyde levels in trailers causing people to be sick.

I do want everyone to understand when we heard about the fellow who said the smell is too bad, come and help me, I am wheezing and having all sorts of medical problems or symptoms, please, please, please help me, that was rare.

Most people don't smell anything. But suddenly they have symptoms. They don't go to the manufacturer and say, I have got symptoms, take your trailer back. They don't even know what is causing it.

So Government should know what is causing it, because it is well established that formaldehyde can cause these symptoms, and I believe industry has a responsibility, as well, to know that if they are selling this product that it may cause health problems to those who are buying it.

Testing by Mr. Shea's company showed high levels. Some of these levels were far above even the highest standard where there was a regulatory standard. They were in the hundreds and thousands of parts per billion. I think a manufacturer knowing this information had an obligation to make the product safer and to understand that perhaps there was a problem that needed to be corrected.

I think the rest of you also had an obligation to do some testing, not to act as if you didn't know, therefore there is nothing required of you.

Now, I am pleased that the four of you are in business. I am pleased that you have employees that have jobs with you. I am pleased that you have Members of Congress from your area that will vouch for you personally. I think you are entitled to make your profits, and even doubling of your salary in those two years when you had the FEMA contract, Mr. Shea, for you and I think it was your brother. You are entitled to that. I don't begrudge any of that. I want you to be in business.

But I think that when we have to abandon trailers, that it is not just the Government that should pay for it. I think there is some responsibility for the manufacturers, as well, because these levels should have been of concern.

I know that some Members have acted like you are victims because you are simply asked to come here and answer

questions. I think that those that really suffered are the people who are getting sick from formaldehyde in these trailers. I think they are victims of FEMA's incompetence. they were victims of manufacturers who didn't disclose what they knew about the formaldehyde dangers, as well.

We will see where all of this goes. I am willing to entertain ideas for legislation. That is the purpose of our oversight hearings. But also to find out what really happened.

I think that what happened is a disgrace on the part of the Government particularly, but is not an exoneration for the manufacturers who know or should have known or, in fact, did know that the trailers were not safe for those who were inhabiting them, and now the taxpayers have to be stuck with the bill.

So those are my concluding comments. I thank you all for being here voluntarily and cooperating with us. I think that is to your credit.

Now any comments you want to make to close off the hearing?

Mr. SOUDER. I thank the Chairman for his generosity. I wasn't trying to have the last views, but I appreciate that, because this industry is really critical to my Defense, as well as to Mr. Donnelly's. I was at the Goshen Air Show Saturday and people kept coming up asking, do you think we

are going to get our jobs back? We really want to work.

They love working in this industry. We need to keep this industry going. They have worked hard to meet the emergency demand.

We clearly today have kind of confused all sorts of things, but basically nobody wants to defend somebody getting sick. The challenge here is there is no evidence, even though it is a carcinogenic, at this point of, beyond basically itching, coughing, wheezing type things. This may be like peanuts: different people have allergic reactions. Clearly we need to be moving towards some sort of a warning standard as we do this research that different people react differently to this. That is at very minimal that should be there.

HUD had a standard. They met the standard, as far as they knew. Questions came up and the company volunteered to try to test, even though FEMA could have done those tests, even though FEMA was at the plant from morning until afternoon. The test was not prohibitively expensive. The company tried to engage FEMA and FEMA wasn't interested. The incredible justified negative publicity about the Government's handling of Katrina and FEMA has now resulted in an over-reaction to make it 16 parts, which is not achievable for emergency housing.

I want to reiterate again that the 390 that was tested

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scientifically, not by the type of formaldehyde meter, but scientifically to the gold standard. In Louisiana, in southern Louisiana, trying to convert the 6.6 milligrams per meter, which is their high point, appears to convert to 4,000 parts per billion for the highest of a site-built house in the region. This isn't a question just of manufactured housing, of travel trailers. It is a fundamental question about the materials, how they interact by region, and we need to have a scientific approach to this. Given the fact that we do not have that evidence of how much is even in the particular wood here versus in other homes in that region, given the ambient air standard on the Hancock study, which itself was not precisely the same type of thing, it is my belief unfair to suggest that the manufacturers bear responsibility when the science is, at the very least, very conflicted. It is not clear that every home in the region isn't hitting--certainly if 390 is the mean, or the average, that means that a significant percentage of every house in at least, given what we know now, in Louisiana doesn't meet the standard. And we aren't asking for all our HUD houses to be backed. Private owners aren't asking to be backed. been my concern with this industry, not that we shouldn't be trying to learn the danger to individuals. I look forward to working with the Chairman in the

I look forward to working with the Chairman in the future.

4235	Thank you.
4236	Chairman WAXMAN. Thank you very much, Mr. Souder. Thanks
4237	for all the witnesses' participation.
4238	That concludes our hearing and we stand adjourned.
4239	[Whereupon, at 1:55 p.m., the committee was adjourned.]