

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE AND TECHNOLOGY

SUITE 2320 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6375
TTY: (202) 226-4410
<http://science.house.gov>

January 28, 2008

Dr. Howard Frumkin
Director, National Center for Environmental Health/
Agency for Toxic Substances and Disease Registry
1825 Century Blvd.
Atlanta, Georgia 30345

Dear Dr. Frumkin:

The stated mission of the Agency for Toxic Substances and Disease Registry (ATSDR) "is to serve the public by using the best science, taking responsive public health actions, and providing trusted health information to prevent harmful exposures and disease related to toxic substances."¹ One of its tasks is to provide "health consultations" to federal and state agencies on the potential health effects of human exposure to toxic and hazardous substances, such as formaldehyde.

Your agency's February 2007 "Health Consultation," done at the request of the Federal Emergency Management Agency (FEMA) on the potential health effect of exposure to formaldehyde in the trailers FEMA is using to house Hurricane Katrina and Hurricane Rita victims calls into question whether you have failed to uphold the agency's core mission and values. Documents obtained recently by the Committee make us question whether you used "best science" or provided "trusted health information" to some of the nation's most vulnerable citizens, or just provided the evaluation that FEMA preferred.

In the wake of Hurricane Katrina, FEMA placed tens of thousands of families in travel trailers. More than 40,000 trailers are still being used by families displaced by Katrina. Almost immediately, FEMA received complaints about the levels of formaldehyde in those trailers. FEMA's response to those complaints has attracted the attention of other Congressional Committees; however, the role of ATSDR in helping FEMA justify its decision to leave people in place has gone unexamined.

FEMA turned to ATSDR to issue a "Health Consultation" on formaldehyde, which was sent to FEMA on February 1, 2007. FEMA appears to have "shopped" this request to the Coordinating Office of Terrorism Preparedness and Emergency Response (COTPER) at ATSDR. This office specializes in giving guidance on short term

¹ ATSDR Statement of Mission, accessible here: <http://www.atsdr.cdc.gov/mission.html>

exposures to chemicals. According to information provided to the Subcommittee, FEMA explicitly sought to insure that no long-term exposure considerations would be included in the health consultation despite the obvious fact that the families living in the trailers were subjected to long term exposure. Further, the Director of the Division of Toxicology and Environmental Medicine, Dr. Christopher T. De Rosa, was by-passed in producing this report because he had expressed to FEMA his opinion that any evaluation would need to address potential long-term exposure and cancer risks.

Whether FEMA was able to convince low-level ATSDR staff to act independently in going around their management chain or whether higher level managers—yourself or your deputy, Dr. Tom Sinks—ordered them to do so is unclear. However, the normal health consultation review process would have included the participation of Dr. De Rosa. But he was not involved in the FEMA-requested guidance—contrary to normal agency practice—and appears not to have even known that his staff was engaged in this project. Apparently, you and Dr. Sinks reviewed the consultation and approved it for release. One way or another, you appear to have been complicit in giving FEMA precisely what they wanted.

However, what FEMA wanted and what you approved giving them was not the whole truth regarding formaldehyde. It was not based on “best science,” nor did it provide “trusted health information” to the Katrina survivors. When Dr. De Rosa learned of the guidance and reviewed it, he drafted a letter to FEMA trial attorney Patrick Edward Preston dated February 27, 2007, regarding his concerns about the ATSDR Health Consultation on formaldehyde. “I am concerned that this health consultation is incomplete and perhaps misleading,” wrote Dr. De Rosa. “Formaldehyde is classified as ‘reasonably anticipated to be a human carcinogen.’ As such, there is no recognized ‘safe level’ of exposure. Thus, any level of exposure to formaldehyde may pose a cancer risk, regardless of duration. Failure to communicate this issue is possibly misleading, and a threat to public health.”

Dr. De Rosa forwarded his draft letter to you that same day. In a follow-up e-mail to you on March 9, 2007, Dr. De Rosa explained: “FEMA’s initial contact came directly to me nine months ago on this issue. I reviewed the proposed statement and specified that they had neglected to address longer term risk including cancer.” In your response, you wrote: “OK, I’ve read your letter Chris. I agree with your concern and I agree that we need to amend our Health Consultation with information on cancer risk.” You suggested in that e-mail that “the author of the health assessment [consultation] send an amendment, so we speak with a single voice.”

Yet, even after you were specifically told about the scientifically flawed and potentially misleading information in this report and apparently agreed that it should be amended, your agency did not revise this Health Consultation until seven months later in October 2007.² Your lack of urgency in this matter is remarkable. In fact, the February 2007 Health Consultation without any amendment addressing the potential long term health consequences of exposure and cancer risks or notice that it was being revised, was

² ATSDR, “An Update and Revision of ATSDR’s February 2007 Health Consultation,” October 2007.

posted on the Centers for Disease Control and Prevention's (CDC) web-page on July 27, 2007.

The October 2007 report noted: "The previous health consultation dated February 1, 2007, contained insufficient discussion of the health implications of formaldehyde exposure, and some language may have been unclear, potentially leading readers to draw incorrect or inappropriate conclusions."³ According to your agency's own documents, "A Health Consultation is a way for ATSDR to respond quickly to a need for health information on toxic substances and to make recommendations for actions to protect the public's health."⁴ Obviously, your initial report was misleading and the subsequent revision of the flawed February 2007 Health Consultation was anything but quick. The issuance of this report raises grave concerns about the trust the public and Congress can put in your agency to use the "best science" and provide "trusted health information" about potential public health dangers and risks.

Pursuant to Rules X and XI of the United States House of Representatives, the Committee on Science and Technology is delegated "the function of reviewing and studying, on a continuing basis, all laws, programs, and Government activities dealing with or involving nonmilitary research and development." Committee Rule 3(a)(5) authorizes the Subcommittee on Investigations and Oversight to carry out "general and special investigative and oversight authority on all matters within the jurisdiction of the Committee on Science and Technology."

An area of particular concern to the Subcommittee is the integrity of scientific research and development. Therefore, by this letter, I am asking that you provide the following records (as defined in the Attachment):

1. All records of communications to, from or between FEMA, you, Dr. Tom Sinks, Dr. Julie Gerberding, Dr. Henry Falk, Dr. Chris De Rosa, James Holler, Joseph Little, Scott Wright, Mark Keim, Phillip M. (Mike) Allred or any other ATSDR or CDC official regarding testing, analysis or related work involving formaldehyde in FEMA trailers or other temporary housing units.
2. All records regarding what actions you took, if any, after you were copied on an e-mail from Samuel Coleman at the Environmental Protection Agency on December 1, 2006, expressing concerns about how FEMA was interpreting data provided by ATSDR.⁵ E-mail from Sam Coleman (EPA) to Joseph D. Little and Scott V. Wright (ATSDR), Dec. 1, 2006 (copy included in attachment).
3. All records regarding what actions you took once you learned of concerns from

³ "Update and Revision," supra, "Notice to Reader."

⁴ ATSDR Health Consultations – Fact Sheet. Accessible here: www.atsdr.cdc.gov/HAC/consult.html

⁵ E-mail from Sam Coleman (EPA) to Joseph D. Little and Scott V. Wright (ATSDR), Dec. 1, 2006 (copy included in attachment).

senior ATSDR officials about the February 2007 "Health Consultation" provided to FEMA. This should include any and all records regarding actions you or other ATSDR officials took between February 2007 and the release of the revised ATSDR Health Consultation in October 2007.

4. Copies of all protocols or processes used to review and approve ATSDR Health Consultations prior to official release. Please provide a list of the persons required to sign off on Health Consultations before release.
5. All records relating to any communications with FEMA prior to the initiation of the initial health consultation on formaldehyde and the February and October 2007 consultations.
6. All records regarding the posting of the February 2007 Health Consultation on the CDC web site.
7. All records relating to the revision of the February 2007 Health Consultation and culminating in the October Update and Revision not already produced above.
8. All records relating to the FEMA/CDC efforts to develop protocols and sampling designs for the formaldehyde testing begun in December of 2007, including a copy of the report provided by an expert panel convened by CDC and a list of all members of that panel. Please provide a copy of all final protocols and sampling design.
9. All records relating to the contract with Bureau Veritas North America to conduct sampling of the trailers and its implementation.

Please provide the requested records to the Subcommittee offices in Room B-374 of the Rayburn House Office Building by 5 p.m. on Friday, February 15, 2008. If you have any questions or need additional information, please have your staff contact Douglas Pasternak, Subcommittee professional staff member, at (202) 226-8892, or Dr. Dan Pearson, Subcommittee staff director, at (202) 225-4494.

Your assistance in this matter is greatly appreciated.

Sincerely,



BRAD MILLER
Chairman
Subcommittee on
Investigations & Oversight



NICK LAMPSON
Chairman
Subcommittee on
Energy & Environment

cc: JAMES SENSENBRENNER, JR.
Ranking Member
Subcommittee on Investigations & Oversight

BOB INGLIS
Ranking Member
Subcommittee on Energy & Environment

Attachment

ATTACHMENT

1. The term "records" is to be construed in the broadest sense and shall mean any written or graphic material, however produced or reproduced, of any kind or description, consisting of the original and any non-identical copy (whether different from the original because of notes made on or attached to such copy or otherwise) and drafts and both sides thereof, whether printed or recorded electronically or magnetically or stored in any type of data bank, including, but not limited to, the following: correspondence, memoranda, records, summaries of personal conversations or interviews, minutes or records of meetings or conferences, opinions or reports of consultants, projections, statistical statements, drafts, contracts, agreements, purchase orders, invoices, confirmations, telegraphs, telexes, agendas, books, notes, pamphlets, periodicals, reports, studies, evaluations, opinions, logs, diaries, desk calendars, appointment books, tape recordings, video recordings, e-mails, voice mails, computer tapes, or other computer stored matter, magnetic tapes, microfilm, microfiche, punch cards, all other records kept by electronic, photographic, or mechanical means, charts, photographs, notebooks, drawings, plans, inter-office communications, intra-office and intra-departmental communications, transcripts, checks and canceled checks, bank statements, ledgers, books, records or statements of accounts, and papers and things similar to any of the foregoing, however denominated.
2. The terms "relating," "relate," or "regarding" as to any given subject means anything that constitutes, contains, embodies, identifies, deals with, or is in any manner whatsoever pertinent to that subject, including but not limited to records concerning the preparation of other records.

From: Krohmer, Jon [mailto:Jon.Krohmer@dhs.gov]

Sent: Monday, July 23, 2007 10:37 AM

To: Grover.wedworth@ema.alabama.gov; jguidry@dhh.la.us; jim.craig@msdh.state.ms.us;

Arthur.sharp@msdh.state.ms.us; Eduardo.sanchez@dshs.state.tx.us; Wetter, Donald (HHS/OPIIS); Bennett, Jean (HHS/OS)

Subject: formaldehyde trailer information

Date: July 23, 2007

To: Grover Wedworth, AI, DPH
Jimmy Guidry, LA DPH
Jim Craig, MS DH
Arthur Sharp, MS DH
Eduardo Sanchez, TX DSHS
Donald Wetter, HHS Region 4 EPC
Jean Bennett, HHS Region 6 EPC

From: Jeffrey W. Rungc, MD
Chief Medical Officer

RE: Formaldehyde Information

I am sure you are aware that the issue of formaldehyde exposure in travel trailers provided by FEMA to hurricane victims has received additional attention last week by the Department of Homeland Security. The pitch of activity was stimulated by a finding during a Congressional hearing that some employees of FEMA had been minimizing the consequences to hurricane victims. That finding stunned everyone in the senior leadership of DHS, and we find the position that anyone should put financial and liability concerns over the public's health to be abhorrent and indefensible.

We anticipate that many of you may be getting additional inquiries from your citizens about the dangers of formaldehyde exposure and want to make you aware of the steps DHS has taken. Attached is the flyer that is being hand delivered to every occupant of a travel trailer and a statement from Chief Paulison defining the FEMA position and set of actions. We have also prepared a "two-pager" for you in case formaldehyde toxicity and housing issues are not at the top of the list of things you have read about recently. It is a very complex topic, but these basic may be helpful.

Since the beginning of May when we heard from a pediatrician in Mississippi caring for many of these families that there may be more here than meets the eye, we engaged a multidisciplinary team at CDC to help us formulate a research plan that includes sampling and data collection on the indoor environments of the trailers, a paper study looking at what standards may

be applied that were not created for this application, and if any engineering enhancements exist that would reduce exposure from living in a travel trailer. This week, we will be in your area with our CDC support team doing some preliminary data collection. We would be happy to share the plan with you if you are interested.

Please feel free to email me or call me with the information below if you have any questions or issues.

Jeffrey W. Runge, MD

Chief Medical Officer

U.S. Department of Homeland Security

202-254-6479

jeff.runge@dhs.gov

Att: cover memo

Statement of Adm Paulison

FEMA Housing Occupants Handout

Background health information on formaldehyde

cc: ASFR - Vanderwagen; Parker

CDC - Falk

Jon R. Krohmer, MD, FACEP

Deputy Assistant Secretary and

Deputy Chief Medical Officer

Office of Health Affairs

Department of Homeland Security

202-254-6479 phone

202-254-6094 fax

February 27, 2007

Patrick Edward Preston, Trial Attorney
Office of Chief Counsel
Federal Emergency Management Agency
US Department of Homeland Security
500 C Street, SW
Washington, DC 20472
(202) 646-4536

Dear Mr. Preston:

It has just come to my attention that the Health Consultation "Formaldehyde Sampling at FEMA Temporary Housing Units" has been completed without a policy review by our senior technical staff. I am concerned that this health consultation is incomplete and perhaps misleading.

Formaldehyde is classified as "reasonably anticipated to be a human carcinogen. As such, there is no recognized "safe level" of exposure. Thus, any level of exposure to formaldehyde may pose a cancer risk, regardless of duration. Failure to communicate this issue is possibly misleading, and a threat to public health. I had discussed this issue several months ago in a review of the public statement derived from Toxicological Profile that FEMA proposed. I specified at that time that this statement contained no mention of the cancer risk and that should be a public health concern.

Thank you for your consideration of this issue and please feel free to contact me. Failure to speak to the long-term cancer risk regarding formaldehyde exposure irrespective of duration is of particular concern.

Christopher T. De Rosa, M.S., Ph.D.
Director, Division of Toxicology and Environmental Medicine
Agency for Toxic Substances and Disease Registry

De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)

From: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Sent: Tuesday, February 27, 2007 7:22 PM
To: Frumkin, Howard (ATSDR/OA/OD); Sinks, Tom (ATSDR/OA/OD)
Cc: Holler, James S. (Jim) (ATSDR/DTEM/PRMSB); Murray, Ed (ATSDR/DTEM/ATB)
Subject: FW: Draft Letter

Attachments: Patrick Edward Preston.doc

Howie and Tom,

This is the issue that I discussed w/ you Tom this afternoon. The letter captures some of my concerns on this consult which I saw for the first time today. In my discussions w/ staff, regarding why I was not in the loop, I was informed that they were working on this under the directions of your office. I now have a clearer picture of this and have reaffirmed our SOP's that have been in place for many years. I regret this breakdown and have addressed this issue w/ our staff.

I have no intention of pursuing this any further until I have direction from your office.

Chris


Christopher T. De Rosa, M.S., Ph.D.
Director, Division of Toxicology and Environmental Medicine
Agency for Toxic Substances and Disease Registry
1600 Clifton Road - Mailstop F32
Atlanta, GA 30333
(770) 488-7003



Patrick Edward
Preston.doc (30...

De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)

From: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Sent: Friday, March 09, 2007 1:56 PM
To: Frumkin, Howard (ATSDR/OA/OD); Sinks, Tom (ATSDR/OA/OD)
Subject: RE: Draft Letter to FEMA

The consultation was developed, sent forward, and signed by our DTEM staff. They indicated to me that they had been directed to not share the information further and not to address longer term health effects. That's why IARC was cited repeatedly without reference to cancer and was not included in the literature cited. 

FEMA's initial contact came directly to me nine months ago on this issue. I reviewed the proposed statement and specified that they had neglected to address longer term risk including cancer.

FEMA then came back through our COPTER office with the same request and this was then assigned to DTEM staff. After completion of the consultation our staff sent their signed consultation directly to COPTER who sent out the letter.

By separate email I have shared this proposed response with Mark Keim. If you wish for him to send it out that's fine. Otherwise I will send it out at your direction. Either way is fine with me.

Christopher T. De Rosa, M.S., Ph.D.
Director, Division of Toxicology and Environmental Medicine
Agency for Toxic Substances and Disease Registry
1600 Clifton Road - Mailstop F32
Atlanta, GA 30333
(770) 488-7003

From: Frumkin, Howard (ATSDR/OA/OD)
Sent: Friday, March 09, 2007 1:23 PM
To: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD); Sinks, Tom (ATSDR/OA/OD)
Subject: RE: Draft Letter to FEMA

OK, I've read your letter Chris. I agree with your concern and I agree that we need to amend our Health Consultation with information on cancer risk. However, I don't think a separate letter from a different location in our agency than originated the initial consultation is the right way to go. It would be better to have the author of the health assessment send an amendment, so we speak with a single voice. Did this come out of Bill Cibulas's shop?

Howard Frumkin, M.D., Dr.P.H., Director
National Center for Environmental Health /
Agency for Toxic Substances and Disease Registry
Centers for Disease Control and Prevention
1600 Clifton Road, MS E-28
Atlanta, GA 30333
Tel 404-498-0004
Fax 404-498-0083
E-mail hfrumkin@cdc.gov
FedEx deliveries:
1825 Century Boulevard
Atlanta, GA 30345

From: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Sent: Thursday, March 08, 2007 9:34 AM
To: Frumkin, Howard (ATSDR/OA/OD); Sinks, Tom (ATSDR/OA/OD)

Cc: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Subject: Draft Letter to FEMA
Importance: High

Howie and Tom,

I am resending the previous email (below) which describes my concerns regarding the formaldehyde health consultation. If I receive no objections from you, I will send the attached letter to FEMA by C.O.B Friday, March 9.

Chris

From: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Sent: Tuesday, February 27, 2007 7:22 PM
To: Frumkin, Howard (ATSDR/OA/OD); Sinks, Tom (ATSDR/OA/OD)
Cc: Holler, James S. (Jim) (ATSDR/DTEM/PRMSB); Murray, Ed (ATSDR/DTEM/ATB)
Subject: FW: Draft Letter

Howie and Tom,

This is the issue that I discussed w/ you Tom this afternoon. The letter captures some of my concerns on this consult which I saw for the first time today. In my discussions w/ staff, regarding why I was not in the loop, I was informed that they were working on this under the directions of your office. I now have a clearer picture of this and have reaffirmed our SOP's that have been in place for many years. I regret this breakdown and have addressed this issue w/ our staff.

I have no intention of pursuing this any further until I have direction from your office.

Chris

Christopher T. De Rosa, M.S., Ph.D.
Director, Division of Toxicology and Environmental Medicine
Agency for Toxic Substances and Disease Registry
1600 Clifton Road - Mailstop F32
Atlanta, GA 30333
(770) 488-7003

<< File: Patrick Edward Preston.doc >>

De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)

To: Frumkin, Howard (ATSDR/OA/OD); Sinks, Tom (ATSDR/OA/OD);
'Meiburg.Stan@epamail.epa.gov'; Deltchman, Scott (CDC/CCEHIP/NCEH); Allred, Phillip M.
(Mike) (CDC/CCEHIP/NCEH)
Cc: Fowler, Bruce (ATSDR/DTEM/OD); Murray, Ed (ATSDR/DTEM/ATB); Orloff, Ken L. (OIG);
Osterloh, John (CDC/CCEHIP/NCEH)
Subject: FW: Indoor air formaldehyde

Howie and et. al.,

We should be very cautious about the use of the word "safe" in reference to formaldehyde. Since it is a carcinogen it is a matter of science policy that there is no "safe" level of exposure. DHHS has classified formaldehyde as "reasonably anticipated" to be a human carcinogen." IARC has determined that formaldehyde is "probably carcinogenic to humans" while EPA has determined that formaldehyde is "a probable human carcinogen."

In addition to cancer formaldehyde has been shown to be a reproductive/developmental toxicant and is a skin sensitizer as is evidenced by the reported symptoms of the children in the trailers in Mississippi. These overt symptoms will probably trigger sensitization in some proportion to varying degrees in children.

Nevertheless, there are acute, intermediate and chronic inhalation MRLs in our toxicological profile as well as intermediate and chronic oral MRLs for non-cancer end points. Since these values have been peer and publically reviewed, I would suggest that they be used as a point of departure for any deliberative process.

Also, please note that it has been demonstrated that formaldehyde potentiates the effects of the triazido monomer found in melamine which is currently a dietary concern being addressed by FDA in consultation with a number of different agencies including CDC/NCEH and ATSDR.

To my knowledge this represents the third time that FEMA has approached NCEH/ATSDR requesting that we specify safe levels of exposure to formaldehyde. In two instances they specifically requested that we limit the scope of our response to short term exposures. Last fall, I was contacted by FEMA in region 4 requesting that I review and approve a modified version of our ToxFaqs sheet. More recently we were contacted through OPTER again requesting guidance for short term exposures only.

For these reasons we should be very cautious in making a public health call on this issue.

Chris

Christopher T. De Rosa, M.S., Ph.D.
Director, Division of Toxicology and Environmental Medicine Agency for Toxic Substances
and Disease Registry 1600 Clifton Road - Mailstop F32 Atlanta, GA 30333
(770) 488-7003

-----Original Message-----

From: Murray, Ed (ATSDR/DTEM/ATB)
Sent: Friday, June 01, 2007 4:31 PM
To: De Rosa, Christopher (Chris) (ATSDR/DTEM/OD)
Subject: FW: Indoor air formaldehyde

fyi

Ed

-----Original Message-----

From: Fowler, Bruce (ATSDR/DTEM/OD)
Sent: Friday, June 01, 2007 2:27 PM
To: Orloff, Kenneth G. (ATSDR/DHAC/OD); Murray, Ed (ATSDR/DTEM/ATB)
Subject: Re: Indoor air formaldehyde

Hi Ken: I am sure we can help out. I am copying Ed Murray on this and will ask him to forward the name of our SME on formaldehyde to you. I will also volunteer if needed. I thought they had stopped using the foam insulation in mobile homes long ago. Wow-lowest bidder.

Best,
Bruce

Sent from my BlackBerry Wireless Device

-----Original Message-----

From: Orloff, Kenneth G. (ATSDR/DHAC/OD)
To: Fowler, Bruce (ATSDR/DTEM/OD)
CC: Cibulas, William (ATSDR/DHAC/OD); Williams-Fleetwood, Sharon O. (ATSDR/DHAC/OD)
Sent: Fri Jun 01 14:00:13 2007
Subject: Indoor air formaldehyde

Bruce,

FEMA and the Department of Homeland Security have requested assistance from NCEH in investigating reported respiratory illness in children who are living in trailers provided by FEMA for families displaced by Hurricane Katrina. As you are probably aware, Scott Wright and Joe Little have written a health consultation that assesses the impact of various ventilation methods on indoor air levels of formaldehyde in these trailers.

As part of its investigation, NCEH has asked DHAC to recommend indoor air levels of formaldehyde that would be safe for residents of FEMA trailers (there are no EPA or federal standards). To respond to this request, I will be chairing a small ad hoc work group of toxicologists and health assessors. I would appreciate DTEM's participation in this workgroup, and I am requesting 1 or 2 DTEM staff to participate in the discussions. This is a fast-track request, and I hope to get a recommendation out in 30-days.

Please indicate if DTEM can participate.

Thanks, Ken

CHRONOLOGY OF FORMALDEHYDE IN FEMA TRAILERS

6/19/2006: First conference call to discuss FEMA's concern of formaldehyde in temporary housing units used by Hurricane Katrina displaced persons. Participants on the call included Don Benken (NCEH Katrina lead), Scott Wright (ATSDR ER), Joseph Little (ATSDR ER), Gary Perlman (ATSDR DRO), Sam Coleman (EPA 6), Rick Preston (FEMA OGC), and other FEMA, EPA, and ATSDR representatives. Concerns by FEMA about this issue are due to a pending lawsuit against FEMA concerning formaldehyde exposure from temporary housing units.

7/10/2006: Joseph Little (ATSDR ER) and Gary Perlman (ATSDR DRO) met with Sam Coleman (EPA 6) and Dana Tulis (EPA HQ) to discuss the formaldehyde issue while at the EPA On-Scene Coordinator (OSC) Training in Los Angeles, CA.

7/13/2006: A conference call was conducted from the EPA OSC Training in Los Angeles. Participants on the call included Joseph Little (ATSDR ER), Gary Perlman (ATSDR DRO), Don Benken (NCEH), Ronnie Crossland (EPA 6), Sam Coleman (EPA 6), Dana Tulis (EPA HQ), Rick Preston (FEMA OGC), and other FEMA and EPA staff. Numerous concerns were expressed by ATSDR and EPA to FEMA regarding the difficulties associated with sampling for formaldehyde and interpreting the data, due to the large number of other formaldehyde sources from other products in the home and individual lifestyle. The sampling project went forward at FEMA's request.

7/2006 – 12/2006: At this point, twice monthly conference calls were held with FEMA, EPA and ATSDR as participants.

9/2006 – 10/2006: Sampling conducted by EPA at FEMA test trailers in Baton Rouge.

11/2006: Analytical data transmitted from EPA to FEMA.

12/2006: ATSDR receives EPA's analytical data from FEMA and initiates the preparation of the draft Health Consultation.

1/2007: ATSDR Health Consultation final draft is sent forward to NCEH/ATSDR/OD for approval.

2/1/2007: ATSDR Health Consultation is transmitted to FEMA via NCEH/ATSDR/OTPER.

6/21/2007: Teleconference held with US House of Representatives Special Investigators from two Mississippi Congressional offices. Scott Wright, Joseph Little, Jim Holler, Chris DeRosa, Richard Weston, Tom Sinks, Barbara Rodgers and Sascha Fielding from NCEH/ATSDR are on call along with Denton Herring, Special Investigator.

7/18/2007: ATSDR provides comments on FEMA Director's draft testimony for House Committee hearing.

7/19/2007: Hearing concerning FEMA trailers before US House of Representatives, Committee on Oversight and Government Reform.

7/20/2007: Teleconference with Howie Frumkin, Henry Falk, Mike McGheein, Scott Wright, Joseph Little, Jim Holler, Carolyn Tylanda, Bill Cibulas, Ken Orloff, Sven Rodenbeck, Richard Weston, Barbara Rodgers, Sascha Fielding, Pam Watson and Dagny Olivares. Discussion revolved around producing talking points for Dr. Gerberding, as well as a "script" for the CDC INFO call centers.

7/21 - 7/31/2007: ATSDR ERT provided content, comments, edits to materials to be placed up on CDC Website, as well as the products for the CDC INFO call centers.

Chronology: FEMA Trailer Issue

6/19/2006: First call from Sam Coleman, EPA Region 6, to Scott Wright and Joe Little, ATSDR Emergency Response. Wright and Little were invited to join a conference call to discuss FEMA's concern related to formaldehyde in temporary housing units used by Hurricane Katrina displaced persons.

Other participants on the call included:

- Don Benken (NCEH Katrina lead)
- Gary Perlman (ATSDR DRO assigned to Hurricane Katrina Task Force)
- Rick Preston (FEMA OGC)
- Other FEMA, EPA, and ATSDR representatives.

Purpose of the call was informational to provide awareness of the issue. No actions were decided at the time, although a follow-up was planned between Little, Coleman, Perlman, and Dana Tulis, EPA HQ, during an EPA training session in July.

7/10/2006: Discussion takes place on background related to FEMA trailers and formaldehyde with (The discussion took place during break in the EPA On-Scene Coordinator (OSC) Training in Los Angeles, CA.):

- Joseph Little (ATSDR ER)
- Gary Perlman (ATSDR DRO)
- Sam Coleman (EPA 6)
- Dana Tulis (EPA HQ)

7/13/2006: FEMA conducted conference call with participants including:

- Joseph Little (ATSDR ER)
- Gary Perlman (ATSDR DRO)
- Don Benken (NCEH)
- Ronnie Crossland (EPA 6)
- Sam Coleman (EPA 6)
- Dana Tulis (EPA HQ) C
- Rick Preston (FEMA OGC)
- Other FEMA and EPA staff

Purpose of the call was to introduce the idea of a sampling program for formaldehyde in FEMA trailers. Numerous concerns were expressed by ATSDR and EPA to FEMA regarding the difficulties associated with sampling for formaldehyde and interpreting the data, due to the large number of other formaldehyde sources from other products in the home and individual lifestyle. The sampling project went forward with a FEMA request to EPA to develop sampling plan and conduct sampling.

7/2006 – 12/2006: At this point, twice monthly conference calls were held with FEMA, EPA and ATSDR as participants.

Purpose was to assist, advise EPA as they developed the sampling plan. As plan developed, goal was established to: determine a baseline to understand how high levels can get in new trailers; and to evaluate two test methods to lower those levels—by closing windows and using air

conditioning, and by opening all windows and vents without using air conditioning. [NOTE: Need to understand how much input on the sample plan we were able to provide] ATSDR provided comments

9/2006 - 10/2006: Sampling conducted by EPA at FEMA test trailers in Baton Rouge.

11/2006: Analytical data from sampling transmitted from EPA to FEMA.

12/2006: ATSDR receives EPA's analytical data from FEMA and initiates the preparation of the draft Health Consultation. ATSDR prepared draft analysis of the data within 10 days.

1/2007: ATSDR Health Consultation final draft is sent forward to NCEH/ATSDR/OD for final approval. Health Consultation was reviewed through emergency response channels consistent with handling of all other hurricane related requests.

2/1/2007: ATSDR Health Consultation is transmitted to FEMA via NCEH/ATSDR/OTPER. Clearance and dissemination of this report was handled in the same manner Katrina response information was handled. (The report did not receive a policy review by our senior technical staff.) Frankin & Sinks & Alfred are senior & technical!!

2/22/2007: Letter mailed to CDC/W from Congressman Gene Taylor, Mississippi-4th, expressing concern over reported health problems suffered by residents of FEMA Trailers, to include respiratory illness possibly related to formaldehyde exposure. Congressman Taylor to "fully investigate whether formaldehyde in the FEMA trailers has caused an outbreak of respiratory illness."

2/23/2007: Faxed copy received of the Congressman Taylor's letter which also included a copy of a newspaper article quoting pediatricians along the Mississippi Gulf Coast discussing respiratory symptoms in children. This letter was entered into the controlled correspondence process at CDC.

2/27/2007: Chris De Rosa, ATSDR DTEM, raised the question of lack of mention of chronic health effects in the Health Consultation, specifically carcinogenicity and reproductive effects.

3/17/2007: Mark Keim, at the direction of Dr. Frankin, developed and sent a letter to FEMA (amending the Health Consultation) to alert FEMA to additional health concerns as outlined by Dr. De Rosa. Did not amend the health consult, it amended the transmission record

5/17/2007: Email came in to CDC (Jerry Thomas, NCEH Lab) from Jeff Runge, Chief Medical Officer, Department of Homeland Security, asking for further suggestions on the FEMA trailers issue. Dr. Falk was also copied on the note. (Thomas received the communication as an acquaintance of Runge.)

5/18/2007: FEMA request forwarded to Mike Alfred. Gary Noonan and Tom Sinks are contacted. Tom recommended that ATSDR-DHAC be involved if a health investigation was done. Mike McGeehin was designated as central contact person for response to the request. Allison Stock contacted state epidemiologists in both Mississippi and Louisiana.

5/24/2007: Larry Reid (NIOSH) was contacted to work with Industrial Hygiene aspects of the health investigation.

5/29/2007: CDC sends out response to Congressman Gene Taylor inquiry. In the response, CDC explained that levels of formaldehyde had been found in FEMA travel trailers in work done by ATSDR and EPA at FEMA request, though the health consultation was not mentioned specifically. The letter also said that NCEH and ATSDR are supporting Mississippi and Louisiana Departments of Health in conducting epidemiologic studies of exposures. And finally, the response offered means of reducing exposure to formaldehyde, on regulatory agencies for manufactured homes and travel trailers, and background information on formaldehyde.

6/21/2007: Teleconference held with Denton Herring, majority staff, House Committee on Homeland Security (Rep. Bennie Thompson, D-MS, chairman). Call included: Scott Wright, Joseph Little, Jim Holler, Chris DeRosa, Richard Weston, Tom Sinks, Barbara Rodgers and Sascha Fielding from NCEH/ATSDR.

Purpose of the call was to discuss the Health Consultation—why it was done, what was found, and what follow-up was done. NCEH/ATSDR team discussed chronology, with additional comments from De Rosa.

7/18/2007: ATSDR provides comments on FEMA Director's draft testimony for House Committee hearing. Copy of testimony was supplied by FEMA to other government agencies with related topics for comments. NCEH/ATSDR provided limited comments.

7/19/2007: House Oversight and Government Reform Committee (Chairman Waxman, D-Calif.) held a hearing titled "FEMA's Toxic Trailers" on problems with the trailers provided to Gulf Coast hurricane victims by the Federal Emergency Management Agency. During the discussion, ATSDR's use of 3 PPM as a level of concern was challenged by an industrial hygienist. Also, Sierra Club discussed their own sampling results of FEMA trailers. (ATSDR and EPA have not seen the Sierra Club sampling plan, results, or QA/QC data.)

7/20/2007: Teleconference with Howie Frumkin, Henry Falk, Mike McGheekin, Scott Wright, Joseph Little, Jim Holler, Carolyn Tylenda, Bill Cibulas, Ken Orloff, Sven Rodenbeck, Richard Weston, Barbara Rodgers, Sascha Fielding, Pam Watson and Dagny Olivares. Following challenge to 3 PPM level of concern, conference call was set up to discuss this level and its origins. At that time it was determined that the author of the Health Consult selected .3PPM citing ATSDR medical management guidelines. This is the level at which we know we see health effects in sensitive populations. At this time developed set of talking points to discuss ATSDR's Health Consult and CDC's next steps. Developed and posted FEMA trailer web spotlight page with relevant CDC/NCEH/ATSDR materials.

7/26/2007: CDC/W speaks with Sarah Despres, staff for Rep. Waxman, Chair of the House Committee on Oversight and Government Reform. Waxman's staff is interested in speaking with us based on references at the hearing last week to the report that ATSDR prepared for FEMA. Below are some of the issues they want to pursue:

- How did ATSDR's report come to be: who requested it, through what process, what interactions did ATSDR have with FEMA/DHS
- An explanation of the .3PPM level selected by ATSDR in its Health Consultation

7/27/2007: Posted ATSDR's Health Consult on the CDC spotlight page for FEMA trailer related information. This posting included a brief description of the report purpose and context for the .3PPM value.



8/2/2007: Mike McGeehin scheduled to meet with Waxman's staff. Meeting was postponed due to Congressional voting. Meeting rescheduled to 8/7/2007 and includes both Mike McGeehin and Scott Wright.

8/7/2007: Teleconference investigation hearing held. Participants included:

- Mike McGeehin (NCEH)
- Barbara Rodgers (CDC/W)
- Scott Wright (ATSDR)
- Joe Little (ATSDR)
- Eric Jones (House Committee on Oversight and Government Reform)
- Greg Dotson (House Committee on Oversight and Government Reform)
- Sarah Despres (House Committee on Oversight and Government Reform)
- Rob Cox (House Committee on Oversight and Government Reform)
- Sascha Fielding (OPPE)
- Mike Groutt (OPPE)

Purpose: Answer questions related to Health Consultation prepared by ATSDR (Formaldehyde Sampling at FEMA Temporary Housing Units). Main points of interest included the level used as a level of concern in the document, how the sampling plan was developed, and what had been done since publication to address any misunderstandings in the use of the level of concern.

8/8/2007: Scope of work should be completed and sent to FEMA. Currently working with Dr. Bill Lang and CDR Merritt Lake in Runge's office at DHS. CDC has been pushing forward even as scope of work was being completed. NIOSH has been purchasing supplies and equipment for their portion. First step in investigation will be NIOSH characterizing formaldehyde levels in FEMA trailers, first in unoccupied trailers and later in occupied trailers. A full health study will follow.

Little, Joseph D. (ATSDR/DTEM/PRMSB)

FEMA ~~CONFIDENTIAL~~

From: Little, Joseph D. (ATSDR/DTEM/PRMSB)
Sent: Monday, December 04, 2006 2:14 PM
To: Frumkin, Howard (ATSDR/OA/OD)
Cc: Sinks, Tom (ATSDR/OA/OD); Allred, Phillip M. (Mike) (CDC/CCEHIP/NCEH); Wright, Scott V (ATSDR/DTEM/PRMSB); Rodenbeck, Sven (ATSDR/DHAC/CAPEB); Holler, James S. (Jim) (ATSDR/DTEM/PRMSB); Benken, Donald (CDC/CCEHIP/NCEH); Perlman, Gary D.; De Rosa, Christopher (Chris) (ATSDR/DTEM/OD); Ayers, David H. (ATSDR/DTEM/OD)
Subject: RE: Summary of bi-monthly formaldehyde conference call

Dr. Frumkin,

Scott Wright and myself are currently awaiting to receive sampling data from FEMA concerning formaldehyde in temporary housing unit examples, similar to those utilized by Hurricane Katrina displaced persons. Rick Preston from FEMA's Office of General Council (OGC), indicated last Thursday (Nov. 30) that he would send, by Fedex, a CD with the data to us. As of this moment, the data has not been received, but is expected some time today (Dec. 4). We indicated to FEMA that once the data is received, we would be able to provide a quick turn-around evaluation, as is standard protocol for evaluation of EPA data by the Emergency Response Program within the Division of Toxicology and Environmental Medicine. A time-frame of approximately 10 days or less was discussed for our evaluation. FEMA will use ATSDR's evaluation to effect their policy decision. The ATSDR Emergency Response Team's activities involving this issue have been described in the program's weekly activity reports.

Background:

June 19, 2006:

First conference call to discuss FEMA's concern of formaldehyde in temporary housing units used by Hurricane Katrina displaced persons. Participants on the call included, Don Benken (NCEH Katrina lead), Scott Wright (ATSDR ER), Joseph Little (ATSDR ER), Gary Perlman (ATSDR DRO), Sam Coleman (EPA 6), Rick Preston (FEMA OGC), and other FEMA, EPA, and ATSDR representatives. Concerns by FEMA about this issue are due to a pending lawsuit against FEMA concerning formaldehyde exposure from temporary housing units.

July 10, 2006:

Joseph Little (ATSDR ER) and Gary Perlman (ATSDR DRO) met with Sam Coleman (EPA 6) and Dana Tulis (EPA HQ) to discuss the formaldehyde issue while at the EPA On-Scene Coordinator (OSC) Training in Los Angeles, CA.

July 13, 2006:

A conference call was conducted from the EPA OSC Training in Los Angeles. Participants on the call included Joseph Little (ATSDR ER), Gary Perlman (ATSDR DRO), Don Benken (NCEH), Ronnie Crossland (EPA 6), Sam Coleman (EPA 6), Dana Tulis (EPA HQ), ~~Rick Preston (FEMA OGC)~~, and other FEMA and EPA staff. Numerous concerns were expressed by ATSDR and EPA to FEMA regarding the difficulties associated with sampling for formaldehyde and interpreting the data, due to the large number of other formaldehyde sources from other products in the home and individual lifestyle. The sampling project went forward at FEMA's request.

By-monthly conference calls have been conducted concerning the status of the sampling project. A total of 96 trailers (unoccupied from various manufacturers used by FEMA) were sampled. A sampling plan was provided by EPA, and ATSDR ER had the opportunity to review the plan. The sampling was completed over the Columbus Day weekend (Oct. 9). EPA provided their data report to FEMA in November and requested that FEMA provide the data directly to ATSDR/CDC for FEMA's requested evaluation.

If you have additional question please contact myself at 770-488-3339 or Scott Wright at 770-488 3343.

Joseph D. Little, MSPH
CDR US Public Health Service
Emergency Response Coordinator
Agency for Toxic Substances and Disease Registry
(770) 488-3339
(770) 488-7100 24-Hour

-----Original Message-----

From: Frumkin, Howard (ATSDR/OA/OD)
Sent: Saturday, December 02, 2006 7:39 AM
To: Little, Joseph D. (ATSDR/DTEM/PRMSB); Wright, Scott V. (ATSDR/DTEM/PRMSB); Rodenbeck, Sven (ATSDR/DHAC/CAPEB); Allred, Phillip M. (Mike) (CDC/CCEHIP/NCEH)
Cc: Sinks, Tom (ATSDR/OA/OD)
Subject: RE: Summary of bi-monthly formaldehyde conference call

Joseph, Scott:
I didn't know that this was happening. Can you let me know who at our end is handling it? Thanks.

Howie

Howard Frumkin, M.D., Dr.P.H., Director
National Center for Environmental Health / Agency for Toxic
Substances and Disease Registry Centers for Disease Control and
Prevention 1600 Clifton Road, MS E-28 Atlanta, GA 30333 Tel
404-498-0004 Fax 404-498-0083 E-mail hfrumkin@cdc.gov FedEx
deliveries:
1825 Century Boulevard
Atlanta, GA 30345

-----Original Message-----

From: Coleman.Sam@epamail.epa.gov
[mailto:Coleman.Sam@epamail.epa.gov]
Sent: Friday, December 01, 2006 6:20 PM
To: Little, Joseph D. (ATSDR/DTEM/PRMSB); Wright, Scott V.
(ATSDR/DTEM/PRMSB)
Cc: starfield.lawrence@epa.gov; coleman.sam@epa.gov;
broyles.ragan@epa.gov; Rauscher.Jon@epamail.epa.gov;
Dinan.Janine@epamail.epa.gov; Tulis.Dana@epamail.epa.gov;
Crossland.Ronnie@epamail.epa.gov; Dunne, Tom; Frumkin, Howard
(ATSDR/OA/OD)
Subject: Fw: Summary of bi-monthly formaldehyde conference call

Thanks for all of you work up to this point on this project. We
at EPA are concerned that FEMA might not be properly
interpreting the data. We urge CDC to complete its review as
soon as possible to provide appropriate advice to FEMA. Should
you need any assistance from EPA you can contact me, or Dana
Tulis in HQ. Dana's number is 202.564.7938, or 202.253.8309.

Samuel Coleman, P.E.
Director, Superfund Division Region 6
214 665-6701
214 789-2016 (cell)
coleman.sam@epa.gov

----- Forwarded by Sam Coleman/R6/USEPA/US on 12/01/2006 05:09
PM -----

"Bryant,
Madeline L"
<lenell.bryant@a

To



FEMA

November 30, 2006

Scott V. Wright
ATSDR
Mailstop F-29, Room 3217
4770 Buford Highway, NE
Atlanta, GA 30341-3717
(770) 488-3343

Re: FEMA Trailer Formaldehyde Testing

Dear Mr. Wright:

Enclosed you will find a DVD disk containing the test results and related data from the FEMA trailer formaldehyde testing conducted by EPA. Please review the data and provide to me a written report of your analysis of the results of these tests and any conclusions or recommendations that can be derived therefrom.

Please keep this information and your analysis confidential. No information should be released to any third party without my express permission. Please contact me directly if you have any questions at (202) 646-3825.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick Edward Preston", written over a horizontal line.

Patrick Edward Preston, Trial Attorney
Office of Chief Counsel
(202) 646-3825
(202) 646-4536 fax

Enclosure