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Good morning Chairman Miller, Congressman Lampson, and Members of the Committee. I am Harvey Johnson, Acting Deputy Administrator and Chief Operating Officer for the Department of Homeland Security's Federal Emergency Management Agency (FEMA). Thank you for inviting me here and giving me an opportunity to assure this Committee that FEMA is taking responsible steps to address the concerns regarding the presence of formaldehyde in temporary housing units provided to disaster assistance applicants.

The health and safety of the residents of travel trailers provided to disaster victims is of paramount importance to FEMA. These are more than simple words, as they reflect an element of the ethos of FEMA – providing effective assistance to communities and disaster victims.

Today, I will briefly highlight actions FEMA took in 2006 and early 2007 regarding the issue of formaldehyde in temporary housing units. Second, I will address FEMA's agreement with the Centers for Disease Control and Prevention (CDC) under which CDC performed testing of more than 500 units in the Gulf Coast and the actions taken based on the preliminary results. Third, I will highlight the additional actions FEMA is taking to provide for the safety and well being of the residents of these travel trailers by finding them alternative housing. Finally, I will address the additional interim measures regarding the use of temporary housing units that FEMA has adopted as a precaution, and which FEMA will employ for all disaster housing operations until permanent indoor air quality standards related to formaldehyde are developed by appropriate health officials.

### **2006-2007 Actions Taken Regarding Formaldehyde**

Formaldehyde is a substance that is widespread in today's environment. Indeed, formaldehyde is commonly found in a wide-range of manufactured items, including materials used to construct manufactured items, including materials used to construct travel trailers and manufactured housing (also known as "mobile homes"). The trailers purchased by FEMA are not unique in this regard. At higher levels, especially indoors, formaldehyde can be irritating to the respiratory system, and has been identified by the National Toxicology Program (NTP) as reasonably anticipated to be a human carcinogen. The issue of formaldehyde in travel trailers is complicated by the fact that, despite over 30 years of research, no Federal agency has determined an acceptable level of formaldehyde in residential indoor air. There is no established or recognized standard or benchmark for formaldehyde exposure in indoor residential air-quality. Nor are there any government standards relating to formaldehyde levels in the types of travel trailers provided by FEMA to Gulf Coast housing applicants.

FEMA began tracking formaldehyde-related concerns by Gulf Coast travel trailer occupants in early 2006. FEMA addressed applicant concerns on a case-by-case basis in the Gulf Coast. FEMA's response to complaints about formaldehyde levels included sending a housing staff employee to visit with the occupants of the units to discuss mitigation techniques for the units including: increased ventilation, keeping indoor air temperatures moderate, lowering the humidity, and not smoking in the unit. In instances

when these mitigation efforts did not resolve the residents' concerns, FEMA also offered to provide residents with a different unit.

As FEMA continued to monitor formaldehyde reports throughout spring 2006, FEMA became concerned that the complaints might not be isolated occurrences. As a result, FEMA began consulting with the Environmental Protection Agency (EPA), the Agency for Toxic Substances and Disease Registry (ATSDR) within the Department of Health and Human Services (HHS), and the manufactured home industry to gather information about the presence and effects of formaldehyde.

We also began widespread distribution of information to travel trailer occupants across the Gulf Coast identifying potential sources of formaldehyde and explaining to applicants how they could mitigate the exposure to formaldehyde. Flyers capturing this information were hand delivered to all travel trailer occupants beginning in summer 2006.

In September 2006, FEMA began a study to test formaldehyde levels in travel trailers, and to identify the most effective methods for reducing formaldehyde levels in travel trailers and manufactured housing (also known as "mobile homes") in use in the Gulf Coast region. Given the lack of alternative housing in the Gulf, finding alternative housing for all mobile home and trailer occupants from their temporary housing would have taken too long, and would have left residents with no way to address their concerns in the immediate term. We had to find a way to mitigate the levels immediately. The mitigation study involved collecting air samples from new, unused travel trailers that were ventilated in various ways during the months of September and October at a staging area in Baton Rouge, Louisiana. FEMA modified an Interagency Agreement with EPA to perform this sampling.

In November 2006, EPA provided the data gathered during the sampling phase to FEMA for further analysis. A FEMA staff attorney forwarded the data to ATSDR emergency response staff for evaluation. ATSDR's Health Consultation, provided to that FEMA staff attorney in February 2007, confirmed that proper ventilation (i.e., opening all windows, rather than using air conditioning) could reduce the formaldehyde levels. FEMA believed that this guidance was based on the best available published studies and standards in light of the absence of standards directly relating to formaldehyde and indoor air quality. FEMA developed information and guidance based on the results of the study and provided this information and guidance to the residents of the travel trailers.

Given the absence of applicable indoor air-quality standards, the initial consultation with ATSDR was intended to evaluate the effectiveness of formaldehyde-mitigation measures rather than the long-term health impacts associated with particular residential concentrations of formaldehyde. As is noted in the Health Consultation, "FEMA has not requested ATSDR to evaluate long-term formaldehyde concentrations in trailers or health concerns related to potential exposures."

In March 2007, the FEMA staff attorney who had requested the ATSDR analysis in November, and to whom ATSDR had sent its February Health Consultation, received a

follow-up letter from ATSDR stating that the February 2007 Health Consultation was “incomplete and perhaps misleading”. Unfortunately, this letter only came to the attention of senior leadership several months later. Had the March 2007 follow-up letter from ATSDR been brought to senior leadership’s attention when it was received, we would have sought clarification from ATSDR. ATSDR also subsequently revised its Health Consultation in October 2007 to include a number of caveats relating to potential health impacts of long term exposure. At the time of the release of the revised report, FEMA was already moving ahead with CDC on more comprehensive testing, including for long term effects. FEMA has always taken these health concerns seriously, which is why we initially reached out to EPA and CDC and continue to closely coordinate with appropriate agencies as we make policy decisions regarding the use of temporary housing units (travel trailers, park models and mobile homes).

From early 2006 through May 2007, FEMA received approximately 130 complaints regarding formaldehyde, including 47 requests that a resident’s unit be “swapped-out” for another unit. To put that number in context, during its response to Hurricanes Katrina and Rita, FEMA provided temporary housing units to more than 143,000 families across the Gulf Coast.

In May 2007, renewed focus on the formaldehyde issue followed media reports of concerns by a doctor in Mississippi about health trends he believed he was seeing in residents of temporary housing. FEMA immediately engaged with the Department of Homeland Security’s Office of Health Affairs (DHS OHA) as well as the experts from the CDC and ATSDR to better understand the potential health concerns associated with formaldehyde and determine the best scientifically valid approach to address this issue. On behalf of FEMA, DHS OHA officials met at the CDC headquarters in Atlanta with representatives of the National Center for Environmental Health and the ATSDR to develop a strategy to rapidly test actual indoor air quality conditions in occupied units, determine a scientifically valid target for air quality improvement, and further assess potential mitigating actions that could be taken to further reduce formaldehyde levels. This meeting eventually resulted in the Inter-Agency Agreement with CDC discussed below.

In order to address the ongoing health and safety concerns of those still residing in temporary housing units while FEMA was working with the CDC and other health agencies, FEMA established a Formaldehyde Call Center for occupants living in travel trailers and mobile homes. All occupants who contact the helpline with questions or concerns are offered an immediate move to a hotel or motel. Additionally, FEMA distributed a second formaldehyde and housing fact sheet to the occupants of every FEMA trailer across the Gulf Coast (70,000 flyers were distributed across the Gulf), as well as throughout the rest of the country. The fact sheet provided basic information about formaldehyde, including possible medical effects, ventilation techniques to reduce formaldehyde levels, and contact information for assistance.

In addition to offering immediate housing options to current trailer occupants, the Agency issued an *Interim Direction on the Use of Temporary Housing Units* on July 31,

2007, which took the added step of temporarily suspending the installation, sale, transfer or donation of travel trailers or park model recreational vehicles while the agency worked with health and environmental experts to assess air quality and health-related concerns.

### **Inter-Agency Agreement with CDC**

In August 2007, FEMA and CDC entered into an Inter-Agency Agreement to initiate and complete testing of a statistical sampling of occupied units and to provide technical assistance and public health guidance to FEMA to evaluate the indoor environmental air quality in temporary housing units and the associated health effects to residents. At FEMA's request, CDC is also conducting a health study of children who lived in FEMA-supplied temporary housing in Mississippi and Louisiana, as well as mitigation strategies for unoccupied units, focusing on components that off-gas and technologies that reduce off-gassing or accumulation.

Testing of occupied units was to have begun in early November 2007, but did not begin until December 2007. However, because there are no federal standards for formaldehyde exposure in a residential setting, testing was delayed to allow for the necessary development of a consensus among public health experts as to how to interpret the testing results in order to provide health advice. This was necessary to have a basis to explain to the occupants what the test results would mean. FEMA wanted to make sure that the results of that testing would help occupants make informed decisions about their health concerns and permanent housing needs. I made the decision to delay this testing, and believe events have confirmed it as the right decision.

While we would have preferred to initiate testing in November, please be assured that FEMA and the CDC were fully committed to this effort. It was, however, imperative that testing was conducted appropriately and intelligently such that it would yield scientifically valid and accurate results. Of equal importance was ensuring we could provide appropriate public health guidance to enable occupants to make an informed decision on the risks involved with continued exposure as compared to the range of alternative housing available to them.

After public health guidance was developed, CDC began indoor air sampling of occupied temporary housing units in Mississippi and Louisiana in December 2007. On February 14, 2008, CDC released preliminary test results, and FEMA and CDC outlined the steps to be taken to provide for the safety and well being of the residents of temporary housing units. CDC's preliminary evaluation of a scientifically established random sample of 519 travel trailers and mobile homes tested between December 21, 2007 and January 23, 2008 found that, in many of the travel trailers and mobile homes tested, formaldehyde levels were higher than typical levels (based on recent sampling) of U.S. indoor exposure in single-family homes and apartments. The average level of formaldehyde was about 77 parts per billion (ppb), or .077 parts per million (ppm). In general formaldehyde levels in travel trailers were higher than levels found in manufactured homes.

Following the completion of the testing, CDC and FEMA representatives visited all participants whose units were tested as part of the study to discuss the levels of formaldehyde measured in their temporary housing unit. All participants who had their unit tested were offered an immediate move to a hotel, motel, or apartment. 108 of the 519 participants accepted this offer (88 moved to alternate housing, 20 are in hotels/motels).

In addition to these results-specific visits, CDC and FEMA distributed a third fact sheet on the preliminary results of formaldehyde levels to all temporary housing occupants between February 15 and 18, 2008. FEMA and CDC have jointly hosted several community availability sessions to provide information to residents who are concerned about the testing results, and to answer questions. Furthermore, for those residents that were not included in the initial testing, we have offered to test any occupied unit and provide those results to the occupant. FEMA awarded a contract for such additional testing to Bureau Veritas, the same testing company that was used by CDC for its testing in late 2007. Testing is currently underway, and is available to occupants living in FEMA-supplied temporary housing units nationwide. The test results will be provided to the occupant so they can make informed decisions about their housing options. As of March 25, 2008, 1,554 households have requested testing. The contractor has contacted 965 of those households and scheduled 479 tests. As of March 25, 2008, 291 tests have been completed.

### **Alternative Housing Options for Residents of Temporary Housing Units**

Since early 2006, FEMA has offered immediate alternative housing to anyone who has requested to move out of their unit for any reason, including concerns about formaldehyde. FEMA has never believed that travel trailers are an acceptable long-term housing solution, and it is our desire to ensure that all residents move into more appropriate housing as soon as possible.

FEMA is aggressively identifying alternate temporary and long term housing and matching up housing occupants with available units as quickly as the occupants can accept the offer and move. Those occupants who have voiced a health concern in response to continued engagement from FEMA have all been afforded multiple options to relocate out of their travel trailer.

FEMA previously announced a plan to close all group sites and relocate residents by June 1, 2008 and will continue this activity as part of our ongoing efforts. FEMA has already moved over 111,000 households out of temporary housing units as residents move into long-term housing solutions. However, the task is not complete, since as of March 25, 2008 there are 31,136 households occupying temporary housing units in the Gulf Coast.

FEMA has begun to expedite the relocation of residents from temporary housing units to apartments or other alternative housing, including hotels, motels and "Katrina cottages." The priority in relocation will be those occupants expressing a health concern and those most susceptible to health risk such as the elderly, households with young children and

those with respiratory challenges. FEMA has implemented an aggressive outreach plan for these priority occupants. In addition to offering alternatives to all applicants that call the formaldehyde call centers, FEMA caseworkers are reaching out to occupants to explain the relocation and testing options available to them.

In late February 2008, FEMA and CDC identified 14,266 households as a priority because the applicants expressed specific health concerns or may be more susceptible to health risks. As of March 25, 2008, 1,378 of these priority households have been relocated, and we continue to target the remaining 12,888 for relocation. In late February, FEMA also identified an additional 9,367 households as a priority for relocation because they are living in group or commercial sites, or they are pre-disaster renters living on private sites. As of March 25, 2008, 1,358 of these households have been relocated.

From February 14 to March 25, 2008, FEMA caseworkers have offered 6,145 households an immediate move to a hotel or motel -- 644 have accepted the hotel/motel offer, while 5,502 households have refused that option. From February 14 to March 25, 2008, FEMA caseworkers have offered alternative housing resources (rental resources or Alternative Housing Pilot Program units) to 4,662 households -- 2,813 have accepted an alternative housing resource or their decision is pending, 1,842 have refused all options, and nine have decided to live with family or friends. These data include both calls from occupants to the formaldehyde call center and calls made by FEMA caseworkers to occupants. FEMA applicant services staff continue to identify and provide options and resources to remaining occupants while they make final decisions about their relocation alternatives.

As part of the effort to provide occupants with alternate housing, FEMA is implementing new and expanded policies and executing contracts to:

- Enter into direct contracts with hotels in order to obtain additional hotel/motel capacity if needed.
- Utilize contract resources to support local relocation.
- Provide food vouchers or stipends for households relocated to hotels without cooking facilities.
- Enter into direct lease agreements with landlords.
- Contract for temporary storage and/or shipping of household property.
- Contract for the boarding and care of household pets for families relocated to hotels or apartments that do not allow pets.
- Provide furniture for rental units by working with Voluntary Agencies where possible, or purchasing the furniture when necessary.
- Contract for moving teams and equipment to assist in the movement of households with special medical needs.
- Provide additional staff to our offices on the ground to facilitate and manage the expedited relocation of households.

These efforts are in addition to several other initiatives FEMA already had in progress to provide additional housing options and reduce common barriers for the remaining

disaster population. FEMA is providing more incentives to encourage landlords to offer and extend rental opportunities to those victims still seeking a long-term housing solution. FEMA has also taken steps to reduce or eliminate barriers that some families experience when trying to relocate to a rental unit, such as utility payments, deposits, and fees. These incentives and additional actions include:

- Authorizing payment of rental assistance above the current Fair Market Rate;
- Payment to landlords for utilities if included in the rent payment;
- Payment to landlords for repairs to property damage made by disaster applicants;
- Payment of security deposits, and processing fees for background checks required by some landlords; and,
- Assistance with locating furniture and other necessities to meet basic living needs.

In addition, in October 2007, FEMA established a reimbursement program that provides relocation assistance to disaster victims displaced by hurricanes Katrina and Rita. This program reimburses relocation expenses up to \$4,000 for applicants returning to their pre-disaster states. For those families that are already living in their pre-disaster state in FEMA-provided temporary housing, FEMA will pay moving expenses to a FEMA-funded rental resource anywhere in the continental United States, if the new location is greater than 50 miles from applicants' current location in the state. Relocation assistance is limited to travel costs, furniture transportation expenses, and moving services, and is subject to the applicant's overall cap of assistance under the IHP program.

FEMA has assigned case workers to contact every applicant currently residing in a travel trailer, park model or mobile home in the Gulf Coast to make them aware of available housing resources, and we continue to provide case management services to applicants while they make final decisions about their housing alternatives. No occupant of a FEMA provided travel trailer has to wait for the results of air quality testing to take advantage of these alternative housing options -- they are available now. It is important to note that nearly 80% of the remaining travel trailers and park models in use in the Gulf Coast are on private home sites. These households are, for the most part, making repairs so they can return to their pre-disaster dwelling.

### **Additional Precautionary Measures**

On March 10, 2008, FEMA issued a revision to the July 31, 2007 *Interim Direction on the Use of Temporary Housing Units* based on the preliminary results of the testing conducted by CDC. FEMA will continue to utilize and offer manufactured housing (mobile homes) that meets or exceeds the Department of Housing and Urban Development (HUD) standards, as a temporary housing option. FEMA will **not** deploy, transfer or sell travel trailers. However, FEMA may continue to provide larger, better ventilated park models in support of future disasters, but only in accordance with the mandatory testing and State notification.

Under the Interim Direction, FEMA will have the air quality of the unit independently tested to determine formaldehyde levels prior to allowing any disaster victim to occupy



an existing manufactured home, park model or any new form of housing. FEMA will provide the certified results of such testing, as well as a compendium of formaldehyde risk and warning information to the State and the disaster assistance applicant, and will subsequently only deliver and provide units determined to be acceptable by the State.

FEMA has entered into a contract with an approved Industrial Hygienist to conduct air quality testing on temporary housing units prior to allowing such units to be occupied by eligible disaster victims. The air quality testing will use a testing strategy appropriate to the conditions that follows the same NIOSH testing protocols that the CDC contractor used to test occupied units. FEMA has relied heavily upon the expertise of the officials from the DHS OHA in the development of the testing guidance. The same protocol will be used for all air quality testing, no matter where it takes place, whether at storage sites, staging areas or on private property.

FEMA has initiated testing of mobile homes that will be utilized in response to the current disasters in Arkansas, Tennessee, California and Oregon. Mobile homes have been accepted and deployed in California and Oregon. FEMA will continue the testing process for mobile homes in Hope, Arkansas and Selma, Alabama. Once tested, these mobile homes will be offered to Arkansas and Tennessee for consideration to house disaster victims in response to the tornados that affected those states.

FEMA has also implemented new requirements for future purchases of to-be-built manufactured homes, park models, and other new forms of alternative temporary housing that will ensure such units are specifically designed and constructed to emit (and tested to assure) the lowest possible levels of formaldehyde. FEMA has updated housing specifications for purchases of Uniform Federal Accessibility Standard (UFAS) and non-UFAS park models, as well as mobile homes. These units must meet the design and construction requirements established in Title 24 of the Code of Federal Regulations sections 3280.308-309. Units must include weather radios and manufacturers must not use materials which emit high levels of formaldehyde during production.

FEMA has also offered to refund the purchase price of travel trailers or park models to all individuals who bought their unit between July 24, 2006 and July 23, 2007. This applies to units purchased directly from FEMA by disaster assistance applicants already occupying the unit, and to those who purchased units through the General Services Administration. As of March 13, 2008, two disaster assistance applicants who purchased their unit directly from FEMA had requested a refund and FEMA received 756 requests for refunds from those who purchased a unit through GSA auction sales. To put that number in perspective, it represents 7% of the 10,839 travel trailers and park models that were sold through GSA between July 2006 and July 2007.

Since the suspension in the sale of travel trailers, FEMA has also continued to receive a significant number of inquiries requesting that we re-instate the sale of units. However, because of unresolved health concerns associated with the units, we will not transfer or sell travel trailers at this point in time.

## Summary

In summary, we remain committed to assisting all residents of temporary housing units in finding permanent housing solutions. We continue to address the formaldehyde issue forthrightly: sharing information with temporary housing residents; testing occupied as well as new units and providing results to the occupants and the States; working with occupants to encourage alternative housing solutions; removing barriers for relocation to apartments; closing group sites; and providing case management services to assist all eligible households.

Allegations have been made, and inferences drawn, from a limited review of a large number of emails FEMA produced to Congress in the spring and summer of 2007. These allegations include that the Agency suppressed or influenced formaldehyde reports because of fear of litigation and liability for injuries to occupants. Let me be clear, FEMA has not, nor will we condone any action that interferes with scientific experts conducting their work in a scientifically responsible manner. The health and safety of residents has been and continues to be our primary concern. FEMA has not and will not attempt to, nor will we condone any effort to, suppress or inappropriately influence any report from the CDC, or ATSDR or any report from any agency, including any report related to the effects of formaldehyde on residents in the direct housing program.

Together, with our outstanding partners throughout the federal, state, local, private, and voluntary agency communities, we will continue to advance ideas and pursue housing assistance solutions that will effectively, and compassionately, help individuals and communities recover, re-establish, and reclaim their neighborhoods and communities.

Thank you for the opportunity to testify. I would be pleased to answer any questions you may have.

