

DEPARTMENT OF HOMELAND SECURITY

Office of Inspector General

Management Advisory Report on the condition,
Losses, and Possible Uses of FEMA Modular
Housing



Office of Disaster Assistance Oversight

OIG-07-03

October 2006



Homeland
Security

October 18, 2006

MEMORANDUM FOR: R. David Paulison
Under Secretary
Federal Emergency Management
Richard L. Skinner

FROM: Richard L. Skinner
Inspector General

SUBJECT: *Management Advisory Report on the Condition, Losses, and Possible
Uses of FEMA Modular Housing
Report Number OIG-07-03*

The purpose of this memorandum is to advise you of the condition of modular housing units and the actions that are needed to protect and ensure the best use of FEMA's multi-million dollar investment. Many of the modular homes that FEMA purchased for emergency housing after Hurricane Katrina have not been properly protected while in storage. As a result, an estimated \$3 to \$4 million worth of such modular units are damaged beyond repair. FEMA needs to identify and write-off such damaged units; make cost-effective plans for, and adequately protect, the remaining units; and, in the future, only order modular housing units if their potential uses have been clearly identified and storage sites are available that provide adequate protection.

On February 17, 2006, our office issued a management advisory report entitled "Mobile Homes and Modular Homes at Hope and Red River" (Report Number GC-HQ-06-12). We recommended that FEMA officials "Continue to monitor all storage sites to ensure that homes are properly maintained to mitigate deterioration," and "Inventory those that may have already been damaged and make the necessary repairs." However, we recently visited FEMA's Emergency Housing Site (EHS) at Texarkana, Texas, located on the Red River Army Depot (RRAD), and learned that these recommendations have not been implemented, and that serious damage to FEMA modular housing has occurred.

Most of the modular homes that FEMA purchased have been located at the Texarkana EHS. The June 29, 2006, Texarkana inventory report indicated that the Texarkana site had an inventory of 1,790 modular homes. These consisted of 36 Quick Quarters units, which were being moved to the Hope, Arkansas EHS, 1,135 Cogim standard modular homes, 36 Cogim VIP modular homes, 224

Trimarro modular homes, and 359 DuraKit modular homes. While at the Texarkana and Hope EHS sites, our staff inspected the above listed units.

The modular homes had not been properly maintained to mitigate deterioration, as recommended, but rather had been left unprotected from the weather. The Quick Quarters and Cogim modular homes did not require much protection. The Quick Quarters units, which had been moved to the Hope EHS by the time of our visit, were in self-contained, weather-resistant packages and did not appear to have been damaged. The Cogim units that remained in Texarkana also were well-packaged by their manufacturer to resist damage from the elements. They were in a combination of self-contained weather-resistant packages and housed in shipping containers. While approximately 17 of the Cogim units appeared to have been somewhat damaged, either in shipping or in being subsequently moved around at the site, it is possible that all of the Cogim units can be used with only minor repairs.

The Trimarro modular homes, however, have not been adequately protected from the weather during storage and have suffered significant damage. FEMA purchased “Pre-Fab Homes” from Trimarro Homes, Inc. of Dyersville, Iowa, for \$5,415,000¹. Unlike the Quick Quarters and the Cogim units, the Trimarro homes did not have protective containers. The torn and deteriorating remnants of tarps that we observed on the Trimarro units suggest they were once covered, but, at the time of our visit, they were uncovered and exposed to the weather. New staff have taken over the operation of the Texarkana site and were trying to cover the modular homes with tarps. FEMA officials advised us that tarps have been replaced several times because temperatures at Texarkana often exceed 100 degrees and the UV sunrays and rain had destroyed the tarps. However, the damage has already been done. The cardboard containers for the components, such as toilets and fittings, have deteriorated in the open weather and some of the framing and wood components of the structures have warped and may not be salvagable. In addition, the contents and components of some of the modular homes were disordered and re-sorting the components to form complete units may be necessary. FEMA officials said that the disorderliness was due to the manufacturer’s packaging. They said that neither a manufacturer’s representative nor a FEMA contracting official was present during the delivery of the components.

Many of the Trimarro modular homes were damaged beyond economical repair and will have to be written-off. In discussions with FEMA logistics officials, they concurred with our assessment and estimated that only about 75% of the Trimarro modular homes can still be used, which would translate into approximately \$1.25 to \$1.5 million worth of Trimarro modular homes lost to damage during storage.

The DuraKit modular homes were also damaged. FEMA purchased “Pre-Fab homes” from DuraKit Shelters of Bradford, Ontario, Canada for \$13,005,000.² Although more tightly packaged than the Trimarro homes, the DuraKit homes were not shipped in protective containers. The DuraKit homes were once covered with tarps, which have since deteriorated and blown off, leaving the units exposed to the weather and susceptible to damage. The extent of the damage and suitability for repairs will become clear when the homes are assembled. On July 27, 2006, FEMA logistics officials

¹ FEMA order number HSFEHQ-05-P of 9/06/2005

² FEMA order number HSFEHQ-05-P-5006 of 9/8/2005

estimated that 85% of the DuraKit modular homes can still be used. Thus, FEMA may have lost about \$1.75 to \$2.0 million worth of DuraKit modular homes to damage during storage.

FEMA's modular homes were not properly protected, as we recommended, and as a consequence, the losses may amount to \$3 to \$4 million. FEMA officials correctly pointed out that loss estimates are speculative until the construction of the homes is attempted. FEMA logistics officials told us that most modular home units are shipped with the expectation that they will be assembled when they arrive at their destination. Once they are assembled, the structure of the home protects the components from the elements. FEMA logistics officials told us that storing the units outside, covered with tarps, was not effective, especially with the storms, rain, and flooding that Texarkana has experienced while the modular homes were stored there.

The team that was in place at the time of our recent visit to Texarkana EHS was taking steps to protect the modular housing units, but it was clear that this had not been adequately done in the past. The number of badly damaged modular homes in the FEMA inventory is significant, particularly among the Trimarro and DuraKit units. FEMA logistics officials said they are considering plans to send the Trimarro units to Guam, while retaining the DuraKit units for use in the continental United States. While we cannot comment on whether the Trimarro units might be suitable for use in Guam, or on what needs the DuraKit units would be suitable to meet, FEMA must take steps prior to any such anticipated uses to identify and account for the units that are no longer usable. In particular, FEMA should not ship unusable Trimarro units to Guam.

FEMA logistics officials told us that the Texarkana EHS was closed on September 30, 2006, and all FEMA property on site must be relocated before that date. For future planning, given that some modular home units are designed to be assembled soon after they are received rather than stored, many modular home units are questionable choices for emergency housing. If FEMA buys modular housing in the future, it should plan to install them in a reasonable amount of time. If units must be stored, FEMA should either buy units that are packaged for storage, or arrange in advance for adequately protected storage, such as in warehouses. Once modular homes arrive at storage sites, they should be monitored to ensure that the homes are properly maintained to mitigate deterioration.

Recommendations

We recommend that FEMA:

1. Inventory and determine the extent of damage to all modular home units currently in stock.
2. Formally write-off all modular home units that are beyond economical repair.
3. Make cost-effective plans for the use of all remaining modular home units.
4. Protect and maintain all those modular home units whose condition merits retention.
5. Develop written policies and procedures that allow the purchase of modular home units only when the requirement has been clearly identified, and ensure that they are packaged adequately for storage and are properly stored.

We provided a copy of our draft management advisory to FEMA officials in the Recovery and Logistics Divisions for review and comment. The Recovery Division concurred with our findings and recommendation number 5. FEMA Logistics officials concurred with recommendations 1-4 with one caveat in relation to recommendation number 2. Until the modular units are constructed and inspected further, total loss cannot be determined. They have implemented mitigation efforts to lessen the degree of loss and maximize usage of the units.

The nature and brevity of this assignment precluded us using our normal audit protocols; therefore, we did not conduct this review according to generally accepted auditing standards. Had we followed such standards, other matters might have come to our attention.

We conducted this review in conjunction with the President's Council on Integrity and Efficiency (PCIE) as part of its examination of relief efforts provided by the federal government in the aftermath of Hurricane Katrina. As such, a copy of the report has been forwarded to the Homeland Security Working Group, which is coordinating Inspectors' General review of this important subject.

Please advise us within two weeks of the actions taken to implement these recommendations. Should you have any questions concerning this report, please call me, or your staff may contact Matt Jadacki, Deputy Inspector General, Office of Disaster Assistance Oversight, at 202-254-4100.

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