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**December 28, 2010**

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## Homeland Security

December 13, 2010

MEMORANDUM FOR: Tony Russell, Regional Administrator  
FEMA Region VI

*Tonda L. Hadley*

FROM: Tonda L. Hadley, Director  
Central Regional Office

SUBJECT: *Chambers County, Texas*  
FEMA Disaster Number 1791-DR-TX  
Public Assistance Identification Number 071-99071-00  
Audit Report Number DD-11-05

In response to a Congressional request, we audited Public Assistance funds awarded to Chambers County, Texas (County). Our audit objective was to determine whether the County accounted for and expended Federal Emergency Management Agency (FEMA) grant funds according to federal regulations and FEMA guidelines.

The County received an award of \$56.8 million from the Texas Division of Emergency Management (TDEM), a FEMA grantee, for damages from high winds and severe flooding that occurred when Hurricane Ike made landfall on September 13, 2008. The award provided 100% funding for 35 large and 141 small projects.<sup>1</sup> The audit covered the period September 13, 2008, through April 5, 2010, during which the County received \$54.5 million. We audited 16 large projects totaling \$51.8 million or 91.2% of the award (see Exhibit A)

We conducted this performance audit under the authority of the *Inspector General Act of 1978*, as amended, and according to generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective.

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<sup>1</sup> Federal regulations in effect at the time of the disaster set the large project threshold at \$60,900.

Due to the size of this award and the number of projects, we divided the audit into phases. During this first phase, our audit scope covered work performed during the period September 13, 2008, to April 5, 2010, and was limited to a review of the County's contracting procedures and invoices submitted for reimbursement. For 15 Category A (debris removal) and 1 Category B (emergency protective measures) projects, we reviewed the associated contracting actions totaling \$49.2 million.

We also reviewed the County's compliance with federal procurement regulations; interviewed FEMA, TDEM, and County officials; reviewed email correspondence between County and FEMA officials, and performed other procedures we considered necessary to accomplish the audit objective. We did not assess the adequacy of the County's internal controls applicable to its grant activities because it was not necessary to accomplish our audit objective. We did, however, gain an understanding of the County's system for accounting for disaster-related costs.

## **BACKGROUND**

Hurricane Ike was the third costliest hurricane to make landfall in the United States. Only Hurricanes Andrew in 1992 and Katrina in 2005 were more costly. Ike made landfall the morning of September 13, 2008, near Galveston, Texas as a strong Category 2 hurricane with a Category 5 equivalent storm surge. The previous day, residents of low-lying areas were warned they faced "certain death" if they failed to heed evacuation warnings, a statement that turned out to be true for some who did not evacuate. As of August 2009, FEMA's assistance to Texas for Hurricane Ike topped \$2.5 billion, not including an additional \$2.5 billion in low-interest disaster loans from the U.S. Small Business Administration.

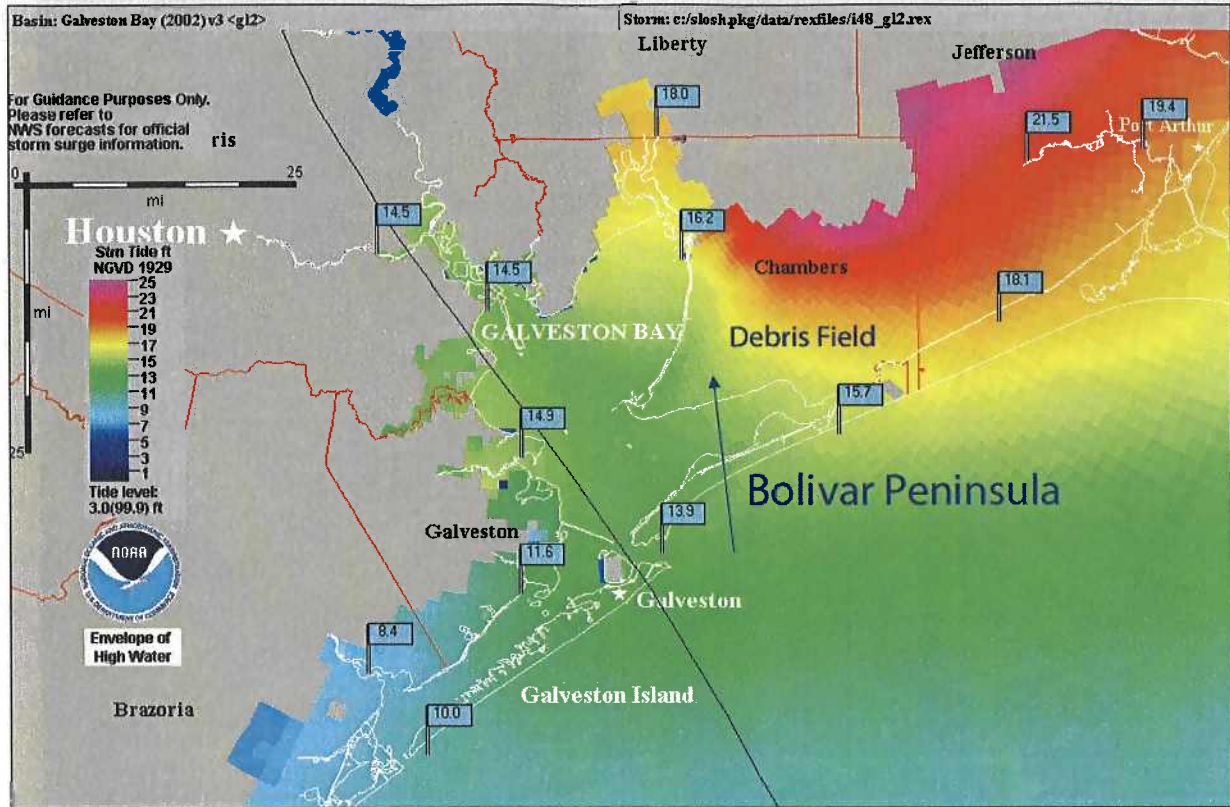
Hurricane Ike's storm surge pushed the homes and businesses of the cities of Crystal Beach, Gilchrist, and High Island on Bolivar Peninsula across East Bay and into the lower third of the County. The highest storm surge occurred on the Bolivar Peninsula and parts of the County, roughly between the entrance to Galveston Bay and High Island, Texas. Much of the southern part of the County was inundated by at least 10 feet of water. The highest water mark in the County was 17.5 feet located about 10 miles inland.

On October 10, 2008, TDEM requested FEMA approve Public Assistance funding to address the environmental hazards presented by the large debris piles deposited in the County from the storm surge. The County said that the debris posed an immediate public health and safety threat from hazardous materials, propane tanks, household hazardous materials, and white goods.<sup>2</sup> On October 14, 2008, FEMA's Federal Coordinating Officer approved TDEM's request. However, FEMA emphasized that costs for removing non-hazardous debris from private property used for crops and livestock were not eligible for FEMA Public Assistance funding.<sup>3</sup>

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<sup>2</sup> White goods are household appliances such as refrigerators, air conditioners, heat pumps, ovens, washing machines, clothes driers, and water heaters. White goods contain ozone-depleting refrigerants, mercury, and compressor oils.

<sup>3</sup> 44 CFR 206.224(b)



The storm surge destroyed homes and businesses on Bolivar Peninsula and pushed the storm debris across the East Bay into southern Chambers County. Source: National Oceanic and Atmospheric Administration

Virtually the entire area, known as the “debris field” was rural private property used for crops and livestock. The County embarked on a nearly year-long search for hazardous material and human remains in the debris field. The County used a heavy equipment operator to sift through debris while hazardous materials staff watched for and removed hazardous items. Because removing the debris was not eligible for FEMA funding, the heavy equipment operator pushed the debris into piles and moved on.<sup>4</sup> The Texas Department of Transportation later removed the debris.

FEMA deployed an experienced Technical Assistance Contractor (TAC) to the County to review debris field operations and provide debris eligibility advice. FEMA’s TAC helped the County establish an Incident Command System management structure and assumed a key leadership role in the debris field operation. The TAC also helped the County and its contractors make day-to-day decisions.

<sup>4</sup> When in the public interest, FEMA may provide assistance for the removal of debris from private property except in areas used for crops and livestock (44 CFR 206.224(a) and (b)). Ineligible debris removal also includes debris from vacant lots, forests, heavily wooded areas, unimproved property, and unused areas (FEMA Disaster Assistance Policy 9523.13, July 18, 2007).



View of the damage Hurricane Ike caused in Gilchrist, Texas in Galveston County. Source: FEMA photography library.

## **RESULTS OF AUDIT**

County officials did not comply with federal procurement regulations and FEMA guidelines when they awarded four of five debris contracts totaling \$44.6 million. As a result, the County paid unreasonably high hourly rates on one contract, and FEMA has no assurance the County paid reasonable rates on the other three. Instead of providing full and open competition by allowing market conditions to establish reasonable rates, County officials awarded the contracts non-competitively. Neither the County nor FEMA retained cost or price analysis documentation supporting how they determined hourly rates were reasonable. The County also did not monitor time-and-material contracts and claimed \$4.0 million in ineligible and unsupported costs. In total, we question \$44.6 million (see Exhibit B). The County provided several justifications for not following federal procurement regulations, none of which were sufficient.

County officials disagreed with the findings and recommendations of this report. County officials emphasized that they were not experts on federal regulations and relied on the guidance provided by FEMA's TAC who told them that all of their contracts had been "deemed eligible, reasonable and reimbursable" by FEMA. FEMA's TAC did provide inaccurate information to County officials; however, the County remained responsible for compliance with federal regulations because FEMA contractors do not have the authority to override federal law and FEMA policies. FEMA Region VI, for its part, emphasized that it made all applicants aware of

federal contracting requirements through meetings and memorandums, and provided on-line resources and a toll-free phone number to answer applicant questions.

Federal procurement regulations are flexible in exigent circumstances, and FEMA and TDEM officials should have done more to promote the County's compliance with federal regulations. Although FEMA officials worked closely with County officials and deployed a full-time FEMA TAC to work alongside County officials, FEMA and TDEM officials did not verify that County officials properly solicited and awarded these contracts. County officials relied on the advice of FEMA's TAC who told County officials all contracts had "been deemed eligible, reasonable, and reimbursable" by FEMA. Compliance with these regulations is essential to the success of FEMA's Public Assistance program because they help control costs and allow qualified, responsible contractors the opportunity to compete for the work. Further, full and open competition helps discourage collusion, fraud, waste, and abuse.

Looking to future disasters, FEMA should develop and implement policies and procedures to proactively assess compliance with federal contracting requirements before significant tax dollars are at risk on non-competitive contracts. FEMA and TDEM should also make clear to applicants as soon as possible that disaster funding is contingent on compliance with federal procurement regulations. FEMA relies on a combination of educational and outreach activities to promote compliance. However, unless FEMA and TDEM adopt a more assertive role in future disasters, applicants will continue to violate federal regulations, waste government resources, and draw negative media attention.

#### **Finding A: Contracting Procedures and Monitoring**

The County did not comply with federal procurement regulations and FEMA guidelines for four of its five debris contracts totaling \$44.6 million of the \$49.2 million in contracts we reviewed. The County did not provide full and open competition or allow market conditions to establish reasonable prices. As a result, the County likely paid unreasonably high hourly rates on at least one contract. Once threats to life and property ended, the County should have awarded contracts based on full and open competition. Therefore, we question \$44.6 million claimed for contract work because the County did not comply with federal procurement regulations (see Exhibit B for net amounts questioned).<sup>5</sup> The County also did not monitor its time-and-material contracts.

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<sup>5</sup> This amount includes \$4,017,397 also questioned in Findings B, C and D. Therefore, the net amount recommended for disallowance for Finding A is \$40,552,442 (see Exhibit B).

Contractor	Competition	Type of Contract	Amount of Contract
Right of Way (ROW)	Non-Competitive	Unit-Price	\$6.4 million
ROW and Private Property Debris Removal (PPDR)	Non-Competitive	Unit-Price	\$3.8 million
Hazardous Material (Haz-Mat)	Non-Competitive	Time and Material	\$17.7 million
Heavy Equipment	Non-Competitive	Time and Material	\$16.7 million
Debris Monitor	Competitive	Time and Material	\$4.6 million
<b>TOTAL:</b>			\$49.2 million

**Contracting Procedures** – The County did not (1) award four of its contracts competitively, (2) prepare cost or price analyses to support the reasonableness of rates, (3) contemporaneously document how it made award decisions, or (4) negotiate profit separately for non-competitive contracts. Contracts also did not include required clauses, including a cost ceiling, or the right of the County to terminate at its convenience in the event a more cost effective contract type could be awarded. County officials said this occurred because they were not aware of the procurement regulations, they relied on the advice of FEMA’s TAC, and FEMA officials did not inform them of these requirements.

Federal procurement regulations at 44 CFR required the County to:

- Perform procurement transactions in a manner providing full and open competition except under certain circumstances. One allowable circumstance is when there is a public exigency or emergency for the requirement that will not permit a delay resulting from competitive solicitation. (13.36(c)(1) and (d)(4)(i))
- Negotiate profit as a separate element of the price for each contract in which there is no price competition and in all cases where cost analysis is performed. (13.36(f)(2))
- Provide a ceiling price on time-and-material contracts that the contractor exceeds at its own risk. (13.36(b)(10))
- Perform a cost or price analysis in connection with every procurement action, including contract modifications. (13.36(f)(1))
- Maintain detailed records of the significant history of the procurements. (13.36(b)(9))

County officials said that non-compliance with federal regulations was allowable because (1) the Governor granted them disaster-specific permission to suspend administrative rules, (2) uncertainties regarding FEMA’s 100% funding time limits did not allow them sufficient time to both conduct full and open competitions and complete the work, (3) the urgency of the disaster clean-up did not permit delay, (4) FEMA’s TAC told them all contracts and rates were allowable, and (5) the Stafford Act allowed County officials to direct contract awards to County residents, farmers, and business people rather than to firms and workers residing outside the County.

The County's justifications were not sufficient because:

1. the Governor's suspension of administrative rules does not make these costs allowable under FEMA's Public Assistance program;<sup>6</sup>
2. FEMA's first major extension, effective November 26, 2008, provided 6 months of 100% funding thereby allowing time to compete the contracts and perform the work (a later extension provided indefinite 100% funding);<sup>7</sup>
3. debris field clean up was not so urgent that the County could not have competed the contracts as evidenced by the County taking nearly a year to complete the work;
4. although the FEMA TAC told Chambers officials that "all contracts have been deemed eligible and reasonable" by FEMA, as a FEMA contractor he did not have the authority to make this broad determination (email correspondence did support that FEMA's Deputy Branch Chief for Debris reviewed and deemed reasonable the terms, conditions and rates of the Haz-Mat contract); and
5. although the Stafford Act promotes local contracting, the Stafford Act does not allow an applicant to exclude competition or direct contract awards in a manner to keep federal funds within a specific geographical area.

As stated above, FEMA officials reviewed the terms and conditions of the \$17.7 million Haz-Mat contract and told County officials their rates were reasonable. Also, FEMA's TAC told us he ran all rates "up the ladder" to officials in FEMA's Joint Field Office and headquarters. He also told County officials on November 28, 2008, "As it stands right now, all of your current contracts . . . and operations have been deemed eligible, reasonable and reimbursable." However, FEMA and County officials could not provide documentation supporting FEMA's review of the \$16.7 million ROW/PPDR and \$16.7 million heavy equipment contracts and rates.

FEMA Region VI Public Assistance Branch Chief said it was against FEMA policy for FEMA officials to approve rates and contracts, but that FEMA officials routinely assisted applicants by reviewing whether rates appear reasonable and contracts include required terms and conditions. However, it is unrealistic to expect applicants to understand FEMA's distinction between reviewing and approving rates and contracts. This is especially unrealistic as FEMA officials are the grant program experts and final arbiters of rate reasonableness (FEMA 322, *Public Assistance Guide*, page 41, June 2007).

Also, FEMA officials could not have reviewed the \$16.7 million heavy equipment contract or rates because there was no written contract. The County's arrangement to procure \$16.7 million in services without a written contract not only violates federal regulations, it is not prudent

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<sup>6</sup> According to 44 CFR 13.36 (b) a state must follow its own policies, but subgrantees must follow their own procurement standards as long as they conform to the federal procurement regulations in section 13.36 (b)(i). Therefore, although the Governor's suspension could apply to state procurements, it cannot supersede the federal requirements of section 13.36 (b)(i) for subgrantees.

<sup>7</sup> For several weeks, the County faced uncertainties as to whether FEMA would extend 100% debris reimbursements. However, FEMA settled on a 6-month extension effective in November 2008 and, after a 2-month suspension in spring 2009, extended the 100% indefinitely in June. The debris field project ended on September 20, 2009, nearly a year after landfall.



because the rights and responsibilities of the parties remain open to dispute and interpretation.<sup>8</sup> Immediately following a disaster, applicants sometimes engage contractors without written contracts. However, when the disaster no longer poses a threat to life and property, applicants should execute written contracts.

Because the County awarded these contracts non-competitively, FEMA had no assurance the County paid reasonable rates. Our market analysis of rental rates for heavy equipment (monthly equipment rental and fuel) shows County officials likely paid unreasonably high hourly rental rates for equipment (mostly bulldozers and backhoes). The heavy equipment contractor, a local small equipment operator, and his subcontractors, earned between \$3 million and \$5 million in gross profit on the \$16.7 million contract (see Exhibit C).<sup>9</sup>

Federal regulations allow for simplified and flexible contracting procedures under exigent circumstances.<sup>10</sup> However, once threats to life and property have passed, applicants should immediately cancel non-competitive contracts and conduct full and open competitions. In several of our recent FEMA Region VI audit reports, we reported instances of applicant non-compliance with federal procurement regulations.<sup>11</sup> Exhibit C discusses how the County awarded each of the debris clean-up-related contracts and the problems we encountered including how we calculated excessive gross profit.

**Monitoring Debris Operations** – FEMA requested the County to assign an employee or other person independent of the contractors to monitor contractor activities. However, the County did not monitor any of its time-and-material debris contracting as required by federal regulations and FEMA guidelines.<sup>12</sup> Contract monitoring compares staff and equipment hours invoiced (usually on a sample basis) to actual observations of work performed. Chambers County officials said they thought the daily supervision provided by FEMA's TAC was sufficient. However, the TAC did not monitor activities, as described in the FEMA *Debris Management Guide*, because he did not systematically compare observations of specific equipment or labor hours worked to weekly invoices. As a result, FEMA had no assurance that the hours charged on invoices were for productive time worked.

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<sup>8</sup> 44 CFR 13.36(i) – Contract provisions. This requires the applicant execute contracts with provisions to protect the interest of the government including the option to terminate the contract for convenience, retention of records for 3 years, and access to applicant records and documents.

<sup>9</sup> In accounting, gross profit is defined as the difference between revenue and the cost of making a product or providing a service, before deducting overhead, payroll, taxes, and interest.

<sup>10</sup> 44 CFR 13.36(d)(4)(i)(B) – Non-competitive contracts may be used only when awards are infeasible under small purchase procedures, sealed bids, or competitive proposals and the public exigency or emergency will not permit a delay resulting from competitive solicitation.

<sup>11</sup> Reports DD-10-19, *Xavier University of Louisiana, Contracting*, September 24, 2010; DD-10-08, *Orleans Parish Criminal Sheriff's Office*, March 31, 2010; DD-10-06, *Town of Vinton, Louisiana*, March 24, 2010, DD-10-05, *Roman Catholic Archdiocese of New Orleans, Bidding Process*, February 5, 2010, DD-10-03, and *City of Albuquerque, NM*, January 6, 2010.

<sup>12</sup> 44 CFR 13.36(b)(2) requires applicants maintain a contracts administration system which ensures that contractors perform in accordance with the terms, conditions and specifications of their contracts and FEMA's *Public Assistance Debris Management Guide* (FEMA 325, July 2007) provides detailed guidance for how to monitor time-and-materials contracts.

On November 7, 2008, before the debris field work began, FEMA's Deputy Branch Chief for Debris specifically recommended to the FEMA TAC, and copied County officials, that the County provide someone to monitor the debris field operations. The Deputy Branch Chief said in his email, "We do highly recommend the applicant . . . have a person on site to keep records on all the contractors' hourly workers and equipment." He also advised the County that it could use a County employee to verify who and what pieces of equipment worked each day.

Contractor monitoring is essential for both debris work in general and time-and-material contracts specifically. Time-and-material contracts present higher risks than unit-price contracts because they provide a disincentive for cost savings—the more hours a contractor charges on a project, the greater the contractor's profit. The contractor is also motivated to neglect employee timekeeping and equipment utilization controls. Consequently, the County should have mitigated these higher risks by monitoring and documenting contractor activities while the work was performed. Without such documentation, the County had no records to compare to contractors' invoices for hours worked and equipment used.

FEMA Fact Sheet 9580.203, Debris Monitoring, requires debris monitors to record the types of equipment used, hours used, and equipment downtime each day for time-and-material contracts. FEMA's *Public Assistance Guide* (FEMA 322, June 2007), page 53, states that applicants must carefully monitor and document contractor expenses and 44 CFR 13.36(b)(2) requires applicants maintain a contract administration system that ensures contractors perform according to the terms, conditions, and specifications of their contracts or purchase orders.

FEMA implements debris monitoring requirements through its *Public Assistance Debris Management Guide*, (FEMA 325, July 2007):

- Chapter 2, page 18, states that "Applicants must engage in comprehensive active monitoring activities to ensure contractor efficiency."
- Chapter 10, page 100, states that "Intense monitoring of time-and-material contracts is extremely important. Work inspection reports should be prepared each day." The guide also states, "Applicant personnel should verify the certification of work performed and copies of the inspection reports should be furnished to the contractor to expedite the submittal of invoices for payment."
- Chapter 10, page 103, states that time-and-material contracts require "full-time trained monitors to document work completed and verify hours worked."
- Chapter 11, page 106, states that with any contractual arrangement, the applicant must ensure that the contractor is meeting the performance requirements of the contract. If a contractor is hired to perform a monitoring task, the applicant is required to ensure that the hired contractor performed satisfactorily and that employees worked the hours billed on the invoice.

Monitors could have noticed that the heavy equipment contractor routinely charged time during equipment repair and maintenance downtime. Monitors also could have noticed contractor employees arriving late or leaving early, circumstances that normally occur, but were rarely recorded in the debris field invoices.

### **Finding B: Contractor Commuting Costs**

The heavy equipment and Haz-Mat contractors consistently charged 2 hours commuting time each day at overtime rates between \$30 and \$188 per hour, totaling \$3,681,597.<sup>13</sup> Paying workers for their daily commute for a year is not reasonable because commuting time is not normally compensated, and it is non-productive time. The unreasonableness of this cost is compounded by the fact that the heavy equipment contractor and the majority of his sub-contractors lived or worked within the County. Therefore we question \$3,681,597 for ineligible commuting costs.

Federal regulations at 2 CFR 225, Appendix A, General Principles for Determining Allowable Costs, Section C.2, state that, to be allowable under federal awards, costs must be reasonable. These cost principles define a reasonable cost as one that “does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost.”

When equipment broke down, the heavy equipment contractor also billed the County for equipment downtime up to 4 hours per day. However, as no records were kept of this downtime, we could not determine the amount of ineligible charges. Idle time is not eligible for Public Assistance funding (FEMA 325, *Public Assistance Debris Management Guide*, FEMA 325, July 2007, Chapter 2, page 14).

### **Finding C: Contractor Overtime Costs**

The heavy equipment contractor also billed excessive overtime for employees before they worked 40 hours each week, essentially billing 28 hours straight time and 44 hours of time-and-a-half overtime each week for employees.<sup>14</sup> This excess overtime totaled \$262,040. Paying overtime based on daily hours accrued before employees worked 40 hours each week is not reasonable. As noted above, to be allowable under federal awards, costs must not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost (see also FEMA 322 *Public Assistance Guide*, page 40, June 2007).

### **Finding D: Documentation of Costs**

Invoices from two contractors included unsupported costs totaling \$73,760. The Haz-Mat contractor billed \$38,060 in unsupported costs that included overtime claimed that did not match support, excess overtime charged, and hours charged for site access control not worked. For the weeks of January 18, 2009, and January 25, 2009, the heavy equipment contractor billed 9.5 hours and 10 hours on his invoices for all equipment. However, the sign-in sheets showed the equipment was only used 9 hours. As a result, the difference between the hours billed and hours

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<sup>13</sup> Although the Haz-Mat contract allowed commuting time, the costs are still unreasonable. There was no written contract for the heavy equipment contractor.

<sup>14</sup> Debris field workers typically billed 72-hour weeks, which included 12 hours per week in commuting time.

recorded on the sign-in sheets was not supported resulting in \$35,700 in questioned costs. Therefore, we question \$73,760 in unsupported costs for two contractors.

Finally, regarding unsupported costs, the heavy equipment contractor's sign in / out sheets did not normally reconcile to the invoices. The contractor did not use the sheets to prepare weekly invoices. Rather, he relied on his memory, phone calls, and his notes to prepare invoices. While the contractor acknowledged billing errors, he said the errors probably evened out over time as they occurred both in his favor and in the County's favor. Although the supporting documentation did not reconcile to invoices, County officials never rejected or corrected debris field invoices.

### **Finding E: FEMA and TDEM's Oversight of Contractor Compliance**

FEMA and TDEM could have prevented many contracting problems by verifying how County officials awarded their contracts. County officials said FEMA's TAC asked only whether they had contracts in place; and other FEMA officials did not verify how they awarded their contracts. County officials said TDEM also did not ask questions about how they awarded their contracts.

FEMA and TDEM should verify how applicants award their contracts and take a more proactive role in reviewing applicant contracting procedures. FEMA and TDEM should also make clear to future applicants as soon as possible after the disaster that reimbursement of disaster-related costs is contingent on compliance with federal contracting regulations. Compliance with contracting requirements was important to FEMA and TDEM following Hurricane Ike. For example, on October 3, 2008, the Federal and State Coordinating Officers issued a joint memorandum to their staff emphasizing the importance of federal contracting requirements in debris clean-up.

FEMA has a fiduciary duty to protect federal funds; and, according to 44 CFR 13.37(a)(2), states are responsible for ensuring that subgrantees (applicants) "are aware of requirements imposed upon them by Federal statute and regulation." Further, 44 CFR 13.40(a) requires states to monitor applicant activities to assure compliance with applicable federal requirements.

FEMA Region VI's Public Assistance Branch Manager said that FEMA and the states generally do not have sufficient staffing to review applicant contracting practices after major disasters. Region VI relies on a combination of educational and outreach efforts to promote compliance. FEMA officials also said disasters can take weeks or months to be declared, which can delay FEMA's ability to work directly with applicants. TDEM officials said they typically do not get involved in the applicant's day-to-day decision making unless the applicant has questions. In fact, federal regulations specifically state that grantees "are responsible for managing the day-to-day operations of grant and subgrant supported activities."<sup>15</sup>

FEMA's education and outreach efforts are important. While we acknowledge the staffing challenges following major disasters, if FEMA Region VI and TDEM do not take more assertive actions toward contracting compliance, problems like the ones described in this report will occur

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<sup>15</sup> 44 CFR 13.40(a).

again. If FEMA does not verify and enforce contracting requirements, future applicants and the emergency management community will come to believe that, for practical purposes, compliance with these regulations is optional.

FEMA Region VI officials did not agree with this finding and viewed our conclusion as subjective. FEMA officials did not believe this finding was valid because FEMA (1) made all applicants aware of contracting procedures at applicant briefings and kick-off meetings, (2) provided access to websites describing contracting requirements, and (3) sent a letter from the Federal Coordinating Officer to applicants reinforcing requirements. Further, applicants had access to a toll-free call-in line to answer questions. Finally, FEMA Region VI said responsibility for communicating contracting requirements rested with TDEM, as described in 44 CFR 13.37, although FEMA partners with TDEM to disseminate information.

## **RECOMMENDATIONS**

We recommend that the Regional Administrator, FEMA Region VI:

**Recommendation #1:** Disallow \$40,552,442 for improper contracting costs (Finding A and see Exhibit B).

**Recommendation #2:** Disallow \$3,681,597 for ineligible commuting costs (Finding B).

**Recommendation #3:** Disallow \$262,040 for ineligible overtime costs (Finding C).

**Recommendation #4:** Disallow \$73,760 for unsupported costs (Finding D).

**Recommendation #5:** Establish, strengthen, and implement Public Assistance program oversight procedures to proactively identify and correct contracting compliance problems. FEMA should coordinate its effort with TDEM (Finding E).

## **DISCUSSION WITH MANAGEMENT AND AUDIT FOLLOW-UP**

We discussed the results of our audit with Chambers officials during our audit and included their comments in this report, as appropriate. We also provided written summaries of our findings and recommendations in advance to FEMA, TDEM and County officials and discussed them at exit conferences held with FEMA on November 19, 2010, and with TDEM on November 17, 2010. On December 3, 2010, County officials provided us a written response to our report. FEMA officials generally agreed with Findings A – D but disagreed with Finding E. FEMA deferred comments on the recommendations until after the report is issued. TDEM also deferred comments on the report until after issuance; and, based on their written response, County officials generally disagreed with the findings. Please advise this office by February 14, 2011, of the actions planned or taken to implement the recommendations, including target completion dates for any planned actions. Significant contributors to this report were Christopher Dodd, Paige Hamrick, John Polledo, Jim Nelson, and Natalie Lick. Should you have questions concerning this report, please contact me, or your staff may contact Christopher Dodd, Audit Manager, at (214) 436-5200.

cc: Audit Liaison, FEMA Region VI  
Audit Liaison, FEMA (Job Code G-10-033)

**Schedule of Questioned Costs  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX<sup>16</sup>**

<b>Project Number</b>	<b>Project Amount</b>	<b>Finding A</b>	<b>Finding B</b>	<b>Finding C</b>	<b>Finding D</b>	<b>Total Questioned</b>
4	\$13,024,618	\$8,705,353	\$0	\$0	\$0	\$8,705,353
676	704,514	700,259	0	0	15,474	700,259
952	154,870	100,882	0	0	0	100,882
1152	755,933	105,867	19,172	0	0	105,867
4663	13,689,281	13,658,262	1,473,468	107,070	53,766	13,658,262
6623	19,921,617	19,896,555	2,188,957	154,970	4,520	19,896,555
12641	440,739	438,085	0	0	0	438,085
13179	115,283	108,962	0	0	0	108,962
13183	113,250	111,938	0	0	0	111,938
13722	2,110,979	0	0	0	0	0
13875	105,849	104,537	0	0	0	104,537
14818	111,238	109,926	0	0	0	109,926
14906	131,799	130,487	0	0	0	130,487
14953	183,933	182,621	0	0	0	182,621
14957	111,042	109,730	0	0	0	109,730
14961	107,687	106,375	0	0	0	106,375
<b>Total</b>	<b><u>\$51,782,632</u></b>	<b><u>\$44,569,839</u></b>	<b><u>\$3,681,597</u></b>	<b><u>\$262,040</u></b>	<b><u>\$73,760</u></b>	<b><u>\$44,569,839</u></b>

<sup>16</sup> Amounts questioned in Findings B, C, and D are also questioned in Finding A (see Exhibit B). Therefore, Total Questioned in this Exhibit is the sum of Findings A.

**Costs Questioned Under Multiple Criteria  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX**

We question costs related to contracting procedures in Recommendation 1 (Finding A) that, in some instances, were questioned for more than one reason. As shown in the table below, we question \$44,569,839 in Finding A, which includes \$3,681,597 questioned in Finding B, \$262,040, questioned in Finding C, and \$73,760 questioned in Finding D. Therefore, if FEMA does not disallow the costs for Findings B, C and D, it should add them back to the amount recommended for disallowance for Finding A.

<b>Finding</b>	<b>Amount</b>	<b>Totals</b>
A. Contracting Procedures:	\$ 44,569,839	
Less costs also questioned in B	(3,681,597)	
Less costs also questioned in C	(262,040)	
Less costs also questioned in D	<u>(73,760)</u>	
Net amount questioned in A		<u>\$ 40,552,442</u>
B. Contractor Commuting		3,681,597
C. Contractor Overtime		262,040
D. Unsupported Costs		73,760
<b>Net Total Questioned</b>		<b><u>\$ 44,569,839</u></b>



**Contract Procedures for Debris Contracts  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX**

Chambers County, (County) hired four contractors under five contracts to provide debris-related services. The following discusses the procedures and rationale used by County officials in awarding these contracts as well as the problems we encountered and how we calculated excess gross profit.

**Right of Way (ROW) debris collection – \$9.2 million / Personal Property Debris Removal (PPDR) – \$1.0 million.** The County hired these contractors to remove vegetative debris from roadways and trim damaged trees near homes. A large national firm performed the majority of the ROW clean up work with assistance from the heavy equipment contractor (see below). The heavy equipment contractor performed all tree trimming PPDR work.

The County initially awarded the first non-competitive ROW / PPDR unit-price debris contract to a large national firm. The County requested bids from nine pre-qualified bidders provided by a local government contracting cooperative. But, rather than conduct an open competition based on contractor qualifications and rates, County officials told us (but did not contemporaneously document) they selected the contractor that could start immediately. The first ROW / PPDR contractor was already clearing debris nearby for the U.S. Army Corps of Engineers. County officials also said they selected this ROW / PPDR contractor because it was a mid-range bidder.

Rather than selecting the lowest qualified and responsible bidder (or documenting why the lowest bid was too low to be reasonable), County officials said they “called around” to determine a reasonable price and used that information to negotiate the rates. County officials circumvented the competitive process, did not select the lowest responsible bidder, and did not document how they established reasonable prices. Further, it was unfair to disregard the bids prepared by the other eight contractors.

To increase local participation in disaster clean-up work, the County awarded a second ROW / PPDR contract to a small local firm. The County invited three local small businesses to participate if the prospective contractors were willing to accept the terms, rates, and conditions accepted by the first ROW / PPDR contractor. County officials said (but again did not contemporaneously document) they awarded the contract to the heavy equipment contractor because he was the only one of the three that accepted the County’s invitation. County officials said this first contract established the business relationship the County used to justify the subsequent non-competitive \$16.7 million debris field award to the heavy equipment contractor.

**Hazardous Material (Haz-Mat) removal – \$17.7 million.** The County hired this contractor to find and remove hazardous materials from the debris field and search for human remains. The Haz-Mat contractor also removed tanks containing hazardous materials from Lake Anahuac immediately following the storm. This work was performed by a Houston area Haz-Mat emergency clean up company.

The County awarded this non-competitive time-and-material contract in 2006. However, County officials could not support how they made their selection or determined rates (\$45-\$125 / hour) were reasonable. FEMA officials determined the rates were reasonable, but could not provide

**Contract Procedures for Debris Contracts  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX**

support for how they made this determination. Without competitive bids or a price analysis, we could not determine whether rates charged were reasonable. Further, because of the unique work the Haz-Mat contractor performed in the debris field, we could not estimate a fair market price for these Haz-Mat services.

**Heavy Equipment operations – \$16.7 million.** The County hired this contractor to provide heavy equipment, mostly bulldozers and backhoes, and equipment operators to sort through the debris field.<sup>17</sup> This work was performed by a local small business, without a written contract, that subcontracted much of the work to local farmers and businesses.

County officials said they awarded this (verbal) non-competitive time-and-material contract to the heavy equipment contractor because he was already performing ROW work for the County (see above). County officials said they asked the contractor to subcontract out as much of the work as possible to local farmers and business people. FEMA's Technical Assistance Contractor said that he and FEMA officials were aware of this arrangement and approved the equipment rates charged (\$85-\$120 / hour).<sup>18</sup> However, the County paid unreasonably high hourly rates, and FEMA could not provide support that they approved the rates or how they determined the rates were reasonable. The County did not require the contractor to sign a contract and did not document the terms, conditions, or hourly rates of this \$16.7 million contract.

**Unreasonable Hourly Rates** – The County paid high hourly rates for heavy equipment that we estimate generated a gross profit of between \$3 million and \$5 million for the contractor and his subcontractors. To determine whether the rates paid to the heavy equipment contractor were reasonable, we analyzed heavy equipment operating costs in the area by estimating the hourly direct costs of operating the bulldozers and backhoes based on local rental rates. For example, the contractor charged the County \$85 per hour for a 90-horsepower bulldozer. However, based on rental rates we obtained from three area rental companies, this same bulldozer could have been rented for about \$44 per hour (based on monthly rental rates) including the cost of diesel fuel. This indicated a potential gross profit on direct costs (before contractor indirect costs) of \$41 an hour (93%). We calculated fuel costs based on the manufacturer's published fuel efficiency of each specific piece of equipment deployed during the week of March 1, 2009, times the average cost of diesel fuel per gallon in 2009.

Expanding this same analysis to a typical week, the contractor charged the county \$631,410 for 105 pieces of heavy equipment operating in the debris field for 6,156 hours during the week of March 1, 2009. We estimated the heavy equipment contractor and his subcontractors could have rented the equipment and kept the equipment fueled (incurred direct operating costs) for about \$301,638 for a potential gross profit for the week of \$329,772. Therefore, we estimate the heavy equipment contractor marked up his direct operating costs by 109% (\$329,772 gross profit / \$301,638 in direct costs) or a 52% ratio of cost to profit. Projecting this gross profit analysis to

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<sup>17</sup> The heavy equipment contractor also performed some ROW work and all of the PPDR work.

<sup>18</sup> The heavy equipment operator billed labor at \$20 per hour straight-time and \$30 per hour overtime. We considered these labor rates reasonable and did not include them in our analysis.

**Contract Procedures for Debris Contracts  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX**

the entire \$16.7 million contract, we estimated the heavy equipment contractor and his subcontractors earned potential gross profits of over \$5 million after adjusting for labor costs (0.52 cost to profit ratio x \$16.7 million total billing x 0.76 ratio of equipment costs to labor costs).<sup>19</sup>

In another test of whether the County paid unreasonable rates, we used FEMA's published equipment rates used to reimburse its applicants for the cost of using their own equipment. We multiplied FEMA's rates times the 6,156 equipment hours.<sup>20</sup> For example, FEMA reimburses applicants \$45 per hour for this same 90-horsepower bulldozer, which indicates a potential gross profit of \$40 per hour and a gross profit margin of 88% (\$45 cost / \$40 profit). FEMA's rates could indicate a different gross profit margin than our rental rate analysis because FEMA's rates include different cost elements such as the costs of ownership, depreciation, maintenance, field repairs, fuel, and lubricants.

Again, expanding this same analysis to the 105 pieces of heavy equipment operating in the debris field for 6,156 equipment hours during the week of March 1, 2009, we estimated the heavy equipment contractor and his subcontractors incurred direct operating costs of about \$423,520 on \$631,410 in billings leading to gross profit of \$207,890. Therefore, we estimate the heavy equipment contractor marked up his direct operating costs 49% (\$207,890 gross profit / \$423,520 in direct costs) for a 33% gross profit on sales (\$207,890 / \$631,410). Based on this percentage, we estimated the heavy equipment contractor and his subcontractors earned potential gross profits exceeding \$3 million (0.33 x \$16.7 million x 0.76 ratio of equipment costs to labor costs).<sup>21</sup>

***Subcontracting Arrangement*** – The heavy equipment contractor's gross profit was not as high as our analysis indicated because County officials asked him to subcontract as much of the heavy equipment work to as many local businesses as possible. Doing so reduced his gross profit by passing a portion of the gross profit to local businesses. For example, the contractor paid local businesses \$55 per hour for this same 90-horsepower bulldozer, enough to allow the subcontractor to share in the gross profit margin. Ordinarily subcontracting arrangements are not FEMA's concern. However, this arrangement created an artificial financial burden on the contractor that may explain why the contractor required such high hourly rates.

The heavy equipment contractor said it would have been easier and more profitable for him to rent all the heavy equipment and hire operators himself, rather than subcontract the work and share the gross profit. Although this arrangement kept funding and profits inside the County, it did not serve a legitimate business purpose. The County's purpose for this arrangement was to provide federal funds to local farmers and business owners adversely impacted by the hurricane,

<sup>19</sup> In our sample week, equipment costs made up 76% of the invoice and labor 24%. We accepted the \$20 per hour labor rate as reasonable and therefore excluded labor charges from our reasonable-rate calculations.

<sup>20</sup> FEMA rates published May 1, 2008.

<sup>21</sup> We based our calculation on the equipment mix of the 105 pieces of heavy equipment deployed in the debris field during the week of March 1, 2009. Generally, one bulldozer worked in tandem with one backhoe.

**Contract Procedures for Debris Contracts  
Chambers County, Texas  
FEMA Disaster Number 1791-DR-TX**

not to perform the work at the lowest reasonable cost. Although our gross profit analyses are only estimates, they show that rates were too high and the County may have been able to drastically reduce costs by allowing others to compete for the contract.

**Debris Monitoring – \$4.6 million.** The County hired this contractor to monitor ROW and PPDR debris clean up activities accomplished under unit-price contracts. This contractor did not monitor the debris field work of the Haz-Mat and heavy equipment contractors hired under time-and-material agreements totaling \$17.7 million and \$16.7 million, respectively. The debris monitor observed and documented debris clean-up work along roadways and tree trimming activities on personal property. This monitoring work was performed by a national emergency response firm. A local government contracting cooperative provided the County this contract and the cooperative complied with federal contracting procedures and FEMA guidelines.

FEMA requires applicants to monitor debris clean up to (1) verify that the work completed by the contractor is within the contract scope of work and (2) provide the required documentation for Public Assistance grant reimbursement. Primarily, debris monitors should be able to estimate debris quantities, differentiate between debris types, properly fill out load tickets, and follow all site safety procedures.<sup>22</sup>

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<sup>22</sup> FEMA 325, *Public Assistance Debris Management Guide*, FEMA 325, July 2007, Chapter 11, page106.