



U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF INSPECTOR GENERAL

Catalyst for Improving the Environment

Audit Report

EPA Should Stop Providing Estimates of Total Labor Hours to Contractors

Report No. 09-P-0229

September 9, 2009

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Abbreviations

CMM	Contracts Management Manual
EPA	U.S. Environmental Protection Agency
EPAAR	Environmental Protection Agency Acquisition Regulation
FAR	Federal Acquisition Regulation
HQ	Headquarters
IGCE	Independent Government Cost Estimate
OAM	Office of Acquisition Management
OIG	Office of Inspector General
RTP	Research Triangle Park
SOW	Statement of Work



At a Glance

Catalyst for Improving the Environment

Why We Did This Review

The Office of Inspector General (OIG) conducted an audit of how the U.S. Environmental Protection Agency (EPA) uses independent government cost estimates (IGCEs) to control contract costs and receive the best value for dollars expended. This report is being issued to address a specific issue regarding the sharing of labor hours with contractors; another report will follow.

Background

An IGCE is a detailed estimate of what a reasonable person should pay to obtain the best value for a product or service. IGCEs are an essential tool to ensure the best value is obtained for dollars expended.

For further information, contact our Office of Congressional, Public Affairs and Management at (202) 566-2391.

To view the full report, click on the following link:
www.epa.gov/oig/reports/2009/20090909-09-P-0229.pdf

EPA Should Stop Providing Estimates of Total Labor Hours to Contractors

What We Found

For 6 of the 22 contracts we reviewed, EPA provided the contractor with the government's estimate for total labor hours prior to receiving the contractor's proposal. The Federal Acquisition Regulation provides that the government may use various cost analysis techniques to ensure a fair and reasonable price, including comparing proposed prices with IGCEs. Since EPA is providing total labor hours to the contractor prior to receiving the proposal, EPA may be diminishing its ability to obtain a fair and reasonable price.

Contract management and program staff indicated that providing the total labor hours is common practice under level-of-effort-type contracts. Some informed us they provide contractors with estimated labor prior to receiving the proposal to indicate to the contractor the level of effort EPA anticipates will be associated with the work assignment. Office of Acquisition Management managers pointed out that EPA's Acquisition Regulation (EPAAR) requires that estimated labor hours be provided to contractors for contracts in which work is ordered through work assignments. Yet, an Office of Acquisition Management guide states that information from the IGCE should not be provided to the contractor.

We found that for most of the Superfund contracts reviewed, EPA did not routinely provide total labor hours to the contractor before receiving the proposal. Some EPA staff informed us they did not provide the total labor hours because doing so would undermine the negotiation process. When EPA provides its estimate of total labor hours before receiving the proposal, the contractor does not have an incentive to seek a more efficient or innovative approach to meet the government's requirement.

What We Recommend

We recommend that EPA revise EPAAR to eliminate the requirement that EPA include total estimated labor hours in work assignments or identify specific circumstances in which the requirement should apply. EPA agreed with our recommendations to modify EPAAR and will communicate new guidance to contracting staff and those who prepare IGCEs.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
INSPECTOR GENERAL

September 9, 2009

MEMORANDUM

SUBJECT: EPA Should Stop Providing Estimates of Total Labor Hours to Contractors
Report No. 09-P-0229

FROM: Melissa M. Heist *Melissa M. Heist*
Assistant Inspector General for Audit

TO: Craig E. Hooks, Assistant Administrator
Office of Administration and Resources Management

This is our report on the U.S. Environmental Protection Agency's (EPA's) practice of providing total labor hours to contractors prior to receiving the contractor's proposal. This report contains findings that describe the problems the EPA Office of Inspector General (OIG) has identified and corrective actions the OIG recommends. This report represents the position of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The estimated cost of this report – calculated by multiplying the project's staff days by the applicable daily full cost billing rates in effect at the time – is \$141,313.

Action Required

In responding to the draft report, the Agency provided corrective action plans for addressing all of the recommendations. Therefore, a response to the final report is not required. The Agency should track corrective actions not implemented in the Management Audit Tracking System. We have no objections to the further release of this report to the public. The report will be available at <http://www.epa.gov/oig>.

If you or your staff have any questions, please contact me at 202-566-0899 or heist.melissa@epa.gov; or Janet Kasper, Product Line Director, at 312-886-3059 or kasper.janet@epa.gov.

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Purpose

The U.S. Environmental Protection Agency's (EPA's) Office of Inspector General (OIG) conducted an audit to determine whether EPA is effectively using independent government cost estimates (IGCEs) to control costs on Agency contracts. During our review, we identified an issue of immediate concern relating to EPA sharing labor hours with contractors. This report addresses that specific issue; another report will follow.

Background

An IGCE is a detailed estimate of what a reasonable person should pay to obtain the best value for a product or service and should include priorities and assumptions that exist at the time the estimate is made. According to EPA's Contracts Management Manual (CMM), IGCEs are required for work ordered under a contract with a potential value in excess of \$100,000. IGCEs are used by the Federal Government as an essential tool to ensure the best value is obtained for the dollars expended. EPA's Office of Acquisition Management (OAM) prepared a guide that states IGCEs "are an integral part of any effective acquisition program."

At EPA, IGCEs are used in evaluating proposals for new contracts and contract modifications and before issuing work assignment and task or delivery orders. EPA's program offices are responsible for preparing IGCEs based on the Statement of Work (SOW). EPA contracting officers are responsible for contractual issues such as providing the Request for Proposal to the contractor, which includes the SOW. Contracting officers are also responsible for assuring cost reasonableness. Part 15.404-1 (a)(1) of the Federal Acquisition Regulation (FAR) states:

The contracting officer is responsible for evaluating the reasonableness of the offered prices. The analytical techniques and procedures described in this subsection may be used, singly or in combination with others, to ensure that the final price is fair and reasonable. The complexity and circumstances of each acquisition should determine the level of detail of the analysis required.

During the early 1990s, the Government Accountability Office reported weaknesses in EPA's use of IGCEs. The Government Accountability Office found that EPA had not protected itself against potentially wasteful spending by independently estimating how much the contracted work should cost. In response to these reported weaknesses, in 1992 EPA Superfund program officials required staff to, among other things, independently prepare cost estimates of contracted work and use them in negotiating the contractors' costs. EPA subsequently provided its staff with training in preparing these estimates. The most current EPA document on IGCEs is the student guide on IGCEs published in 1998, which provides general guidance on preparing IGCEs.

Scope and Methodology

We performed this audit from May 2008 to June 2009 in accordance with generally accepted government auditing standards, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We

believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed the latest active contracts listing and selected our sample based on factors such as program, contract type, geographic location, dollar value, and period of performance. During preliminary research, we selected a nonstatistical sample of 12 contracts from several different locations. During field work, we selected 10 additional contracts. A breakdown of these contracts is in Table 1. The findings in this report relate to the five non-Superfund contracts from preliminary research and one Superfund contract from field work (see contracts in Table 2). Headquarters issued two of the non-Superfund contracts and the Superfund contract; Research Triangle Park issued the other three non-Superfund contracts.

Table 1. Contracts Selected

Type of Contract	Selected During Preliminary Research	Selected During Field Work
Non-Superfund	5	0
Superfund	7	10
Total	12	10

Source: OIG analysis of data

For each contract, we interviewed the contracting officer and program personnel involved with preparing IGCEs. We conducted interviews to obtain an understanding of how they go about preparing and using IGCEs, both at the contract level and work assignment or task order level. We judgmentally selected some work assignments or task orders from each contract for further review. We reviewed documentation from the contracting officer's files to gain an understanding of cost estimates at the contract level and at the work assignment or task order level if available. We also reviewed files maintained by the program personnel who prepared the IGCEs for the work assignments and task orders we reviewed.

Results of Review

For 6 of the 22 contracts reviewed, EPA provided the contractor with the government's estimate for total labor hours prior to receiving the contractor's proposal. FAR provides that the government may use various cost analysis techniques to ensure a fair and reasonable price, including comparing proposed prices with IGCEs. EPA staff believe providing total labor hours to the contractor is necessary because it is buying labor hours and doing so makes the acquisition process more efficient. Further, OAM managers pointed out that the EPA's Acquisition Regulation (EPAAR) requires that estimated labor hours be provided to contractors for contracts where work is ordered through work assignments. IGCEs are one of the tools used to ensure the final agreed-to price is fair and reasonable. When EPA provides total labor hours to the contractor prior to receiving the proposal, EPA may be diminishing its value as a tool to ensure a fair and reasonable price.

FAR Section 15.404-1 states that the objective of proposal analysis is to ensure that the final agreed-to price is fair and reasonable. The FAR identifies IGCEs as a tool for reviewing proposed costs or prices. The CMM also states that the IGCE is one of the tools the contracting officer uses to determine whether the contractor's proposed price is fair and reasonable. EPA can compare the IGCE to the contractor's proposal to assess the reasonableness of the price. The

CMM refers project officers to the student guide for additional guidance on preparing IGCEs. EPA's guide on preparing and using IGCEs states, "Any IGE [Independent Government Estimate] developed for a current contract must never be disclosed to the contractor prior to the contractor's submission in response to the proposed Statement of Work or modification." The guide also explains that IGCEs can be compared to proposals and workplans to detect similarities and differences. This can help EPA determine whether proposals overstate or understate work, the SOW contains sufficient detail, or prices are too high or low.

When EPA provides total labor hours to the contractor prior to receiving the proposal, it may be diminishing the value of the IGCE in assessing the reasonableness of the contractor's proposal. Though EPA does not provide the entire IGCE to the contractor, it does provide the contractor with the total amount of labor hours it is willing to approve prior to receiving and reviewing the contractor's estimate. Of the contracts, contract task orders, and work assignments reviewed, EPA provided the contractor with the total amount of labor hours it is willing to approve prior to receiving and reviewing that contractor's estimate for five non-Superfund contracts and one Superfund work assignment, as shown in Table 2.

Table 2: Comparison of Contractor's Proposed Direct Labor Hours to EPA's Labor Estimate

Contract	Program Office	Work Assignments/ Task Orders	EPA's Labor Hour Estimate	Contractor's Proposed Labor Hours	Final Approved Labor Hours	Percentage of Contractor's Proposal to EPA's Estimate
EP-D-05-088	Office of Research and Development	WA 20806002S	373	383	383	3%
		WA 208RD018R	4,485	4,335	4,335	-3%
		WA 20804541S	271	280	280	3%
EP-D-07-109	Office of Research and Development	WA 0-01	910	910	910	0%
		WA 0-02	1,500	1,496	1,496	0%
		WA 0-03	820	820	820	0%
		WA 0-04	400	400	400	0%
		WA 0-05	4,700	5,212	5,212	10%
		WA 0-06	865	887	887	2%
		WA 0-07	750	750	750	0%
		WA 0-08	700	700	700	0%
		WA 0-09	1,310	1,310	1,310	0%
		WA 0-10	100	100	100	0%
EP-D-05-002	Office of Air and Radiation	WA 1-01	4,500	4,500	4,500	0%
		WA 1-02	1,620	1,600	1,600	-1%
		WA 1-03	465	350	350	-33%
		WA 1-04	170	200	200	15%
		WA 1-05	670	622	670	-8%
EP-W-06-001	Office of Air and Radiation	TO 304	7,930	7,900	7,900	0%
		TO 310	7,985	9,057	9,057	12%
		TO 314	2,005	1,904	1,904	-5%
EP-W-06-093	Office of Air and Radiation	TO 101	4,371	4,546	4,546	4%
		TO 105	2,200	2,200	2,200	0%
		TO 107	10,095	11,995	11,995	16%
EP-W-05-060	Superfund	WA 1-08	472	471	471	0%
		WA 1-11	1,328	1,397	1,397	5%

Source: OIG analysis of EPA data

For 21 of 27 work assignments or task orders under these contracts, the difference between the EPA labor hour estimate and the contractor's proposal was within 5 percent. Moreover, for 13 of the work assignments or task orders, there was no difference between what EPA had in the IGCE and what the contractor proposed. Below are two examples in which the contractor's proposed total hours matched exactly the government's estimated total hours.

- For contract EP-D-05-002, work assignment 2-01, EPA estimated the total labor hours at 4,700. EPA provided this figure to the contractor, which also estimated 4,700 total hours. The contractor's cost estimate was slightly lower (3.6 percent) than EPA's estimate (\$489,553 versus \$507,784). This difference was due to differences in the proposed labor mix. EPA automatically accepted this cost variance based on the minor difference.
- For contract EP-D-07-109, work assignment 0-03, EPA estimated 820 total labor hours. EPA provided this figure to the contractor, which also estimated 820 hours. The contractor's cost estimate was higher than the EPA IGCE (\$96,259 versus \$91,284), again due to differences in the proposed labor mix.

Labor hours generally represent the majority of the contract costs. For example, for the 4,700 total labor hours discussed above, labor and corresponding associated costs (fringe, overhead, etc.) represented about 86 percent of the total proposed amount (\$422,000 of the \$490,000 total) for this work assignment. When EPA provides the contractors with the total labor hours and the labor rates are either fixed or can be estimated based on historical data, the contractors can reasonably determine the labor and corresponding cost EPA is willing to accept before preparing their proposals.

According to the FAR, a cost analysis is used to evaluate the separate cost elements of the contractor's proposal. As part of this cost analysis, EPA staff would compare the hours and rates contained in the proposal to those estimated within the IGCE. Such an analysis would allow EPA staff to determine whether proposals overstate or understate work, or prices are too high or low, and determine the fair and reasonable price for labor hours. If EPA had received the contractor's proposal without providing an estimate of total labor hours, it could have conducted a valid cost analysis for labor hours. However, by providing estimated labor hours, EPA diminished its ability to use the IGCE to assess the reasonableness of labor hours in the proposal.

Based on the language in the CMM, the SOW should provide sufficient information for the contractor to develop its proposal. CMM Section 11.1.5.1 states:

. . . the SOW is the basis for preparation of the Independent Government Cost Estimate (IGCE). The IGCE is developed by the program office and is based on the individual elements of cost estimated for each of the components and sub-components of the SOW. The IGCE is one of the tools used by the CO [contracting officer] to determine if the contractors proposed price/cost is fair and reasonable.

The contractor develops and prepares their proposal from the SOW. The contractor must understand the SOW requirements sufficiently to develop its

technical, management and price/cost proposals. The SOW must provide enough information without need for further explanation from the Government.

The SOWs for the six contracts listed above contained deliverables that lessened the need for EPA to provide hours. While the six contracts were level-of-effort (labor hours) contracts, they also contained specific deliverables. For example, under EPA Contract EP-D-05-088, we reviewed three work assignments. The purpose of two of the three work assignments was to have the contractor provide to EPA historical aerial photographs of sites where EPA was conducting work. If needed, both work assignments required the contractor to research and purchase additional historical aerial photographs. Both work assignments also required the contractor to provide EPA with a historical photo analysis report using 8 to 10 years of photographic coverage. The primary purpose of these work assignments was to provide EPA with a specific deliverable rather than EPA simply purchasing labor hours from the contractor. As such, the practice of providing the contractor with EPA's estimate of the number of hours required to complete these tasks is unnecessary.

EPA contract and program staff offered several reasons for providing IGCE information to the contractors. Contract management and program staff indicated that it is common practice to provide the contractor with the government's estimate of total labor hours. Some EPA contract management staff informed us they provide contractors with estimated labor prior to receiving the proposal because they are buying labor hours through level-of-effort contracts. OAM managers said they do this because they believe it makes the process more efficient. They also pointed out that EPAAR requires that estimated labor hours be provided to contractors for contracts where work is ordered through work assignments. Specifically, EPAAR states:

Each work assignment will include (1) a numerical designation, (2) the estimate of required labor hours, (3) the period of performance and schedule of deliverables, and (4) the description of the work.

OAM informed us this EPAAR clause is based on FAR 16.306 (d)(2) that defines one type of cost-plus-fixed-fee contract where the Agency describes the scope of work in general terms and obligates the contractor to devote a specified level of effort for a stated time period. OAM stated that the government provides the hours as a control mechanism to allocate the level of effort it has decided to devote to each specific project. While the control mechanism is beneficial and may be necessary for some cost-type contracts, the level-of-effort information should be added after EPA receives the contractor's work proposal and as part of the negotiation of the final SOW. Providing the hours after negotiation provides the control mechanism for the contract while allowing the negotiation process to continue to be used to obtain the best value.

The EPAAR requirement diminishes the value of the IGCE process in analyzing the contractor's proposal. EPA needs to rescind the EPAAR requirement for two primary reasons. First, the requirement to include an estimate of required labor hours in the work assignment reduces EPA's ability to determine whether it is getting a fair and reasonable price. Second, level-of-effort type contracts contain SOWs that should adequately describe EPA's need and contractors can use them to estimate the required labor hours to complete a task.

Despite the EPAAR clause requiring that the total hours be provided, we found that contracting officers for most of the Superfund contracts we reviewed did not provide the hours to the contractor prior to receiving the proposal. We spoke with project officers and contracting officers, who informed us they did not provide the total labor hours because doing so would undermine the negotiation process. We noted instances where the contractors' proposed hours and/or dollars were less than the government's IGCE. For example, one work assignment under a Superfund contract contained an IGCE that estimated approximately \$440,000 (4,015 total labor hours). The contractor proposed approximately \$381,000 (3,840 total labor hours) and the final negotiated price was approximately \$363,000 (3,532 total labor hours).

By providing contractors with the government's estimate for total labor hours prior to receiving the proposal, EPA may be jeopardizing the overall integrity of the cost estimating process. As shown in Table 2, when contractors are provided with an estimate of labor hours, the IGCE and contractor's cost proposal are generally similar in amount. Since EPA provides its estimate of total labor hours before receiving the proposal, the contractor does not have an incentive to seek a more efficient or innovative approach to meet the government's requirement.

Recommendations

We recommend that the Assistant Administrator for Administration and Resources Management:

1. Revise EPAAR to eliminate the requirement that EPA include total estimated labor hours in work assignments or identify specific circumstances in which the requirement should apply.
2. Communicate to contract management and program staff who prepare and use IGCEs when estimates of total labor hours, or any other cost-related estimates, should not be provided to contractors prior to receiving the contractor's proposal.

Agency Comments and OIG Evaluation

EPA agreed with our recommendations and will modify the EPAAR clause on providing required hours for work assignments. However, EPA believes circumstances exist on certain contracts where a contracting officer needs to be able to provide the expected level of services needed to the contractor. EPA stated that contracts where the nature of the work is nonspecific with changing circumstances, such as clean-up services at new hazardous waste sites or research and development in new areas with uncertain potential results, fall into this category. EPA stated that in such cases, unless the contracting officer provides the contractor with the estimated level of effort in terms of hours, the contractor will be left guessing at this level, which might needlessly delay getting the program customer the required services. EPA agreed to revise EPAAR and provide guidance to contracting officers regarding their discretion to reveal estimated labor hours to contractors, depending on the circumstances of the individual contracting action. EPA will issue the interim guidance by November 1, 2009, and revise the EPAAR clause, which may take an additional 9 months. See EPA's full response in Appendix A. The Agency's proposed actions will address the recommendations.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS	
Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date	Claimed Amount	Agreed To Amount
1	6	Revise EPAAR to eliminate the requirement that EPA include total estimated labor hours in work assignments or identify specific circumstances in which the requirement should apply.	O	Assistant Administrator for Administration and Resources Management	8/1/2010		
2	6	Communicate to contract management officials and program officials who prepare IGCEs when labor estimates, or any other cost-related estimates, should not be provided to contractors prior to receiving the contractor's proposal.	O	Assistant Administrator for Administration and Resources Management	11/1/2009		

¹ O = recommendation is open with agreed-to corrective actions pending.
 C = recommendation is closed with all agreed-to actions completed.
 U = recommendation is undecided with resolution efforts in progress.

Appendix A

Agency Response

August 20, 2009

MEMORANDUM

SUBJECT: Response to Draft Audit Report: EPA Should Stop Providing Estimates of Total Labor Hours to Contractors, Report Number OA-FY08-0255

FROM: Craig E. Hooks
Assistant Administrator

TO: Janet Kasper
Director, Contracts and Assistance Agreements
Office of the Inspector General

We appreciate the opportunity to comment on the report entitled “EPA Should Stop Providing Estimates of Total Labor to Contractors,” dated July 20, 2009. Our comments on the report and recommendations are below:

Recommendation 1 - We recommend that the Assistant Administrator for Administration and Resources Management revise the EPAAR (48 CFR, Section 1552.211-74(b) to eliminate the requirement that EPA include total estimated labor hours in work assignments.

Response - We agree that the EPAAR clause on work assignments (WAs) should be modified, and that better guidance is needed for contracting officers (COs) on issuing WAs. However, we also believe that circumstances exist on certain contracts where a CO needs to be able to provide the expected level of services needed to the contractor. EPA contracts where the nature of the work is non-specific, with changing circumstances, such as clean-up services at new hazardous waste sites, or research and development in new areas with uncertain potential results, fall into this category. In such cases, unless the CO provides the contractor with the estimated level of effort in terms of hours, the contractor will be left guessing at this level, which might needlessly delay getting the program customer the required services. We recognize the Agency’s ability to more clearly specify the expected customer needs and contract work outcomes has greatly improved on perhaps a majority of WA contracts. Accordingly, we agree that the EPAAR clause on WAs should be modified, to provide better guidance to COs on issuing WAs. The new guidance will clarify our position regarding COs having the discretion to reveal estimated labor hours to the contractor, depending on the circumstances of the individual contracting situation. We will issue interim guidance by November 1, 2009, while the revised EPAAR clause is promulgated. Please note that it usually takes at least 9 months to develop and implement a new EPAAR clause; accordingly, we will issue interim guidance in the meantime for the COs to use.

Recommendation 2 - We recommend that the Assistant Administrator for Administration and Resources Management communicate to contract management and program staff who prepare and use IGCEs that estimates of total labor hours, or any other cost related estimates, should not be provided to contractors prior to receiving the contractor's proposals.

Response - We agree with the recommendation to communicate the new interim WA guidance, as described above, to all affected parties who prepare and use IGCEs by November 1, 2009.

Should you have any questions regarding this response, please contact John Oliver, Acting Director, Policy, Training & Oversight Division in the Office of Acquisition Management, at (202) 564-4399.

cc: John Gherardini
Cris Thompson
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Appendix B

Distribution

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