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## **Decision**

**Matter of:** EPW Closure Services, LLC; FFTF Restoration Co., LLC

**File:** B-294910; B-294910.2; B-294910.3; B-294910.4; B-294910.5; B-294910.6;  
B-294910.7

**Date:** January 12, 2005

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### **DIGEST**

1. Protest against award for deactivation and decommissioning of nuclear reactor is sustained where, although solicitation provided that agency was committed to achieving an accelerated closure of the site, agency accorded little or no weight in the evaluation to the degree to which offerors proposed to accelerate completion ahead of required site closure date.
  2. Protest against award for deactivation and decommissioning of nuclear reactor is sustained where, because agency was unable to conclude that proposed allowances for contingencies reasonably reflected the likely risks of offerors' proposed approaches, there was no basis for agency to conclude that the cost figures upon which source selection decision was based reasonably represented the differences in costs to be incurred under competing proposals.
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### **DECISION**

EPW Closure Services, LLC and FFTF Restoration Co., LLC (FRC) protest the Department of Energy's (DOE) award of a contract to SEC Closure Alliance, LLC (SCA), under request for proposals (RFP) No. DE-RP06-04RL 14600, for deactivation

and decommissioning of the Fast Flux Test Facility (FFTF). EPW and FRC protest the evaluation of proposals.

We deny EPW's protest and sustain FRC's protest.

## BACKGROUND

The FFTF is a 400-megawatt (thermal) liquid-metal (sodium) cooled fast neutron flux nuclear test reactor owned by DOE and located in the 400 Area of DOE's Hanford Site in southeastern Washington State. The FFTF complex consists of equipment and several support buildings arranged around the central reactor containment building. The reactor is located in a shielded cell at the center of the containment building. During reactor operations, heat was removed from the reactor through three heat transfer system (HTS) loops. The three primary loops, which include pumps, piping, and an intermediate heat exchanger, carried liquid sodium through the reactor vessel and circulated the heated sodium to the intermediate heat exchanger, where the heat was transferred to a secondary sodium loop. The secondary loops, which include pumps, piping, flow meters, and heat exchangers, removed the heat from the secondary loops by circulating sodium to air-cooled dump heat exchangers, which transferred the heat to the ambient air. Source Evaluation Board (SEB) Report § 1.0.

FFTF currently is being managed and operated by Fluor Hanford, Inc., DOE's primary contractor at the Hanford Site. Fluor Hanford currently (and at the time the solicitation was issued) is proceeding with deactivation of the FFTF. The sodium coolant is being maintained in a molten state in the reactor vessel and fuel storage vessels. Fuel has been removed from the reactor vessel and has been transferred to two sodium-filled fuel storage vessels or to above-ground dry, interim storage casks. The primary and secondary HTS loops and a portion of the reactor vessel have been drained of sodium, and this sodium inventory (166,000 gallons) has been transferred to the sodium storage facility and allowed to cool/solidify. However, sodium residuals remain throughout the primary and secondary HTS loops and radioactive sodium remains in the reactor vessel. RFP § C.2; DOE Report, EPW Protest, Nov. 9, 2004, at 3.

The RFP contemplated award of a cost-plus-incentive-fee contract to a small business concern "to safely accelerate the deactivation and decommissioning [of] the FFTF and its support structures." SOW § C.1. The solicitation provided for six major contract activities: (1) maintain a safe and compliant FFTF complex; (2) deactivate the FFTF complex, including, among other tasks, cleaning and packaging FFTF fuel for approved storage, draining sodium and NaK (sodium potassium) inventories from the primary systems and reactor vessel to the maximum extent practical, and deactivating and preparing the FFTF plant, associated support buildings, and associated operating systems and equipment for decommissioning; (3) dispositioning FFTF sodium, sodium potassium, and cold traps (filters);

(4) decommissioning and demolishing the FFTF and support buildings, including entombment of the below-grade portion of the reactor containment building with the defueled reactor; (5) FFTF Closure Project management; and (6) offsite FFTF Closure Project support.<sup>1</sup> Although Fluor Hanford's current baseline calls for completing the Hanford Closure Project by 2018, Hearing Transcript (Tr.) at 255, the RFP instructed offerors that "DOE expects physical completion not later than September 30, 2012." RFP § L.7(a)(5)(ii).

Award was to be made to the responsible offeror whose proposal represented the "best value" based upon consideration of cost/fee and five technical/management evaluation criteria: (1) technical approach (with a disclosed weight of 30 percent); (2) key personnel, with the project manager weighted significantly higher than other key personnel (15 percent); (3) experience and past performance (each worth 10 percent, for a total 20 percent); (4) environment, safety, and health (ESH) (15 percent); and (5) business management, including "the degree to which the Offeror demonstrates how its business management approach will effectively and efficiently execute and complete the project in accordance with the contract terms, including the schedule and cost" (20 percent). RFP § M.3. The technical/management proposal was significantly more important than the cost/fee proposal.

As part of their cost/fee proposal, offerors were required to propose a target cost for each activity shown on the work breakdown statement (WBS), completion date, target fee, minimum fee, maximum fee, share line (ratio) for cost overruns or underruns, and detailed basis of estimates. The cost and financial data were to be "fully supported and organized in a manner that facilitates review," with the basis for the development of the data identified. RFP § L.8. In addition, the RFP required that offerors include in the target cost an allowance for contingencies, as well as furnish a discussion that includes "a treatment of the components of the proposed contingency and how they are individually developed," and "a treatment of how the contingency has been applied to the estimate." RFP § L.8(c). Offerors were cautioned that the total contract target cost and target fee could not exceed a specified funding profile of \$43.5 million in fiscal year 2005 and \$46.1 million per fiscal year thereafter.

Initial proposals were received from five offerors by the February 17, 2004 closing time. Three proposals--those of SCA, EPW and FRC--were included in the competitive range; following discussions, all three offerors were requested to submit final proposal revisions. The results of the final evaluation were as follows:

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<sup>1</sup> Although the RFP provided for the possibility of a different approach ultimately being selected, proposals were to be evaluated on the basis that the reactor end state would be entombment. RFP § L.7((a).

|                             |                                     | SCA          | FRC          | EPW          |
|-----------------------------|-------------------------------------|--------------|--------------|--------------|
| <b>Technical/Management</b> |                                     |              |              |              |
|                             | Technical                           | 300          | 300          | 240          |
|                             | Key Personnel                       | 120          | 150          | 150          |
|                             | Experience/Past Performance         | 160          | 160          | 160          |
|                             | ESH                                 | 150          | 120          | 150          |
|                             | Business Management                 | 200          | 200          | 200          |
|                             | Total Score (1,000 possible points) | 930          | 930          | 900          |
| <b>Proposed Cost/Fee</b>    |                                     |              |              |              |
|                             | Cost/Fee                            | \$(DELETED)  | \$(DELETED)  | \$(DELETED)  |
|                             | Contingency                         | \$14,275,050 | \$26,115,000 | \$25,836,000 |
|                             | Total Proposed                      | \$(DELETED)  | \$(DELETED)  | \$(DELETED)  |
| <b>Evaluated Cost/Fee</b>   |                                     |              |              |              |
|                             | Cost/Fee                            | \$(DELETED)  | \$(DELETED)  | \$(DELETED)  |
|                             | Contingency                         | \$14,275,050 | \$26,115,000 | \$25,836,000 |
|                             | Total Evaluated                     | \$(DELETED)  | \$(DELETED)  | \$(DELETED)  |

Based upon the evaluation results, DOE determined that SCA’s proposal represented the best value. Although SCA’s and FRC’s proposals received the same adjectival rating (outstanding) and point score under technical approach, the most important technical/management criterion, the source selection official (SSO) determined that SCA’s proposal had a “slight advantage” over FRC’s under this criterion “because of its schedule and its approaches to the other technical issues.” Source Selection Decision (SSD) at 8. In this regard, the SSO noted in the SSD that, while FRC and EPW (whose proposal received only a good technical rating) proposed aggressive schedules, leading to scheduled project completion in December 2009 and June 2010, respectively, both of their approaches utilized the maximum funding allowed. In contrast, SCA’s approach called for a scheduled completion in September 2011, but would utilize maximum funding for only the first 3 years, with reduced funding for each year thereafter. Notwithstanding FRC’s and EPW’s proposed earlier completion dates, the SSO determined that SCA’s schedule represented a moderate discriminator in SCA’s favor, concluding that SCA’s “schedule provides more flexibility for additional acceleration or the necessity to accommodate changes in the project should problems arise, and is over one year faster than the December 2012, target completion date stated in the RFP.” *Id.* at 6-7. The SSO went on to note that

SCA does accelerate the removal of fuel and sodium faster than the other two offerors, and thereby eliminates the high-risk elements of the work scope, along with the associated surveillance and maintenance costs. Once the high risks are eliminated, schedule acceleration

becomes less significant because there is no other Hanford work that depends upon accelerated completion of the Hanford [decontamination and decommissioning], nor are there any other substantial risks remaining at the facility. As described below, SCA's proposal has the lowest proposed and evaluated price, such that the longer schedule does not impact the costs of the project.

Id. at 7. In addition, among other technical considerations, the SSO found the following to be significant or moderate discriminators giving SCA and FRC an advantage over EPW: (1) SCA and FRC, but not EPW, proposed to remove essentially all the sodium residuals from the FFTF; and (2) both SCA and FRC proposed advantageous approaches to dispositioning the bulk sodium, with FRC proposing [DELETED], and SCA proposing [DELETED].

Under the key personnel criterion, the agency's SEB rated EPW's and FRC's proposals as outstanding and SCA's as only good, in large part because of EPW's and SCA's proposed project managers, whom the SEB found had significant experience in managing large similar projects. However, the SSO found that EPW's and FRC's advantage over SCA was only slight, and not moderate as found by the SEB. According to the SSO, SCA's project manager has over 20 years of management and experience in nuclear facility decommissioning and demolition such that he, as well as the other proposed project managers, all were excellent candidates. Under the ESH criterion (where EPW's and SCA's proposals were rated outstanding and FRC's only good), the SSO agreed with the SEB that EPW's and SCA's proposed integrated safety management systems represented a moderate advantage over FRC's approach.

The SEB rated all proposals outstanding under the business management criterion, but the SSO determined that SCA held a "slight advantage" based on its oral presentation, finding that SCA presented an "outstanding approach to risk management, which was rigorous and comprehensive," identifying 105 separate risks with a mitigation approach for each. According to the SSO, "although the two other offerors' approaches to risk management were comprehensive, SCA's presentation was superior." SSD at 10. The agency found no discriminators under the experience/past performance criterion.

The SSO concluded that, while SCA's and FRC's technical/management proposals received the same overall score and were similar in merit, "there are more discriminators favoring the SCA Technical and Management proposal than the FRC or EPW proposals," and that SCA's technical/management proposal was "slightly better" than the other two. SSD at 12-13. The SSO found that SCA's proposal not only offered the lowest evaluated price, but that, as discussed above, SCA had "conducted a comprehensive risk assessment, which resulted in SCA proposing the lowest amount of contingency funding necessary to address its identified risks and achieve an 80% confidence level." SSD at 11. The SSO further noted that FRC's

higher minimum fee ([DELETED] percent) resulted in a more limited incentive than did SCA's ([DELETED] percent) and EPW's ([DELETED] percent) minimum fees, that FRC's and EPW's proposals had substantial unsupported costs, and that SCA's proposal had a lower amount of probable cost adjustment.

Upon learning of the resulting award to SCA, FRC and EPW filed these protests with our Office.

## FRC PROTEST

### Accelerated Schedule

FRC asserts (as does EPW) that DOE's failure to credit its proposal for offering an earlier completion date than SCA was inconsistent with the terms of the RFP. According to FRC, it was led to believe by the terms of the solicitation that the agency desired acceleration of the overall completion of the project, that is, the deactivating and decommissioning, or "closure," of FFTF. FRC states that it was on this basis that it proposed an accelerated, albeit less efficient, approach and a contingency allowance that was appropriate for an accelerated approach.

DOE maintains that its evaluation of the offerors' proposed schedules was consistent with the focus on optimization reflected in the definition of the technical approach criterion in section M of the RFP, which provides, in relevant part, as follows:

The DOE will evaluate each offeror's performance-based technical approach and methods to perform the SOW elements described in Section C. This includes evaluating the offeror's approach to deactivation, decommissioning, and demolition for feasibility, reasonableness, sequencing, and the extent to which it optimizes project execution and schedule.

RFP at M.3(a). According to the agency, nothing in section M indicated that a schedule with the earliest proposed completion date would receive the highest rating in the evaluation. DOE Comments, Dec. 23, 2004, at 28; Tr. at 521.

Where an evaluation is challenged, our Office will not reevaluate proposals; rather, we will examine the record to determine whether the agency's judgment was reasonable and consistent with stated evaluation criteria and applicable statutes and regulations. U.S. Facilities, Inc., B-293029, B-293029.2, Jan. 16, 2004, 2004 CPD ¶ 17 at 6. We find that the evaluation of proposed schedules was inconsistent with the RFP.

The record, including testimony at the hearing our Office conducted in this matter, indicates that DOE evaluated the proposed schedules in two steps. First, DOE considered whether the proposed schedule: (1) reflected a logical sequencing of work that recognized the relationships between the various activities and WBS

elements; (2) accelerated removal of fuel and sodium, thereby eliminating the high-risk elements of the work scope, along with the associated surveillance and maintenance costs; and (3) accelerated closure relative to the Fluor Hanford 2018 baseline (rather than to the 2012 closure date established by the RFP), so as to achieve closure by 2012. SSD at 7; Tr. at 295, 302-03, 313-14, 507, 513, 1033. According to the testimony of the SEB chairman, all three offerors' schedules were rated outstanding in this regard, having offered both a logical sequencing of work and accelerated removal of fuel and sodium and accelerated closure relative to the 2018 baseline. Tr. at 303-04, 507, 528-29.

In particular, while the SSO stated in the SSD that "SCA does accelerate the removal of fuel and sodium faster than the other two offerors," the SSO testified that his statement was based on information furnished by the SEB, and that "[b]ased on what we know now in terms of looking at the detailed schedules, clearly, the information I was given was incomplete and oversimplified." Tr. at 1030. In this regard, the record indicates that EPW would essentially complete the sodium drain 1 week prior to SCA (September 5 versus September 12, 2006). Although SCA would essentially remove the fuel (so as to significantly reduce risk) earlier than EPW (November 9 versus December 30, 2005), and would complete both the sodium drain and fuel removal earlier than FRC (which would complete them in February 2007 and on April 4, 2006, respectively), the SEB chairman testified that all three offerors utilized the maximum available funding in the first 3 years of the contract; all offered the same approach to deactivation; all accelerated by removing the fuel and sodium; and that all were "in the same ballpark" in this regard. Tr. at 182-92, 303-05, 343-44; SCA Revised Proposal at 133-34, 13 of 47, 18 of 47; EPW Revised Proposal at A-III-108, A-III-117 to A-III-118, Att-1-7; FRC Revised Proposal at 28. According to the SSEB chairman, there was "no meaningful difference" between the offerors in completing deactivation. Tr. at 304-05.

In the second step of the evaluation of the proposed schedules, DOE looked to whether there were any discriminators in this area. In this regard, as discussed in detail above, SCA's schedule—which, unlike FRC's and EPW's, did not utilize the maximum available funding after the deactivation phase—was viewed as representing a moderate discriminator because it provided more flexibility for additional acceleration or the necessity to accommodate changes in the project should problems arise. The fact that SCA's schedule provided for completion of the FFTF Closure Project significantly later than FRC and EPW (September 2011 versus December 2009 and June 2010, respectively) was not viewed as significant. According to the SEB chairman, once the high-hazard fuel and sodium have been removed, there is "no longer the time criticalness." Tr. at 345. Likewise, according to the SSO, "whether it's 2010 or 2011 or September 3, 2012, did not have a lot of importance"; what was important was optimizing the work plan relative to schedule. Tr. at 1034, 1097, 1128. The record indicates that the agency focused in the evaluation on the fact that it was receiving "the benefit of the relaxed schedule . . . as well as the lowest evaluated price." Tr. at 174; *cf.* SSD at 7.

It appears that the agency accorded little or no weight to the degree to which offerors proposed to accelerate completion ahead of the 2012 required site closure date, instead evaluating the acceleration aspect of the proposed schedules solely in comparison to Fluor Hanford's ultimate 2018 closure date. The agency's disregarding the differences in the offerors' proposed completion dates was inconsistent with the solicitation. While it may be the case that SCA's more relaxed proposed schedule after the deactivation phase offered more flexibility to deal with transitions in the project work, potential problems or unexpected decreases in agency funding, the fact is that the solicitation made it clear that acceleration of the project was desired. In this regard, the solicitation schedule stated that "DOE is committed to achiev[ing] accelerated closure that does not jeopardize safety and protection of workers, the public, or the environment." RFP § B.1. Likewise, the SOW advised that "[t]he purpose of the FFTF Closure Project is to safely accelerate the deactivation and decommissioning [of] the FFTF and its support structures." SOW § C.1. Lest offerors be unclear as to the role of the contemplated contract in meeting that goal, the SOW added that "[t]he contractor has the flexibility to develop the project structure and to sequence the work, subject to [National Environmental Policy Act] requirements, to optimize the project schedule to achieve safe, cost-effective and accelerated closure of the site." RFP § C.3. Likewise, section H of the solicitation stated that "[t]he FFTF Project and this contract have a mission of accelerated closure." RFP § H.1(a). In this context, we think the reference in section M (quoted above) to evaluating "the extent to which" an "offeror's approach to deactivation, decommissioning, and demolition . . . optimizes project execution and schedule" could reasonably be understood by the offerors as including consideration of how soon closure of the site would be accomplished.<sup>2</sup> Indeed, all three offerors apparently read the RFP in this manner, as reflected by the fact that all proposed accelerated completion, ahead of the 2012 mandatory completion date. While the agency may have intended to limit the extent to which greater acceleration would be rewarded in the evaluation, this intent was not reflected in the RFP.

Further, we agree with the protesters that, because the evaluation criterion in question concerned evaluation of an offeror's technical proposal, and evaluation of the offeror's cost proposal was already accounted for under another criterion, it was improper for the agency to consider SCA's low cost in its evaluation under the technical approach criterion. This is especially significant in light of the fact that the technical/management proposal was to be significantly more important in the source selection than the cost/fee proposal. RFP § M.2.

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<sup>2</sup> Further, as acknowledged by the SSO in his testimony, the stated focus of the RFP was to achieve acceleration of closure of the FFTF site, and not merely acceleration of the initial deactivation phase. Tr. at 1095-96.



We conclude that the agency's evaluation of schedule--which furnished a moderate discriminator in SCA's favor and was specifically cited by the SSO in the SSD in concluding that SCA's proposal had an advantage over FRC's under the technical approach criterion, the most important technical/management evaluation criterion--failed to take into account the fact that FRC's schedule offered what could be viewed as significantly greater acceleration of FTF site closure than SCA's. Further, while DOE may be correct that FRC would be less likely to meet its aggressive schedule, the agency does not show, nor does the record furnish any basis for concluding, that FRC would not be likely to complete closure earlier than SCA. (In contrast, as discussed below, while EPW's proposed schedule also offered greater acceleration than SCA's, the agency evaluated EPW's schedule as being premised on an essentially unacceptable technical approach.) Accordingly, we conclude that the agency did not reasonably evaluate the proposals in this area.

### Contingency

FRC asserts that DOE improperly evaluated SCA's proposed contingency allowance. In this regard, as indicated above, proposals were to include contingency costs in the target cost, as well as a discussion of how the components of the proposed contingency allowance were developed and applied to the estimate. In its business management presentation, SCA presented an approach to risk management that identified 105 separate risks; rated each risk for probability and cost and/or schedule impact; denoted the owner for each risk, some of which were owned exclusively by DOE; and proposed a mitigation approach for each risk. In addition, using proprietary software and running a "Monte Carlo" simulation to evaluate the risks statistically, SCA calculated for each risk the expected cost overrun or schedule delay, if any, after application of the mitigation approach. Based on these calculations, SCA arrived at a total contingency allowance of \$14,274,050 to be added to its target cost to achieve an 80 percent confidence level (that is, an 80 percent likelihood that the project cost would not exceed its proposed cost). DOE accepted SCA's (and the other offerors') proposed contingency allowance for purposes of calculating evaluated cost. DOE Contingency Analysis at A5-1.

FRC asserts that DOE's evaluation in this regard, specifically, the agency's acceptance of SCA's proposed contingency allowance without adjustment, was unreasonable.

Agencies generally are required by the Competition in Contracting Act of 1984 (CICA) to include cost or price as a significant factor in the evaluation of proposals. 41 U.S.C. § 253a(c)(1)(B) (1994); Federal Acquisition Regulation (FAR) § 15.304(c)(1); Kathpal Techs., Inc.; Computer & Hi-Tech Mgmt., Inc., B-283137.3 et al., Dec. 30, 1999, 2000 CPD ¶ 6 at 9. While agencies have considerable discretion in determining the particular method used in evaluating cost or price, that method should, to the extent possible, accurately measure the cost to be incurred under competing proposals. Eurest Support Servs., B-285813.3 et al., July 3, 2001, 2003 CPD ¶ 139 at 7; Lockheed, IMS, B-248686, Sept. 15, 1992, 92-2 CPD ¶ 180 at 6. Where

a source selection decision is based on figures that do not reasonably represent the difference in costs to be incurred under competing proposals, the source selection is not reasonably based. See Preferred Sys. Solutions, Inc., B-292322 et al., Aug. 25, 2003, 2003 CPD ¶ 166 at 9; Gemmo Impianti SpA, B-290427, Aug. 9, 2002, 2002 CPD ¶ 146 at 5-6.

DOE's evaluation did not reasonably assess the contingency costs likely to be incurred under the competing proposals. As noted by FRC, while SCA's proposed contingency allowance amounted to only \$14,275,050, or an evaluated approximately [DELETED] percent of proposed direct and indirect costs, FRC's proposed contingency allowance, accepted by DOE, amounted to \$26,115,000, or approximately [DELETED] percent (since this allowance was based on only 56 percent confidence, the comparable number for FRC at 80 percent confidence, absent any realism adjustment, actually would be approximately \$30.1 million. DOE Contingency Analysis at A5-1); EPW's amounted to \$25,836,000, or approximately [DELETED] percent; and the agency's independent cost estimate included an 18.3 percent contingency allowance. DOE Comments, Nov. 23, 2004, at 9; Tr. at 244.<sup>3</sup> This difference between SCA's proposed (and evaluated) contingency rate and that of the other offerors is significant, since it accounts for the majority of the difference in the proposals' evaluated costs.

The wide gap between SCA's and the other offerors' proposed contingency allowances (and the allowance used in the agency's independent cost estimate) is problematic because, by the agency's own admission, it was unable to verify the costs. In this regard, the agency's contingency analysis noted as follows:

The determination of the appropriate level of contingency for a project is dependent upon the appropriate characterization of the variability (i.e., uncertainty) in the basic elements of the project. This can be very subjective. Each of the three offerors utilized sound project simulation methodologies to analyze the variability in the Project. However, the techniques used to arrive at the elemental contribution to the Project's uncertainty and the amount of information that was provided varied, making it difficult to assess whether any of the three offerors assessed the variability more accurately than the others.

DOE Contingency Analysis at A5-1. With specific respect to SCA, which, unlike FRC, did not present its analysis in terms of the solicitation's WBS, the agency's contingency analysis noted as follows:

It appears, by the sheer number of identified risks, that the analysis was comprehensive; however, a crosswalk to the WBS was not

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<sup>3</sup> The independent cost estimate was prepared for DOE by a contractor.

provided to demonstrate thoroughness (it is not clear how the risk assessment data was correlated to the simulation uncertainty input).

Id. at A5-4. Likewise, after finding that SCA (like FRC) overestimated the risks to the project, the agency's contingency analysis concluded as follows:

The accuracy in characterizing the variability in the project will influence the accuracy of the project simulation output (it is unclear how the risk assessment results translated into characterizing the uncertainty/variability in the simulation input). Even though the evaluators are not able to validate the level of contingency with the information provided, SCA's detailed approach of determining risk exposure and subsequent application of project simulation to determine the resulting level of confidence is sound.

Id. at A5-6.<sup>4</sup> Thus, while the DOE contingency analysis recommended that no adjustment be made to SCA's contingency allowance, id. at A5-1, the document made clear the limitations inherent in the agency's analysis.

Likewise, testimony by the SEB chairman emphasized the limitations inherent in the agency's evaluation of contingency costs. For example:

Question: . . . did you look at the dollar impacts, the schedule impacts to evaluate whether what they saw as a dollar impact or schedule impact was, in fact, a reasonable estimate?

WITNESS: No, we didn't. I mean, I -- we had some discussion about, for example, scheduler impact, and, you know, if you're looking at a hundred different categories, I mean, it requires a lot of analysis to be able to go through and say, okay, if this event happens here, this is the impact on the schedule.

So we accepted the information that was provided by the offerors in the way that they conducted their evaluation. We did not do a detailed evaluation risk by risk or WBS by WBS to say, okay, we've now convinced ourselves that this is a reasonable approach.

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<sup>4</sup> Similarly, DOE concluded that, while FRC's proposal demonstrated "uncertainty characterization" at the WBS level, resulting in an assessment that was comprehensive in that it covered the entire project, "it is difficult to say that the characterization of project variability is accurate at this level of detail," and "[i]t is not possible to validate the offeror's contingency level based on the amount of information provided." DOE Contingency Analysis at A5-3 to A5-4.

We did evaluate them in terms of the significance of the risk . . . .

. . . .

Yeah, in other words, what they did—well, what—I’ll give you FRC’s example, what FRC and EPW did was they took, by WBS element, they made a determination from one to five as to what the level of risk was. And then they applied this parametric model to that risk based upon whether it was one through five.

We looked at the one through five and said, we believe that this is the right kind of risk level or not. But we then didn’t go through and say, okay, well, if that happens here, here’s the impact of the scheduler, if that happens here, here’s what potentially could go wrong. We didn’t do that kind of a detailed analysis.

Tr. at 236-38. Similarly, the SEB chairman agreed that the agency was unable to determine whether SCA had included all of the risks in its contingency analysis that FRC did. Tr. at 241-42.

One example of how the agency’s limited review may have led to acceptance of a questionable contingency cost was SCA’s allowance for the possibility that if sodium pools were encountered during the removal of residual sodium, a strong sodium/hydrated sodium hydroxide reaction would occur. SCA listed the “owner” of this risk as SCA and Framatone ANP, a proposed subcontractor that would be involved in removing residual sodium. Although SCA rated the probability of this occurring as very low, that is, 0 to 20 percent, it recognized that the cost overrun that would result in the event that it occurred would total between \$7,140,000 and \$16,660,000, and the probable schedule impact would be between 7.3 and 18.2 weeks of delay. Nevertheless, presumably as the anticipated result of its proposed mitigation approach, SCA allocated no contingency allowance either in terms of dollars or weeks of delay. SCA Revised Proposal, fig. C-21, C-23, C-24. That this result may not fully reflect the likely risks is supported by the testimony of the FFTF project director (who was not involved in evaluating SCA’s contingency allowance in this regard, but was the agency’s leading technical expert on sodium removal at the hearing), who answered in the affirmative when asked whether he would be surprised to learn that the risk analysis in this regard resulted in zero risk (and thus had no effect on the contingency allowance). Tr. 919-20.

While it appears that the agency concluded that SCA’s method for calculating contingency was sound, it is clear from the limitations acknowledged by the agency that it was unable to conclude that SCA’s significantly lower contingency allowance, and the resulting difference in evaluated cost, reasonably represented the difference between the costs that actually would be incurred under SCA’s and FRC’s proposals. The evaluation in this area therefore was unreasonable.

## Prejudice

Our Office will not sustain a protest absent a showing of a reasonable possibility of prejudice, that is, unless the protester demonstrates that, but for the agency's actions, it would have had a substantial chance of receiving the award. McDonald Bradley, B-270126, Feb. 8, 1996, 96-1 CPD ¶ 54 at 3; see Statistica, Inc. v. Christopher, 103 F.3d 1577, 1581 (Fed. Cir. 1996). Given the closeness of the evaluation of SCA's and FRC's technical/management proposals and the significance of the difference in contingency allowances relative to the evaluated cost difference between the proposals, we cannot conclude that, but for the deficiencies in the evaluation, FRC would not have had a substantial chance of receiving the award. We therefore find that FRC suffered competitive prejudice and sustain FRC's protest on the two grounds discussed above.

## EPW PROTEST

### Sodium Residuals

EPW challenges DOE's determination that its proposed approach to the sodium residuals in FFTF's primary systems was very unlikely to be accepted by environmental regulators, and therefore represented a significant weakness under the technical approach criterion.

As noted in the solicitation, FFTF is subject to the decommissioning process delineated in the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement, or TPA), which is an agreement between DOE, the Washington State Department of Ecology (Ecology), and the Environmental Protection Agency. In this regard, the solicitation provided that "[t]he contractor is responsible for performing its activities in compliance with all TPA requirements and for meeting the TPA milestone commitments." RFP § J, app. 5 at J-25. Ecology has been designated the lead agency under the TPA with respect to the transition of FFTF to a safe and stable surveillance and maintenance configuration. TPA at D-36.

Offerors were to propose on the basis that the reactor end state would be entombment, RFP § L.7(a), which the SOW defined, in part, as "the containment building below the 550' [-i.e., ground-] level filled with grout or other material(s) that immobilizes the remaining radiological and chemical hazards to the maximum extent practical." SOW § C.3(d). The record indicates that the residual sodium at FFTF is a reactive and ignitable hazardous material, such that an explosion may occur in the event that it comes into contact with water. Tr. at 28, 30, 770, DOE Comments, EPW Protest, Nov. 19, 2004, at 10. The SOW further provided with respect to deactivation of FFTF that the contractor shall: "Drain sodium and [sodium potassium] inventories from the primary systems and reactor vessel to the maximum extent practical. For sodium residual disposition see Section C.3(c)(2)." Section C.3(c)(2) of the SOW, in turn, provided that the contractor shall: "Remove

and disposition sodium and [sodium potassium] residuals from the FFTF plant, [fuel storage facility], [sodium storage facility] vessels, Hallam tanks and [sodium reactor experiment] containers.” In addition, the solicitation instructions with respect to proposal preparation required offerors to describe their “method for confirming removal of the sodium residuals (i.e., proof that the sodium systems are sufficiently cleaned).” RFP § L.7(a)(5)(ii)(a).

DOE’s expectations with respect to removal of sodium residuals were further communicated to offerors in the publicly-available redacted version of its independent cost estimate, which stated as follows:

Sodium/[sodium potassium] Cleanup and Disposition: The scope entails draining sodium where possible, cleanup of pockets of sodium, removal of cold traps, cesium traps and vapor traps, and the cutup of small diameter piping with sodium and cleanup in the Maintenance and Storage Facility (MASF). . . . Cleanup of sodium from FFTF systems is a well documented process but a key assumption is that no verification will be required of the residual sodium contamination after cleanup with moist nitrogen and that cleaned components will meet acceptance criteria for on-site low-level waste disposal.

Independent Cost Estimate, § 1.2. The redacted version of the independent cost estimate further described the basis of the “sodium residue removal” estimate as reflecting the fact that: “Sodium residue removal is performed currently from components in two stages; reacting with wet nitrogen gas stream finally followed by water rinse.” *Id.*, § 3.3.2.

SCA proposed to remove sodium residuals in the reactor vessel, primary piping, secondary piping, and fuel storage facility vessel at FFTF using [DELETED] one of the two internationally recognized approaches to removing sodium residuals. Under this approach, [DELETED]. SCA proposed a final water flush to react and remove any remaining residual pockets of sodium. FRC proposed to remove sodium residuals using [DELETED] internationally recognized approach (this was the approach on which [DELETED]). Under this approach, [DELETED]. FRC proposed a final water flush to react and remove any remaining residual pockets of sodium. DOE expected that if these approaches were carried to completion, they would essentially remove from the areas in question the elemental sodium capable of reaction. Tr. at 114-16, 823-48; DOE Sodium Residual Disposition Table.

In contrast, while EPW, like the other offerors, proposed to drain the primary system, it did not propose [DELETED]. Instead, EPW proposed [DELETED], leaving, by EPW’s calculation, 350 gallons or less of sodium residuals on the inside of the vessels and piping. According to EPW’s proposal, its [DELETED] approach would accelerate the project schedule by 12 months and eliminate 80,000 staff hours of potential exposure to hazards. EPW Initial Technical Proposal at II-8/9 to II-11,

and II-43; EPW Final Proposal Revision at A-23, A-48, Att1-4 to Att1-5; DOE Sodium Residual Disposition Table.

Although DOE recognized in its evaluation of initial proposals that EPW was offering ‘innovative approaches . . . to significantly reduce the residual sodium removal workload,’ it also noted that “whether regulatory acceptance can be obtained will remain undetermined until formal negotiations are held with the regulators.” SEB Interim Report at 3.1, A2-6 to A2-7. In this regard, under EPW’s approach, [DELETED]. Tr. at 100-15. DOE explored the regulatory implications of EPW’s approach during an initial meeting with Ecology after the receipt of initial proposals. Ecology expressed the view at that meeting that the EPW approach to sodium residuals potentially could be acceptable, but that additional regulatory analysis would be required. Tr. at 73-74, 79-82, 779-81, 922.

DOE advised EPW during subsequent discussions that “[m]ore information is needed to determine whether [DELETED] meets regulatory requirements.” EPW Discussion Questions, May 28, 2004, Other Aspects of the Proposal That Could Enhance the Proposal’s Potential for Award, Technical Approach, No. 4. DOE specifically asked EPW to address four questions in this regard, including: “[DELETED]?” Id.

After receiving EPW’s revised proposal, DOE met again with Ecology and furnished it a copy of EPW’s response to the discussion questions concerning sodium residuals. Ecology thereafter advised DOE that a waiver would be required under the Comprehensive Environmental Response, Compensation, and Liability Act in order to leave [DELETED] sodium residuals in place, and that such a waiver would only be issued if there were a compelling reason to do so. Since the technology to remove the sodium residuals existed, and there were no substantial cost savings associated with EPW’s approach that might justify leaving the sodium residuals in place, Ecology indicated that it did not believe there was a basis for such a waiver. Tr. at 121-25, 781-82, 922. Based on Ecology’s position, the SSO concluded that EPW’s proposal to leave sodium residuals in place, while potentially a significant innovation, “was very risky because of the necessity of a regulatory waiver and the high potential that a waiver would not be granted.” SSD at 7. Noting also that EPW had not detailed an alternative approach in the event that regulatory approval could not be obtained, the SSO determined that EPW’s proposed approach represented a significant weakness compared to SCA’s and FRC’s proposals to remove the sodium residuals.<sup>5</sup>

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<sup>5</sup> EPW merely noted in its initial proposal that in the event that regulatory approval could not be obtained for its proposed approach, it would “remove more residuals in the primary systems.” EPW Initial Proposal at II-21/II-22. EPW did not detail an approach to removing “more” residual sodium.

EPW asserts that it was unreasonable for DOE to rely on Ecology's views in determining that EPW's approach to the sodium residuals was a significant weakness. According to EPW, its approach is consistent with applicable environmental statutes and regulations, so that no waiver is required, and Ecology's position was influenced by concerns as to public reaction to leaving residual sodium at FFTF.

The evaluation was reasonable. As noted, FFTF is subject to the decommissioning process delineated in the Hanford TPA, and the contractor must perform in compliance with all TPA requirements. Since, under the TPA, Ecology is designated the lead regulatory agency for the deactivation and decommissioning of FFTF, any regulatory issues associated with deactivation and decommissioning would first need to be decided by Ecology. Tr. at 999-1000; see TPA at D-36. While a multi-level disputes process under the TPA would govern in the event that Ecology and DOE did not agree on the regulatory issues with respect to the deactivation and decommissioning, the record indicates that this disputes process could take months or years to run its course. Tr. at 126-28, 1157. In these circumstances, given Ecology's lead role with respect to the deactivation and decommissioning of FFTF, we think it was reasonable for DOE to take Ecology's position into account in evaluating EPW's approach. In this regard, DOE points out that EPW itself conceded in its proposal that the consequences of Ecology's not approving its approach to sodium residuals would be "large," including extending the closure schedule by 1 year. EPW Revised Proposal at Att-1-15/1-16. Moreover, in light of the obstacles to regulatory approval of EPW's [DELETED] approach, DOE reasonably could consider EPW's failure to detail in its risk analysis an alternative approach to removing the sodium residuals. We conclude that DOE reasonably determined that EPW's approach to sodium residuals represented a significant weakness.

EPW asserts that DOE did not meaningfully advise it during discussions of the agency's concern with the firm's approach in this area. This argument is without merit. When an agency engages in discussions with an offeror, the discussions must be meaningful, that is, they must lead the offeror into the areas of its proposal that require correction or amplification. Hanford Env'tl. Health Found., B-292858.2, B-292858.5, Apr. 7, 2004, 2004 CPD ¶ 164 at 8. As noted, DOE advised EPW during discussions that more information was needed to determine whether its proposed [DELETED] of sodium residuals met regulatory requirements, and specifically inquired whether [DELETED]. EPW Discussion Questions, May 28, 2004, Other Aspects of the Proposal That Could Enhance the Proposal's Potential for Award, Technical Approach, No. 4. While DOE did not expressly characterize this aspect of EPW's proposal as a weakness or a deficiency, these discussions clearly indicated



the nature of the agency's concern. Discussions in this regard therefore were meaningful.<sup>6</sup>

We have also reviewed EPW's remaining challenges to the evaluation. None of these challenges furnishes a basis for concluding that, but for the agency's improper or unreasonable actions, the protester would have had a reasonable chance of receiving the award. See McDonald-Bradley, supra. In particular, while EPW, like FRC, challenges the evaluation of schedule and risk management/contingency, there is no basis for concluding that EPW would have had a reasonable chance for award but for the unreasonable evaluation in these areas. Again, EPW's proposal was evaluated as less advantageous under the technical/management criteria, which were significantly more important than cost/fee. While we have found that DOE acted unreasonably in not considering the offerors' proposed schedule acceleration, EPW concedes, as noted above, that Ecology's rejection of its approach to sodium residuals would extend the closure schedule by 1 year, thus largely eliminating EPW's schedule advantage relative to SCA. Further, DOE has calculated that the cost impact of an additional year in schedule and 80,000 staff hours (the amount EPW claimed would be saved by its approach) would be between \$5 and \$46 million. Tr. at 157-58. In these circumstances, we find no basis for concluding that EPW was prejudiced by the deficiencies in the evaluation. Accordingly, EPW's protest is denied.

## RECOMMENDATION

We recommend that the agency amend the solicitation to reflect its actual needs with respect to acceleration, reopen discussions with offerors whose proposals are determined to be in the competitive range, obtain revised proposals, and evaluate the revised proposals in a manner consistent with the solicitation requirements.<sup>7</sup> We recognize that evaluating the costs associated with contingencies here may be difficult. To the extent that the agency concludes that a more accurate assessment of contingency costs may not be possible, it may decide to amend the solicitation to

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<sup>6</sup> The protester maintains that discussions in this area were misleading, since DOE allegedly advised the firm that its approach was innovative and could be a discriminator. The SEB chairman, who was present at the discussions, denies that DOE made such a statement. However, even if we accept the protester's account, the agency's alleged statement did not affect the adequacy of discussions, since it nevertheless remains that EPW was also on notice of the agency's concerns regarding its approach to sodium residuals. Tr. at 91-95, 924-26.

<sup>7</sup> Although we have denied EPW's protest on the basis that it was not prejudiced by the deficiencies in the evaluation, nevertheless, because of the relative closeness of the evaluation scores and evaluated costs, the agency may decide to retain EPW in the competition.

eliminate consideration of contingency as a separate element of evaluated cost. In the event that DOE continues to evaluate contingencies, the agency should ensure that the evaluated contingency allowances reasonably reflect the likely costs. DOE should then make a new source selection decision. If DOE determines that an offeror other than SCA has submitted the best value proposal, the agency should terminate SCA's contract and make award to that other offeror. We also recommend that the agency reimburse FRC its costs of pursuing this protest, including reasonable attorneys' fees. 4 C.F.R § 21.8(d) (2004). The protester should submit its certified claim for costs, detailing the time expended and the costs incurred, directly to the contracting agency within 60 days of receipt of this decision. 4 C.F.R. § 21.6(f)(1).

FRC's protest is sustained and EPW's protest is denied.

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