

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of -- )  
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M. L. Energia, Inc. ) ASBCA No. 55947  
 )  
Under Contract No. NAS10-98025 )

APPEARANCE FOR THE APPELLANT: Dr. Moshe Lavid  
President

APPEARANCES FOR THE GOVERNMENT: Vincent A. Salgado, Esq.  
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OPINION BY ADMINISTRATIVE JUDGE SHACKLEFORD

This is an appeal from a final decision denying a certified claim for \$153,615 under a NASA-issued Small Business Innovation Research (SBIR) contract for photo-chemical remediation of sites contaminated with hazardous solvents. The contracting officer (CO) had previously issued a unilateral modification reducing the contract price by the amount of the claim under the Inspection clause of the contract. A three-day hearing was held in Trenton, New Jersey where appellant appeared *pro se*. The record consists of the transcript of that hearing (tr.), a government Rule 4 file (R4) and supplements from appellant. Appellant's documents are numbered 500 and above, those below that number were submitted by the government. In addition we have initial and reply briefs from both parties. Only entitlement is before us for decision (tr. 1/15).

FINDINGS OF FACT

1. Congress created the SBIR program to assist small-business concerns in obtaining and performing research and development work (tr. 3/44-45). The program requires federal agencies to reserve some research and development funds for small businesses, and has three phases (tr. 1/37-40; *see* 15 U.S.C. § 638(e)(4)). During Phase I, a concept is developed and proven (tr. 1/43, 2/47-48). Phase II takes the concept developed in Phase I and, doing the necessary experiments, brings it to a point at which an apparatus is built and demonstrated (2/48-49, 190). Phase III involves the commercial application of the results of Phase II, with funding provided by either non-federal sources of capital or non-SBIR federal funding (tr. 1/44, 64; 15 U.S.C. § 638(e)(4)(C)).

2. M. L. Energia, Inc. (Energia) is located in Princeton, New Jersey (R4, tab 3 at 1 of 9). Energia performed Phase I of a National Aeronautics and Space Administration (NASA) SBIR contract which established that photo-chemical remediation (PCR) had the potential to clean up sites contaminated by hazardous solvents (tr. 2/16, 28). Dr. Moshe Lavid is Energia's president and principal investigator (tr. 2/6, 7). He holds mechanical engineering degrees from Technion-Israel Institute of Technology (B.Sc. and M.Sc.) and from the State University of New York at Stony Brook (Ph.D.) (R4, tab 122 at 47). His wife, Nira Lavid, is vice president of finance and administration and majority owner of the company (R4, tab 122 at first page, attach. B; tr. 1/5).

3. On 18 March 1998, NASA entered into Contract No. NAS10-98025 with Energia to perform Phase II of an SBIR contract for photo-chemical remediation of sites contaminated with hazardous solvents. The contract was awarded and administered by NASA's John F. Kennedy Space Center in Florida (KSC). (Tr. 1/69; R4, tab 3)

4. Dr. Jacqueline Quinn was the Contracting Officer's Technical Representative (COTR) for both Phase I and Phase II of the Energia contracts (tr. 2/141, 143). Dr. Quinn earned a B.S. degree in Civil Engineering from the Georgia Institute of Technology, an M.S. degree and a Ph.D. in Environmental Engineering both from the University of Central Florida (tr. 2/141-42).

5. Article B-1 of the contract, Description of Supplies or Services, provided as follows:

The Contractor shall furnish all personnel, facilities, equipment, material, supplies, and services...and otherwise do all things necessary to, or incident to, performing the SBIR 96-1 Phase II Research Project entitled...“Photo-Chemical Remediation of Sites Contaminated with Hazardous Solvents.”

(R4, tab 3 at 2)

6. Article C-1, Statement of Work, provided:

The Contractor shall, under this contract identified as Phase II SBIR, continue to conduct the principle research effort initiated under a Phase I NASA contract for the development of the “Photo-Chemical Remediation of Sites Contaminated with Hazardous Solvents.” The Contractor's Phase II SBIR

Proposal Number 96-1-II is incorporated into this contract by reference.

(R4, tab 3 at 2)

7. Pursuant to Article B-2, the "total firm fixed price" of the contract was \$597,960. Article B-3, Deliverables, called for delivery of two items to KSC. Item 1 called for seven Progress Reports and Item 2 called for a Final Report. The content required in those progress reports was set forth in Article C-2, and these quarterly reports were to be delivered ten days following the last day of each quarter. The content required in the final report was set forth in Article C-3 in part as follows:

a. The Contractor shall submit a Final Report not later than the last day of the period of performance defined in Article F-1. The report shall be in narrative form documenting and summarizing the results of the entire contract work. The Final Report shall include a single-page project summary as the first page, identifying the purpose of the research, a brief description of the research carried out and the research findings or results. The potential applications of the project results in Phase III both for NASA purposes and for commercial purposes shall also be included. The project summary is to be submitted without restriction for NASA publication. The balance of the report should indicate in detail the project objectives, work carried out, results obtained, and assessment of technical feasibility. Rights to this data shall be in accordance with clause 52.227-20, Rights in Data-SBIR Program (Mar 1994).

(R4, tab 3 at 3)

8. The period of performance was required to begin on 18 March 1998 and was to be completed within 24 months thereafter, with the technical work completed within 23 months and the final report due 30 days thereafter (R4, tab 3 at 3). Thus, technical work was scheduled for completion on or before 18 February 2000 and the final report was due 30 days thereafter or by 19 March 2000.

9. While the firm fixed-price of the contract was \$597,960, at time of award, pursuant to Article H-1, LIMITATION OF FUNDS (FIXED-PRICE CONTRACT) (MAR 1989), \$175,000 was allotted to the contract deemed to be adequate through 30 September 1998 and the contract contemplated that "from time to time additional funds [would] be allocated to the contract" until the total price was allotted (R4, tab 3 at 4).

10. Article H-6, Special Provision, states:

If it is determined by the Government at any time during the period of performance of this contract that the progress of the research and/or development is not adequate to anticipate successful completion, the contractor agrees to enter into good faith negotiations with the Contracting Officer for the purpose of restructuring the contract by mutual agreement to reflect accomplishments to date, an alternate deliverable product, and a revised contract value.

(R4, tab 3 at 6)

11. The contract incorporated FAR 52.232-2, PAYMENTS UNDER FIXED-PRICE RESEARCH AND DEVELOPMENT CONTRACTS (APR 1984), which states in part:

The Government shall pay the Contractor, upon submission of proper invoices or vouchers, the prices stipulated in this contract for work delivered or rendered and accepted, less any deductions provided in this contract.

(R4, tab 3 at 7)

12. The clause prescribed at FAR 52.232-16, PROGRESS PAYMENTS (JUL 1991) – ALTERNATE I (AUG 1987), as modified, provided for a 100% progress payment rate based upon costs incurred, but an 80% rate for undefinitized contract actions. The clause further provided:

(c) *Reduction or suspension.* The Contracting Officer may reduce or suspend progress payments, increase the rate of liquidation, or take a combination of these actions, after finding on substantial evidence any of the following conditions:

(1) The Contractor failed to comply with any material requirement of this contract....

(2) Performance of this contract is endangered by the Contractor's (i) failure to make progress or (ii) unsatisfactory financial condition.

(R4, tab 3)

13. The contract incorporated by reference the clause prescribed at FAR 52.246-7, INSPECTION OF RESEARCH AND DEVELOPMENT—FIXED-PRICE (AUG 1996) (Inspection clause), which provided in part as follows:

(b) The Government has the right to inspect and test all work called for by the contract, to the extent practicable at all places and times, including the period of performance, and in any event before acceptance....

....

(d) The Government shall accept or reject the work as promptly as practicable after delivery, unless otherwise specified in the contract.... Work is nonconforming when it is defective in material or workmanship or is otherwise not in conformity with contract requirements.

(e) The Government has the right to reject nonconforming work. If the Contractor fails or is unable to correct or to replace nonconforming work within the delivery schedule (or such later time as the Contracting Officer may authorize), the Contracting Officer may accept the work and make an equitable price reduction. Failure to agree on a price reduction shall be a dispute.

(R4, tab 3 at 8)

14. The Phase II proposal which was incorporated into the contract computed the total cost of the contract at \$700,000 including fee and after deducting \$100,000 which reflected the amount of Energia's cost-sharing, resulted in a request of \$600,000 from NASA, which is slightly more than the amount awarded by the contract. The place of performance in the proposal was listed as Energia's laboratory in Plainsboro, New Jersey for months 1 to 18 and 22 to 24. For months 18 to 21, the place of performance was listed as NASA-KSC, FL. (R4, tab 122)

15. The direct costs included in the proposal were direct labor (\$189,598), purchased equipment (\$100,000), subcontracts (\$62,000), other direct costs (\$6,500) and travel (\$8,799). The "Other Direct Costs" included \$3,000 for crating and trucking the prototype unit roundtrip from Princeton, NJ to KSC, FL. The travel costs were for three visits to KSC by two persons, the first lasting two days for a survey of sites; the second for eight days and the third for 20 days. The cost proposal also included indirect costs of \$293,877 and a 5.9% fee amounting to \$39,226. (R4, tab 122)

16. The proposal reviewed the Phase I results and stated:

Based on the encouraging findings described in details in Phase I Final Report...it is recommended to pursue PCR technology into a comprehensive Phase II effort, culminating in a field demonstration at a selected site in NASA/KSC, Florida.

(R4, tab 122 at 5)

17. The proposal included three possible sites at KSC and the proposal listed each in order of preference for the field demonstration – (1) Converter Compressor Facility, (2) Hydrocarbon Burn Facility and (3) Wilson Corners (R4, tab 122 at 36-37). These three sites, along with the chemical contamination and contour concentration gradient of each were given to Dr. Lavid by Dr. Quinn in the context of providing technical guidance in the preparation of the Phase II proposal (tr. 2/147). From the NASA perspective, the purpose of the technology was to clean up sites contaminated with solvents used throughout the 1960s and 1970s to clean rocket parts from the Apollo space program, including trichloroethylene (TCE) and dichloroethylene (DCE) which degrade to binochloride and then to ethylene. These contaminants were in the groundwater throughout KSC. (Tr. 2/147-51)

18. The stated objective of Phase II was "to design, construct and demonstrate in a field operation a pilot-scale prototype for environmentally safe destruction of volatile organic halocarbons (VOHs) extracted from groundwater by air sparging/SVE operation in conjunction with Energia's Photo-Chemical Remediation (PCR) technology" (R4, tab 122 at 6). The work plan for accomplishing the objective was divided into six tasks. Task No. 1 was to perform a comprehensive bench-scale study of treatment of chlorinated VOCs by Energia's PCR technology so as to "obtain all the operating conditions needed for the design of the pilot sector demonstration prototype for the specific application (i.e., air-sparging/SVE) at a selected site in NASA/KSC, FL" (*id.* at 7).

19. Task No. 2 was described as a scaling up of bench-scale results, first from bench-scale to pre-prototype unit and then, after fine-tuning and upgrading, to a pilot

scale prototype. Based upon the technical and cost data obtained during the performance of Task No. 2, a design specification package would be prepared for use in Task No. 3 for the design of the pilot-scale prototype. (R4, tab 122 at 21-22, 27)

20. Task No. 3 is the design of the pilot scale prototype with it ultimately becoming a "self-contained, fabricated and tested pilot-scale prototype unit ready for installation at a demonstration site selected jointly by ENERGIA, its industrial partner and NASA" (R4, tab 122 at 27).

21. Task No. 4 is the installation and testing of the air sparging/soil venting extraction system (ASP/SVE) aboard one of the three possible sites at NASA's KSC in Florida (R4, tab 122 at 30-37). Task No. 5 is a field demonstration at the selected site (*id.* at 37-38) and Task No. 6 is to examine the data in order to evaluate the technology (*id.* at 39-40).

22. Based upon our review of the proposal we find as fact that the contractor intended to utilize property within NASA's KSC in Florida to conduct installation of the prototype and testing of the system and its cost proposal included costs for shipping and for travel from New Jersey to Florida to accomplish same. In addition, the proposal provided that Energia would contribute \$100,000 of its own money to cover the estimated cost of the equipment necessary to build the pilot-scale prototype. (R4, tab 122 at 29-30, 80-81; tr. 2/27-34)

23. The proposal included a "Phase II Milestone (GANTT) Chart" which depicted the schedule for each task and the personnel requirement, expressed in person-months (p-m), for that task. While there was some overlap of steps, the schedule showed as follows:

Task #1 Months 1-9 (15 p-m)  
Task #2 Months 7-12 (9 p-m)  
Task #3 Months 11-18 (18 p-m)  
Task #4 Months 18-19 (1 p-m)  
Task #5 Months 19-21 (6 p-m)  
Task #6 Months 22-24 (4 p-m)

(R4, tab 122 at 41-42) Based upon this schedule and the fact that the period of performance was to commence on 18 March 1998, Task #3 was scheduled for completion around 18 September 1999.

24. On 6 May 1998, the CO unilaterally issued contract Modification No. 1 which increased the funding for the contract by \$25,000, from \$175,000 to \$200,000 (R4, tab 4).

The CO testified that this was not an increase in the value of the contract, merely an increase of funding (tr. 3/55).

25. By cover letter dated 20 June 1998, Energia submitted its first quarterly progress report. While the report itself was detailed, the cover letter summarized the work accomplished during the first quarter and, with respect to the future, stated:

During the upcoming quarter we have to find out what sites(s) is(are) designated for demonstration. Knowledge of the specific pollutants and their concentrations at the selected site will enable us to fine-tune the experimental conditions before moving on to the more expensive stage of designing and assembling the prototype reactor.

I believe that a joint technical meeting (Princeton, NJ or KSC, FL) is advisable prior to undertaking the fine-tuned experiments.

(R4, tab 5)

26. The second quarterly report submitted on 28 September 1998 covered the period from 18 June 1998 to 17 September 1998. The report cover letter pointed to the experimental and computer modeling tasks completed during the quarter and the report detailed those results. In addition the cover letter stated:

[D]uring the upcoming quarter we have to find out what site(s) is(are) designated for demonstration. Knowledge of the specific pollutants and their concentrations at the selected site(s) will enable us to fine-tune the experimental conditions before moving on to the more expensive stage of designing and assembling the prototype reactor.

A joint technical meeting (Princeton, NJ or KSC, FL) is imperative prior to undertaking the final stage of bench-scale experiments.

(R4, tab 6)

27. Unilateral Modification No. 2 dated 14 November 1998 added \$300,000 in incremental funding bringing the total funding to \$500,000 (R4, tab 4).

28. The third quarterly progress report covering the period 18 September 1998 through 17 December 1998 was submitted on 28 December 1998. The cover letter transmitting the report again reminded NASA through Dr. Quinn of the importance of a joint technical meeting as follows:

At this juncture, a joint technical meeting (at Princeton, NJ or KSC, FL) is imperative prior to undertaking the final stage of bench-scale experiments. The main objective of the requested meeting is to find out what site(s) is(are) designated for demonstration. Knowledge of the specific pollutants and their concentrations at the selected site(s) will enable us to fine-tune the experimental conditions before moving on to the more expensive stage of designing and assembling the prototype reactor.

(R4, tab 7)

29. The fourth quarterly progress report was submitted on 19 April 1999 and for the fourth time Energia included language in its cover letter emphasizing the importance of a joint meeting to discuss sites designated for testing (R4, tab 8). However, included in the body of this report was more positive language suggesting that the parties had agreed to a meeting, as follows:

During the upcoming quarter, a technical meeting will be held between the technical staff of NASA/KSC and Energia. The main agenda will be to discuss and select the site(s) for field demonstration, obtain specific data (i.e., contaminants and their concentrations) at these sites and file necessary requests for demonstration permits.

(*Id.* at 20)

30. By email dated 4 August 1999, Dr. Quinn wrote to Dr. Lavid as follows:

I was under the impression that we were going to get something from you in the form of a work plan for implementation of your system at the Wiltec Facility. I would like to present it at the August Partnering team. Would that be possible? If so, please respond immediately. I am assuming you already have a field design done by this time []

according to the statement of work in your contract[.] I would just assign you a well to use at the site that is in a hot spot.

(R4, tab 31)<sup>1</sup>

31. Dr. Lavid replied, stating:

[I]f the Wiltec Facility is the selected site for demonstration, [we] would like to request a survey of its contaminants and/or any environmental study conducted at NASA/KSC. This is essential for the final design of the prototype. We need it ASAP (before the bench-scale apparatus is dismantled), because we may find contaminants for which we do not have any bench-scale data.

(R4, tab 31)

32. On 10 September 1999, Dr. Quinn asked again, via email, if Dr. Lavid was still planning on doing the field demo, and remarked she had not heard from him on this in a while. She inquired as to whether they needed to do some contract adjustments. He responded on 14 September 1999, that “[w]e are currently working on the quarterly report” and she would get it by the end of September. He said at that time he would “make recommendations regarding future work (including field demo) and any required contract modifications.” He also indicated he would be attending a conference in Cocoa Beach, Florida, 18-22 October 1999 and would like to meet with her to discuss site selection at that time. (R4, tab 31) However, a month later he informed her he would not be attending the Florida conference and would therefore mail the quarterly reports, but there was no mention of a field demonstration (R4, tab 32).

33. On 20 October 1999, Energia forwarded a progress report covering the fifth and sixth quarters of work performed from 18 March to 17 September 1999. In addition to reporting on research efforts during that period, Energia advised as to its plans for the upcoming seventh and eighth quarters, including design of a modular photo-reactor and stated in its cover letter as follows:

In addition, during this period, we will jointly (with KSC personnel) select a suitable remediation site and survey its particular contaminants (type and concentration). This task

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<sup>1</sup> We observe that the Wiltec Facility was not one of the named areas in the proposal (finding 17), although it could possibly be an alternate name for one of them. It was not discussed at the hearing.

(selection of a site) has to be completed before actual construction commences.

(R4, tab 9)

34. As of 17 September 1999, the report stated that bench-scale experiments had been completed and that during the next periods of performance, the seventh and eighth quarters, Energia would use the bench-scale results to design a pilot-scale photo-reactor (R4, tab 9 at 19). The pilot-scale design was the planned Task No. 3, which was scheduled to have been complete by the date of the report, but apparently had not yet begun.

35. Each of the reports covering the first six quarters (18 months) of contract performance referred to the need for jointly selecting a suitable remediation site.

36. Dr. Quinn testified that she had several conversations with Dr. Lavid regarding potential sites at KSC and Energia needed to be further along in the development process before she could get approval for an implementation site. She explained Energia needed to complete Task No. 3, the design and expected performance of the system, before she could approach the regulators to get approval for a site demonstration. The regulators at KSC, she said, as in any regulatory community, would not allow a system to be tested on site without a plan of operation indicating how the apparatus would get to the test site, the instrumentation to be used, the length of the test, monitoring issues, and health and safety plans. The concern was if something goes "awry" during the demonstration, the contaminated site is not made worse. Energia had not provided such a plan. The sites at KSC eventually became unavailable because appellant failed to adhere to the timeline which would have made a test at the center possible. (Tr. 2/155-57, 188)

37. On 27 December 1999 Dr. Quinn asked Dr. Lavid to contact her as soon as possible "to discuss a change in your original scope." Further she said:

Your contract called for a field demonstration, which you are not going to do, so we need to make some adjustments.

(R4, tab 33)

38. Dr. Quinn testified that the foregoing 27 December 1999 email was sent in response to the indication that there would not be a demonstration at KSC because the sites in the proposal became unavailable, not that there would be no field demonstration at all (tr. 2/229-30, 349).

39. Dr. Lavid argued at trial that the 27 December 1999 email from Dr. Quinn relieved Energia of the requirement for a field demonstration (tr. 1/113-14). However, several times subsequent to the date of that email, Dr. Lavid referred to performing a field demonstration (R4, tabs 10, 11, 34; tr. 2/69-71). In fact, discussions about possible sites at KSC continued beyond December 1999 (R4, tab 501). We find that Dr. Quinn's email did not change the contract requirement for a demonstration in the field, nor did Dr. Lavid take it as such.

40. On 18 January 2000, the CO issued Unilateral Modification No. 3, changing the funding from \$500,000 to \$597,960. By its terms, this modification fully funded the contract and was to "cover the work to be performed through the end of the contract period." (R4, tab 4)

41. On 8 February 2000, Dr. Lavid requested a "one (1) year No-Cost Time Extension (until March 31, 2001)," because additional time was needed "to finalize the design, obtain bids for the construction of the pilot-scale system, install the system and perform a demonstration at Kennedy Space Center (R4, tab 34). Dr. Lavid testified he had to build a new bench-scale apparatus because the first one that he had used for Phase I was inadequate, and he had to change the process he was using because the original one he had proposed was not as promising as he had hoped. He testified that at that time he believed he would be able to complete the remaining tasks on the contract within the next year. (Tr. 2/56-59)

42. The CO, Lisa Morales, received the request for a one-year extension and, on 24 February 2000, asked Dr. Quinn if she wanted the extension to be granted and if so, to provide a justification. In reply on 25 February 2000, Dr. Quinn advised the CO to grant the extension and stated:

The extension is required because the contractor has fallen behind with his designs and he has not performed the fieldwork portion of the contract. I have no problem with extending the grant to complete the work originally called for in the SOW. MLEnergia has not billed us for any of the work not completed to date.

(R4, tab 37)

43. Thus, bilateral Modification No. 4 was entered into on 21 March 2000 "to extend the Period of Performance from March 18, 2000 to March 18, 2001, at no cost to the Government" (R4, tab 4).

44. The seventh and eighth quarterly reports were submitted by letter dated 24 March 2000. The report indicated that, among the work Dr. Lavid intended to accomplish in the coming quarters, was to schedule a meeting to select a demonstration site at KSC and to identify the contaminants and their respective concentrations. (R4, tab 10 at 1)

45. The ninth and tenth quarterly progress reports were submitted 25 September 2000 covering work between 18 March 2000 and 17 September 2000 (R4, tab 11). Under "Tasks Completed," the report states "Purchase of UV lamps (expected delivery time of UV lamps is 12 weeks)," and then enumerates various tasks as "Future Work," which are described as being "planned and underway" with expectation that "these tasks will be completed by 12/31/2000." Another category described as future work, but without details or a deadline, includes "Selection of a demonstration site" and "Demonstration." (*Id.* at 17, 18)

46. By 11 October 2000, Dr. Quinn was concerned that Energia had not submitted any details about the field demonstration, and in an email to the CO said:

Need to meet with you shortly concerning cutting off the SBIR Phase II grant to ML Energia. I'm sure they will raise a stink. They have not sent down any documents indicating a planned field demonstration. I feel like they are stringing us along. So, we should get together and figure out how to end the process now. This would be in NASA's best interest.

I spoke today with Sam Simpkins. He is aware of my intentions. If you and I figure out how to stop the grant...(figuratively speaking [sic]), then Sam would like to know in advance of our actions.

(R4, tab 43)<sup>2</sup>

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<sup>2</sup> Sam Simpkins was an investigator with the NASA Office of the Inspector General who had some responsibility for a then-ongoing criminal investigation of Energia and its principals regarding SBIR contracts (R4, tabs 40, 41).

47. On 31 October 2000, Dr. Lavid asked about his request for a progress payment in the amount of \$143,855, which he had submitted on 25 September 2000 (R4, tabs 11, 45). Energia repeated its request on 2 November 2000 (R4, tab 46). The CO responded to Energia by email dated 3 November 2000 to Nira Lavid:

Per my conversation this date with Mr. Moshe Lavid, we are waiting for the COTR, Ms. Jackie Quinn, to complete her review of the effort performed to date and receipt of the schedule for your planned field demonstration of the prototype.

Your progress payment #3 in the amount of \$143,855 has been received and is being held pending approval by Ms[.] Jackie Quinn upon her verification of satisfactory progress on the above effort.

(R4, tab 47)

48. That same day, Dr. Lavid sent an email to Dr. Quinn, stating:

Let me assure you that we are on track. The pilot-scale prototype will be ready by the end of the year, as outlined in the last progress report. You will be invited to see it and/or we will email you photos. Not only that we are on schedule, we have reserved adequate money in the budget for the completion of the prototype as well as for the demonstration.

Dr. Quinn forwarded that Energia email to the CO still on 3 November 2000, who replied:

Jackie, in light of all the discussions so far, let me know if you want to email approval for payment of their progress payment #3 in the amount of \$143,855. I can make payment on it (which will leave about \$150K left to pay) and then start the letter of concern that we originally planned to send. This will alert them that we are still concerned about their progress.

(R4, tab 48 at 2)

49. Dr. Quinn replied that same day, agreeing with the CO plan with the additional requirement that a “field demonstration design package...be sent to the regulators.” Moreover, she stated:

Moshe knows this....as we have discussed it in detail before. I need a design package which includes sparge wells, system design operations, and intended site location. It will take him until the end of the year to get this done if he starts right now. Maybe hold back \$10-15k until he gets this to me. What do you think?

(R4, tab 48 at 1-2)

50. The CO proposed paying the entire amount recognizing that it would leave a final payment large “enough to make an impact,” and that she would send Energia a letter restating Dr. Quinn’s requirements. So, still on 3 November 2000, Dr Quinn advised the CO of what she needed by the end of the calendar year and approved release of the third billing for payment. (R4, tab 48)

51. Thus, by letter of 6 November 2000, the CO advised Energia that the progress payment was in process and that in order to remain on schedule and with the allotted funding, he would have to provide the following information to the COTR no later than the end of that calendar year:

An implementation package which includes a system design layout at the POL site; a sparge well design; a system operation plan including health and safety plan; and a complete package signed and sealed by a registered Florida PE.

In addition she explained that Dr. Quinn would schedule a time slot with the regulators at the January 2001 partnering meeting; that Dr. Lavid should be at that meeting to present the design; and that certain other specified information needed to be provided with respect to the project progress. (R4, tab 49)

52. Energia received progress payment #3 during the second week of November 2000 (R4, tab 51) and responded to the CO request of 6 November 2000 by email on 12 December 2000 (R4, tab 52). In that email Dr. Lavid said the pilot-scale prototype was near completion—all he was missing were the UV lamps and suprasil sleeves ordered from Germany, which should have been delivered by Thanksgiving, but had been delayed. He had been promised they would arrive by Christmas or January, he said, and was proceeding as though they would arrive in January. “Please recall that these are new

lamps, fabricated to our specifications (50% longer than the bench-scale lamps).” He brought up the subject of testing the reactor in New Jersey instead of Florida. A group in the Civil and Environmental Engineering Department at Rutgers University was assisting Energia with construction of the reactor prototype and there were aquifers on campus contaminated with relevant contaminants. He listed the advantages in performing the demonstration at Rutgers, as opposed to KSC, which included savings in transportation, trucking, and travel costs. (R4, tab 52 at 2)

53. By email dated 13 December 2000, Dr. Quinn let the CO know Dr. Lavid was suggesting a test at a contaminated site in New Jersey. According to her, from a technical standpoint, it did not matter where the demonstration was, but it did from a contracting standpoint. The change of venue for the test, and the concomitant savings that would follow, should also result in some “return to the contract” she said. (R4, tab 52) The CO responded that she had spoken to Dr. Lavid and he “indicated that he was willing to negotiate any savings he might incur by holding the demo in NJ vice KSC.” He could not confirm a New Jersey demonstration at that point, he had told her, because he had not received final approval from Rutgers. She informed him if he did need to demonstrate at KSC, he was to advise Dr. Quinn immediately, and if the demonstration was to take place in New Jersey, he was to provide her with “a proposed cost savings due to the reduction in the third visit to KSC and the savings in personnel, transportation, and general support” listed in his original proposal. (*Id.* at 1)

54. Dr. Quinn testified she agreed to a demonstration at Rutgers University in New Jersey as opposed to the Kennedy Space Center because appellant was behind on the contract, a New Jersey demonstration would obviate his need to travel to Florida for pre-demonstration planning and then to transport the reactor to Florida, and the technical data from a New Jersey site could be translated down to sites they were dealing with at NASA, although because the groundwater table is so much higher in New Jersey than in Florida, it would not be as useful (tr. 2/191-93; R4, tab 52).

55. By letter dated 14 December 2000, Dr. Lavid submitted the status report synopsis in his 12 December 2000 email. He included a formal letter from Dr. Kenneth Lee, Assistant Professor, Department of Civil and Environmental Engineering, Rutgers University to Energia, and said it “documents their intent to collaborate with Energia on an on-site demonstration.” He again said “a local demonstration has many advantages over a remote one.” (R4, tab 53 at 1) In the letter of intent, Dr. Lee explained, “The Busch Campus of Rutgers has PCE contamination in a fractured-rock aquifer” which would be used to demonstrate the technology. He also stated, “In addition, we will have a backup demonstration of this technology using contaminated water (TCE or PCE) from a laboratory-scale aquifer.” (*Id.* at 3) Attached to Energia’s letter from Dr. Lee was a progress report by Dr. Lee documenting collaboration already accomplished. In his report, Dr. Lee included an estimated

schedule, referencing the delay in the Heraeus lamps, their likely arrival in January 2001, and stated:

Once these lamps arrive, the complete installation of the reactor should only take about a week or two. Therefore, we expect to begin testing and evaluating the reactor sometime in the middle of February 2001. A field demonstration of this technology is proposed soon after the testing and evaluation stage. The PCE contaminated site on the Rutgers University Busch Campus is an ideal setting for such a demonstration....

(*Id.* at 5) Dr. Lavid confirmed that at this point in time, the intent was to do a field demonstration as required by the contract (tr. 2/80-83).

56. By email dated 7 February 2001, Dr. Lavid informed Dr. Quinn that the needed lamps had arrived from Germany and he had begun assembling various parts of the reactor. He anticipated completion by 18 February 2001, and invited her to visit anytime after that. By email dated 14 February 2001, she asked:

What is the status of the demonstration plan and deployment?  
You are way behind here, Moshe. Have you had discussions with NJ EPA equivalent for field-scale deployment/demo?

(R4, tab 55)

57. Dr. Lavid answered, by email dated 21 February 2001:

According to Ken Lee (Rutgers U), there may be no need for approval from NJ DEP for a demonstration on campus. We still hope to be able to perform the demonstration by the end of Feb, assuming no last minute surprises. If any unforeseeable delay will develop, I'll keep you posted. At that time, we may need to request a 6 month no-cost time extension.

She responded to him on the same day:

I would not rely on Ken Lee to let you know what regulations the State follows.... Anytime you have the potential for concentrations of air emissions containing TCE to be released, you have to let the regulators know. Do not be confused on this. Call them yourself! The regulators "own"

the air in NJ, not Rutgers University. The State Regulatory Agency can fine you if you don't get approval up front.

(R4, tab 55)

58. By email dated 2 March 2001, Dr. Lavid asked Dr. Quinn for a six-month, no-cost time extension, pushing contract completion to 30 September 2001.<sup>3</sup> He stated the extension would "allow us to perform the demonstration, analyze the results, assess performance and document everything in a Final Report." (R4, tab 56)

59. Dr. Quinn forwarded the extension request to the CO, asking what she should do (R4, tab 57). Dr. Quinn testified she had recommended against granting another extension. In her opinion, given appellant's history on the contract, and the time taken to perform the initial steps in the process, she had concerns about whether he could get the equipment into the field and do the demonstration. He had just received his lamps and was only then beginning the required equipment shakedown. Her recommendation to the CO was to "cut our losses." (Tr. 2/222, 225)

60. Dr. Lavid renewed his request for an extension by email dated 9 March 2001 to the COTR (R4, tab 64). By email dated the same day, the CO inquired of Karin Huth if there was agency precedent for terminating an SBIR Phase II contract (R4, tab 65). Ms. Huth was the director of SBIR programs at NASA but did not supervise the CO or the COTR (tr. 1/107-08). The CO, in her email to Ms. Huth, explained the contract had already been extended a year at no cost but the contractor had not completed the work. She also explained the contractor had received \$444,345 of the total \$597,960 contract amount (R4, tab 65).

61. Ms. Huth responded that the CO "should probably start the termination process." She said that while they usually tried to give companies "every possible opportunity to succeed, it sounds like they have had more than enough time." She directed the CO to FAR Part 49, and said:

You may ultimately decide to negotiate something with the company to bring the contract to a close short of doing a termination - if they can somehow write a report or something to summarize what they've done so far and your COTR is willing to accept it, you could maybe decrease the value & the deliverables under the contract and just call it quits at the point they are at now. We have done something similar where

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<sup>3</sup> In fact this was a request for a bit more than six months as six months would have extended the contract only to 18 September 2001.

a company could not complete a project but we did not want to saddle them with a default & force them to repay all the money they'd already gotten. But that could only really be done if you can argue that the Government has gotten something of value from the work that we've already paid for.

(R4, tab 65)

62. By email dated 12 March 2001, the CO relayed Ms. Huth's information to the COTR and asked if Dr. Quinn would be willing to accept a summary/final report for the current value of the contract. Dr. Quinn responded she could take a final report explaining the results to date. (R4, tab 66)

63. On 13 March 2001, Dr. Lavid emailed the CO directly requesting the six-month extension (R4, tab 67).

64. The CO replied by email dated 14 March 2001, denying the request. She informed him she discussed a possible further extension with "Dr. Jacqueline Quinn, Mr. Joel Shealy (local SBIR Program Manager), and Ms Karin Huth (Hqs SBIR Program Director)," and attached a letter which "explain[ed] the government's position and decision not to extend the contract." (R4, tab 70) In the attached letter, she requested Energia submit a final report explaining the results of research efforts to date. She explained the first extension, of an additional year, had been to allow Dr. Lavid to complete work under the contract, but that had not occurred. Thus, she said:

[I]t has been determined to be in the best interest of the Government not to proceed with another extension. The Government proposes a no-cost contract closeout agreement for delivery of the final report for monies already paid. The contract will be valued at the current total payments of \$444,345. This action will be in lieu of the FAR 52.249-9 Default Termination.

(R4, tab 70)

65. At the hearing, Dr. Lavid pointed to the valuation of the contract at \$444,345 on the proposed close-out date as the key to his case. In September 2000, at the time of the third progress payment—six months earlier—the contract was valued at that amount. Therefore, he testified, the government was valuing the work performed for six months since that time at zero. (Tr. 1/131-32)

66. In an email to the COTR dated 14 March 2001, Dr. Lavid expressed surprise and disappointment at the denial of his request and attached a letter. He stated, "I hope that after reviewing the [letter], you will be able to justify our request for another short extension at no extra cost (or risk) to the government." In the letter, he asked for reconsideration of the government's denial of the extension and, among other things, explains:

There will be no savings to the government by the decision not to grant the requested extension. Energia has already invested in this project more than its contracted value (\$597,960). The total amount of invoices as of 9/30/00 is \$467,732. Energia has not yet submitted an invoice for the period 10/1/00 to 3/18/01. We intended to wait with the final invoice until after completion of the contract.

(R4, tab 71)

67. Dr. Quinn forwarded Dr. Lavid's email and attached letter to the CO with the comment, "Apparently he intends to bill for the remainder of the contract." She told the CO she had not contacted Energia and wanted the CO on the telephone when she did so. (R4, tab 71)

68. By letter dated 16 March 2001, Dr. Lee wrote to the COTR on appellant's behalf asking that the request for another extension be granted. He stated:

I would like to let you know that none of the delay is Dr. Lavid's fault. He has motivated, energized, supported, and done his best to keep all of us on schedule. Dr. Lavid should not be penalized or blamed for the delay. In retrospect, I may share some of the blame for being too optimistic and somewhat over zealous in my scheduling.

The letter goes on to describe the technical accomplishments during the last year, explained reasons for the delay and then continued:

We are very enthusiastic about the upcoming demonstration. We strongly believe in the potential of this technology. We have invested a considerable amount of academic resources into this project. These include also time, energy and money. We have come a long way in developing the reactor and it would be an unfortunate loss of technology advancement not

to bring the exhaustive effort by Energia and our staff to fruition.

(R4, tab 72)

69. After discussion, it was decided to give Energia every opportunity to complete the contract (tr. 2/222-23). NASA agreed to continue the contract, but with "stringent protocols about reporting" to assure that they were making progress and there would not be a second delay (tr. 2/166-67). By letter dated 16 March 2001, the CO informed Dr. Lavid that there would be a six-month, no-cost extension on the contract, subject to the following requirements:

1. Your final invoice request will not be submitted until the completion and submittal of the final report at the end of the contract extension, September 30, 2001.
2. You will submit a monthly proposed schedule for the six-month extension no later than March 23, 2001 indicating dates and milestones. Submit your work plan to the COTR by April 2, 2001 for the field-scale deployment effort.
3. You will submit a monthly progress-to-date summary report to the COTR to show your progress on the completion of this effort. This report will summarize work completed, milestones achieved and remaining work to be completed.
4. This office will proceed with a Termination for Default against M.L. Energia if at any time during the six-month extension period it is determined that the new completion date will not be met.

(R4, tab 73)

70. Bilateral Modification No. 5 was signed by both parties on 18 March 2001, and stated: "[t]he purpose of this modification is to extend the period of performance of this contract from March 18, 2001 to September 30, 2001 at no cost to the Government. Monthly reports must be provided during this extension period." (R4, tab 4) We find that except for the extended period of performance and the requirement to submit monthly, as opposed to quarterly, reports, there were no other changes to the contract.

71. On 23 March 2001, Dr. Lavid submitted a one-page "Proposed Schedule and Work Plan" which included five categories of tasks purportedly to be completed during

the extended period of performance. Task No. 5 entitled "Demonstration" was to be completed by 31 August 2001 and Task No. 6 "Performance evaluation; Final Report" was to be completed by 30 September 2001. (R4, tab 127)

72. While there was contentious testimony from Drs. Lavid and Quinn over the scope of work during the extended period, with Dr. Lavid contending he had the option of performing a demonstration in the field or in the laboratory (tr. 1/194, 2/117), and Dr. Quinn contending a field demonstration was required, unchanged by Modification No. 5 (tr. 2/171, 175, 3/22), we find as fact that Modification No. 5 did not change the scope of work, nor did the one page revised schedule modify the basic contract requirements included in the work plan incorporated therein.

73. The first monthly report mandated by Modification No. 5 was submitted by email on 6 May 2001 and stated:

[W]e have discussed/reviewed our planned demonstration experiments (using contaminated PCE groundwater from the Rutgers site) with Rutgers Environmental Health and Safety. We do meet university compliance and will be able to proceed with the demonstration experiments using the reactor. It is worth noting that PCE has not been tested on the bench-scale reactor. It is a new challenge.

(R4, tab 12)

74. Upon receipt of the report the COTR asked Energia if it had invited New Jersey's EPA to see the test and Dr. Lavid responded that he had not invited them as guests but that "Prof. Ken Lee obtained all the necessary approvals for a demonstration at Rutgers" (R4, tab 82).

75. The second monthly report for May 2001 was submitted on 7 June 2001. In response on 18 June 2001, Dr. Quinn remarked in reply that it looked like things were going well and asked as follows:

Do you have a test plan written for the full-scale demonstration? I would be interested in reviewing that. The previous documents reviewed the testing procedure in general terms but are not considered a "test plan." The test plan would include duplicate and blank sampling procedures to show accurate QA/QC initiatives, etc.

(R4, tabs 13, 83)

76. Dr. Lavid responded on 21 June 2001 that Professor Lee was out of town but upon his return they would address the testing plan. Dr. Quinn responded immediately with the question, “[d]oes this mean you have not written a test plan at this time?” (R4, tab 84 at 1) By email dated 3 July 2001, Dr. Lavid informed the COTR the test plan would be attached to the third monthly progress report and that it had “experienced a few iterations between Rutgers and Energia” (R4, tab 87).

77. The third monthly report for the period ending 30 June 2001 was submitted by email dated 8 July 2001. A first draft of a test plan was attached and was expected to be revised as testing proceeded. (R4, tabs 14, 88). The COTR expressed concern that the test plan was extremely weak. Dr. Lavid agreed the test plan was incomplete and explained it was only a first draft which would be revised as they gained experience with operation of the new unit. (R4, tab 90)

78. A one-page report entitled “Fourth Monthly Report (ending July 31, 2001)” was submitted by email dated 7 August 2001 (R4, tabs 15, 91). The “Fifth Monthly Report (ending Aug. 31, 2001)” was submitted by email dated 7 September 2001 and stated that “[d]uring the upcoming last month, we will attempt to optimize the operating conditions and will document the pilot-scale work in a final report” (R4, tabs 16, 92).

79. A document titled “Final Report SBIR Phase II,” was sent to Dr. Quinn by Professor Lee by email dated 2 October 2001 (R4, tabs 17, 93). By email dated 19 October 2001, the CO asked Dr. Quinn to prepare a list of deficiencies or differences between what was required by the contract and what was delivered to NASA (tr. 2/308; R4, tab 97). Dr. Quinn responded by email dated 26 October 2001 (R4, tab 98). She read the monthly reports and the final report, and reviewed the tasks in the original statement of work. Using her technical background, she identified what tasks from the original statement of work had been completed and what had not. (Tr. 2/179-80) At the hearing, she further elaborated on her conclusions as to each task (tr. 2/178-87) and each is discussed below along with the testimony of Dr. Lavid as to his view of Energia’s accomplishments with respect to each task.

#### Task 1 - Bench-Scale Study of Reductive Photo-thermal Treatment Processes

80. Dr. Quinn noted there was scant information on the bench-scale tests. She thought it unusual that Dr. Lavid referenced previous reports, but did not go into the data produced earlier, and she testified that usually a final report is extremely comprehensive, including all the data gathered from the entire project in order to use the data as “a stepping stone for further funding, for further technology transfer and commercialization.” (Tr. 2/181; R4, tab 98)

81. Dr. Lavid testified that he completed Task 1 but that instead of the planned nine months, it took him two years to complete this task. His explanation follows:

I think the reason was that...the process that we started, which was redacted for the chemical process, was not very promising. And in doing the lab experiments we find out that if you do a combination of reductive and oxidative, in other words, you don't do it only in a reductive atmosphere, you get better results.

(Tr. 2/55-57) We find that Task 1 was partially completed.

#### Task 2 – Scaling-Up of Bench-Scale Results

82. Dr. Quinn opined that Energia referenced the fourth quarterly report and lightly glossed over the scaling calculations performed. Again, she thought it unusual for a contractor to choose to not put all the information from a quarterly report into the final report. (R4, tab 98) Dr. Lavid said he completed Task 2 and explained the process of scaling-up (tr. 2/39-40, 59). We find that Task 2 was partially completed.

#### Task 3 – Design, Construction and Shakedown of a Pilot-Scale Prototype

83. Dr. Quinn was dissatisfied with the documentation for this task as well (tr. 2/182; R4, tab 98). It did not include sampling methods, protocols or statistical reproducibility. It did not include design drawings or a discussion of the construction efforts. No design details were included in the final report. (R4, tab 98) Dr. Lavid testified it was performed (tr. 2/41-43). We find this task was only partially performed.

#### Task 4 – Air Sparging/Soil Venting Extraction System

84. This task included the design, installation and operation of a portable air sparge and vapor recovery system for a period of one to three months during which Energia's pilot-scale prototype would be field demonstrated (R4, tab 122 at 31). Dr. Quinn explained this task as merging two technologies. Photo-chemical remediation only addresses a contaminant in the air phase—the gaseous phase. The idea was to use a common technique, called air sparging with soil vapor extraction, to cause a phase change in the contaminants. Contaminants have a lower vapor pressure than water, and if air is bubbled through the contaminants, it will cause an equilibrium shift, transferring the contaminants out of the water, into the bubbles and to the surface. As the contaminants rise, they can then be collected into a gas phase and be forced into Energia's treatment technology. (Tr. 2/162-63) To be effective, it needs to be performed "in the ground, in the subsurface, in conjunction with a well, and a sparging system." It never was.

(Tr. 2/163-64) Dr. Lavid admits he did not complete Task 4, the design and installation of an ASP/SVE system because one cannot do sparging if there is no site on which to perform it (tr. 2/43-44, 83). We find Task 4 was not performed.

#### Task 5 – Field Demonstration

85. With respect to Task 5, the COTR testified she was expecting “the system run as a pilot-scale prototype at a contaminated site” (tr. 2/164). This was not done as evidenced in the documentation submitted by appellant indicating the reactor Energia built never left the laboratory. The reports submitted by appellant did not identify a location where the contaminated water was tested and only stated the starting contaminations. (Tr. 2/165) In her report, regarding Task 5, she wrote:

Not performed. All testing was done in a laboratory at Rutgers University with water that must have been spiked with the contaminant. There is no detail included in the final report about the site where they may have collected groundwater and ported it to the lab for use in their system. This is far from being a Field Demonstration. The system was never tested on an “existing cleanup site[.]”

(R4, tab 98)

86. She testified that the information garnered in a laboratory is not as meaningful as that developed through a demonstration in the field where “you are dealing with a non-controlled environment, the ability to get the contaminant from the liquid phase, to vapor phase, and running it through your system, is much more challenging” (tr. 2/171-72). Without a demonstration in the field, she said, “[y]ou can’t come up with reasonable technology, performance parameters, nor cost[s] that would help your technology to go into [the] commercial phase” (tr. 2/173). Dr. Lavid testified he completed Task 5, the demonstration, but did it in a laboratory, not in the field (tr. 2/47, 86). We find the contract required a field demonstration and it was not performed.

#### Task 6 – Technology Evaluation

87. Task 6 as proposed was to be a careful review of all the data gathered in the field demonstrations, a comprehensive performance evaluation of that data, and a detailed cost analysis based upon field data gathered from the actual demonstration tests (R4, tab

122 at 39-40). Dr. Quinn found that the final report did not include any type of cost analysis (tr. 2/165-66) and in her evaluation of the final report stated:

The results the contractor got in the lab are summarized in bullet form in the last paragraph. These do not elaborate on the technolog[y's] capabilities no[r] detail the potential for future deployments. In the final report, the contractor is missing data in Tables I and III. There is no data supporting how the tests were performed, where the contaminated water came from and how they were able to achieve such drastic changes in concentration from a single groundwater source. This is highly unlikely and in my opinion the contractor may have just gotten some groundwater or potable water and spiked it with PCE, which is why there is no discussion of this in the final report. There is no discussion why certain temperatures were selected. No discussion on how the contamination was fed from a water steam, transformed into a gas stream for treatment in the system. There are citations within the document that cannot be found in the References Section, perhaps because the contractor doesn't want anyone to verify the citation. There is no QA/QC program or elaboration in the document. No discussion of the type of analytical equipment used for analyses, and what analytical techniques were used on the samples collect[ed].

In general, the final report is less than poor in representation and significant improvements and additional work would be required to even consider this work as representing completion of the tasks described in the original work plan.

(R4, tab 98 at 1-2)

88. In Dr. Quinn's opinion, the data provided in Energia's final report was not statistically defensible. The report did not document the performance of enough repetition and with enough accuracy and precision which would have provided the scientific community with "enough comfort in the data to accept it for further evaluation." (Tr. 2/186) When asked if Kennedy Space Center got anything of value from appellant's contract, Dr. Quinn answered, "[n]o" (tr. 2/173). When pressed by Dr. Lavid to provide an adjective to describe the overall work on the contract, Dr. Quinn responded, "[p]roblematic" (tr. 2/345-46).

89. Dr. Lavid testified that he completed Task 6, the Technology Evaluation (tr. 2/47). However, he admitted the report did not contain all the information he had anticipated when he wrote the proposal, nor did he complete all the subtasks he had proposed. Specifically, he did not compare his work to other technologies and he did not perform the cost analysis as both were promised in the proposal. (Tr. 2/96-98) We find Task 6 was partially performed in that a report was submitted but the report did not include all required information and was of no use to NASA. Thus, we find task 6 was not acceptably performed.

90. In late 2001, Christopher Canary, the CO, in an undated letter to appellant, detailed the result of NASA's review of the final report and informed Energia of his decision that "the work that was to be performed under this contract fails to meet the requirements of the SBIR contract." Three of the six tasks required by the contract were not performed: Task 4, Design and Installation of Air-Sparging/SVE system; Task 5, Field Demonstration; and Task 6, Technology Evaluation. Additionally, he advised that Tasks 1, 2, and 3 were "deficient in content." (R4, tab 99)

91. The CO explained the work "not adequately performed constitute[d] approximately 30% of the contract" and that, "[a]t minimum, \$184,220 of the contract was not completed." Energia was directed to undertake no additional work under the contract or incur further costs. (R4, tab 99) The CO further stated:

M. L. Energia was given ample opportunity to perform the contract, especially taking into account the 12-month, and subsequent 6-month extensions granted. Thus, in accordance with the provisions of [FAR] 52.246-7, Inspection of Research and Development—Fixed[-]Price, the government is hereby accepting the final report as written, but is making an equitable price reduction to the contract from \$597,960 to \$444,345, to reflect the deficiencies noted herein. Therefore, please sign and return three copies of the attached modification, reducing the price of the contract by \$153,615, the obligated balance on the contract. This amount is the adjustment for the work not adequately performed. We feel this adjustment is equitable under the circumstances.

(*Id.*)

92. While assigning a 30% value to the work not done resulted in an overpayment of \$30,605,<sup>4</sup> the CO determined that there was no way the government would get that money back from appellant and they “just cut the losses at the dollar figure we had already paid, and did not ask for a return on the overpayment” (tr. 2/319).

93. Dr. Lavid, by letter dated 17 January 2002, expressed his disagreement with what he called the “Xmas letter” because it had no date and arrived just before Christmas. He stated there was no basis for the issuance of the proposed modification, there were no deficiencies, and asked every effort be made “to promptly expedite the long overdue final payment.” (R4, tab 100)

94. By letter dated 6 February 2002, the CO informed appellant that NASA’s position as explained in the December letter had not changed and the modification was “in the best interest of each party.” Enclosed with the letter were a copy of the FAR 52.233-1, DISPUTES clause, the contract, and another copy of Modification No. 6. Dr. Lavid was again asked to sign the modification. (R4, tab 101)

95. The CO received correspondence from Energia expressing disagreement with the government’s assessment, but appellant never disputed that specific tasks had not been completed. Because Dr. Lavid had not signed the proposed modification, the CO withdrew the bilateral modification and issued unilateral Modification No. 6. In accordance with the provisions of the Inspection clause, he made an equitable price reduction of \$153,615 to the contract, reflecting the value of “work not adequately performed.” (R4, tabs 4, 99; tr. 3/57-59, 142) Appellant was again directed to not perform any additional work on the contract and also to contact the COTR to arrange delivery of the pilot-scale prototype constructed during performance of the contract (R4, tab 102).

96. By certified mail dated 28 June 2002, Dr. Lavid again stated there was no basis for the modification and again requested payment of \$153,615 (R4, tab 104).

97. The contract was closed out 4 September 2002 (R4, tabs 107, 108).

98. Almost four years later, by letter dated 30 June 2006, Dr. Lavid requested that NASA reconsider denial of the payment of \$153,615. He maintained the contract was satisfactorily completed “as per the mutually agreed upon **revised work plan** of March 2001” and that NASA’s denial was based on the original proposal. According to Dr. Lavid, the revised work plan superseded the original one and therefore, NASA’s

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<sup>4</sup> Contract amount less 30% of contract amount equals adjusted value of contract: (\$597,960-\$184,220=\$413,740). Amount paid less adjusted value of contract equals overpayment: (\$444,345-\$413,740=\$30,605).

December 2001 letter, because it was premised on the original work plan, was “irrelevant and moot.” (R4, tab 109) (Emphasis in original)

99. A further “inconsistency,” according to Dr. Lavid, was NASA’s valuation of the contract in Modification No. 6, at \$444,345. This was the same value NASA had assigned the contract in the CO’s communication to him on 14 March 2001. (See finding 64) This was before the revised work plan was agreed on and work continued for seven months after that date. Therefore, he argued, if the contract was valued at \$444,345 on 14 March 2001 and work continued for seven months thereafter, appellant was entitled to payment for the work which continued past 14 March 2001. (R4, tab 109)

100. By email dated 24 August 2006, the CO informed Dr. Lavid that the contract had been reviewed, “everything was proper and in order,” was closed, and would not be reopened (R4, tab 112).

101. By letter dated 18 October 2006, Dr. Lavid submitted a certified claim for \$153,615 based on the 30 June 2006 letter (R4, tab 126).

102. The CO responded with a final decision dated 20 February 2007 which was amended by letter dated 14 March 2007 substituting a new paragraph explaining the process of appealing a final decision (R4, tabs 1, 2).

103. Appellant appealed the CO’s final decision to the Armed Services Board of Contract Appeals by letter dated 18 May 2007 (R4, tab 120).

### DECISION

NASA determined that the research work for which it contracted was deficient in several respects and thus decided to take an equitable price reduction in the contract price consisting of all the funds that had not yet been paid, \$153,615. While four years later, Energia filed a certified claim for that amount, the underlying claim is a government claim for an equitable price reduction under the Inspection clause. The government has the burden of proof with respect to this claim. *W.M. Grace, Inc.*, ASBCA No. 23076, 80-1 BCA ¶ 14,256. At the outset, based upon our findings the government has met its burden of proving entitlement to deductions. Tasks 1, 2 and 3 were only partially performed and tasks 4, 5 and 6 were not performed at all.

In its claim and in this appeal, Energia contends that it is entitled to the remainder of unpaid contract funds. The primary contention seems to be that since the last payment was made in late November 2000 for work performed through 30 September 2000, and since work continued for another year until 30 September 2001, Energia is entitled to additional payments for work performed between 1 October 2000 and 30 September 2001

(app. br. 3-4). This argument is without merit as appellant misconstrues the nature of the contract into which it entered. The contract was a firm fixed-price contract, not a cost reimbursement contract. While progress payments were made based upon the incurrence of costs, this did not convert the firm fixed-price contract into some sort of cost reimbursement contract. The Progress Payments clause allowed reduction or suspension of progress payments when the contractor fails to comply with a material requirement of the contract or where performance of the contract is endangered by the contractor's failure to make progress, both of which existed in this appeal. (Finding 12) Further, the Inspection clause allowed the government to make an equitable price reduction where, as here, there is a finding of nonconforming work (finding 13). Therefore, appellant has failed to demonstrate entitlement on the basis of incurrence of costs subsequent to receipt of its last progress payment.

Next, appellant argues that Modification No. 5 superseded the original work plan such that the requirement for a field demonstration set forth in the original work plan was not included in what it terms the revised work plan resulting from Modification No. 5. We found as fact that neither Modification No. 5 nor Dr. Quinn's 27 December 1999 email superseded or modified the original work plan and the field demonstration was required by the contract and it was unchanged by the modification. (See findings 39, 70, 72) Therefore, the argument that the contract was modified to delete the field demonstration fails. Additionally, the argument that Modification No. 5 changed the requirement from a field to a pilot-scale demonstration is totally unsupported by the record.

Appellant next contends that after NASA learned that there was an ongoing investigation concerning Energia and its SBIR contracts, NASA began to exhibit bad faith and a biased attitude toward Energia and gives 14 examples of what it terms bad faith in its brief (app. br. 5-6).

The issue of bad faith was not raised in the claim or in the complaint. It was only raised at trial and in appellant's brief. The government contends that this issue is not properly before the Board and, in any event, Energia has not met its burden of proving bad faith.

Under the Contract Disputes Act, the Board has jurisdiction over claims a contractor has first submitted to the CO for decision. 41 U.S.C. §§ 7101-7109. However, we lack jurisdiction over claims raised for the first time on appeal. *Dawkins General Contractors & Supply, Inc.*, ASBCA No. 48535, 03-2 BCA ¶ 32,305. The test is whether the claim in question "arose from a common or related set of operative facts." *Placeway Construction Corp. v. United States*, 920 F.2d 903, 908 (Fed. Cir. 1990).

Moreover, the “burden of proving bad faith by the Government is a very onerous one and, to constitute bad faith...there must be some specific intent to injure the other party or actions motivated alone by malice.” *Plum Run, Inc.*, ASBCA No. 46091 *et al.* 97-2 BCA ¶ 29,193 at 145,230, *citing Kalvar Corp. v. United States*, 543 F.2d 1298 (Ct. Cl. 1976), *cert. denied* 434 U.S. 830 (1977).

There is simply no credible proof of bad faith or bias towards appellant in this record. The reduction in contract price was based entirely upon an evaluation of the extent to which the work required in the contract was actually performed and we have found such performance deficient. Moreover, we have examined the 14 examples of bias cited in the brief and, to the extent they might be considered to overlap with the claim, find nothing factual in those examples that points to anything approaching bad faith or bias towards appellant.

In sum, the government has established that, after three and one half years, appellant failed to fully perform the research and reporting required by the contract. The appeal is therefore denied.

Dated: 24 July 2012



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RICHARD SHACKLEFORD  
Administrative Judge  
Armed Services Board  
of Contract Appeals

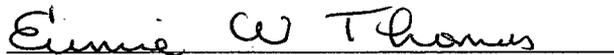
I concur

I concur



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MARK N. STEMPLER  
Administrative Judge  
Acting Chairman  
Armed Services Board  
of Contract Appeals



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EUNICE W. THOMAS  
Administrative Judge  
Vice Chairman  
Armed Services Board  
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 55947, Appeal of M. L. Energia, Inc., rendered in conformance with the Board's Charter.

Dated:

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CATHERINE A. STANTON  
Recorder, Armed Services  
Board of Contract Appeals