

Princeton University

Plasma Physics Laboratory

James Forrestal Campus
P.O. Box CN17
Princeton, N.J. 08543

8 April 2005

Mr. James C. Flanagan
Executive Vice President
Major Tool & Machine, Inc.
1458 E. 19th Street
Indianapolis, IN 46218

SUBJECT: Proposed Amendment No. 4 to Subcontract S005243-F
For NCSX Project Vacuum Vessel Sub Assembly Production

Dear Mr. Flanagan:

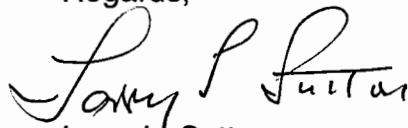
Attached is Princeton Plasma Physics Laboratory (PPPL) proposed Amendment No. 4 to Subcontract S005243-F.

In addition to incorporating into the Subcontract the agreement of the parties on the settlement of Major Tool & Machines (MTM's) 4 February 2005 claim for "vessel profile changes," the delivery schedule and Subcontract performance schedule were modified to accept the MTM 21 March 2005 project schedule and the Subcontract price increase. Also incorporated into Amendment No. 4 is the identification of "Requests for Deviation" received and approved by PPPL.

If the Amendment is acceptable, please return to me two copies that have been signed by an appropriate representative of your Company and that bear the signature of the witness to the signing. I will return to MTM for the file one fully executed original copy of Subcontract Amendment No. 4.

If there are any questions pertaining to this matter I may be contacted at (609) 243-2441, telefax (609) 243-2021 and by e-mail lsutton@pppl.gov.

Regards,



Larry L. Sutton
Senior Subcontract Administrator

Attachment

cc: M. Viola

AMENDMENT NO. 4 TO
 FIXED-PRICE SUPPLY SUBCONTRACT S005243-F

FIXED-PRICE SUPPLY SUBCONTRACT S005243-F, as amended, by and between THE TRUSTEES OF PRINCETON UNIVERSITY and MAJOR TOOL & MACHINE, INC. (MTM) for the performance of the requirements of National Compact Stellarator Experiment (NCSX) Statement of Work, Vacuum Vessel Sub Assembly (VVSA) Fabrication is hereby further amended. The primary purpose of Amendment No. 4 to Subcontract S005243-F is to incorporate into the Subcontract:

- ❖ A revised delivery schedule (ARTICLE I),
- ❖ An extension of the Subcontract performance period (ARTICLE II),
- ❖ An increase in the Subcontract fixed-price and Princeton Plasma Physics Laboratory's (PPPL's) funding obligation, resulting from the parties settlement of a MTM claim, and a revision of the PPPL incremental funding schedule (ARTICLE IV),
- ❖ A revision of the Performance Based Payment schedule (ARTICLE V), and
- ❖ Requests for Deviations submitted by MTM and approved by PPPL (ARTICLE XII – MODIFICATIONS OF SPECIFICATION).

oooooooooooooooooooooooooooo

A. The text of paragraph 2. of ARTICLE I – SCOPE OF WORK is hereby revised to read:

"2. The parties agree on the following delivery schedule:

Reference	Description	To Be Received by PPPL
Statement of Work (SOW) Section 5.1	Segmentation Scheme	Date prior to PPPL release to fabricate VVSA components
SOW Section 5.1.2	Fiducials	With delivery of VVSA

Reference	Description	To Be Received by PPPL
SOW Section 5.1.3	Processing Outline and Associated Procedures	3 weeks after Subcontract award
SOW Section 5.21	Weekly Reports	By close of business each Wednesday
SOW Section 5.3	Monthly Reports	By the last working day of the month
SOW Sections 5.4 and 5.4.2	Vacuum Vessel Sub Assembly No. 1 and associated Process History	On or before 15 November 2005
SOW Sections 5.4 and 5.4.2	Vacuum Vessel Sub Assembly No. 2 and associated Process History	On or before 22 December 2005
SOW Sections 5.4 and 5.4.2	Vacuum Vessel Sub Assembly No. 3 and associated Process History	On or before 26 January 2006
SOW Section 5.4.1	Shipping Release Form	Prior to shipment to PPPL of each VVSA component
5.5	Tooling	On or before 1 February 2006"

B. The text of ARTICLE II - PERIOD OF PERFORMANCE is hereby revised to read:

"This Subcontract shall be effective from the date signed by both Parties through 15 February 2006, unless sooner terminated, or extended, in accordance with the terms and conditions herein. The Subcontract delivery schedule is in ARTICLE I – SCOPE OF WORK. "

C. The text of paragraphs 1. and 9. of ARTICLE IV – CONSIDERATION / LIMITATION OF OBLIGATION is hereby revised to read:

"1. For the performance of the requirements of this Subcontract Princeton agrees to pay the Subcontractor the Fixed-Price of four million, nine hundred sixty-seven thousand, two hundred four dollars (\$4,967,204).

This includes an increase of four hundred thirty-one thousand, six hundred forty-four dollars (\$431,644) agreed to by the parties as settlement of a MTM 4 February 2005 claim for "vessel profile changes." The parties agree this claim settlement is with the caveat that in the event MTM were to make additional price increase requests, except in response to PPPL directed work scope changes, the settlement is void and PPPL's final performance milestone payment of \$486,000 would be reduced accordingly. Discussions of PPPL's contractual obligations to pay the above amount would then become part of the discussion of PPPL's obligation with respect to all of MTM's cost claims.

PPPL will obligate funds to this Subcontract incrementally. With the issuance of this Subcontract Amendment No. 4 the sum of four million, two hundred thirty-one thousand, two hundred four dollars (\$4,231,204) is presently available for payment and allotted to this Subcontract. A schedule for allotment of funds to this Subcontract is contained in paragraph 9. of this Article."

- "9. The parties contemplate that Princeton will allot funds to this Subcontract in accordance with the following schedule:

On execution of contract	\$ 1,225,000
12 December 2004	\$ 464,560
7 March 2005	\$ 2,110,000
April 2005	\$ 431,644
1 October 2005	<u>\$ 736,000</u>
Total Allotment	<u>\$4,967,204"</u>

D. The text of paragraph 1. of ARTICLE V - PERFORMANCE BASED PAYMENTS

- "1. Subcontractor will receive performance payments for work completed as shown below, except PPPL will retain 10% of the payment amounts shown until Subcontract final payment, which will be made upon the receipt and acceptance of PPPL of all Subcontract deliverables.

Projected Date	Performance Description	Performance Based Payment
11/19/04	Segmentation Scheme (*Line 7 of Reference)	\$ 75,000
3/13/05	Die material procured (*Line 13 of Reference)	\$ 315,000
4/08/05	Dies fabricated (*Line 16 of Reference)	\$ 340,644
4/22/05	Vessel material procured (*Line 32 of Reference)	\$ 390,000
4/29/05	Procedure Outline & Assoc Procedure (*Line 9 of Reference)	\$ 95,000
5/13/05	Procure Material (120° Fixture) (*Line 27 of Reference)	\$ 220,000
5/23/05	Production panels (Period #1) (*Line 33 of Reference)	\$ 260,000
6/24/05	Production panels (Period #2) (*Line 34 of Reference)	\$ 240,000
7/05/05	Production panels (Period #3) (*Line 35 of Reference)	\$ 240,000
8/02/05	One VVSA fabricated (*Line 43 of Reference) with fiducials	\$ 400,000
9/04/05	Second VVSA fabricated (*Line 54 of Reference) with fiducials	\$ 405,000
10/16/05	Third VVSA fabricated (*Line 65 of Reference) with fiducials	\$ 375,000
11/15/05	Receipt/Acceptance by PPPL of 1st VVSA (Subcontract Art I)	\$ 375,560
12/22/05	Receipt/Acceptance by PPPL of 2 nd VVSA (Subcontract Art I)	\$ 375,000
1/26/06	Receipt/Acceptance by PPPL of 3rd VVSA (Subcontract Art I)	\$ 375,000
2/01/06	Delivery to PPPL of tooling (nine die sets, nine Inspection Gages for the formed panels, two 60° build fixtures, one 120° cradle to support the two 60° segments and one Field joint weldment fixture) (Subcontract Article I)	\$ 486,000
	Total	\$ 4,967,204

* Reference: Major Tool & Machine Gantt Chart, titled NCSX VVSA for PPPL, Subcontract S005243-F, MTM WO# 65678, prepared by Mike Manual, dated 21 March 2005 (2 pages)"

Nothing follows on this page

E. ARTICLE XII (ADDED) – MODIFICATIONS TO THE SPECIFICATION

- Following is a list of “Request for Deviations” (RFD) that have been approved by PPPL and are effective for immediate implementation. This list, updated, will be incorporated as Appendix B, to National Compact Stellarator Experiment (NCSX) Product Specification for the Vacuum Vessel System Sub-Assembly, NCSX-CSPEC-121-02 the next time that document is amended, now scheduled for the end of April 2005.

APPENDIX B – LIST OF APPROVED DEVIATIONS

Deviation Number	Description	Date Approved	Impacted Documents
NCSX-RFD-12-001	Use ASTM B705 and ASTM B443 for Manufacture of Piping from Plate	3/10/2005	<ul style="list-style-type: none"> • VVSA CSPEC (NCSX-CSPEC-121-02)
NCSX-RFD-12-002R1	Substitution of Schedule 10 for Schedule 40 Piping for 2.5 inch pipe only	3/30/2005	<ul style="list-style-type: none"> • VVSA CSPEC (NCSX-CSPEC-121-02) NCSX-CSPEC-121-02 • SE-120-004 • SE-121-014
NCSX-RFD-12-003	Modification of VVSA Tube Clip Thickness Tolerance	4/4/2005	<ul style="list-style-type: none"> • VVSA CSPEC (NCSX-CSPEC-121-02) • SE-120-005
NCSX-RFD-12-004	VVSA Leak Check Tube/Block Weld – Change Method of Attachment to Permit Use of a Braze Joint Using a Silver Free Braze Material (Microbraze).	4/4/2005	<ul style="list-style-type: none"> • VVSA CSPEC (NCSX-CSPEC-121-02) \ • SE-120-005 • SE-120-006 • SE-120-007

- PDF drawing zip files identified in Appendix A of National Compact Stellarator Experiment (NCSX) Product Specification for the Vacuum Vessel System Sub-Assembly, NCSX-CSPEC-121-02 will be updated by the end of April 2005 in the next revision of the Specification. This update will include the approved RFDs, primarily by notes on the impacted drawings.

F. The text of paragraph 5. of ARTICLE XI - ORDER OF PRECEDENCE is hereby revised to read:

“5. The following documents are incorporated into this Subcontract by Reference:

- a. Major Tool & Machine, Inc. Gantt Chart, Titled NCSX VVSA for PPPL, RFP# 04-015F, MTM Q04-00515 prepared by Mike Manual, dated 07/22/04 (2 pages).
- b. Major Tool & Machine Quotation, Q05-00067, dated 4 February 2005.
- c. Major Tool & Machine Gantt Chart, titled NCSX VVSA for PPPL, Subcontract S005243-F, MTM WO# 65678, prepared by Mike Manual, dated 21 March 2005 (2 pages)”

G. All other terms and conditions of Subcontract S005243-F, as amended, remain in full force and effect.

Nothing follows on this page

IN WITNESS WHEREOF, the Parties hereto have executed this Subcontract Amendment.

WITNESS AS TO SIGNATURE ON
BEHALF OF PRINCETON

THE TRUSTEES OF PRINCETON
UNIVERSITY

BY: _____

BY: _____

TYPED: _____

TYPED: _____

ADDRESS: _____

TITLE: _____

DATE: _____

WITNESS AS TO SIGNATURE ON
BEHALF OF SUBCONTRACTOR

SUBCONTRACTOR

BY: _____

BY: _____

TYPED: _____

TYPED: _____

ADDRESS: _____

TITLE: _____

DATE: _____