

ANNEX  
BETWEEN  
THE NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
GEORGE C. MARSHALL SPACE FLIGHT CENTER  
AND CB&I STORAGE TANK SOLUTIONS LLC  
UNDER SPACE ACT UMBRELLA AGREEMENT  
NO. SAA8-2339814, DATED \_\_\_\_\_ (ANNEX NUMBER 1).

ARTICLE 1. PURPOSE

This Annex shall be for the purpose of installing and testing a liquid hydrogen (LH2) storage component ("Test Article") near the MSFC Hydrogen Test Facility located in building 4628 ("Facility") and collecting test data during operation of the Test Article. The Test Article will be connected to the existing systems of building 4628 allowing for liquid hydrogen to be transferred during normal operation of Facility. Facility personnel are permitted to operate the Test Article to supply LH2 to the test cells during the course of materials testing.

The legal authority for this Annex, consistent with the Umbrella Agreement, is in accordance with the Space Act, Other Transactions Authority (OTA), 51 U.S.C. § 20113(e).

ARTICLE 2. RESPONSIBILITIES

NASA will use reasonable efforts to:

1. Participate in meetings scheduled by Partner
2. Obtain NASA MSFC Center Operations and Safety Facilities approvals for installation of the Test Article
3. Provide Partner and Partner's Related Entities with access to the facility for installation, commissioning, data collection and maintenance of the Test Article
4. Provide accommodation for storage and Partner's usage of Partner's data acquisition equipment
5. Provide Partner with vacuum jacketed (VJ) piping and valves for the Balance of Plant (BOP)
6. Perform checkout and verify safe operation of the Test Article after connection to Facility
7. Coordinate with Partner for outages in the Test Article operation for necessary maintenance of the Test Article, Test Article insulation and Test Article instrumentation
8. Operate Test Article during normal operation of MSFC Hydrogen Test Facility.

CB&I will use reasonable efforts to:

1. Schedule meetings for exchange of technical data and activity status
2. Install Test Article support pad and base
3. Install Test Article

4. Install vacuum jacketed pipes and other miscellaneous piping and cables
5. Connect vacuum jacketed pipes and other piping and cables to Facility
6. Perform Non-Destructive Evaluation (NDE) and pressure/leak testing
7. Install instrumentation and insulation
8. Remove and reinstall insulation as necessary for testing
9. Coordinate with NASA MSFC for outages in the Test Article operation for necessary maintenance of the Test Article, Test Article insulation and Test Article instrumentation

### ARTICLE 3. SCHEDULE AND MILESTONES

The planned major milestones for the activities for this Annex defined in the "Responsibilities" Article are as follows:

- |   |                          |
|---|--------------------------|
| 1. NASA MSFC obtains NASA MSFC Center Operations and Safety Facilities approvals for installation of the Test Article | 04 March 2024            |
| 2. NASA MSFC provides site access to Partner  | 04 March 2024            |
| 3. Partner installs Test Article support pad and base   | Milestone 1 Plus 4 weeks |
| 4. Partner installs Test Article  | Milestone 2 Plus 8 weeks |
| 5. Partner installs vessel VJ piping and associated components  | Milestone 3 Plus 3 weeks |
| 6. Partner performs NDE and pressure testing  | Milestone 4 Plus 4 weeks |
| 7. Partner installs instrumentation   | Milestone 5 plus 3 weeks |
| 8. Partner installs insulation system   | Milestone 5 plus 4 weeks |
| 9. NASA MSFC provides VJ piping/valves for BOP  | Milestone 7 plus 0 weeks |
| 10. Partner Installs BOP piping   | Milestone 9 plus 3 weeks |
| 11. NASA MSFC performs checkout and verification of Test Article safe operation                                       | Milestone 10 plus 1 week |
| 12. Partner commissions Test Article  | Milestone 11 plus 1 week |
| 13. NASA MSFC to operate Test Article during normal operation of MSFC Hydrogen Test Facility                          | Milestone 12 plus 1 week |

### ARTICLE 4. FINANCIAL OBLIGATIONS

A. Partner agrees to reimburse NASA an estimated cost of \$10,000.00 for NASA to carry out its responsibilities under this Annex.

Each payment shall be marked with MSFC SAA8-2339814 Annex 1.

B. NASA will not provide services or incur costs beyond the current funding. Although NASA has made a good faith effort to accurately estimate its costs, it is understood that NASA provides no assurance that the proposed effort under this Annex will be accomplished for the estimated amount. Should the effort cost more than the estimate, Partner will be advised by NASA as soon as possible. Partner shall pay all costs incurred and have the option of canceling the remaining effort, or providing additional funding in order to continue the proposed effort under the revised estimate. Should this Annex be terminated, or the effort completed at a cost less than the agreed-to estimated cost, NASA shall account for any unspent funds within one year after completion of all effort under this Annex, and promptly thereafter, at Partner's option return any unspent funds to Partner or apply any such unspent funds to other activities under the Umbrella Agreement. Return of unspent funds will be processed via Electronic Funds Transfer (EFT) in accordance with 31 C.F.R. Part 208 and, upon request by NASA, Partner agrees to complete the Automated Clearing House (ACH) Vendor/Miscellaneous Payment Enrollment Form (SF 3881).

#### ARTICLE 5. LIABILITY

For the responsibilities and activities conducted under this Annex, and any claims arising thereunder, the following sentence shall be added to the end of Paragraph C, Article 8 (titled "Liability") of the Umbrella Agreement:

Partner's liability for such repair and restoration shall not exceed \$100,000.00.

#### ARTICLE 6. INTELLECTUAL PROPERTY RIGHTS - DATA RIGHTS

A. Data produced under this Annex which is subject to paragraph C. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement will be protected for the period of five years.

B. Under paragraph H. of the Intellectual Property Rights - Data Rights Article of the Umbrella Agreement, Disclosing Party provides the following Data to Receiving Party. The lists below may not be comprehensive, are subject to change, and do not supersede any restrictive notice on the Data provided.

1. Background Data:

None

2. Third Party Proprietary Data:

None

3. Controlled Government Data:

None

4. The following software and related Data will be provided to Partner under a separate Software Usage Agreement:

None

ARTICLE 7. TERM OF ANNEX

This Annex becomes effective upon the date of the last signature below ("Effective Date") and shall remain in effect until the completion of all obligations of both Parties hereto, or two years from the Effective Date, whichever comes first, unless such term exceeds the duration of the Umbrella Agreement. The term of this Annex shall not exceed the term of the Umbrella Agreement. The Annex automatically expires upon the expiration of the Umbrella Agreement.

ARTICLE 8. RIGHT TO TERMINATE

Either Party may unilaterally terminate this Annex by providing thirty (30) calendar days written notice to the other Party.

ARTICLE 9. POINTS OF CONTACT

The following personnel are designated as the Points of Contact between the Parties in the performance of this Annex.

Technical Points of Contact

<u>NASA George C. Marshall Space Flight Center</u>	<u>CB&amp;I Storage Tank Solutions LLC</u>
Bryan Tucker	Andy Jacobson
Materials Engineer	Principal Engineer
Mail Suite: EM22	14105 S Route 59
Marshall Space Flight Center, AL 35812	Plainfield, IL 60544
Phone: 256.544.6264	Phone: 815.439.6068
bryan.p.tucker@nasa.gov	John.Jacobson@mcdermott.com

ARTICLE 10. MODIFICATIONS

Any modification to this Annex shall be executed, in writing, and signed by an authorized representative of NASA and the Partner. Modification of an Annex does not modify the terms of the Umbrella Agreement.

ARTICLE 11. SIGNATORY AUTHORITY

The signatories to this Annex covenant and warrant that they have authority to execute this Annex. By signing below, the undersigned agrees to the above terms and conditions.

NATIONAL AERONAUTICS AND  
SPACE ADMINISTRATION  
GEORGE C. MARSHALL SPACE  
FLIGHT CENTER

CB&I STORAGE TANK  
SOLUTIONS LLC

BY: \_\_\_\_\_  
Donald W. Holder  
Director Engineering Directorate

BY: \_\_\_\_\_  
Brent Rupp  
Vice President Commercial

DATE: \_\_\_\_\_

DATE: \_\_\_\_\_