
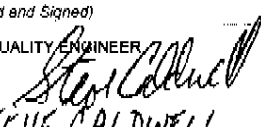


**-ESCG-**

1 PROJECT CODE <b>SA-AMS</b>		2 JPIC CODE <b>AMS</b>		<b>TASK PERFORMANCE SHEET</b> NASA - LYNDON B. JOHNSON SPACE CENTER																														
TYPE	3 A CONFIGURATION CHANGE <input checked="" type="checkbox"/>		4. TPS NO. <b>2A0720299</b>		5. PAGE <b>1</b> OF <b>2</b>																													
	PERMANENT <input checked="" type="checkbox"/> TEMPORARY <input type="checkbox"/>		6 MOD SHEET(S) NUMBER(S)		7. ORG. <b>EA</b>																													
	B NONCONFIGURATION CHANGE <input type="checkbox"/>				8. SYSTEM <b>AMS</b>																													
10. PART NAME <b>CO2 Vessel Blanket Assembly</b>			11 PART NO./DRAWING NO <b>SEG39137629-301, SEG39137629-302</b>		12 SERIAL/LOT NO <b>1001, 1003</b>																													
14 APPLICABLE DOCUMENTS <b>N/A</b>			15 CONTRACT NO./JOB NO. <b>NNJ0511105C</b>		13 TIME/CYCLE/SHELF LIFE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																													
16. SHORT TITLE OF TPS <b>Install Class 1 CO2 Vessel Blanket Assy on AMS at CERN</b>					17. ENG. EVAL. <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																													
20 OPER SEQ NO		21 OPERATIONS (Print, Type, or Write Legibly)			19. ADP UPDATE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																													
		 <b>12-11-07</b>			VERIFICATION																													
		<p>NOTE: This is Crit 3 hardware.</p> <p>1. Open this TPS.</p> <p>2. Ensure all necessary protective garments are donned according to clean room guidelines in the AMS Clean Room.</p> <p>3. Locate the following items in CERN Clean Room:</p> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>QTY</th> <th>P/N</th> <th>Description</th> <th>S/N</th> <th>L/N</th> <th>Shelf Life</th> <th>Class</th> </tr> </thead> <tbody> <tr> <td>1 ea</td> <td>SEG39137629-301</td> <td>CO2 Vessel Blanket Assy</td> <td>1001</td> <td>N/A</td> <td>N/A</td> <td>1</td> </tr> <tr> <td>1 ea</td> <td>SEG39137629-302</td> <td>CO2 Vessel Blanket Assy</td> <td>1003</td> <td>N/A</td> <td>N/A</td> <td>1</td> </tr> <tr> <td>1 roll</td> <td>ST90M078-02</td> <td>Aluminized Mylar Tape</td> <td>N/A</td> <td>01369655-001</td> <td>09/10/08</td> <td>1</td> </tr> </tbody> </table> <p>4. Prepare a clean surface for un-bagging the AMS MLI Blankets.</p> <p>5. Remove the CO2 Vessel Blanket Assembly, P/N SEG39137629-301, S/N 1001, and the CO2 Vessel Blanket Assembly, P/N SEG39137629-302, S/N 1003, from pink poly.</p> <p>6. Perform a visual inspection of the MLI Blankets for signs of damage and record any findings. Findings: <b>NO DAMAGE</b></p> <p>7. Refer to the attached TPS# 2A0720269, which is the TPS that performed the MLI fit check. There is a sketch showing the details of the modifications made during the fit check and the orientation of the installation.</p>			QTY	P/N	Description	S/N	L/N	Shelf Life	Class	1 ea	SEG39137629-301	CO2 Vessel Blanket Assy	1001	N/A	N/A	1	1 ea	SEG39137629-302	CO2 Vessel Blanket Assy	1003	N/A	N/A	1	1 roll	ST90M078-02	Aluminized Mylar Tape	N/A	01369655-001	09/10/08	1	<p>TLW 11-22-07</p> <p>TLW 11-22-07</p> <p>TLW 11-22-07</p> <p>TLW 11-22-07</p> <p>TLW 11-22-07</p> <p>TLW 11-22-07</p> <p>TLW 11-22-07</p>	
QTY	P/N				Description	S/N	L/N	Shelf Life	Class																									
1 ea	SEG39137629-301				CO2 Vessel Blanket Assy	1001	N/A	N/A	1																									
1 ea	SEG39137629-302				CO2 Vessel Blanket Assy	1003	N/A	N/A	1																									
1 roll	ST90M078-02				Aluminized Mylar Tape	N/A	01369655-001	09/10/08	1																									
24 ORIGINATOR <b>Terry Wille</b>					DATE <b>12/11/07</b>		25. FINAL ACCEPTANCE STAMP AND DATE																											
APPROVALS (Printed or Typed and Signed)																																		
26 PROJECT ENGINEER <b>J. Cornwell</b> <b>John Cornwell</b>		DATE <b>12/11/07</b>		27. QUALITY ENGINEER  <b>STEVE CALDWELL</b>		DATE <b>12-11-07</b>																												
28.		29.		<div style="border: 2px solid black; padding: 10px; display: inline-block;"> <p style="font-size: 24px; margin: 0;"><b>ORIGINAL</b></p> <p style="margin: 5px 0;">Return to Bldg. <u>10</u></p> <p style="margin: 5px 0;">Rm. <u>114</u> QARC</p> </div>																														
30.		31.																																

**TASK PERFORMANCE SHEET**  
 CONTINUATION PAGE  
 NASA - LYNDON B JOHNSON SPACE CENTER

4. TPS NO.

2A0720299

6. MOD NO.

20 OPER SEQ. NO.	21. OPERATIONS (Print, Type, or Write Legibly)	VERIFICATION	
		22. TECH	23. QA/DV
8.	Install the MLI, P/N SEG39137629-301, S/N 1001, onto the front of the CO2 Vessel and feed the flaps of the MLI between the wires going to the CO2 Vessel. Use Aluminized Mylar Tape, P/N ST90M078-02, to attach the flaps of the SEG39137629-301 back together where the slits were cut.	TLW 11-22-07	
9.	Install the MLI, P/N SEG39137629-302, S/N 1003, onto the back of the CO2 Vessel and feed the flaps of the MLI between the wires going to the CO2 Vessel, while making sure the leading edge of the SEG39137629-302 overlaps the SEG39137629-301 by approximately 3-1/4". Use Aluminized Mylar Tape, P/N ST90M078-02, to attach the flaps of the SEG39137629-302 back together where the slits were cut.	TLW 11-22-07	
10.	Use Aluminized Mylar Tape, P/N ST90M078-02, to tape the SEG39137629-302 to the SEG39137629-301.	TLW 11-22-07	
11.	On the SEG39137629-301 and the SEG39137629-302, tape the disc part of the MLI to the cylinder part of the MLI using Aluminized Mylar Tape, P/N ST90M078-02, so the CO2 Vessel protective cover can be re-installed by others.	TLW 11-22-07	
12.	After the Gas Box has been flight installed onto the TRD and the protective cover has been removed from the CO2 Vessel, cut and/or remove the Aluminized Mylar Tape that was applied to the MLI in Step 11.0 so the MLI will return to its original shape.		
13.	Close this TPS.		

**-ESCG-**

1 PROJECT CODE <b>SA-AMS</b>		2 JPK CODE <b>AMS</b>		<b>TASK PERFORMANCE SHEET</b>																															
				NASA - LYNDON B. JOHNSON SPACE CENTER																															
3 TYPE	A CONFIGURATION CHANGE		<input type="checkbox"/>	4. TPS NO. <b>2A0720269</b>		5. PAGE <b>1</b> OF <b>3</b>																													
	PERMANENT	<input type="checkbox"/>	TEMPORARY	<input type="checkbox"/>	6. MOD SHEET(S) NUMBER(S)	7. ORG. <b>EA</b>	8. SYSTEM <b>AMS</b>																												
	B NONCONFIGURATION CHANGE		<input checked="" type="checkbox"/>	<b>N/A</b>		9. NEED DATE <b>12/10/07</b>																													
10. PART NAME <b>CO2 Vessel Blanket Assembly</b>			11. PART NO./DRAWING NO. <b>SEG39137629-301, SEG39137629-302</b>		12. SERIAL/LOT NO. <b>1001, 1003</b>		13. TIME/CYCLE/SHELF LIFE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																												
14. APPLICABLE DOCUMENTS <b>N/A</b>			15. CONTRACT NO./JOB NO. <b>NNJ05H105C</b>		16. HAZ. TEST <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		17. ENG. EVAL. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO																												
18. SHORT TITLE OF TPS <b>Off-line Fit Check Class I CO2 Vessel Blanket Assy on AMS at CERN</b>						19. ADP UPDATE <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																													
20. OPER SEQ NO	21. OPERATIONS (Print, Type, or Write Legibly)					VERIFICATION																													
	<b>11-1-07</b>					22. TECH	23. QA/DV																												
<p>NOTE: This is Crit 3 hardware. The purpose of this TPS is to perform an off-line fit check of the CO2 Vessel Blanket Assembly onto the Class I AMS hardware at the Center European Research Nuclear (CERN). The fit check will be photo documented and an Installation Procedure TPS will be developed for performing the final installation of the MLI Blankets to the respective AMS component.</p>																																			
1.	Open this TPS.					TLW 11-21-07																													
2.	Review facility safety procedures before beginning work.					TLW 11-21-07																													
3.	Ensure all necessary protective garments are donned according to clean room guidelines in the AMS assembly facility where fit check work will be performed.					TLW 11-21-07																													
4.	Locate the following items in CERN Clean Room: <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>QTY</th> <th>P/N</th> <th>Description</th> <th>S/N</th> <th>L/N</th> <th>Shelf Life</th> <th>Class</th> </tr> </thead> <tbody> <tr> <td>1 ea</td> <td>SEG39137629-301</td> <td>CO2 Vessel Blanket Assy</td> <td>1001</td> <td>N/A</td> <td>N/A</td> <td>I</td> </tr> <tr> <td>1 ea</td> <td>SEG39137629-302</td> <td>CO2 Vessel Blanket Assy</td> <td>1003</td> <td>N/A</td> <td>N/A</td> <td>I</td> </tr> <tr> <td>1 roll</td> <td>ST90M078-02</td> <td>Aluminized Mylar Tape</td> <td>N/A</td> <td>01369655-001</td> <td>09/10/08</td> <td>I</td> </tr> </tbody> </table>					QTY	P/N	Description	S/N	L/N	Shelf Life	Class	1 ea	SEG39137629-301	CO2 Vessel Blanket Assy	1001	N/A	N/A	I	1 ea	SEG39137629-302	CO2 Vessel Blanket Assy	1003	N/A	N/A	I	1 roll	ST90M078-02	Aluminized Mylar Tape	N/A	01369655-001	09/10/08	I	TLW 11-21-07	
QTY	P/N	Description	S/N	L/N	Shelf Life	Class																													
1 ea	SEG39137629-301	CO2 Vessel Blanket Assy	1001	N/A	N/A	I																													
1 ea	SEG39137629-302	CO2 Vessel Blanket Assy	1003	N/A	N/A	I																													
1 roll	ST90M078-02	Aluminized Mylar Tape	N/A	01369655-001	09/10/08	I																													
5.	Prepare a clean surface for un-bagging the AMS MLI Blankets.					TLW 11-22-07																													
6.	Remove the CO2 Vessel Blanket Assembly, P/N SEG39137629-301, S/N 1001, and the CO2 Vessel Blanket Assembly, P/N SEG39137629-302, S/N 1003, from pink poly.					TLW 11-22-07																													
7.	Perform a visual inspection of the humidity indicators and record percentage reading below Reading: <u>LESS THAN 10% FOR SEG 39137629-302, S/N 1003</u> <u>20% FOR SEG 39137629-301, S/N 1001</u>					TLW 11-22-07																													
24. ORIGINATOR <b>T. Wille</b> <b>TERRY WILLE</b>			DATE <b>11/01/07</b>	25. FINAL ACCEPTANCE STAMP AND DATE <b>12-4-07</b>																															
APPROVALS (Printed or Typed and Signed)																																			
26. PROJECT ENGINEER <b>J. Connell</b> <b>J. Connell</b>		DATE <b>11-01-07</b>	27. QUALITY ENGINEER <b>Steve Caldwell</b> <b>STEVE CALDWELL</b>			DATE <b>11-1-07</b>																													
28. <b>N/A</b>		<b>N/A</b>	29. <b>N/A</b>			<b>N/A</b>																													
30. <b>N/A</b>		<b>N/A</b>	31. <b>N/A</b> <b>10</b>			<b>N/A</b>																													
Rm. <b>114</b> QARC																																			

<b>TASK PERFORMANCE SHEET</b> CONTINUATION PAGE NASA - LYNDON B. JOHNSON SPACE CENTER		5 Page <u>2</u> of <u>3</u>
		4. TPS NO. <u>2A072026A</u>
		6. MOD NO. <u>N/A</u>
20. OPER. SEQ. NO.	21. OPERATIONS (Print, Type, or Write Legibly)	VERIFICATION
		22. TECH    23. QA/DV
8.	Perform a visual inspection of the MLI Blankets for signs of damage and record any findings. Findings: <u>NO DAMAGE</u>	TLW 11-22-07
9.	Coordinate with the persons responsible for the integration of the MLI Blankets to the AMS hardware and discuss how the MLI Blankets will be attached to the hardware. After a safe plan of attachment/installation has been agreed on, begin the installation fit check and document the steps taken to perform each task so they can be used for developing a flight installation procedure. ① MEASURE LOCATIONS OF PENETRATIONS FOR SEG 39137629-301. Fit Check Steps: ② MAKE SKETCH OF LOCATIONS OF CUTS. ③ CUT SLITS AND HOLES IN MLI. ④ INSTALL SEG 39137629-301 ONTO FRONT OF CO2 VESSEL. ⑤ USE ALUMINIZED MYLAR TAPE, P/N 5190M078-02, TO TAPE SLITS BACK TOGETHER. ⑥ MEASURE LOCATIONS OF PENETRATIONS FOR SEG 39137629-302. ⑦ MAKE SKETCH OF LOCATIONS OF CUTS. ⑧ CUT SLITS AND HOLES IN MLI. ⑨ INSTALL SEG 39137629-302 ONTO BACK OF CO2 VESSEL AND OVERLAP -302 ONTO -301 BY APPROXIMATELY 3/4". ⑩ USE ALUMINIZED MYLAR TAPE TO TAPE SLITS BACK TOGETHER. ⑪ USE ALUMINIZED MYLAR TAPE TO ATTACH -302 TO -301. ROTATE GAS BOX AS REQUIRED TO ALLOW TAPING THE ENTIRE CIRCUMFERENCE. ⑫ ON THE -301 AND -302, TAPE THE DISC PART OF THE MLI TO THE CYLINDER PART OF THE MLI SO THE PROTECTIVE COVER CAN BE REINSTALLED BY OTHERS.	TLW 11-22-07
10.	Perform a visual inspection of the quality of fit of the MLI Blankets onto the AMS hardware and document any modifications that may be necessary.  Quality of fit: <u>EXCELLENT FIT.</u>  Blanket modifications required: <u>MODIFICATIONS REQUIRED DURING INSTALLATION ARE SHOWN ON ATTACHED SKETCH.</u>	TLW 11-22-07
11.	Upon completion of the MLI Blanket fit check, remove the MLI Blankets and perform a visual inspection of the MLI Blankets for signs of damage. Record and findings: <u>NO DAMAGE.</u>	TLW 11-22-07
12.	Record locations of any additional penetrations that will be required to allow the attachment of the MLI Blankets to the AMS hardware: <u>THERE ARE NO FURTHER ADDITIONAL PENETRATIONS OTHER THAN THE PENETRATIONS DOCUMENTED IN STEP 10.0 OF THIS TPS AND THE ATTACHED SKETCH.</u>	TLW 11-22-07
13.	Re-bag the AMS MLI Blankets and place it in a protected area for temporary storage.	TLW 11-22-07
14.	Close this TPS.	TLW 11-22-07



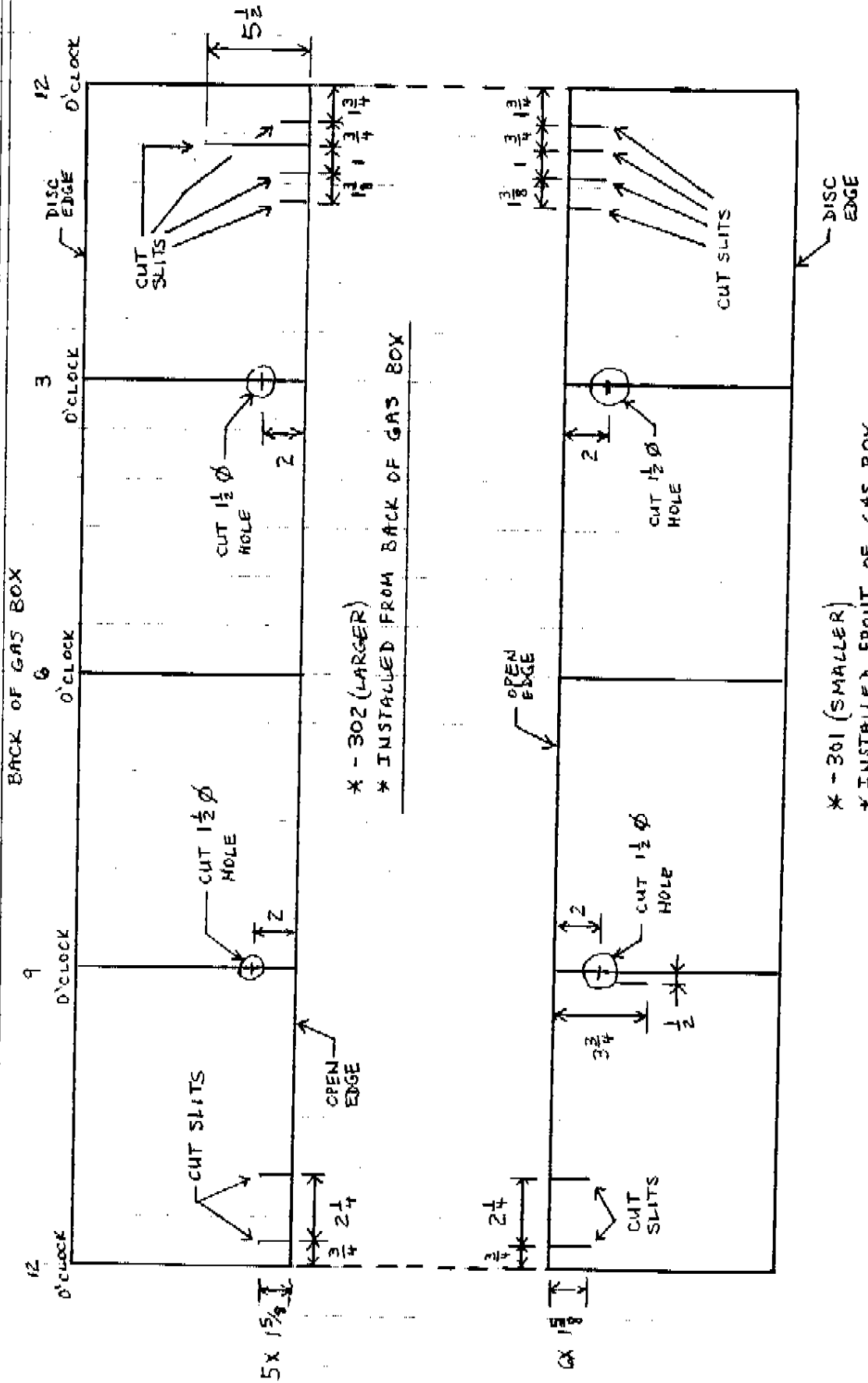
12-4-07

2A0720269

1'46L  
3 OF 3

CO2 VESSEL MLI ROLLED OUT VIEW (CYLINDER PORTION ONLY)

- \* CLOCKWISE LOOKING FROM FRONT OF GAS BOX
- \* INSIDE VIEW OF MLI



FRONT OF GAS BOX