

Title: Joint Operational Agreement for the Science Annex Facility M7-0411

Number: OA-BOSS-TOSC-06

Revision: 0

Date: 04/01/2019

No.	Task / Description	Responsible Organization
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1.0	Purpose and Scope	BOSS/TOSC
1.1	The Purpose of this Operational Agreement (OA) is to define requirements and responsibilities between the Test and Operations Support Contract (TOSC), and the Base Operations and Spaceport Services contract, (BOSS) regarding the Operations, Maintenance, Engineering, and User (OMEU) for the SSPF Science Annex (M7-0411).	BOSS/TOSC
1.2	The Scope of this OA is limited to BOSS and TOSC as authorized by the Associate Contractor Agreement (ACA) between Jacobs Technology Inc. and PAE-SGT Partners LLC.	BOSS/TOSC
1.3	Either Associate of this OA may initiate a revision or modification at any time. The initiating Associate is responsible for ensuring coordination between all involved group members, arranging review meetings and obtaining the appropriate concurrences.	BOSS/TOSC
2.0	Period of Performance	BOSS/TOSC
2.1	This OA will be effective upon signature completion until it is amended by one or more of the entities entering into this agreement, or either the BOSS or TOSC contract ends.	BOSS/TOSC
3.0	Facility Access	
3.1	Access to the Science Annex facility will be controlled per KSC Area Access Plan. Area permit 52 & 50 is required. All personnel accessing the Science Annex interior shall adhere to posted instruction regarding the donning of cleanroom attire and proper gloving procedures.	BOSS/TOSC
3.2	Unless an emergency condition exists, all BOSS personnel will be escorted by TOSC personnel into the facility area and shall be given a safety briefing by the Area Lead, Facility Focal or designee as to the presence of hazardous chemicals, proper PPE, and emergency exits.	BOSS/TOSC
3.3	Signage will be posted on interior doors identifying when "Bio Safety Level 2" is present in the room(s).	TOSC
3.4	When "Bio Safety Level 2" is present in any of the rooms, BOSS personnel WILL NOT enter the rooms, even in an emergency	BOSS

	response.	
4.0	Facility Cleanliness/Environmental Requirements	BOSS
4.1	Clean Rooms (1011, 1013, 1015, 1017, & 1019) Temperature = 70° F to 80° F Nominal = 76° F - Warnings at 72° F & 79° F Alarms at 70° F & 80° F Relative Humidity = 30% to 70% Nominal = 45% - Warnings at 34% & 66% Alarms at 30% & 70% All Other Rooms Temperature = 60° F to 72° F Nominal = 68° F • Alarms at 60° F & 72° F Humidity = 30% to 70° nominal = 50% Alarms at 30% & 70%	BOSS
4.2	Building Pressurization: Maintain positive pressure for building envelope at all times. Alarm at ≤ 0.02" H₂O Note: Rooms 1019 and 1021 may be negative pressure at times. Clean Room (1011, 1013, 1015, 1017, & 1019) pressure alarms are disabled on door openings, alarm is re-enabled 5 minutes after door closure.	BOSS
4.3	Chilled Water Supply (CHW): Temperature = 38° F to 44° F, Nominal = 42° F Alarms at 46° F; Secure HVAC units when CHW temperatures reach ≥ 46° F	BOSS
4.4	Air Cleanliness: No continuous monitoring of particulates (see section 2.1) Rooms - 1011, 1013, 1015, 1017, & 1019 air change rates, nominal = 15 ACH alarm at ≤ 12.0 ACH (occupied) & ≤ 4.0 ACH (unoccupied) Rooms - 1010 & 1024 nominal = 8.0 ACH, alarm ≤ 4.0 ACH (occupied) nominal = 6.0 ACH; alarm ≤ 4.0 ACH (unoccupied) Room - 1014 nominal = 12.0 ACH, alarm ≤ 10.0 ACH (occupied) nominal = 6.0 ACH, alarm ≤ 4.0 ACH (unoccupied) Room - 1022 nominal = 10.0 ACH, alarm ≤ 8.0 ACH (occupied) nominal = 6.0 ACH, alarm ≤ 4.0 ACH (unoccupied) Room - 1030 nominal = 5.5 ACH, alarm ≤ 4.0 ACH (occupied &	BOSS

	unoccupied) Room- 1046 nominal = 9.6 ACH, alarm <= 8.0 ACH (occupied) nominal = 6.0 ACH, alarm <= 4.0 ACH (unoccupied)	
5.0	Operational Configuration Control	TOSC
5.1	The HVAC system environmental operational configuration may be adjusted to suit varied operational requirements as determined by TOSC. TOSC shall notify the Work Control Center (WCC) (appropriate console) upon implementation of any changes.	TOSC
5.2	BOSS may adjust system environmental operational configuration outside of stated parameters with prior coordination and approval from TOSC in order to support BOSS performed maintenance. BOSS may adjust system environmental operational configuration within specification to prepare for impending environmental change affects.	BOSS
6.0	Maintenance/Repairs	BOSS/TOSC
6.1	<u>Scheduled maintenance</u> BOSS shall be responsible for all scheduled maintenance of the Science Annex systems as identified in the OMEU.	BOSS
6.2	Scheduled maintenance shall be coordinated and integrated into the TOSC Science Annex Schedule through the TOSC Facility Focal and shall not adversely affect testing operations within the Science Annex.	BOSS/TOSC
6.3	Scheduled outage requests shall be submitted at least ten days ahead of time to support any scheduled maintenance activities that involve taking any utility system down to support the maintenance activity (i.e. power, HVAC, water, or propellants).	BOSS
6.4	<u>Unscheduled maintenance</u> BOSS shall be responsible for all unscheduled maintenance of the Science Annex systems as identified in the OMEU.	BOSS
6.5	Unscheduled maintenance due to failures or anomalies that render the system non -operational or at high risk shall have an ETC immediate response (30 min) as defined in the alarm response matrix in CCC Desk Instruction CCC-I-0022 "SSPF Science Annex Alarm Response".	BOSS
6.6	Notification via the utilities console or the power console to the JSTC console and the TOSC Facility Focal shall be made as soon as possible. JSTC shall in turn notify the BOSS Facility Manager or alternate as soon as possible.	BOSS
6.7	Any failures, warnings, alarms, or anomalies noted by the utilities or power consoles, via Kennedy Complex Control System (KCCS) monitoring, will be reported immediately to the TOSC Facility Focal, the appropriate system shop supervisor, the appropriate system engineer, and to the JSTC console. JSTC will initiate any call trees as required.	BOSS
6.8	Failures or anomalies that result in out of spec conditions are to be handled and mitigated so as to return the out of spec condition back	BOSS

	to normal within 1 hour, or mitigated until such time corrections can be completed.	
6.9	Out of spec conditions that are the result of failed or faulty equipment inside of the building envelope (not including the mechanical room or Building Automation System (BAS) control room) and require interior access via TOSC POCs shall be handled so as to return the out-of-spec conditions back to normal within 2 hours, or mitigated until such time corrections can be completed.	BOSS
6.10	TOSC will provide BOSS with a personnel contact list for reporting Science Annex issues.	TOSC
7.0	System Modifications and Configuration Control	BOSS/TOSC
7.1	TOSC may require changes to support payload operations. TOSC will coordinate these changes through the BOSS Facility Manager, and the utilities console or the power console to the appropriate Engineer.	BOSS
7.2	The utilities and power consoles will then report all such changes to JSTC.	BOSS
7.3	Configuration changes will be vetted through the existing BOSS Support Request and BOSS Configuration Control Board and shall be managed and approved through BOSS change management system (Configuration Control Board (CCB)) prior to implementation.	BOSS
7.4	BOSS shall coordinate with TOSC in advance for all system modifications including software updates/ changes and with the utilities and/or power consoles in the Complex Control Center (CCC) (as appropriate).	BOSS
8.0	Emergency Response	BOSS/TOSC
8.1	In the event of a system malfunction or failure BOSS shall respond within 30 minutes as defined in the unscheduled maintenance section of this document.	BOSS
8.2	To facilitate quick response and recovery of an unplanned electrical outage, BOSS will stage a generator at the premises during times when sensitive operations require (expected to occur approximately twice a year in three-month intervals). In no case shall the generator be permanently staged throughout the year due to restrictions requiring additional generator testing and data logging to meet the requirements of the Federal National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE NESHAP)	BOSS
8.3	Science Annex personnel shall coordinate the placement and removal of the subject generator with the BOSS Facility Manager.	TOSC
8.4	All primary switching requirements (substations, primary distribution panels, etc.) are to be performed by BOSS and coordinated with Science Annex personnel.	BOSS
8.5	System out of condition issues and failures detected by TOSC shall	TOSC

	be communicated to the Work Control Center (WCC), specifically the utilities and/or power consoles (as appropriate).	
8.6	The utilities and/or power console will then report the issue or failure to the JSTC console who in turn will initiate the appropriate call tree notifications. BOSS, including the utilities and power consoles, shall provide notification to the TOSC Facility Focal, the BOSS Facility Manager, and any other personnel identified of the system out of condition issues and failures.	BOSS
8.7	In the event an unplanned power outage occurs while the locally staged generator is on premises, BOSS will first verify and implement all available options to remotely restore power to the facility from alternate utility sources. If unsuccessful, then BOSS will dispatch personnel to start and connect the locally staged generator in order to provide an emergency power source to the facility. During off-shift hours, time to effect operation of the emergency generator can be up to 4 hours.	BOSS
9.0	Tools	BOSS/TOSC
9.1	BOSS techs requiring internal access to the facility will be required to use the cleaned tools available within the facility.	BOSS
9.2	If additional tools are required, BOSS will supply the tools which will be cleaned and inspected by TOSC personnel prior to being brought into the facility.	BOSS/TOSC



