Functional Test

Project:_____

FT-_____ SMOKE DAMPER AIR COMPRESSOR

1. Participants

Party	Participation

Party filling out this form and witnessing testing _____
Date of test _____

2. Prerequisite Checklist

a. The following have been started up and startup reports and prefunctional checklists submitted and approved ready for functional testing:__ Smoke dampers

b. __ All control system functions for this and all interlocking systems are programmed and operable per contract documents, including final setpoints, schedules, debugging, loop tuning and sensor calibrations complete.

_____ _____
Controls Contractor Signature or Verbal Date

c. __ All A/E punchlist items for this equipment corrected.

d. __ Safeties and operating ranges reviewed.

e. __ Test requirements and sequences of operation attached.

f. __ Schedules and setpoints attached.

g. __ **BAS Program Review.** Review the BAS software control program(s) for this equipment. Parameters, setpoints and logic sequences appear to follow the specified written sequences.

h. __ **Packaged Control Program Review.** Review the packaged control program(s) for this equipment. Parameters, setpoints and logic sequences appear to follow the specified written sequences.

i. __ Record of All Values for Current Setpoints (SP), Control Parameters, Limits, Delays, Lockouts, Schedules, Etc. Changed to Accommodate Testing:

Parameter	Pre-Test Values	Returned to Pre-Test Values √
Compr. ON pressure		
BAS alarm setpoint		

Parameter	Pre-Test Values	Returned to Pre-Test Values √
Compr. OFF pressure		

3. Sensor Calibration Checks.

Check the sensors listed below for calibration and adequate location. This is a sampling check of calibrations done during prefunctional checklisting. Test the packaged controls and BAS readings.

---NONE---

4. Device Calibration Checks.

---NONE---

Notes:

5. Verification of Misc. Prefunctional Checks.

Misc. site checks of the prefunctional checklist and startup reports completed successfully. Pass? Y / N _____
__ Unit mounted securely. __ Unit accessible for servicing. __ No unusual noise or vibration in fan.
__ Condensate accumulator or air drier functioning

6. Functional Testing Record

Proced. No. & Spec. Seq. ID[1]	Req ID No.[2]	Test Procedure[3] (including special conditions)	Expected and Actual Response[4] [Write ACTUAL response in brackets or circle]	Pass Y/N & Note #
1 Seq. 1		Bleed off air from the system between the compressor and regulator until it reaches the setpoint (currently ON at _____psi and OFF at _____psi).	Compressor starts.	
2 Seq. 1		Low Pressure Alarm. Continue bleeding air until the pressure read by the gage is equal to the BAS alarm setpoint (currently _____psi).	An alarm is registered in the BAS. All air handlers shut OFF.	
3 Seq. 1		Remove bleed.	Observe compressor build pressure to OFF setpoint, then shut OFF.	
4		TREND LOG. Temporarily change the BAS Low Pressure Alarm setpoint to be 4psi above the ON compressor setpoint so an alarm will be generated every time the compressor comes ON (actually it will alarm twice, once on the way down and once on the way up). Track this for 24 hours during a week day.	Determine the compressor cycling frequency and make recommendations as to adequacy of the current design.	
4	**--**	**Return all changed control parameters and conditions to their pre-test values[5]**	**Check off in Section 2 above when completed**	

Record Foot Notes
[1]Sequences of operation specified in Contract Documents (attached).
[2]Mode or function ID being tested, per testing requirements section of the project Specifications.
[3]Step-by-step procedures for manual testing, trend logging or data-logger monitoring.
[4]Include tolerances for a passing condition.
[5]Record any permanently changed parameter values and submit to Owner.

-- END OF TEST --

Notes: