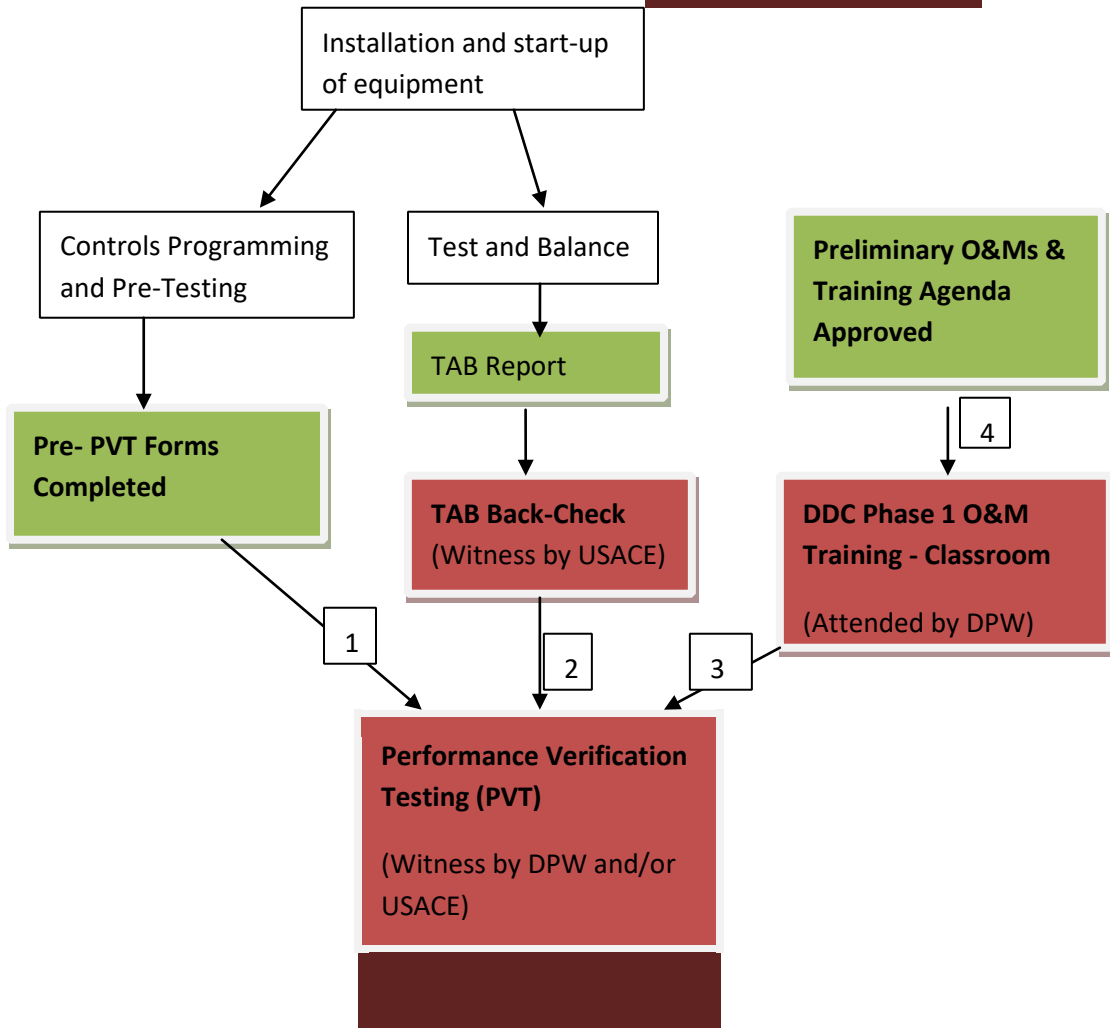
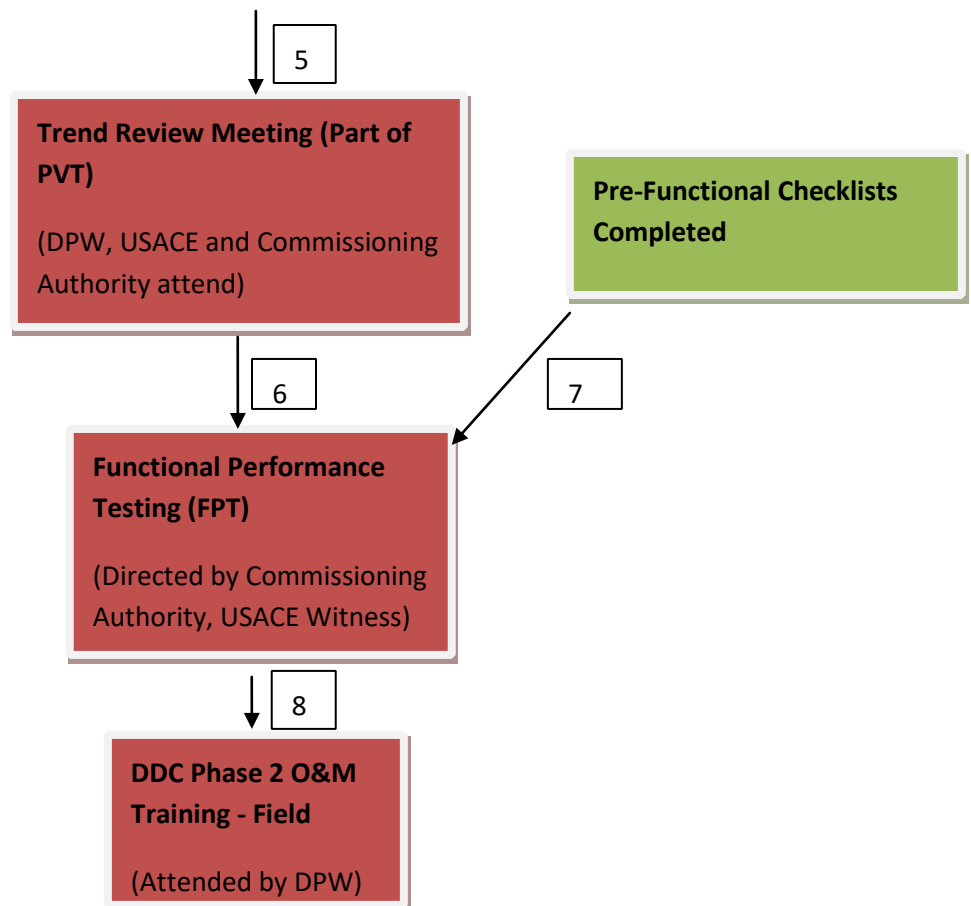


Commissioning Scheduling Requirements

Green Indicates KTR
Required Submittal

Red Indicates Activity
Requiring Gov Witness





Contract Requirements From JBLM Design Standards

1) 23 09 23, paragraph 3.3 FIELD QUALITY CONTROL TESTS:

Before scheduling the performance verification test, furnish field test documentation and point to point tests and written Certified Statement of Field Test Completion to the Contracting Officer for approval. The statement, certified by the DDC system provider, states that the installed system has been calibrated, tested, and is ready for the performance verification test. Do not start the performance verification test prior to receiving written permission from the Government.

2) 23 09 23, paragraph 3.3.4 Performance Verification Tests:

...Balancing shall be complete prior to commencing Performance Verification Tests...

Specification 23 05 93 Test and Balance requires the Tab Report and the Field acceptance tests (TAB Back Check) UFGS specification paragraph 3.4.11 Tab back check is to compare random selection of data with the TAB report readings.

3) 23 09 23, paragraph 3.4.1 DDC Training Phase I:

The first class shall be taught for a period of 1 training day at least 2 weeks* prior to the scheduled Performance Verification Test...**

*(*Holding Phase I training closer to PVT is usually acceptable)*

***Specification section 01 14 10 paragraph 1.7 requires notification to DPW for testing and training .Specification has been noted to indicate a three week advanced notification; DPW itself requires a two week advance notification.*

Paragraph 1.9 requires audio/video recording of all training

4) 23 09 23, paragraph 3.4 TRAINING:

Submit a training course schedule, syllabus, and training materials 14 days prior to the start of training. Furnish a qualified instructor to conduct training courses for designated personnel in the maintenance and operation of the HVAC and DDC system. Orient training to the specific system being installed under this contract. Use operation and maintenance manual as the primary instructional aid in Contractor provided activity personnel training...

5) a. 23 09 23, paragraph 3.3.4.2 Control Loop Stability and Accuracy:

Furnish the Government graphed trends of control loops to demonstrate the control loop is stable and that set point is maintained. Control loop response shall respond to set point changes and stabilize in 3 minutes. Control loop trend data shall be real time and the time between data points shall not be greater than one minute. The Contractor shall provide a means (both physical and digitally) to review graphed trends.

b. 23 09 23, paragraph 3.3.4 , Performance Verification Tests: Provide at least 14 days advance notice

6) a. ASHRAE Guideline 1.1 Paragraph 7.2.9.3 Sequencing of the performance of each test

b. 23 08 00.00 10, Paragraph 3.2 TESTS: ...Requirements in related Sections are independent from the requirements of this Section and shall not be used to satisfy any of the requirements specified in this section.

c. 23 09 23, paragraph 3.3.2.b Convene a test review meeting at the job site to present the results to the Government.

7) 23 08 00.00 10, Paragraph 3.2.2 Functional Performance Tests:

...Begin Functional Performance Tests only after all Pre-Functional Performance Test Checklists have been successfully completed...

8) 23 09 23, paragraph 3.4.2 DDC Training Phase 2

Specification does not indicate a timeframe for holding the phase 2 training. DPW requests that this training is held after the commissioning functional Performance Testing to ensure that the training includes updated information from any changes that may have taken place since the DDC Phase 1 training.

JBLM Commissioning Sequence

****CONSTRUCTION COMPLETE****

Equipment installed, powered & started, bldg. clean & ready to move air.

Milestone Date

CONSTRUCTION COMPLETE

		_____	_____
DDC Point to Point	Work Days	_____	_____
TAB Water	Work Days	_____	_____
TAB Air	Work Days	_____	_____
Tab Back Check	Work Days	_____	_____
Pre-PVT	Work Days	_____	_____
PVT	Work Days	_____	_____
Trending	Work Days	_____	_____
Compile Trend Data	Work Days	_____	_____
Trend Review Meeting	Work _____ Days	_____	_____
CX – FPT	Work Days	_____	_____
Project Complete Date Owner B.O.D.			_____
LEED Flush if Applicable	TBD Days		_____
Phase 1 Training	14 Days Prior to PVT		_____
Phase 2 Training	After CX/Before Flush		_____