| **Project Name and Address** | **Authority Having Jurisdiction** |
|---|---|
| Name: Project Name | Enforcement Agency: Agency |
| Address: Project Address | Permit Number: Permit Number |
| City, Zip: City, Zip Code | Permit Application Date: Date |

| | | | |
|---|---|---|---|
| Building: Enter Value | Floor: Enter Value | Room: Enter Value | Control/tag: Value |

| | |
|---|---|
| ☐ Construction inspection and functional testing comply<br>☐ Does not comply | Date Submitted to AHJ: Date |

| | |
|---|---|
| **Intent:** | This document is used to demonstrate compliance with acceptance requirements for variable speed screw compressors. Reference NRCC-PRC~~MCH~~-E ~~for nonresidential (including nonresidential spaces in high-rise multifamily) building permits~~. Submit one Certificate of Acceptance for each system that must demonstrate compliance. Reference Section 120.6(a)5C, 120.6(a)7F and NA7.10.4. |

**Table A: Construction Inspection**

Prior to functional testing, verify and document all of the following:

| Step | Entry | Item | Code Reference |
|---|---|---|---|
| 1.0 | ☐ Pass<br>☐ Fail | All single open-drive screw compressors dedicated to a suction group have variable speed control. | NA7.10.4.1(a) |
| 2.1 | ☐ Pass<br>☐ Fail | All compressor suction and discharge pressure sensors read accurately using a standard. | NA7.10.4.1(b) |
| 2.2 | Offset psig<br>☐ N/A | Provide appropriate pressure offset (psig), if applicable. | NA7.10.4.1(b) |
| 3.1 | ☐ Pass<br>☐ Fail | All input or control temperature sensors read accurately using temperature standard | NA7.10.4.1(c) |
| 3.2 | Offset °F<br>☐ N/A | Provide appropriate temperature offset (°F), if applicable. | NA7.10.4.1(c) |
| 4.0 | ☐ Pass<br>☐ Fail | All sensor readings used by the condenser controller convert or calculate to the correct conversion units at the controller. | NA7.10.4.1(d) |
| 5.0 | ☐ Pass<br>☐ Fail | Compressor speed controls are operational and connected to compressor motors. | NA7.10.4.1(e) |
| 6.0 | ☐ Pass<br>☐ Fail | All speed controls are in "auto" mode. | NA7.10.4.1(f) |
| 7.0 | ☐ Pass<br>☐ Fail | Compressor panel control readings for "RPMs," "% speed," "kW", and "amps" match the readings from the PLC or other control systems. | NA7.10.4.1(g) |
| 8.0 | ☐ Pass<br>☐ Fail | Verify that compressor nameplate data is correctly entered into the PLC or other control system. | NA7.10.4.1(h) |
| 9.0 | ☐ Pass<br>☐ Fail | Check "Pass" if construction inspection complies with all requirements.<br>Check "Fail" if construction inspection does not comply with all requirements. | N/A |

**Table B: Functional Testing**

The system cooling load must be sufficiently high to run the test. Artificially increaseing or decreaseing evaporator loads (add or shut off zone loads, change setpoints, etc.) ~~as~~ may be required to perform the Functional Testing.

| Step | Entry | Functional Test | Code Reference |
|---|---|---|---|
| 1.0 | No Entry | Override any conflicting controls before performing the Functional Tests. | NA7.10.4.2 Step 1 |
| 2.0 | No Entry | Measure and document **all** of the following operating conditions in Steps 2.1 and 2.2. | NA7.10.4.2 Step 2 |
| 2.1 | Enter Value | Measure and document the current compressor operating suction pressure. (psig) | NA7.10.4.2 Step 2 |
| 2.2 | Enter Value | Measure and document the current compressor operating saturated suction temperature (SST). (°F) | NA7.10.4.2 Step 2 |
| 3.0 | No Entry | Document the "test suction pressure/saturated suction temperature setpoint". ~~f~~Follow ~~steps~~ Steps 3.1, 3.2, and 3.3 to determine this setpoint. | NA7.10.4.2 Step 3 |
| 3.1 | Enter Value<br>☐ psig☐ °F | Document the suction pressure setpoint (psig) or the ~~S~~saturated ~~S~~suction ~~T~~temperature setpoint (°F). | NA7.10.4.2 Step 3 |
| 3.2 | No Entry | Program into the control system a target setpoint equal to the current operating condition measured in Step ~~#~~2. | NA7.10.4.2 Step 3 |
| 3.3 | No Entry | Allow 5 minutes for system to normalize. | NA7.10.4.2 Step 3 |
| 4.0 | No Entry | Verify the compressor operation below maximum speed with S~~s~~teps 4.1, 4.2, 4.3, and 4.4. | NA7.10.4.2 Step 4 |
| 4.1 | No Entry | Raise the test suction setpoint in 1 psi increments until the compressor controller modulates to decrease compressor speed. | NA7.10.4.2 Step 4 |
| 4.2 | ☐ Pass<br>☐ Fail | Verify that the compressor speed decreases. | NA7.10.4.2 Step 4(a) |
| 4.3 | ☐ Pass<br>☐ Fail | Verify that the compressor speed continues to decrease to minimum speed. | NA7.10.4.2 Step 4(b) |
| 4.4 | ☐ Pass<br>☐ Fail | Verify that any slide valve or other unloading means does not unload until after the minimum speed is reached. | NA7.10.4.2 Step 4(c) |
| 5.0 | No Entry | Verify the compressor operation at maximum speed with S~~s~~teps 5.1, 5.2, 5.3, and 5.4. | NA7.10.4.2 Step 5 |
| 5.1 | No Entry | Lower the test suction setpoint in 1 psi increments until the compressor controller modulates to increase compressor speed. | NA7.10.4.2 Step 5 |

| Step | Entry | Functional Test | Code Reference |
|---|---|---|---|
| 5.2 | ☐ Pass<br>☐ Fail | Verify that any slide valve or other unloading first goes to 100% before compressor increases from minimum speed. | NA7.10.4.2 Step 5(d) |
| 5.3 | ☐ Pass<br>☐ Fail | Verify that the compressor begins to increase speed. | NA7.10.4.2 Step 5(e) |
| 5.4 | ☐ Pass<br>☐ Fail | Verify that the compressor speed continues to increase to 100%. | NA7.10.4.2 Step 5(f) |
| 6.0 | No Entry | Restore suction setpoints back to original settings documented in Step 3. | NA7.10.4.2 Step 6 |
| 7.0 | No Entry | Restore any controls disabled in Sstep 1. | NA7.10.4.2 Step 7 |
| 8.0 | ☐ Pass<br>☐ Fail | Verify that the Functional Test complies with all requirements. | N/A |

| Declaration Statement | Signatory |
|---|---|
| **Document Author**<br>I assert that this Certificate of Acceptance documentation is accurate and complete | Name<br>Company Name<br>Author Signature<br>Date Signed |
| **Field Technician**<br>I assert the following under penalty of perjury, under the laws of the State of California:<br>The information provided on this Certificate of Acceptance is true and correct. I am the person who performed the acceptance verification reported on this Certificate of Acceptance (Field Technician). The construction or installation identified on this Certificate of Acceptance complies with the applicable acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and signed by the responsible builder/installer and has been posted or made available with the building permit(s) issued for the building. | Name<br>Company Name<br>~~ATT No.: ATT Cert. No.~~<br>Title<br>Phone<br>Signature<br>Date Signed |
| **Responsible Person**<br>I assert the following under penalty of perjury, under the laws of the State of California:<br>I am the Field Technician, or the Field Technician is acting on my behalf as my employee or my agent and I have reviewed the information provided on this Certificate of Acceptance. I am eligible under Division 3 of the Business and Professions Code in the applicable classification to accept responsibility for the system design, construction or installation of features, materials, components, or manufactured devices for the scope of work identified on this Certificate of Acceptance and attest to the declarations in this statement ~~(responsible acceptance person)~~. The information provided on this Certificate of Acceptance substantiates that the construction or installation identified on this Certificate of Acceptance complies with the acceptance requirements indicated in the plans and specifications approved by the enforcement agency and conforms to the applicable acceptance requirements and procedures specified in Reference Nonresidential Appendix NA7. I have confirmed that the Certificate(s) of Installation for the construction or installation identified on this Certificate of Acceptance has been completed and is posted or made available with the building permit(s) issued for the building. I understand that a completed, signed copy of this Certificate of Acceptance shall be posted, or made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections, and I will take the necessary steps to ensure this requirement is accomplished. I understand that a signed copy of this Certificate of Acceptance is required to be included with the documentation the builder provides to the building owner at occupancy, and I will take the necessary steps to ensure this requirement is accomplished. | Name<br>Company Name<br>Lic. No.: License No.<br>Title<br>Phone<br>Signature<br>Date Signed |