



***Preparation for the Calpine PAUT Performance  
Demonstration Qualification Exam  
Jan 2019***

**Step 1:** Company X contacts Calpine (Ken Mecom) to express that they want to do PAUT work for Calpine. Calpine will send Company X a copy of the Calpine Specification for PAUT Inspection Tech Spec 15161. [Kenneth.Mecom@calpine.com](mailto:Kenneth.Mecom@calpine.com)

**Step 2:** Company X sends their PAUT Procedure to Hellier NDT (the Calpine approved Exam Organization) 600 Kenrick Suite C-1 Houston TX 77060 attention Don Locke, for review in comparison to the Calpine Specification. [dlocke@hellierndt.com](mailto:dlocke@hellierndt.com) (cost \$560.00 payable to Hellier by CC or approved P.O. by company X)

**Step 3:** Company X schedules (888-282-3887) a time to qualify the approved PAUT procedure at Hellier on select pipe samples. (cost \$560.00 payable to Hellier by CC or approved P.O. by company X)

**Step 4:** Company X plans for UT techs to take the 2-day Performance Demonstration Exam at Hellier Houston. This practical performance exam must be completed in the allotted time, 2, 8-hour days. (cost \$2000.00 payable to Hellier by CC or approved P.O. by company X)

**NOTE: It is critical that applicants for this performance demonstration exam come 100% prepared with a proven qualified procedure. You will demonstrate your scan plan for each pipe and then complete the exam. Your success or failure will be shared with Calpine only. You can expect exam results communicated to the company setting up the exam in a matter of days.**

**NOTE: If you have previously qualified on a CALPINE PAUT qualification exam, you must contact CALPINE to determine if you must re-qualify under this new 2019 program.**

## What to expect at the test site?

1. An approved examiner will meet you at 8:00 A.M. to brief you on the exam and reporting process.
2. Having brought all PAUT equipment with you, the tech will be assigned a pipe sample set to be tested. Following your company procedure, the tech will share the scan plan with the examiner, collect the PAUT data on all welds and document all results on the data sheets provided. “NO SPECIMEN DATA WILL BE SAVED ON THE COMPANY PAUT EQUIPMENT”.
3. **How will the tech be graded?** Candidate performance will be evaluated in the following seven categories:
  - A. **Detection** - The detection portion of the test is applied to initially evaluate a candidate’s data report. If the candidate does not detect some specific flaws, no further evaluation is required. The candidate will be required to detect **100% of the Cracks, the Incomplete Penetration, and the Incomplete Fusion** type flaws in the sample set. The technician must also detect **100% of all other types of flaws in the test set**. Sufficient data must be provided in order for the Exam Administrator to determine if the candidate actually detected the flaw.
  - B. **Flaw Characterization** - Once a flaw is detected, the candidate must characterize the flaw to determine the type of flaw. Characterization criteria will be weighted heavily on the location of the reported flaw (surface connected or volumetric). The candidate must correctly characterize approximately **100% of the detected flaws**.
  - C. **Flaw Categorization** – The flaw shall be properly categorized as either being surface connected or subsurface. The candidate must correctly categorize approximately **100% of the detected flaws**.
  - D. **Flaw Length Sizing** - The flaw length shall be sized in accordance with the Test Candidate’s UT Procedure. Successful performance for flaw length sizing is defined as the resultant flaw size as being equal to or greater than the actual flaw length size. Over sizing of the flaw length may result in false calls in the adjoining grading unit. The candidate must correctly length size approximately **100% of the detected flaws with .25% tolerance**.
  - E. **Flaw Thru-Wall Sizing** - The flaw thru-wall shall be sized in accordance with the Test Candidate’s UT Procedure. Successful performance for flaw thru-wall sizing is defined as the resultant flaw size as being equal to or greater than the actual flaw thru-wall size. The candidate must correctly thru-wall size approximately **100% of the detected flaws**.
  - F. **Flaw Positioning** - Reported flaws must also be positioned correctly with respect to the weld centerline (upstream/downstream). Evaluations will include the flaws approximate relationship to the weld centerline. Cross sectional plotting of flaw indications on the indication data sheets

may be required in order to determine the location of the flaw. The candidate must correctly position approximately **100% of the detected flaws**, with a .5-inch tolerance.

- G. **False Call** - A false call is defined as reporting a flaw within a non-flawed grading unit. Candidates will not know the location of unflawed grading units. The candidate must correctly evaluate the unflawed Grading Units and have **ZERO False Calls** in order to be successful.

**Unsatisfactory performance in any category will result in test failure.**

You should show up to this exam just as you would to the job site with your own couplant and anything you need for your own couplant supply for automated systems. Water will be available at the test site.

Applicants can expect the necessary cal blocks / standards to be provided but each person should bring any calibration / reference blocks specific to their company procedure.

Example:

IIW block will be provided but any extra calibration blocks such as NAVSHIP will be brought to test site by the applicant/customers for setup and calibration. ASME V, Article 4 plate and pipe calibration blocks will be provided at test location for DAC calibration and sensitivity. i.e. Blocks Figure T-434.3 for piping and Figure T-434.2.1 for plate.

No cell phones can be used during testing except in emergency cases. There will be a break for lunch.

If you have additional questions, contact Ken Mecom at Calpine or Don Locke at Hellier.