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NATIONAL ENERGY MANAGEMENT INSTITUTE COMMITTEE

CERTIFICATION MANUAL

FOR NONRESIDENTIAL MECHANICAL ACCEPTANCE TEST TECHNICIAN
AND EMPLOYERS UNDER CALIFORNIA CODE OF REGULATIONS TITLE
24, PART 1, SECTIONS 10-102 AND 10-103.2, AS WELL AS PART
6, SECTIONS 120.5

VERSION 190331

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Contents

1	Introduction.....	1
1.1	Definitions, Abbreviations and Acronyms	1
1.2	Purpose and Overview.....	2
1.3	Amendments and Interpretation.....	2
1.4	The Meaning of Certification.....	2
1.5	Contact Information	3
2	General Rules.....	4
2.1	Exam and Certification Fees	4
2.2	Duration of Certification.....	4
2.2.1	Acceptance Test Employer Certification	4
2.2.2	Acceptance Test Technician Certification	4
2.3	Renewal of Certification	4
2.4	Suspension or Withdrawal of Certification.....	4
2.5	Certification-Related Appeal Procedures	5
2.5.1	Definitions	5
2.5.2	Exclusivity.....	5
2.5.3	General Rules on Required Deliveries and Time Limits for the Same	5
2.5.4	Time Limits on Appeals.....	5
2.5.5	ATTCP Procedures for Resolution of Exam-Related or General Appeals	6
2.6	ATTCP Procedures for Resolution of Complaints	8
2.6.1	Definitions	8
2.6.2	Exclusivity.....	8
2.6.3	General Rules on Required Deliveries and Time Limits for the Same	8
2.6.4	Time Limits on Complaints	9
2.6.5	ATTCP Procedures for Resolution of Complaints	9
2.7	ATTCP Decisions and Sanctions.....	13
3	The Certification Process and Requirements for Technicians	14
3.1	Purpose.....	14
3.2	Scope	14
3.2.1	MATT Level 1 Scope	14
3.2.2	MATT Level 2 Scope	14
3.3	Eligibility.....	15
3.3.1	MATT Level 1 Eligibility	15
3.3.2	MATT Level 2 Eligibility	16
3.4	Application Process for Acceptance Test Technicians	16
3.5	Certification Exams for Acceptance Test Technicians.....	16
3.5.1	MATT Level 1 Qualification Exam	16
3.5.2	MATT Level 1 Exam.....	16
3.5.3	MATT Level 2 Exam.....	17
3.5.4	Taking an Acceptance Test Technician Certification Exam	18
3.5.5	Scoring the Certification Exam.....	18

3.5.6	Time Limits on Examination and Re-Examination	18
3.6	Certification Documents	18
3.7	Decertification.....	19
3.8	Technician Certification Obligations and Code of Conduct.....	19
3.9	Appeals.....	19
3.10	Renewal of Certification	19
3.11	Standards of Proficiency for Acceptance Test Technicians	20
4	The Certification Process and Requirements for Employers.....	21
4.1	Purpose.....	21
4.2	Scope	21
4.2.1	Mechanical Acceptance Test Employer (MATE).....	21
4.3	Eligibility.....	21
4.4	Application.....	21
4.5	Certification Exam	21
4.5.1	Scoring the Certification Test	22
4.5.2	Time Limits on Examination and Re-Examination.....	22
4.6	Certification Documents	22
4.7	Employer Certification Obligations and Code of Conduct	22
4.8	Decertification.....	24
4.9	Appeals.....	25
4.10	Renewal of the Certification.....	25
4.11	Standards of Proficiency for Acceptance Test Employers.....	25
5	NEMIC ATTCP Quality Assurance Program.....	26
	Summary of NEMIC Method of Compliance	26
5.1	Scope	26
5.2	Conformance to NEMIC ATTCP Code of Conduct	26
5.3	Employ NEMIC-Certified Acceptance Test Technicians	26
5.4	Equipment.....	26
5.5	Disclosure of Information	26
5.6	General Appeals.....	27
5.7	Audit Sampling Background.....	27
5.8	Failed Item versus a Failed Audit	27
5.9	Auditor Qualifications	28
5.10	Random Audit Sampling Process	28
5.11	Individual Acceptance Test Onsite Audit Pass/Fail Criteria	29
5.12	Paper Audit Pass/Fail Criteria.....	29
6	Knowledge Base for California Title 24 Mechanical Acceptance Test Technicians	31
6.1	Reference Materials.....	31
6.2	Mechanical Acceptance Test Technician (MATT) Levels 1 and 2.....	31
6.2.1	MATT Level 1.....	31
6.2.2	MATT Level 2.....	32
6.3	MATT Curricula	33

6.3.1	MATT (Level 1 & 2) Curricula.....	33
6.3.2	MATT Level 1 Curricula.....	33
6.3.3	MATT Level 2 Curricula.....	33
7	Knowledge Base for California Title 24 Acceptance Test Employers.....	35
7.1	Reference Materials.....	35
7.2	Mechanical Acceptance Test Employer (MATE).....	35
7.3	MATE Curricula	35

1 Introduction

1.1 Definitions, Abbreviations and Acronyms

Certain terms, abbreviations and acronyms are defined in this section and are applicable to all sections of this manual.

- ANSI American National Standards Institute
- ATE Acceptance Test Employer, also see Mechanical Acceptance Test Employer (MATE), a specific type of Acceptance Test Employer
- ATT Acceptance Test Technician, also see Mechanical Acceptance Test Technician (MATT), a specific type of Acceptance Test Technician
- ATTCP Acceptance Test Technician Certification Provider, here NEMIC
- Board..... ATTCP Review Board
- Certificate of Completion Certificates of attendance or participation are provided to individuals, here Acceptance Test Employer or Acceptance Test Technician, who have attended or participated in classes, courses, or other education/ training programs or events.
- Certification In the context of this manual it always refers to the NEMIC Acceptance Test Employer or Acceptance Test Technician certification
- CCR California Code of Regulations
- Data Registry Web service with a user interface and database maintained by a Registration Provider that complies with the applicable requirements in the Title 24 Reference Joint Appendix JA7 and provides for registration of residential or nonresidential compliance documentation used for demonstrating compliance with California Code of Regulations Part 6. In this document it is referred to as the Registry.
- Database Body of information and information system provided by NEMIC to meet the Data Registry requirements of Title 24 Reference Joint Appendix JA7.
- Employer..... In the context of this manual it always refers to a NEMIC certified Acceptance Test Employer (ATE, MATE)
- HVAC Heating, ventilating and air-conditioning
- ICB International Certification Board, a function of NEMIC
- ISO International Standards Organizations
- ITI International Training Institute
- JATC..... Joint Apprenticeship Training Center
- Manual In the context of this document this refers to this document in its entirety.
- MATE Mechanical Acceptance Test Employer, an Acceptance Test Employer certified by the ATTCP to meet Mechanical Acceptance Test Employer requirements.
- MATT Mechanical Acceptance Test Technician, an Acceptance Test Technician certified by the ATTCP to perform Mechanical Acceptance Tests.
- NEMI National Energy Management Institute
- NEMIC..... National Energy Management Institute Committee
- Registry..... term used in this document in reference to the Data Registry as defined in Reference Joint Appendix JA-7, see also Data Registry

Introduction

Responsible

Person A person who is eligible under Division 3 of the Business 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 the Acceptance Tests. Distinct from and not to be confused with Acceptance Test Employer (ATE) or Mechanical Acceptance Test Employer (MATE).

SMACNA Sheet Metal and Air Conditioning Contractors' National Association

SMART International Association of Sheet Metal, Air, Rail Transportation Workers (SMART)

SME Subject matter expert

Standards California Building Energy Efficiency Standards

TAB Testing, adjusting and balancing

TABB Testing, Adjusting and Balancing Bureau, a function of NEMIC

Technician In the context of this manual, it always refers to a NEMIC certified Acceptance Test Technician (ATT, MATT)

1.2 Purpose and Overview

NEMIC is joint labor management trust, which is tax exempt under Code Section 501(c)(6). The NEMIC trustees are appointed half by SMACNA and half by SMART. NEMIC operates as a mechanical acceptance test certification provider under California Code of Regulations Title 24, Part 1, Sections 10-102 and 10-103.2, as well as Part 6, Sections 120.5.

This manual describes the process how one can become a certified technician or employer under said regulations. Certified technician status is available to technicians who qualify per Section 2 of this manual. Certified employer status is available to employers who qualify per Section 3 of this manual. Any questions regarding the certification process should be directed to NEMIC. Contact information is provided in Section 1.5.

1.3 Amendments and Interpretation

NEMIC may at any time amend any part of this Manual, procedures, proficiency requirements, application forms, lists or other items to which this Manual refers. An amendment may change certification requirements, and may affect current certifications, renewals and/or new applications for certification.

NEMIC alone will interpret and administer its procedures, including those set forth in this Manual. NEMIC may waive or modify any requirement at any time. NEMIC's decisions are not subject to review. NEMIC will notify existing certification holders of any and all modifications made to the certification requirements.

NEMIC may at any time adopt, change or discard rules and guidelines for the NEMIC's internal processes with respect to various certification-related activities, and/or set standards for the certification process.

1.4 The Meaning of Certification

Certification is third party verification to the public that the technician or the employer has met NEMIC's standards of certification. The purpose of NEMIC's certification is to demonstrate that by assessment of defined competencies, NEMIC certified technicians are knowledgeable and skilled professionals able to execute mechanical acceptance tests as mandated by the California Building Energy Efficiency Standards ("Standards").

1.5 Contact Information

ATTCP Administrator
National Energy Management Institute Committee
8403 Arlington Blvd, Suite 100
Fairfax, VA 22031
Tel.: (703) 739-7100
Fax: (703) 683-7651

2 General Rules

2.1 Exam and Certification Fees

The NEMIC ATTCP sets a schedule of exam and certification fees. For an up-to-date fee schedule, visit the ATTCP website at www.attcp.org.

2.2 Duration of Certification

2.2.1 Acceptance Test Employer Certification

The NEMIC ATE Certifications do not have an expiration date. The Certifications remain valid until the Certification holder has been notified by the ATTCP that the Certification must be renewed.

2.2.2 Acceptance Test Technician Certification

NEMIC provides two levels of Mechanical Acceptance Test Technician (MATT) certifications.

To be certified as NEMIC ATTCP-certified MATT Level 1, a candidate must meet the Eligibility requirements as identified in Section 3.1.1 of this Manual and the Certification requirements as identified in Section 3.3 of this Manual. The NEMIC ATTCP MATT Level 1 Certifications do not have an expiration date. The Certifications remain valid until the Certification holder has been notified by the ATTCP that the Certification must be renewed.

To be certified as NEMIC ATTCP-certified MATT Level 2, a candidate must meet the Eligibility requirements as identified in Section 3.1.2 of this Manual and the Certification requirements as identified in Section 3.3 of this Manual, which includes maintaining certification as an ICB-certified Testing, Adjusting, and Balancing (TABB) Technician. The NEMIC MATT Level 2 Certifications do not have an expiration date. The NEMIC ATTCP MATT Level 2 Certification is valid until

- a) The ICB TABB Technician Certification expires; **OR**
- b) The MATT Level 2 Certification expires due to non-renewal when required with changes in the Standards.

2.3 Renewal of Certification

The ATTCP will issue a renewal notice to all Certification holders, i.e., ATTs and ATEs, after the California Energy Commission has revised pertinent sections of the Standards, i.e., mandates that relate to the mechanical acceptance tests. Once notified that the certification must be renewed, the current Certification holders have 90 days to fulfill renewal requirements.

At time of renewal the applicant must meet all qualifications and requirements as for initial certification.

2.4 Suspension or Withdrawal of Certification

The ATTCP reserves the right to suspend or withdraw the certification for any of the following reasons:

- Violation per Section 2.7.
- A false or incomplete statement in the application for certification or renewal of certification, or otherwise in the application or renewal process.
- Failure to meet eligibility requirements.

If the ATTCP has reason to believe that any of the circumstances listed above existed when considering an application for renewal of certification, ATTCP reserves the right to deny the renewal of certification.

2.5 Certification-Related Appeal Procedures

2.5.1 Definitions

ATTCP Review **Board** (Board) is a committee set up by the ATTCP Administrator to investigate a Complaint or an Appeal in detail. The Board consists of four (4) members: two ICB/TABB-certified supervisors and two ICB/TABB-certified contractors (employers). None of the Board members works or has a business in California. Findings of the Board on a Complaint or an Appeal are final.

Appellant is the person making an **Appeal**

Decision is the written decision of the ATTCP on any or all parts of any appeal.

Hearing A meeting of the ATTCP with the party to the **Appeal** to render a decision on the **Appeal**.

Appeals are either Exam-Related Appeals or General Appeals

Exam-Related Appeals ... are appeals by an applicant (including an applicant for renewal who is required to take any ATTCP test) that are in any manner related to the test itself, such as objections to physical or other arrangements at the exam location, the manner in which the exam was delivered and/or conducted, any exam question, or any other matter which can be corrected or addressed at the time of the exam, if known to the exam proctor. Any objection to the manner in which an exam is scored is not an **Exam-Related Appeal**.

General Appeals are any appeals by any applicant or technician other than a **Exam-Related Appeal**. **General Appeals** may include, for example, objections about the conduct of any ATTCP representative or objections to an ATTCP decision (a decision as to certification, or otherwise). Thus, an **Appeal** is made by someone who seeks or holds an ATTCP certification concerning ATTCP actions or omissions.

Party to an **Appeal** refers to the Appellant

Report is the written document resulting from an investigation conducted in response to an **Appeal** or **Complaint**.

2.5.2 Exclusivity

By submitting an application for ATTCP certification each applicant agrees that any Appeal will be resolved solely in accordance with the procedures as stated in this manual.

2.5.3 General Rules on Required Deliveries and Time Limits for the Same

In the following rules, certain items, such as an **Appeal**, must be in writing, i.e., they must be typed, printed or legibly handwritten.

Whenever a delivery time limit is given, i.e., the time period within which a document must have been physically delivered to the ATTCP, the requirement of the time limit will be met by any of the following conditions:

- The document has been delivered in person or by a courier service, such United Parcel Service (UPS) before the given time period expired; or
- The document has been delivered by the U.S. Postal Service using certified mail and it is postmarked within the given time period

Electronic submission of an **Appeal** or any other document requested by the ATTCP is not permitted except by documented agreement of the ATTCP Administrator.

2.5.4 Time Limits on Appeals

Appeals that are not made within the following time limits will not be considered and will be dismissed categorically:

General Rules

- An **Exam-Related Appeal** must be made to the exam proctor or any other ATTCP personnel or representative at the exam site. If an applicant makes an **Exam-Related Appeal** at the exam site and it is not addressed and resolved there, the applicant must submit the **Exam-Related Appeal** in writing to the ATTCP within ten (10) business days after the exam date. Proctors are only allowed to resolve issues which are not related to the content of the exam, e.g., room conditions, missing exam items, etc.
- A **General Appeal** must be asserted in writing within ten (10) business days after the Appellant first knows of the **Appeal**.
- The **General Appeal** must state in writing, in reasonable detail, the pertinent circumstances of and reasons for the **Appeal** and must be signed by the Appellant.

2.5.5 ATTCP Procedures for Resolution of Exam-Related or General Appeals

The ATTCP will resolve any **Appeal** in accordance with the following procedures. ATTCP reserves the right to modify any particular procedure at any instance. The ATTCP will notify any materially affected party of such a modification in a timely manner but no later than ten (10) business days after the modification becomes effective.

The ATTCP Administrator or their representative will act for ATTCP on all matters concerning Appeals, including the conduct of a hearing, unless the ATTCP Review Board determines otherwise.

2.5.5.1 Exam-Related Appeals

The proctor who oversees an exam is authorized to resolve any Exam-Related Appeals

2.5.5.2 General Appeals

Figure 1 on the following page outlines the basic procedure.

1. **Initial Submittal of Appeal:** The Appellant must submit the General Appeal in writing to the ATTCP Administrator within ten (10) business days after the Appellant first knows of the Appeal (see Section 2.5.4.) The written claim must be mailed to the ATTCP Administrator at the address stated Section 1.5 of this Manual. Do not submit a claim electronically. The written claim should be labeled "NOTICE OF CLAIM."
2. **Initial Review of Appeal:** The ATTCP Administrator will review the Appeal to determine if it merits investigation or further action. An ATTCP representative may contact the Appellant to clarify any aspects of the written Appeal or to obtain further information. The ATTCP Administrator will review the Appeal within 14 days after its receipt.
3. **Administrative Hearing.** If an Appeal is not dismissed after the initial review, ATTCP Administrator may call an informal (administrative) hearing with the Appellant.
4. **Decision.** If the Administrator determines that no further review is warranted, the decision will be report back to the Appellant in writing.
5. **Reconsideration.** The Appellant may submit their Appeal for reconsideration by the Board.
6. **Submittal of Appeal for Reconsideration.** The Appellant must submit their Appeal within ten (10) after the Appellant was notified by the ATTCP Administrator of the ATTCP decision that no further review was warranted in the ATTCP's opinion.
7. **Review by the ATTCP Board.** The ATTCP Board will review the Appeal within thirty (30) days after receiving the Appeal from the ATTCP Administrator
8. **Board Hearing.** A hearing may be called by the Board to resolve questions of fact. The hearing may be held in a face-to-face meeting with the Appellant or electronically as a teleconference. The meeting date, time and the format of the hearing are solely determined by the Board.
9. **Board Decision.** The Board will report its decision in writing to the Claimant no later than 45 days after receiving the Appeal from the ATTCP Administrator. The decisions of the ATTCP Review Board are final.

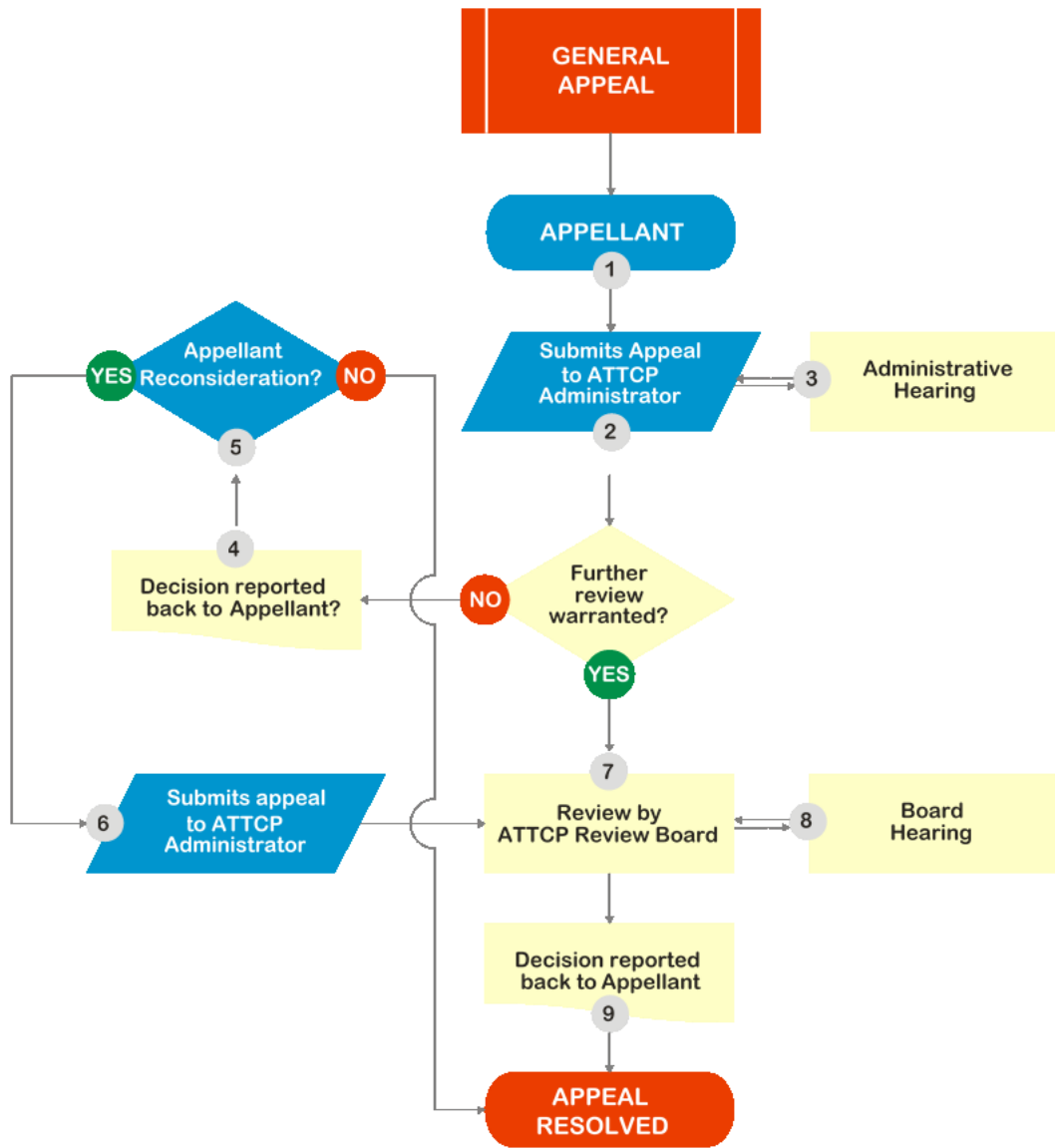


Figure 1. The basic process of resolving a General Appeal by the ATTCP

2.6 ATTCP Procedures for Resolution of Complaints

The ATTCP will resolve any **Complaint** in accordance with the following procedures. ATTCP reserves the right to modify any particular procedure at any instance. The ATTCP Administrator will notify any materially affected party of such a modification in a timely manner but no later than ten (10) business days after the modification becomes effective.

The ATTCP Administrator or their representative will act for ATTCP on all matters concerning **Complaints**, including the conduct of a hearing, unless the ATTCP Review Board determines otherwise.

2.6.1 Definitions

ATTCP Review Board (Board) is a committee set up by the ATTCP Administrator to investigate a Complaint or an Appeal in detail. The Board consists of four (4) members: two ICB/TABB-certified supervisors and two ICB/TABB-certified contractors (employers). None of the Board members works or has a business in California. Findings of the Board on a Complaint or an Appeal are final.

Claimant is the person making a **Complaint**.

Complaint(s) include any complaint concerning work or conduct of an ATE or an ATT.

Decision is the written decision of the ATTCP on any or all parts of any Complaint or an appeal.

Hearing A meeting of the ATTCP with the parties to Complaint to render a decision on the Complaint.

Investigation A fact finding mission by a representative aka investigator of the ATTCP to the physical place where the Complaint occurred.

Party to a Complaint refer to the Claimant and any Subject.

Registry is a web service with a user interface and database maintained by a Registration Provider that complies with the applicable requirements in Reference Joint Appendix JA 7, with guidance from the Data Registry Requirements Manual, and provides for registration of residential or nonresidential compliance documentation used for demonstrating compliance with Part 6. The Registration Provider is a third party not associated with the Registry.

Report is the written document resulting from an investigation conducted in response to a Complaint.

Subject is the person or entity whose work, conduct or other action or omission is the subject of a Complaint. Here, the Subject is either an ATE or an ATT or may be both if named so by the Claimant.

2.6.2 Exclusivity

By submitting an application for ATTCP certification each applicant agrees that any **Complaint** will be resolved solely in accordance with the procedures as stated in this manual.

2.6.3 General Rules on Required Deliveries and Time Limits for the Same

In the following rules, certain items, such as a Complaint, must be in writing, i.e., they must be typed, printed or legibly handwritten.

Whenever a delivery time limit is given, i.e., the time period within which a document must have been physically delivered to the ATTCP, the requirement of the time limit will be met by any of the following conditions:

- The document has been delivered in person or by a courier service, such United Parcel Service (UPS) before the given time period expired; or
- The document has been delivered by the U.S. Postal Service and it is postmarked within the given time period

Electronic submission of a Complaint or any other document requested by the ATTCP is not permitted.

2.6.4 Time Limits on Complaints

Complaints that are not made within the following time limits will not be considered and will be dismissed categorically:

- A Complaint must be asserted in writing within ten (10) business days after the Claimant first knows of the complaint.

The Complaint must state in writing, in reasonable detail, the pertinent circumstances of and reasons for the complaint, all the subjects to the Complaint, and must be signed by the Claimant.

2.6.5 ATTCP Procedures for Resolution of Complaints

The ATTCP will resolve any Complaint in accordance with the following procedures. ATTCP reserves the right to modify any particular procedure at any instance. The ATTCP will notify any materially affected party of such a modification in a timely manner but no later than ten (10) business days after the modification becomes effective.

The ATTCP Administrator or their representative will act for ATTCP on all matters concerning Complaints, including the conduct of a hearing, unless the ATTCP Review Board determines otherwise.

Figure 2 on the following page outlines the basic process.

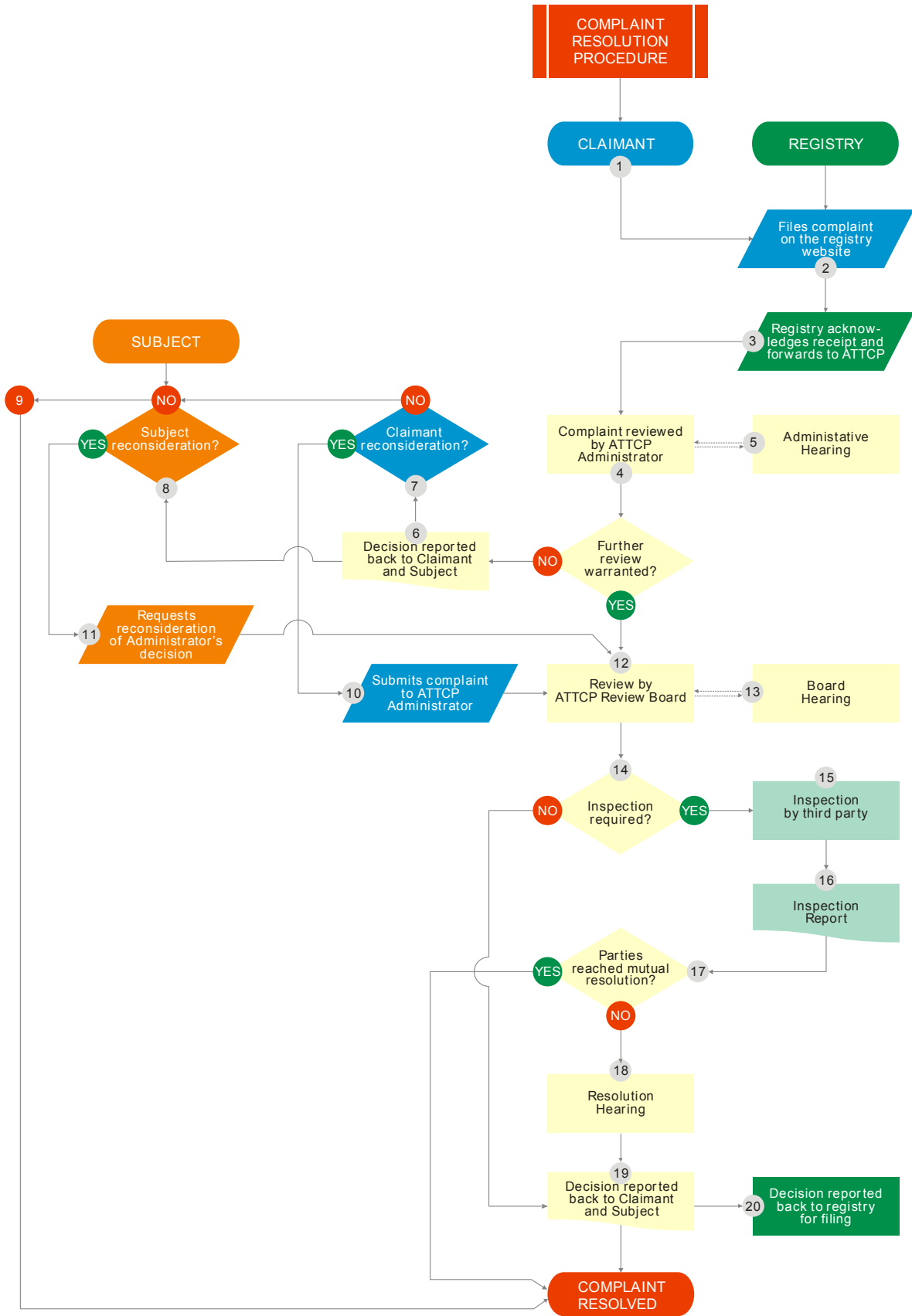


Figure 2. The basic process of resolving a Complaint by the ATTCP

General Rules

1. **Initial Submittal of Complaint:** The Claimant must file the Complaint on the Registry website within ten (10) business days after the Claimant first knows of the Complaint (see Section 2.6.4 above). Should the Registry website at the time of filing of the Complaint not be fully operational, the Claimant shall file the Complaint in writing with the NEMIC ATTCP Administrator. The written claim must be mailed to the ATTCP Administrator at the address stated Section 1.5 of this Manual. Do not submit a claim electronically. The written claim should be labeled "NOTICE OF COMPLAINT."
2. **Registry Receipt Acknowledgement.** The Registry notifies the Claimant of the receipt of the Complaint and makes a record of it. Should the Registry at the time of filing of the Complaint not be fully operational, and the Claimant has submitted the Complaint in writing per Step 1 above, the NEMIC ATTCP Administrator will acknowledge the receipt of the Complaint in writing with five (5) business days of receiving the Complaint.
3. **Complaint Forwarded to ATTCP.** The Registry forwards the Complaint to the ATTCP Administrator.
4. **Initial Review of Complaint:** The ATTCP Administrator will review the Complaint to determine if it merits investigation or further action. An ATTCP representative may contact the Claimant to clarify any aspects of the written Complaint or to obtain further information. The ATTCP Administrator will review the Complaint within ten (10) business days after its receipt.
5. **Administrative Hearing.** If a Complaint is not dismissed after the initial review, the ATTCP Administrator may call an informal (administrative) hearing with the Claimant and/or Subject.
6. **Decision.** If the Administrator determines that no further review is warranted, the decision will be reported back to the Claimant and the Subject in writing.
7. **Reconsideration by Claimant.** The Claimant may submit their Complaint for reconsideration by the Board.
8. **Reconsideration by Subject.** The Subject may request a reconsideration of the ATTCP Administrator's decision by the Board.
9. If neither party requests a reconsideration of the ATTCP's Administrator's findings, then the Complaint is considered resolved and the Administrator's decision is considered final.
10. **Submittal of Complaint for Reconsideration by the Claimant.** The Claimant must submit their Complaint within ten (10) business days after the Claimant was notified by the ATTCP Administrator of the ATTCP decision that no further review was warranted in the ATTCP's opinion.
11. **Request for Reconsideration by the Subject.** The Subject must submit her or his request for reconsideration of the Administrator's decision within ten (10) business days after the Subject was notified by the ATTCP Administrator of the ATTCP decision that no further review was warranted in the ATTCP's opinion.
12. **Review by the ATTCP Board.** The ATTCP Board will review the Complaint within thirty (30) days after receiving the Complaint from the ATTCP Administrator
13. **Board Hearing.** A hearing may be called by the Board to resolve questions of fact. The hearing may be held in a face-to-face meeting with the Claimant and/or Subject or electronically as a teleconference. A hearing may be called for any of the following purposes:
 - To determine if any part or all of the Complaint can be resolved to the satisfaction of the Claimant and the Subject without need for an investigation and hearing;
 - To determine if questions of fact can be resolved without need for investigation and/or hearing;
 - To determine if the scope of the investigation can be agreed upon; and/or
 - If a hearing is to occur, to determine the place, date and time of the hearing; set the amount of time allotted for the hearing; set the number of witnesses and/or exhibits that will be permitted at the hearing; determine what evidence must be submitted in advance of the hearing (and set the time limit for doing so); determine if written statements of position should be submitted in advance of the hearing (and to determine the time limit for doing so); and determine specific procedures and rules for a fair and efficient conduct of the hearing.

General Rules

- To determine any other matters that may expedite the resolution of the Complaint.
- 14. Determination of Inspection.** The Board will determine if an inspection is warranted.
- 15. Inspection by Third Party.** If there will be an inspection, ATTCP will designate one or more inspectors. The investigators shall contact the Claimant and any Subject. The investigator may inspect (or have inspected by a designated representative) the work to which the Complaint pertains. Reasonable notice of the date and time of any work site inspection shall be given both to the Claimant and any Subject. Both shall have an opportunity to be present. The inspector(s) can terminate the inspection if either the Claimant or any Subject interferes in any detrimental manner with the inspection. The inspector will prepare and submit a report of the investigation to the ATTCP, including any and all reasons should the inspection have been terminated due to interference by the Claimant and/or any Subject.
- 16. Inspection Report.** ATTCP reserves the right not to release any or all parts of the Report to the Claimant and/or to the Subject. Generally, ATTCP will release to those persons all pertinent provisions of the Report. However, the ATTCP may not release any or all portions of the report if, for example, the ATTCP believes that such a release may jeopardize confidential information or trade secrets or may constitute publication of possibly defamatory statements.
- 17. Mutual Resolution.** Following receipt of the Report, ATTCP shall give the Claimant and the Subject an opportunity to agree on a resolution. If a resolution is reached, the agreement shall be documented in writing and signed by both parties. With their respective signature both parties acknowledge that the Complaint has been resolved and no further action must be taken by the Claimant.
- 18. Resolution Hearing:** Absent an agreement, ATTCP shall conduct a hearing on the Complaint(s).
- The hearing will be held at a place of ATTCP's determination.
 - At the hearing, the Claimant and the Subject will be given an opportunity to state their respective positions and to present evidence, all within the framework as set by the pre-hearing conference as described above.
 - A party and any witness shall be allowed to be present by telephonic or video conference, if requested, and if ATTCP determines that practical arrangements can be made for telephonic or video conferencing.
 - ATTCP may make a recording of the hearing.
 - ATTCP shall determine who may attend a hearing.
 - ATTCP shall determine all questions of procedure at the hearing. It may require witnesses to testify under oath administered by any duly qualified person. ATTCP shall determine the order of proceeding. ATTCP may limit the time anyone is allowed to speak or give evidence at a hearing and may limit the number of persons who may testify at a hearing.

Evidence: ATTCP reserves the right to solely determine which evidence to be relevant and material to the Complaint. ATTCP may accept evidentiary statements by affidavit. To that end, ATTCP may require that any evidence submitted by affidavit be provided in advance of any hearing.

Waiver of Rules: A party who participates in any conference or attends a hearing and fails to object at the time of an action or omission, such party shall have waived any and all objection to the action or omission in question.

General Principles: ATTCP shall seek to ensure that investigations and hearings are conducted fairly and impartially, and in a manner that gives the Claimant and the Subject a reasonable opportunity to state their positions and to present relevant and material evidence in support of their positions. All proceedings (informal interviews or questions, conferences, investigations, hearings and any other proceedings) are to proceed in a civil and respectful manner, within time limitations and constraints as specified by the ATTCP. A person who is disruptive, defamatory or insulting, or who hinders any such proceeding, may be excluded from further participation in the proceedings. ATTCP may set time limits for a party to submit written statements of position, evidence or other material prior to or after a hearing, may require one or more pre-hearing conferences to settle procedural or other questions in advance of a hearing, and may reopen a hearing to consider further evidence or other information. Any decision by ATTCP on procedural questions with respect

General Rules

to an investigation, hearing or any other proceeding shall be final, conclusive and binding to all parties participating in the matter which is under investigation.

19. Board Decision. The Board will report its decision in writing to the Claimant no later than 45 days after receiving the Appeal from the ATTCP Administrator. The decisions of the ATTCP Review Board are final.

20. Filing with the Registry. A copy of the final findings by the Board is forwarded to the Registry for record.

The ATTCP reserves the right of final determination with respect to any of the above matters.

2.7 ATTCP Decisions and Sanctions

A Decision on the Appeal or Complaint will be rendered following a hearing. The goal will be to render a Decision within 60 days following the date of the hearing.

ATTCP may assess reasonable costs and expenses in connection with proceedings on any Appeal or Complaint (including a reasonable allocation of general overhead costs of ATTCP), as follows:

- Against the Subject of a Complaint if the ATTCP finds the Subject to have been at fault or to have acted in a manner inconsistent with ATTCP standards, or
- Against any person who ATTCP determines made or pursued an Appeal, Complaint without merit and in bad faith.

Any assessment under the preceding provisions may be made without regard to whether ATTCP takes any other action, or imposes any sanction, against or with respect to any person against whom costs and expenses are assessed. Any such assessment shall be paid on demand by the person against whom it is made. That person shall also pay all costs of collection of any such assessment, including reasonable attorney's fees. ATTCP shall have the right to recover any such assessment and all such costs of collection in an action in any court of competent jurisdiction, and ATTCP's costs in connection with any such action, including ATTCP's reasonable attorney's fees, also shall be paid by the person, as additional costs of collection.

Sanctions which the ATTCP may impose (in addition to an assessment of costs and expenses as stated above) may include one or more of the following:

- Written (formal) reprimand or warning;
- Withdrawal of the Subject's ATTCP certification ("decertification") with the right to re-apply for certification after a period of time as set forth by the ATTCP.
- Permanent decertification.

By applying for ATTCP certification each applicant agrees to pay any assessment of costs and expenses in the event of an Appeal or Complaint. The applicant further acknowledges that they may be subject to possible sanctions as stated above.

A decision on any Appeal or Complaint by the ATTCP shall be final, conclusive and binding to all interested parties.

3 The Certification Process and Requirements for Technicians

3.1 Purpose

This manual describes the processes by which the ATTCP (NEMIC) will certify Acceptance Test Technicians. This manual sets forth the qualifications for eligibility for certification and specifies the areas of knowledge, skills, and ability required of a NEMIC-certified Acceptance Test Technician.

An NEMIC certified Acceptance Test Technician is one who has:

- Met the qualifications and completed the general application requirements as described in this Manual.
- Passed the Certification Exams as set forth in this Manual.

3.2 Scope

A NEMIC Certified Mechanical Acceptance Test Technician is one who is knowledgeable about Mechanical Acceptance Testing as required by the Standards. The MATT performs the acceptance verification reported on the Certificate of Acceptance (Field Technician).

3.2.1 MATT Level 1 Scope

A NEMIC-certified MATT Level 1 performs the work described above for the Mechanical Systems Acceptance Tests listed in Section 10-103.2(b)1.B of the Standards.

For clarification, for the 2016 Standards the MATT Level 1 Scope includes the following eight (8) Mechanical Acceptance Tests:

- i. NA7.5.1 Outdoor Air Ventilation Systems
- ii. NA7.5.2 Constant Volume, Single Zone Unitary Air Conditioners and Heat Pumps
- iii. NA7.5.4 Air Economizer Controls
- iv. NA7.5.5 Demand Control Ventilation Systems
- v. NA7.5.6 Supply Variable Flow Controls
- vi. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls
- vii. NA7.5.10 Automatic Demand Shed Controls

Beginning with the 2019 Standards, the NA7.5.17 Occupied Standby Acceptance will also be included as part of the MATT Level 1 scope. The MATT Level 1 scope will otherwise concur with any changes to Section 10-103.2(b)1.B of the Standards after 2019.

3.2.2 MATT Level 2 Scope

A NEMIC-certified MATT Level 2 performs the work described above for all the Mechanical Systems Acceptance Tests listed in section 120.5 of the Standards, including Duct Leakage Testing as referenced in Nonresidential Appendix NA1.9.

For clarification, for the 2016 Standards the MATT Level 2 scope includes the following (18) Mechanical Acceptance Tests:

1. NA7.5.1 Outdoor air ventilation systems (MATT Level 1 & 2)
2. NA7.5.2 Constant-Volume, Single Zone Unitary Air Conditioners and Heat Pumps (MATT Level 1 & 2)
3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only)
4. NA7.5.4 Air Economizer Controls (MATT Level 1 & 2)
5. NA7.5.5 Demand Control Ventilation Systems as required by the Standards (MATT Level 1 & 2)
6. NA7.5.6 Supply Variable Flow controls (MATT Level 1 & 2)

The Certification Process and Requirements for Technicians

7. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls (MATT Level 1 & 2)
8. NA7.5.7 Boiler and/or Chiller Isolation (MATT Level 1 & 2)
9. NA7.5.8 Hydronic Systems Supply Temperature Reset Controls (MATT Level 2 only)
10. NA7.5.10 Automatic Demand Shed Controls (MATT Level 1 & 2)
11. NA7.5.11 Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
12. NA7.5.12 Automatic Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
13. NA7.5.13 Distributed Energy Storage DXAC Systems (MATT Level 2 only)
14. NA7.5.14 Thermal Energy Storage (TES) Systems (MATT Level 2 only)
15. NA7.5.15 Supply Air Temperature Reset Controls (MATT Level 2 only)
16. NA7.5.16 Water-cooled Chillers served by Cooling Towers with Condenser Water Reset Controls (MATT Level 2 only)
17. Part 6 as applicable Energy Management Controls System (MATT Level 2 only)

Beginning with the 2019 Standards, MATT Level 2 scope will also include:

18. NA7.5.17 Occupant Sensing Zone Controls (MATT Level 1 and 2)

Beginning with the 2019 Standards, Item 3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only) will include Duct Leakage Test Verification services normally provided by a Home Energy Rating System (HERS) rater. Item 17. Energy Management Controls Systems will be tested according to NA 7.7.2 The MATT Level 2 scope will otherwise concur with any changes to Section 10-120.5 of the Standards after 2019.

3.3 Eligibility

3.3.1 MATT Level 1 Eligibility

Technicians who wish to become certified by NEMIC as Mechanical Acceptance Test Technicians (MATT) Level 1 must have a minimum of 3 years of professional experience and expertise in mechanical controls and systems, as determined by NEMIC, and meet one of the following three criteria:

1. Applicant is currently enrolled in a state-approved SMART apprenticeship program and can pass a written qualification examination.
 - a. The qualification examination is designed to show that the applicant's professional experience has provided them with the knowledge base required to perform the Mechanical Systems Acceptance Tests listed in Section 10-103.2(b)1.B of the Standards
2. Applicant has attained SMART journey person status and can pass a written qualification examination.
 - a. The qualification examination is designed to show that the applicant's professional experience has provided them with the knowledge base required to perform the Mechanical Systems Acceptance Tests listed in Section 10-103.2(b)1.B of the Standards
3. Applicant is an ICB-certified TABB Technician with at least three years of relevant professional experience and expertise in mechanical controls and systems. The Qualification Exam is not required for an ICB-certified TABB Technician because the process to become TABB certified verifies their relevant professional experience. More information about the requirements to become an ICB-certified TABB Technician can be found at the www.icbcertified.org website under the Resources section, within the Certification Manual for Technicians.

The Certification Process and Requirements for Technicians

All applicants for MATT Level 1 certification who meet one of the above criteria must also meet both of the following requirements:

1. Be an individual with respect to whom contributions are payable to the NEMIC; or is another individual who qualifies as a NEMIC Participant.
2. Hold an ITI certificate of completion of having received training on mechanical acceptance testing mandates and procedures as specified by the latest version of the California Building Energy Efficiency Standards as they pertain to the MATT Level 1 scope in Section 3.2.1 of this Manual and identified in MATT Level 1 Knowledge Base (Sections 6.1, 6.2, 6.2.1, and 6.3. of this Manual).

3.3.2 MATT Level 2 Eligibility

Technicians who wish to become certified by NEMIC as Mechanical Acceptance Test Technicians (MATT) Level 2 must have a minimum of 3 years of professional experience and expertise in mechanical controls and systems, as determined by NEMIC, and meet all three of the following requirements:

1. Be an ICB-certified TABB Technician. More information about the requirements to become an ICB-certified TABB Technician can be found at the www.icbcertified.org website under the Resources section, within the Certification Manual for Technicians.
2. Be an individual with respect to whom contributions are payable to the NEMIC; or is another individual who qualifies as a NEMIC Participant.
3. Hold an ITI certificate of completion of having received training on mechanical acceptance testing mandates and procedures as specified by the latest version of the California Building Energy Efficiency Standards as they pertain to the MATT Level 2 scope in Section 3.2.2 of this Manual and identified in MATT Level 2 Knowledge Base (Sections 6.1, 6.2, 6.2.2, and 6.3 of this Manual).

3.4 Application Process for Acceptance Test Technicians

1. Applicant completes the ATT application online.
2. Upon submission the ATTCP will verify the eligibility of the applicant to be certified.
3. The applicant is notified of ATTCP action, including any request for additional documentation.
 - a. If approved, the applicant will be notified in writing or by electronic communications.
 - b. If not approved, the applicant will be notified in writing or by electronic communications. The applicant may appeal this decision as specified in Section 2.5.5.2 of this Manual.

3.5 Certification Exams for Acceptance Test Technicians

3.5.1 MATT Level 1 Qualification Exam

The MATT Level 1 Qualification Exam is required as part of verification of a minimum of three years of relevant professional experience for SMART Apprentices and SMART Journeypersons who are not also ICB-certified TABB Technicians. It is a written test designed to assess knowledge and skills relevant to testing mechanical controls and systems as required to perform the Mechanical Systems Acceptance Tests listed in Section 10-103.2(b)1.B of the Standards.

3.5.2 MATT Level 1 Exam

The MATT Level 1 Certification Exam consists of a written test designed to assess the knowledge and skills required to perform the Mechanical Acceptance Tests identified in the California Building Energy Efficiency Standards as they pertain to the MATT Level 1 scope in Section 3.2.1 of this Manual and identified in MATT Level 1 Knowledge Base in Sections 6.1, 6.2, 6.2.1, and 6.3. of this Manual, with hands-on competence verified by NEMIC.

For clarification, for the 2016 Standards the MATT Level 1 Scope includes the following eight (8) Mechanical Acceptance Tests:

The Certification Process and Requirements for Technicians

- i. NA7.5.1 Outdoor Air Ventilation Systems
- ii. NA7.5.2 Constant Volume, Single Zone Unitary Air Conditioners and Heat Pumps
- iii. NA7.5.4 Air Economizer Controls
- iv. NA7.5.5 Demand Control Ventilation Systems
- v. NA7.5.6 Supply Variable Flow Controls
- vi. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls
- vii. NA7.5.10 Automatic Demand Shed Controls

Beginning with the 2019 Standards, the NA7.5.17 Occupied Standby Acceptance will also be included as part of the MATT Level 1 scope. The MATT Level 1 scope will otherwise concur with any changes to Section 10-103.2(b)1.B of the Standards after 2019.

3.5.3 MATT Level 2 Exam

The MATT Level 2 Certification Exam consists of a written test designed to assess the knowledge and skills required to perform the Mechanical Acceptance Tests identified in the California Building Energy Efficiency Standards as they pertain to the MATT Level 2 scope in Section 3.2.2 of this Manual and identified in MATT Level 2 Knowledge Base in Sections 6.1, 6.2, 6.2.2, and 6.3 of this Manual, with hands-on competence verified by NEMIC.

For clarification, for the 2016 Standards the MATT Level 2 scope includes the following (18) Mechanical Acceptance Tests:

1. NA7.5.1 Outdoor air ventilation systems (MATT Level 1 & 2)
2. NA7.5.2 Constant-Volume, Single Zone Unitary Air Conditioners and Heat Pumps (MATT Level 1 & 2)
3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only)
4. NA7.5.4 Air Economizer Controls (MATT Level 1 & 2)
5. NA7.5.5 Demand Control Ventilation Systems as required by the Standards (MATT Level 1 & 2)
6. NA7.5.6 Supply Variable Flow controls (MATT Level 1 & 2)
7. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls (MATT Level 1 & 2)
8. NA7.5.7 Boiler and/or Chiller Isolation (MATT Level 1 & 2)
9. NA7.5.8 Hydronic Systems Supply Temperature Reset Controls (MATT Level 2 only)
10. NA7.5.10 Automatic Demand Shed Controls (MATT Level 1 & 2)
11. NA7.5.11 Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
12. NA7.5.12 Automatic Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
13. NA7.5.13 Distributed Energy Storage DXAC Systems (MATT Level 2 only)
14. NA7.5.14 Thermal Energy Storage (TES) Systems (MATT Level 2 only)
15. NA7.5.15 Supply Air Temperature Reset Controls (MATT Level 2 only)
16. NA7.5.16 Water-cooled Chillers served by Cooling Towers with Condenser Water Reset Controls (MATT Level 2 only)
17. Part 6 as applicable Energy Management Controls System (MATT Level 2 only)

Beginning with the 2019 Standards, MATT Level 2 scope will also include:

The Certification Process and Requirements for Technicians

18. NA7.5.17 Occupant Sensing Zone Controls (MATT Level 1 and 2)

Beginning with the 2019 Standards, Item 3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only) will include Duct Leakage Test Verification services normally provided by a Home Energy Rating System (HERS) rater. Item 17. Energy Management Controls Systems will be tested according to NA7.7.2 The MATT Level 2 scope will otherwise concur with any changes to Section 10-120.5 of the Standards after 2019

3.5.4 Taking an Acceptance Test Technician Certification Exam

An applicant may not test until they have been notified that they are eligible to be certified per Section 3.4.

1. Upon receiving written notification by ATTCP that the applicant has met the eligibility requirements, the applicant exam session is scheduled with the ATTCP.
2. The exam will be administered by an ATTCP-designated proctor at one of the sites designated by the ATTCP.
3. The exam will be either electronic or written format, must be completed in one sitting in a designated room, and within the specified time limit.
4. If the exam is in electronic format the exam score results will be displayed to the candidate upon completion of the exam.
5. If the exam is in written format:
 - ✓ It will be distributed by the proctor; once completed it will be returned to the ATTCP for scoring.
 - ✓ The ATTCP will notify the applicant of exam results in writing or by electronic communications.

The applicant may use:

- ✓ Any reference materials deemed appropriate by the ATTCP.

3.5.5 Scoring the Certification Exam

The ATTCP scores the test and determines whether the score is passing.

- If the applicant passes the certification exam, the ATTCP will issue certification documents as described in Section 3.6 of this Manual; or
- If the applicant fails the certification exam, the ATTCP will notify the applicant. The applicant may re-attempt the exam in accordance with Section 3.5.2 of this Manual.

3.5.6 Time Limits on Examination and Re-Examination

The certification exam must be passed within one year from ATTCP approval of the application, or the applicant must re-apply.

An applicant who fails the certification exam may apply for re-examination in a manner specified by ATTCP but may re-attempt the exam only after a waiting period of at least thirty (30) calendar days.

3.6 Certification Documents

On certification ATTCP will issue the following:

A certificate including:

- Date of certification
- The name of the Technician
- The Technician's individualized certification number

Upon certification, Technician certification status will be made publicly available as required by the Standard, and per NEMIC Information Release Policy.

3.7 Decertification

The ATTCP may withdraw the certification of any ATT for one or more of the following reasons:

- Falsification of data and reports.
- Failure to maintain eligibility.
- Failure to meet the Code of Conduct
- Failure to meet certification obligations
- Leaves an employer who is signatory to a collective bargaining agreement that provides for contributions on behalf of its members directly to NEMIC and hires with an employer who is NOT signatory to a collective bargaining agreement that provides for contributions on behalf of its members directly to NEMIC.
- Failure to pass the quality assurance audit per Section 5.
- Other cause as determined by the ATTCP.

3.8 Technician Certification Obligations and Code of Conduct

A NEMIC-certified Acceptance Test Technician must comply with the following obligations and Code of Conduct as a requirement for maintaining certification. Violations of the Code of Conduct or failure to meet any of the following obligations are grounds for suspension, withdrawal or non-renewal of certification.

To maintain NEMIC ATTCP certification the NEMIC-certified Acceptance Test Technician shall

- a) Adhere to the NEMIC ATTCP Code of Conduct for Technicians,
- b) Adhere to any and all NEMIC ATTCP protocols and regulations.
- c) Adhere to all mandates of the California Code of Regulations Title 24, particularly as they pertain to acceptance testing
- d) Meet all applicable registration, insurance, licensing, and bonding State or local mandates and regulations
- e) Maintain proof of registration, insurance, licensing, and bonding that meet any and all State or local mandates and regulations.
- f) Perform Acceptance Test work only when employed by an employer who is signatory to a collective bargaining agreement that provides for contributions on behalf of its members directly to NEMIC.

3.9 Appeals

An applicant (“appellant”) who believes they have been improperly considered ineligible; have an objection to any ATTCP exam or certification decision; or ATTCP withdrawal of their certification may make a claim as stated in Section 2.5.5 of this Manual.

3.10 Renewal of Certification

The following documents are required to renew the ATT certification:

- Completed online renewal application
- Holds a current NEMIC ATT certification.
- Holds an ITI certificate of completion of having received training on acceptance testing mandates and procedures as specified by the latest version of the Standards.

The certification holder must also meet any and all other requirements as conveyed by NEMIC in the notice of Renewal.

3.11 Standards of Proficiency for Acceptance Test Technicians

An NEMIC Certified ATT must be proficient in all of the categories of the *Knowledge Base for California Title 24 Acceptance Test Technicians*, as demonstrated by passing the certification test. The *Knowledge Base for California Title 24 Acceptance Test Technicians* is found in Section 6 of this manual.

4 The Certification Process and Requirements for Employers

4.1 Purpose

This manual describes the processes by which the ATTCP (NEMIC) will certify Acceptance Test Employers (ATEs). This manual sets forth the qualifications for eligibility for certification and specifies the areas of knowledge, skills, and ability required of a NEMIC-certified Acceptance Test Employer.

A NEMIC-certified Acceptance Test Employer is one who has:

- Met the qualifications and completed the general application requirements as described in this Manual in Section 4.4.
- Passed the Exam as set forth in this Manual.

4.2 Scope

4.2.1 Mechanical Acceptance Test Employer (MATE)

The role of the MATE is to understand the responsibilities of an employer performing Mechanical Acceptance Test work with NEMIC-certified MATTs. In addition, the MATE is responsible for registering the contractor on the NEMIC ATTCP database.

An employer may have multiple individuals certified as MATEs on staff; however, only one MATE registers the employer on the NEMIC ATTCP database. Each NEMIC-certified MATE registered on the database must also have at least one NEMIC-certified MATT on staff.

For clarification, the MATE may also be the Responsible Person as defined by the Standards, but only if eligible under Division 3 of the Business and Profession Code in the applicable classification. The NEMIC ATTCP does not assess qualifications of any individual to become or bear the responsibilities of the Responsible Person as defined by the Standards.

4.3 Eligibility

To be eligible for the ATE certification, the applicant must:

- Be signatory to a collective bargaining agreement that provides for contributions on behalf of its members directly to NEMIC and is current with all financial obligations under that collective bargaining agreement.
- Hold a NEMI certificate of completion of having received training on acceptance testing mandates and procedures as specified by the latest version of the California Building Energy Efficiency Standards.

4.4 Application

1. Applicant completes the ATE application online.
2. Upon submission the ATTCP will verify the eligibility of the applicant to be certified.
3. The applicant is notified of ATTCP action, including any request for additional documentation.
 - a. If approved, the applicant will be notified in writing or by electronic communications.
 - b. If not approved, the applicant will be notified in writing or by electronic communications. The applicant may appeal this decision as specified in Section 2.5.5.2 of this Manual.

4.5 Certification Exam

The certification exam consists of a written test. The exam is designed to assess the knowledge, skills, and ability of an individual regarding the responsibilities of an employer performing Acceptance Test work with NEMIC-certified ATTs.

An applicant may not take the exam until they have been notified that they are eligible to be certified per Section 4.3.

The Certification Process and Requirements for Employers

1. Upon receiving written notification by ATTCP that the applicant has met the eligibility requirements, the applicant exam session is scheduled with the ATTCP.
2. The exam will be administered by an ATTCP-designated proctor at one of the sites designated by the ATTCP.
3. The exam will be either electronic or written format, must be completed in one sitting in a designated room, and within the specified time limit.
4. If the exam is in electronic format the exam score results will be displayed to the candidate upon completion of the exam.
5. If the exam is in written format:
 - ✓ It will be distributed by the proctor; once completed it will be returned to the ATTCP for scoring.
 - ✓ The ATTCP will notify the applicant of exam results in writing or by electronic communications.

The applicant may use:

- ✓ Any reference materials deemed appropriate by the ATTCP.

4.5.1 Scoring the Certification Exam

The ATTCP scores the exam and determines whether the score is passing.

- If the applicant passes the certification exam, the ATTCP will issue certification documents as described in Section 4.4 of this Manual; or
- If the applicant fails the certification exam, the ATTCP will notify the applicant. The applicant may re-attempt the exam in accordance with Section 4.5.2 of this Manual.

4.5.2 Time Limits on Examination and Re-Examination

The certification exam must be passed within one year from ATTCP approval of the application, or the applicant must re-apply.

An applicant who fails the certification exam may apply for re-examination in a manner specified by ATTCP but may re-attempt the exam only after a waiting period of at least thirty (30) calendar days.

4.6 Certification Documents

On certification ATTCP will issue the following:

A certificate including:

- Date of certification
- The name and business address of the Employer
- The Employer's individualized certification number

Upon certification, Employer certification status will be made publicly available as required by the Standard, and per NEMIC Information Release Policy.

4.7 Employer Certification Obligations and Code of Conduct

A NEMIC-certified Acceptance Test Employer must comply with the following obligations and Code of Conduct as a requirement for maintaining certification. Violations of the Code of Conduct or failure to meet any of the following obligations are grounds for suspension, withdrawal or non-renewal of certification.

To maintain NEMIC ATTCP certification the NEMIC-certified Acceptance Test Employer shall

- a) Adhere to the NEMIC ATTCP Code of Conduct for Employers,
- b) Adhere to any and all NEMIC ATTCP protocols and regulations.

The Certification Process and Requirements for Employers

- c) Adhere to all mandates of the California Code of Regulations Title 24, particularly as they pertain to acceptance testing.
- d) Meet all applicable registration, insurance, licensing, and bonding mandates and regulations
- e) Maintain proof of registration, insurance, licensing, and bonding that meet any and all mandates and regulations
- f) Warrant that at least one company executive has completed the National Energy Management Institute Acceptance Test Employer course and has passed the NEMIC Acceptance Test Employer Certification Exam. Should there be change in employment resulting in loss of the said executive, the Employer shall have another company executive complete the National Energy Management Institute Mechanical Acceptance Test Employer course and have passed the NEMIC Mechanical Acceptance Test Employer Certification Exam within 90 days of change of employment.
- g) For every project where a certified ATT is required, the NEMIC-certified Acceptance Test Employer shall submit all Acceptance Tests to the mandated Registry through the NEMIC Database. Copies of said documents shall be maintained for a minimum of five (5) years.
- h) Submit records or financial data that substantiate ATTCP-related work to NEMIC upon request.
- i) Notify NEMIC within 48 hours if its contractor's license or business license has been revoked or suspended
- j) Notify NEMIC within 48 hours if the employer or any official or executive of the employer has been found guilty of a felony in the court of law or has been found liable in a civil litigation.

Code of Conduct of the National Energy Management Institute Committee Operating as the Acceptance Test Technician and Employer Certification Provider

Each technician and employer certified by National Energy Management Institute Committee under California Code of Regulations Title 24 Part 1, Sections 10-102 and 10-103.2 is expected to practice their profession consistent with the standards and procedures applicable to the certification, and the highest quality work.

NEMIC-certified Acceptance Test Technicians:

- Will perform their work in an orderly, systematic, well-documented and repeatable manner.
- Will document all findings in an accurate and professional manner so that building code officials can review a comprehensive and chronological history of the procedures followed.
- Will not make any statements that cannot be substantiated and verified by field measurements or observations.
- Must meet standards and procedures as set by the NEMIC as the Acceptance Test Technician and Employer Certification Provider, and adhere to all rules, regulations and obligations of the NEMIC certification program.
- Will work in a professional manner to ensure their own safety and the safety of their coworkers while being respectful to the property of the employers, building owner and his representatives.
- Will observe proper protocol when noting contract or installation deficiencies, errors, or omissions by others.

NEMIC-certified Acceptance Test Employers:

- Must employ enough NEMIC-certified Acceptance Test Technicians to meet the scope of its business operations.
- Must perform any and all mechanical acceptance tests only by NEMIC-certified Mechanical Acceptance Test Technicians.
- Will ensure that any and all projects involving work in the area of this certification are performed in accordance with standards and procedures as mandated by the California Code of Regulations Title 24 and, if applicable, as adopted by local Authorities Having Jurisdiction.
- Will maintain valid calibrations of all diagnostic equipment and instruments in accordance with manufacturers' specification while meeting the mandates of the California Building Energy Efficiency Standards with respect to the said diagnostic equipment and instruments.

4.8 Decertification

The ATTCP may withdraw the certification of any ATE for one or more of the following reasons:

- Falsification of data and reports.
- Failure to maintain eligibility.

The Certification Process and Requirements for Employers

- Failure to meet the Code of Conduct
- Failure to meet certification obligations
- Ceases to be signatory to a collective bargaining agreement that provides for contributions on behalf of its members directly to NEMIC
- Failure to pass the quality assurance audit per Section 5.

Other cause as determined by the ATTCP.

4.9 Appeals

An applicant (“appellant”) who believes they have been improperly considered ineligible; has an objection to any ATTCP exam or certification decision; or ATTCP withdrawal of their certification may make an appeal as stated in Section 2.5.5 of this Manual.

4.10 Renewal of the Certification

The following documents are required to renew the ATE certification:

- Completed online renewal application
- Holds a NEMI certificate of completion of having received training on acceptance testing mandates and procedures as specified by the latest version of the Standards.

The certification holder must also meet any and all other requirements as conveyed by NEMIC in the notice of Renewal.

4.11 Standards of Proficiency for Acceptance Test Employers

An NEMIC-certified ATE must be proficient in all the categories of the Knowledge Base for California Title 24 Acceptance Test Employers, as demonstrated by passing the certification test. The *Knowledge Base for California Title 24 Acceptance Test Employers* is found in Section 7 of this manual.

5 NEMIC ATTCP Quality Assurance Program

This section addresses CCR Title 24 Part 1 Section 10-103.2 (c)3F, i.e., documents how the NEMIC certification business practices include quality assurance, independent oversight and accountability measures such as third party oversight of the certification processes and procedures, visits to building sites where certified technicians are completing acceptance tests, certification process evaluations, building department surveys to determine acceptance testing effectiveness, and expert review of the training curricula developed for Title 24, Part 6 Building Energy Efficiency Standards, Section 120.5.

Summary of NEMIC Method of Compliance

5.1 Scope

All NEMIC ATTCP-certified acceptance test employers (ATE) and acceptance test technicians (ATT) must participate in the NEMIC ATTCP Quality Assurance Program (QAP). To administer the NEMIC QAP, NEMIC has hired an independent third party, ICF Inc

5.2 Conformance to NEMIC ATTCP Code of Conduct

Each technician and employer certified by NEMIC under California Code of Regulations Title 24 Part 1, Sections 10-102 and 10-103.2 is expected to practice their profession consistent with the procedures applicable to the certification, and the highest quality work and to adhere to the NEMIC ATTCP *Code of Conduct* at all times (see Section 4.7 of this Manual, *Employer Certification Obligations and Code of Conduct*).

All NEMIC ATTCP-certified ATTs must maintain their NEMIC ATT certifications at all times. Additionally, NEMIC MATT Level 2 Certificants must maintain their ICB TABB Technician certification at all times. Failure to maintain the MATT Level 1 certification shall result in immediate loss of the NEMIC MATT Level 1 Certification. Failure to maintain both the NEMIC MATT Level 2 and ICB TABB Technician certification shall result in immediate loss of the NEMIC ATTCP MATT Level 2 certification. The ATT must adhere to the *Technician Certification Obligations and Code of Conduct* as described in this Manual, Section 3.8, at all times.

NEMIC ATTCP-certified ATEs must maintain a system of quality controls governing their operations. These are the procedures a company puts in place that help the company ensure the delivery of quality services to the customer. These procedures include clearly established protocols and best practices for the work that is being done. NEMIC ATTCP certified ATEs must adhere to the following policies and procedures.

5.3 Employ NEMIC-Certified Acceptance Test Technicians

NEMIC ATTCP-certified ATEs agree to employ NEMIC-certified ATTs in quantity and designation for the scope of the business operation at each location sufficient to conduct testing to the Standards and to sign off on certificates of completion. NEMIC ATTCP-certified ATEs agree to use only NEMIC-certified ATTs for acceptance testing.

5.4 Equipment

NEMIC-certified ATTs must ensure that they have the necessary serviceable, calibrated tools, equipment and instruments available for conducting mechanical acceptance testing work. NEMIC -certified ATTs are required to provide diagnostic equipment and instrument calibration records upon request. NEMIC does not mandate the purchase or ownership of any specific piece or brand or tool, equipment or instrument for purposes of certification. NEMIC may request and review an organization's tool and equipment inventory to determine whether the organization has the capability to be certified for mechanical acceptance testing as mandated by the Standards based on the tools, equipment, and instruments in the inventory.

5.5 Disclosure of Information

To verify the scope of the organization's work, upon request, NEMIC ATTCP-certified ATEs will provide NEMIC with access to certain records or data that substantiate ATT findings.

Based on the program parameters, a percentage of projects, chosen randomly, will receive either a paperwork "desk" review, or an onsite, in-person, quality-assurance review. Each review will be based upon the following fee structure.

Table 5.1 ICF Audit Fee Structure

Type of Review/Audit	Fee Paid to ICF
For Each Quality Assurance Desk Review	\$300
Per On-Site, In Person Quality Assurance Visit	\$950

5.6 General Appeals

Any and all objections with regard to the NEMIC QAP will be resolved according to the procedures set forth in the Manual Section 2.5 *Certification-Related Appeal Procedures*. All appeals will be categorized as General Appeals.

5.7 Audit Sampling Background

NEMIC and ICF have designed a quality assurance “audit” program utilizing best practices around a “quality assurance audit model.” NEMIC follows the guidelines established by the American Institute of CPA’s (AICPA) in the “*Audit Sampling Considerations of Circular A-133 Compliance Audits*” to address sampling size in an audit environment.

For new programs, it is recommended the audit program require a 98 percent confidence level at first to ensure that any initial issues with noncompliance are identified and addressed. Because the NEMIC QAP is a new program that will initially consist entirely of newly certified mechanical ATTs, ICF has set a goal of conducting enough quality assurance audits during the first three years of the program to have a 98% confidence level that all acceptance test assessments are done correctly. As the program becomes more established and the NEMIC ATTCP-certified ATT workforce becomes more experienced, these quality assurance visits will decrease to a 95% confidence level in years 3-5 and then a 90% confidence level when the program is established in year 5 and beyond. The confidence levels for the program are described in the table below.

Table 5.2 Confidence Levels of the NEMIC QAP

Time Period	Confidence Level
2016/2019 Code	98%
2022 Code and Beyond	95%

As requested by the California Energy Commission (CEC) staff, NEMIC, in its role as a mechanical ATTCP, will conduct two types of audits. A paper quality assurance audit and an on-site quality assurance audit. Table 3 shows the type and frequency of audits to be conducted under the NEMIC QAP.

Table 5.3. Type and Frequency of Audits to Be Conducted Under the NEMIC QAP

Time Period	Confidence Level	% of Projects Audited*	Paper Audits	On-Site Audits
2016/2019 Code Cycle	98%	4%	3%	1%
2022 Code Cycle and Beyond	95%	2%	1%	1%

*the actual number of projects audited will depend on the total number of projects, the above identified is the anticipating a minimum pool of 8,000 projects in the course of a year. If more projects are completed the % of projects audited will decrease. 8,000 was the number of CALCTP audits conducted in 2017.

A more detailed description of the reasoning and specific formulas used for determining sampling is available from the NEMIC ATTCP upon request.

5.8 Failed Item versus a Failed Test

A “failed Item” constitutes a category of failure on the part of the mechanical ATT, such as:

Failure to ensure appropriate documentation is available and complete.

Failure to conduct all or elements of a construction inspection.

Failure to verify equipment information is posted.

Failure to verify installed mechanical controls are certified to the California Energy Commission.

A “failed test” occurs when at least one of the threshold specifications is not met during the testing and inspection process (Acceptance Testing). “Threshold Specifications” is a set of specific pass/fail criteria for each mechanical control device or system requiring acceptance testing. A detailed description of failed items and failed tests per mechanical acceptance test forms are available from the NEMIC ATTCP upon request.

5.9 Auditor Qualifications

All audits, written and onsite, will be performed by NEMIC-certified Acceptance Test Technicians.

5.10 Random Audit Sampling Process

The information below sets forth the random audit sampling process and identifies the items that can result in a failed audit.

As requested by the California Energy Commission (CEC) staff, NEMIC as a mechanical ATTCP will conduct two types of audits. A paper quality assurance audit and an on-site quality assurance audit. The breakdown of audits of the NEMIC ATTCP-certified ATTs will be as shown in Table 4.

Table 5.4 Breakdown of Frequency and Type of Audits by Code Cycle

Time Period	Confidence Level	% of Projects Audited*	Paper Audits	On-Site Audits
2016/2019 Code Cycle	98%	4%	3%	1%
2022 Code Cycle and Beyond	95%	2%	1%	1%

* The actual number of projects audited will depend on the total number of projects, the above identified is the anticipating a minimum pool of 8,000 projects in the course of a year. If more projects are completed the % of projects audited will decrease.

If an ATT has failed either a paper quality assurance audit or an on-site-quality audit the NEMIC ATTCP-certified ATT will receive additional quality assurance oversight. As opposed to the anticipated percentage referenced above, ATTs who fail a quality assurance site visit will receive scrutiny as listed in Table 5.5.

Table 5.5 Results of Audit Failure

Result	Action That Will Be Take
Minor infraction	Warning issued (ATE and ATT)
Failed either a paper or on-site quality assurance audit	Targeted retraining and re-examination (ATE or ATT)
Failed a second paper or on-site quality assurance audit	Decertification (ATE or ATT) with the option to restore certification with the successful completion of the full training and examination requirements.

The NEMIC ATTCP will incorporate mandatory reporting of projects by its certified Acceptance Test Employers. The reporting process will be as follows:

- 1) Winning bid information will be provided to ICF

Knowledge Base for California Title 24 Mechanical Acceptance Test Technicians

- 2) ICF will receive a weekly list of projects (both upcoming through winning bid and recently completed, as well as a schedule of when actual project work will be done.
 - 3) ICF will use the information to identify projects for both paper and on-site auditing
- Failure by the ATEs to comply with these mandatory requirements will result in decertification.

The NEMIC ATTCP will randomly select projects without tipping off the ATEs as follows:

- 1) Using the project schedule information, ICF will randomly select a project for an onsite audit. The onsite audit will be performed at the same time the Acceptance Test Technician performs the acceptance testing.
- 2) Regardless of if a scheduled acceptance test is selected for audit, ICF will systematically contact the ATE (either by voice, email, or phone-app) to confirm the scheduled acceptance test (date and estimated time) for each winning bid no more than 3 days in advance of the scheduled date.
- 3) The ATE will be notified of an on-site audit in-person by the quality assurance inspector at the time and date of the scheduled acceptance test.
- 4) Failure by the ATE to provide ICF with a notice of changes to the project schedule will be reported as a failed audit. For example, should the auditor arrive at the project site at the scheduled date and time and the ATT is not present constitutes a failed audit. A second failure will result in a written reprimand, a third failure will result in decertification of the ATE.

The NEMIC ATTCP reporting process of the onsite audits will be as follows:

- 1) ICF will send a completed electronic copy of the audit results to the ATE/ATT and the NEMIC ATTCP
- 2) ICF will track the results of all audits in a database and share with the NEMIC ATTCP for its annual report to the California Energy Commission.
- 3) ICF will keep electronic copies of the audit findings and reports for a period of 5 years.
- 4) NEMIC maintains a database of all accounts, both ATT and ATE's, including any pertinent documentation. Here, ATE's account will contain copies of the completed projects. The ATT's account will contain copies of the completed mechanical acceptance tests, i.e., NRCA-MEC-X forms. Copies of the database are held ad infinitum.

5.11 Individual Acceptance Test Onsite Audit Pass/Fail Criteria

The on-site audit pass/fail criteria are derived from the Appendix NA7.5 *Mechanical Systems Acceptance Tests* within the *Reference Appendices for the Building Energy Efficiency Standard* under which the project was permitted.

The pass/fail criteria of the **Onsite Audit** are applied to two aspects of onsite work: **Construction Inspection** and **Functional Test**. For each Mechanical Acceptance Test, the instrumentation, methods, and steps to performing the **Construction Inspection** and **Functional Test** are listed in detail in the Standards. To pass the **Onsite Audit**, the NEMIC-certified MATT must correctly perform each of the steps for both the **Construction Inspection** and the **Functional Test** with the correct methods and instrumentation.

1. **Construction Inspection Failure** occurs when:
 - a. Correct instrumentation is not used
 - b. Correct methods are not engaged
 - c. Not all steps are correctly followed
2. **Functional Test Failure** occurs when
 - a. The MATT fails to correctly follow one or more steps

Failure in execution of either the **Construction Inspection** or the **Functional Test** constitutes failure of the **Onsite Audit**. A detailed description of failed items and failed test per mechanical acceptance test forms are available from the NEMIC ATTCP upon request.

5.12 Paper Audit Pass/Fail Criteria

The purpose of the paper audit is to verify that the individual acceptance test form has been completed correctly.

The ATT fails a paper audit if

1. **Project Information** on top of each page of the NRCA-MCH documents is incomplete or missing.

2. **Construction Inspection** information is missing or incomplete, i.e., the appropriate boxes have not been checked or pertinent information has not been provided.
3. **Functional Inspection** information is missing or incomplete, i.e., the appropriate boxes have not been checked or pertinent information has not been provided.
4. If applicable, **Testing Calculations and Results** information is missing or incomplete, i.e., the appropriate boxes have not been checked or pertinent information has not been provided.
5. **Evaluation** information is missing or incomplete.
6. The **Documentation Author's Declaration Statement** has not been completed or information is missing.
7. The **Field Technician's Declaration Statement** has not been completed or information is missing.
8. The **Responsible Person's Declaration Statement** has not been completed or information is missing.

6 Knowledge Base for California Title 24 Mechanical Acceptance Test Technicians

6.1 Reference Materials

- SMACNA HVAC Systems Application
- SMACNA HVAC Systems Testing, Adjusting and Balancing
- SMACNA TAB Procedural Guide
- SMACNA HVAC Air Duct Leakage Test Manual
- SMACNA HVAC Systems Duct Design
- California Code of Regulation Title 24 Part 1 Section 10-102, 10-103 and 10-103.2 as well as well as Part 6 section 120.5
- Current and next most-recent California Energy Codes
- Current and next most-recent Nonresidential Appendix NA 7 – Installation and Acceptance Requirements for Nonresidential Buildings and Covered Processes including Mechanical Systems Compliance Forms and Mechanical Systems Acceptance Forms, with additional sections and forms as referenced and required for Mechanical Acceptance Testing.
- Current and next-most recent Nonresidential Compliance Manual Section 13. Acceptance Requirements, including all sections as referenced and required for Mechanical Acceptance Testing.

6.2 Mechanical Acceptance Test Technician (MATT) Levels 1 and 2

The Mechanical Acceptance Test Technician must be knowledgeable about

- Current and next most-recent California Code of Regulation Title 24 Part 1 Section 10-102 and 10-103.2 as well as well as Part 6 section 120.5
- Current and next most-recent California Energy Code
- Current and next most-recent Nonresidential Compliance Manual Section 13, Acceptance Requirements

6.2.1 MATT Level 1

Specifically, the MATT Level 1 Knowledge Base includes the Mechanical Systems Acceptance Tests listed in Section 10-103.2(b)1.B of the current and next most-recent Building Energy Efficiency Standards. Beginning with the 2019 California Energy Code, MATT Level 1 will also include NA7.5.17 Occupied Standby Acceptance.

For clarification, for the 2016 Standards the MATT Level 1 Scope includes the following eight (8) Mechanical Acceptance Tests:

- i. NA7.5.1 Outdoor Air Ventilation Systems
- ii. NA7.5.2 Constant Volume, Single Zone Unitary Air Conditioners and Heat Pumps
- iii. NA7.5.4 Air Economizer Controls
- iv. NA7.5.5 Demand Control Ventilation Systems
- v. NA7.5.6 Supply Variable Flow Controls
- vi. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls
- vii. NA7.5.10 Automatic Demand Shed Controls

Beginning with the 2019 Standards, the NA7.5.17 Occupied Standby Acceptance will also be included as part of the MATT Level 1 scope. The MATT Level 1 scope will otherwise concur with any changes to Section 10-103.2(b)1.B of the Standards after 2019.

6.2.2 MATT Level 2

The Level Two MATT Knowledge Base includes all the Mechanical Systems Acceptance Tests listed in section 120.5 of the current and next most-recent Building Energy Efficiency Standards, including Duct Leakage Testing as referenced in Nonresidential Appendix NA1.9.

For clarification, for the 2016 Standards the MATT Level 2 scope includes the following (18) Mechanical Acceptance Tests:

1. NA7.5.1 Outdoor air ventilation systems (MATT Level 1 & 2)
2. NA7.5.2 Constant-Volume, Single Zone Unitary Air Conditioners and Heat Pumps (MATT Level 1 & 2)
3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only)
4. NA7.5.4 Air Economizer Controls (MATT Level 1 & 2)
5. NA7.5.5 Demand Control Ventilation Systems as required by the Standards (MATT Level 1 & 2)
6. NA7.5.6 Supply Variable Flow controls (MATT Level 1 & 2)
7. NA7.5.7, NA7.5.9 Hydronic System Variable Flow Controls (MATT Level 1 & 2)
8. NA7.5.7 Boiler and/or Chiller Isolation (MATT Level 1 & 2)
9. NA7.5.8 Hydronic Systems Supply Temperature Reset Controls (MATT Level 2 only)
10. NA7.5.10 Automatic Demand Shed Controls (MATT Level 1 & 2)
11. NA7.5.11 Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
12. NA7.5.12 Automatic Fault Detection and Diagnostics (FDD) for Air Handling Units and Zone Terminal Units (MATT Level 2 only)
13. NA7.5.13 Distributed Energy Storage DX AC Systems (MATT Level 2 only)
14. NA7.5.14 Thermal Energy Storage (TES) Systems (MATT Level 2 only)
15. NA7.5.15 Supply Air Temperature Reset Controls (MATT Level 2 only)
16. NA7.5.16 Water-cooled Chillers served by Cooling Towers with Condenser Water Reset Controls (MATT Level 2 only)
17. Part 6 as applicable Energy Management Controls System (MATT Level 2 only)

Beginning with the 2019 Standards, MATT Level 2 scope will also include:

18. NA7.5.17 Occupant Sensing Zone Controls (MATT Level 1 and 2)

Beginning with the 2019 Standards, Item 3. NA7.5.3 Duct Systems as required by the Standards (MATT Level 2 only) will include Duct Leakage Test Verification services normally provided by a Home Energy Rating System (HERS) rater. Item 17. Energy Management Controls Systems will be tested according to NA7.7.2 The MATT Level 2 scope will otherwise concur with any changes to Section 10-120.5 of the Standards after 2019.

6.3 MATT Curricula

6.3.1 MATT (Level 1 & 2) Curricula

The Mechanical Acceptance Test Technician must be knowledgeable about the purpose of these tests, the use of proper instrumentation to execute them, the conditions under which these tests need to be performed, and the acceptance criteria and potential issues when doing these tests. Specifically, the Acceptance Test Technician must be knowledgeable about how to perform:

- Construction inspection for each system included with each test.
- Identification of control methods for each tested system.
- Functional testing of required aspects of each tested system
- Completion of the pertinent Certificate of Acceptance for each tested system

Scope of training curricula for MATTs shall include, but not be limited to, the analysis, theory, and practical application of the domains as identified in the current and next-most recent California Code of Regulation Title 24 Part 1, Section 10-103.2(c)3.B.i as they correspond to the mechanical acceptance tests within each of the scopes of MATT Level 1 and MATT Level 2 as identified in Section 6.2 of the Manual.

6.3.2 MATT Level 1 Curricula

For clarification, for the 2016 and 2019 Standards the MATT Level 1 Curricula includes:

- i. Constant volume system controls
- ii. Variable volume system controls
- iii. Air-side economizers
- iv. Demand controlled ventilation with CO₂sensors
- v. Demand controlled ventilation with occupancy sensors
- vi. Automatic demand shed controls
- vii. Hydronic valve leakage
- viii. Hydronic system variable flow controls
- ix. Outdoor air ventilation systems
- x. Supply fan variable flow controls
- xi. Boiler and chiller isolation controls
- xii. Building Energy Efficiency Standards mechanical acceptance testing procedures
- xiii. Building Energy Efficiency Standards acceptance testing compliance documentation for mechanical systems.

The MATT Level 1 Curricula will otherwise correspond to domains as identified in Section 10-103.2(c)3.B.i of the Standards and relating to the mechanical acceptance tests identified in Section 6.2.1 of this Manual for any changes to the Standards after 2019.

6.3.3 MATT Level 2 Curricula

For clarification, for the 2016 and 2019 Standards the MATT Level 2 Curricula includes:

- a. Constant volume system controls (MATT Level 1 & 2)
- b. Variable volume system controls (MATT Level 1 & 2)
- c. Air-side economizers (MATT Level 1 & 2)
- d. Air distribution system (MATT Level 2 only)
- e. Demand controlled ventilation with CO₂sensors (MATT Level 1 & 2)
- f. Demand controlled ventilation with occupancy sensors (MATT Level 1 & 2)
- g. Automatic demand shed controls (MATT Level 1 & 2)
- h. Hydronic valve leakage (MATT Level 1 & 2)
- i. Hydronic system variable flow controls (MATT Level 1 & 2)
- j. Supply air temperature reset controls (MATT Level 1 & 2)
- k. Condenser water temperature reset controls (MATT Level 2 only)

Knowledge Base for California Title 24 Mechanical Acceptance Test Technicians

- l. Outdoor air ventilation systems (MATT Level 1 & 2)
- m. Supply fan variable flow controls (MATT Level 1 & 2)
- n. Boiler and chiller isolation controls (MATT Level 1 & 2)
- o. Fault detection and diagnostics for packaged direct-expansion units (MATT Level 2 only)
- p. Automatic fault detection and diagnostics for air handling units and zone terminal units (MATT Level 2 only)
- q. Distributed energy storage direct-expansion air conditioning systems (MATT Level 2 only)
- r. Thermal energy storage systems (MATT Level 2 only)
- s. Building Energy Efficiency Standards mechanical acceptance testing procedures (MATT Level 1 & 2)
- t. Building Energy Efficiency Standards acceptance testing compliance documentation for mechanical systems. (MATT Level 1 & 2)

The MATT Level 2 Curricula will otherwise correspond to domains as identified in Section 10-103.2(c)3.B.i of the Standards and relating to the mechanical acceptance tests identified in Section 6.2.2 of this Manual for any changes to the Standards after 2019.

7 Knowledge Base for California Title 24 Acceptance Test Employers

7.1 Reference Materials

- SMACNA HVAC Systems Application
- SMACNA HVAC Systems Testing, Adjusting and Balancing
- SMACNA TAB Procedural Guide
- SMACNA HVAC Air Duct Leakage Test Manual
- SMACNA HVAC Systems Duct Design
- Current and next most-recent California Code of Regulation Title 24 Part 1 Section 10-102, 10-103 and 10-103.2 as well as well as Part 6 section 120.5
- Current and next most-recent California Energy Code
- Current and next most-recent Nonresidential Appendix NA 7 – Installation and Acceptance Requirements for Nonresidential Buildings and Covered Processes including Mechanical Systems Compliance Forms and Mechanical Systems Acceptance Forms, with additional sections and forms as referenced and required for Mechanical Acceptance Testing.
- Current and next most-recent Nonresidential Compliance Manual Section 13. Acceptance Requirements, including all sections as referenced and required for Mechanical Acceptance Testing.

7.2 Mechanical Acceptance Test Employer (MATE)

The Mechanical Acceptance Test Employer must be knowledgeable about

- Current and next most-recent California Code of Regulation Title 24 Part 1 Section 10-102 and 10-103.2 as well as well as Part 6 section 120.5
- Current and next most-recent California Energy Code
- Current and next most-recent Nonresidential Appendix NA 7 – Installation and Acceptance Requirements for Nonresidential Buildings and Covered Processes including Mechanical Systems Compliance Forms and Mechanical Systems Acceptance Forms, with additional sections and forms as referenced and required for Mechanical Acceptance Testing.

7.3 MATE Curricula

The Mechanical Acceptance Test Employer must be knowledgeable about the construction inspection, functional testing and acceptance criteria of the mechanical systems acceptance tests according to the current and next most-recent Nonresidential Appendix NA 7.5, with additional sections and forms as referenced and required for Mechanical Acceptance Testing.