

HB 1630

**RELATING TO
ELEVATOR
MECHANICS**

A BILL FOR AN ACT

RELATING TO ELEVATOR MECHANICS.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF HAWAII:

1 SECTION 1. Elevators are one of the safest modes of
2 transportation. There are an estimated eighteen billion
3 elevator trips taken per year in the United States. With the
4 continued vertical growth of urban Honolulu, including some
5 condominium developments that exceed forty floors, it is
6 important for Hawaii to ensure that state laws governing repair
7 and maintenance of elevators remain current. The elevator
8 mechanics' statute, chapter 448H, Hawaii Revised Statutes, has
9 not been updated in more than ten years.

10 Like many other sectors, the elevator industry is
11 undergoing rapid technological advancements which require
12 elevator mechanics to expand their knowledge and skills through
13 training and education to ensure that licensing standards and
14 core competencies are met. With the advancements in the
15 industry, it is necessary for mechanics to demonstrate core
16 competencies when installing, repairing, and maintaining all
17 elevators, escalators, and other vertical transportation.



H.B. NO. 1630

1 The purpose of this Act is to strengthen regulatory
2 oversight of the licensed profession of elevator mechanics by
3 amending the permissible scope of work, apprenticeship and
4 licensing requirements, and remote interaction requirements.

5 SECTION 2. Chapter 448H, Hawaii Revised Statutes, is
6 amended by adding five new sections to be appropriately
7 designated and to read as follows:

8 "§448H-A Examination. Every applicant shall be examined
9 and shall pass an examination to be eligible for licensure.

10 Every applicant shall:

- 11 (1) Pay an examination fee as provided in the rules
12 adopted by the director of commerce and consumer
13 affairs pursuant to chapter 91;
14 (2) Pass the examination with not less than seventy per
15 cent correct;
16 (3) Take the examination no more than once per quarter;
17 and
18 (4) Not be allowed to review any of the applicant's failed
19 examinations.

20 §448H-B Application fees; license renewals. (a)

21 Application, examination, license, temporary permit, and



1 biennial renewal fees shall be as provided in rules adopted by
2 the director of commerce and consumer affairs pursuant to
3 chapter 91. A fee shall be required for each reexamination.
4 Application fees are not refundable.

5 (b) Licenses shall expire on June 30 of each even-numbered
6 year. An applicant for license renewal shall:

7 (1) Pay all required fees; and

8 (2) Meet the requirements prescribed in section 448H-C.

9 §448H-C Continued competency; renewals. Prior to each
10 license renewal, all licensed elevator mechanics shall:

11 (1) Furnish the board with a certificate of completion in
12 an educational course approved by the board of not
13 less than eight hours related to the elevator
14 industry; or

15 (2) Furnish the board with proof of completion of not less
16 than eight hours in a qualified elevator inspector
17 continuing education course offered by an American
18 National Standards Institute accredited certifying
19 organization.

20 §448H-D Elevator mechanics scope of work. (a) All
21 construction, reconstruction, alteration including flooring and



1 all elevator cab work with the exclusion of cleaning and
2 painting, maintenance, repair, troubleshooting, mechanical, or
3 electrical work or adjustments, which includes but is not
4 limited to updating software, changing parameters, resetting
5 faults, and operation of all systems and functions, shall be
6 performed by a licensed elevator mechanic. Work on adjustment
7 of the structure or facility of which the conveyance may be part
8 or to which the conveyance may be attached, including any
9 construction, reconstruction, alteration including flooring and
10 all elevator cab work with the exclusion of cleaning and
11 painting, necessary for proper completion of the work on the
12 conveyance shall be performed by a licensed elevator mechanic.

13 (b) Licensure as an elevator mechanic shall not be
14 required for dismantling or removing a conveyance; provided that
15 the building or structure, as defined by its foundation outline,
16 is totally secure from public and unauthorized access and the
17 entire building is completely demolished down to and including
18 the foundation. Otherwise, dismantling or removing a conveyance
19 shall be performed by a licensed elevator mechanic.

20 §448H-E Remote interaction. Remote interaction of a
21 conveyance shall not be permitted without the express permission



1 of a licensed elevator mechanic who shall be physically present
2 at the conveyance; provided that this requirement shall not
3 preclude remote interaction with the conveyance from within the
4 building or complex in which the conveyance is located if the
5 interaction is for the sole purpose of securing, locking, or
6 providing private use of the conveyance."

7 SECTION 3. Section 448H-1, Hawaii Revised Statutes, is
8 amended as follows:

9 1. By adding two new definitions to be appropriately
10 inserted and to read:

11 "Conveyance" means any elevator, dumbwaiter, stage lift,
12 mechanized parking garage elevator, escalator, moving walk or
13 ramp, or lift.

14 "Remote interaction" means an action to monitor, diagnose,
15 manipulate, or interact with the controls of a conveyance
16 remotely, or from within the building or complex."

17 2. By amending the definitions of "apprentice elevator
18 mechanic" and "elevator mechanic" to read:

19 "Apprentice elevator mechanic" means any person who is
20 [in] enrolled in a registered apprenticeship program under an
21 apprenticeship agreement registered with the department of labor



1 and industrial relations, is actively training to acquire the
2 skill to become an elevator mechanic, and who is required to
3 work for [at least four years] no less than four and one half
4 years full time or its equivalent, but not less than nine
5 thousand hours under the supervision of an elevator mechanic
6 duly licensed under section 448H-6.

7 "Elevator mechanic" means any person who engages in the
8 construction, reconstruction, alteration, maintenance, repair,
9 troubleshooting, mechanical, or electrical work or adjustments,
10 which includes but is not limited to updating software, changing
11 parameters, resetting faults, and the operation of all systems
12 and functions, of any [elevator, dumbwaiter, stage lift,
13 mechanized parking garage elevator, escalator, moving walk or
14 ramp, lift] conveyance including any construction,
15 reconstruction, alteration, or adjustment of the structure or
16 facility of which the same may be a part or to which the same
17 may be attached, necessary for proper completion of the work on
18 the [elevator, dumbwaiter, stage lift, mechanized parking garage
19 elevator, escalator, moving walk or ramp, or lift.] conveyance."

20 SECTION 4. Section 448H-5, Hawaii Revised Statutes, is
21 amended to read as follows:



1 "§448H-5 Powers and duties of the board. In addition to
2 any other powers and duties authorized by law, the board shall:

3 (1) Adopt rules in accordance with chapter 91 to carry out
4 the purposes of this chapter;

5 (2) Develop, apply, review and upgrade appropriate
6 techniques, including examinations and investigations
7 for determining whether a person meets the
8 requirements of this chapter and standards to insure
9 that elevator mechanics will be persons qualified to
10 serve as such;

11 (3) Prescribe, at a minimum, that a nationally recognized
12 examination, augmented with locally developed
13 material, be used in testing for licensure [~~the~~
14 ~~passing grade for the examination to be not less than~~
15 ~~seventy per cent~~];

16 (4) Issue licenses to persons determined, after
17 application of those techniques, to have met the
18 required qualifications and revoke or suspend
19 licenses [~~]~~ previously issued by the board, pursuant
20 to hearings held in accordance with chapter 91, in any
21 case where the individual holding any license is



1 determined substantially to have failed to conform to
2 the required qualifications, this chapter, or the
3 rules of the board;

4 (5) Establish and carry out procedures designed to insure
5 that persons licensed as elevator mechanics will,
6 during any period they serve as such, comply with the
7 requirements of this chapter, the rules of the board,
8 and chapter 397 and rules adopted thereunder;

9 (6) Receive, investigate, and take appropriate action with
10 respect to, any charge or complaint filed with the
11 board to the effect that any individual licensed as an
12 elevator mechanic has failed to comply with the
13 requirements of this chapter regarding any complaint
14 regarding job performance by mechanics, the rules of
15 the board, or chapter 397 and the rules adopted
16 thereunder;

17 ~~[(7) Register apprentice elevator mechanics;~~

18 ~~(8)]~~ (7) Maintain a record of its proceedings;

19 ~~[(9)]~~ (8) Assist and advise the department of labor and
20 industrial relations in the adoption of rules relating
21 to the conditions of work for elevator mechanics



1 including requirements related to equipment or
2 facilities essential for the safe installation,
3 repair, maintenance, or alteration of any [~~elevator,~~
4 ~~dumbwaiter, escalator, moving walk or ramp, and lift,~~]
5 conveyance; and

6 [~~(10)~~] (9) Notify the department of labor and industrial
7 relations of any fact or situation that, in the
8 opinion of the board, constitutes a violation of
9 chapter 397 or of any rule adopted thereunder."

10 SECTION 5. Section 448H-6, Hawaii Revised Statutes, is
11 amended to read as follows:

12 "§448H-6 Qualifications for license. No person shall be
13 licensed as an elevator mechanic unless the person has
14 satisfactorily passed the examination administered by the board
15 and [~~satisfactorily completed at least four years of training~~
16 ~~under the supervision of a licensed elevator mechanic.~~] has met
17 the following minimum qualifications:

18 (1) The applicant has obtained a certificate of completion
19 from an apprenticeship program registered with the
20 department of labor and industrial relations and has
21 successfully passed the elevator mechanic's



1 examination of a nationally-recognized training
2 program as approved by the board with standards
3 similar to but not less than those set forth by the
4 National Elevator Industry Educational Program; and

5 (2) The applicant has satisfactorily completed no less
6 than four and one-half years full time work or its
7 equivalent, but not less than nine thousand hours,
8 under the supervision of an elevator mechanic duly
9 licensed under section 448H-6. The board shall, by
10 rule, establish the terms for the verification of time
11 in the industry."

12 SECTION 6. Section 448H-7, Hawaii Revised Statutes, is
13 amended to read as follows:

14 "~~§448H-7~~ Temporary permit. The board may issue a
15 temporary permit to [any] the following:

16 (1) Any person who has qualified as an elevator mechanic
17 in another state with standards substantially equal to
18 those of this chapter and who possesses skills or
19 training not available in the State[; ~~provided that~~
20 ~~the board shall not register any such person as an~~
21 ~~apprentice elevator mechanic]~~. The board shall, by



1 rules and regulations, establish the terms of the
 2 temporary permit [-]; and
 3 (2) An elevator mechanic apprentice who has a minimum of
 4 three years full time work experience, but not less
 5 than six thousand hours, under the supervision of an
 6 elevator mechanic duly licensed under section 448H-6,
 7 if there is a shortage of elevator mechanics in the
 8 State. The board shall, by rule, establish the terms
 9 for the determination of a shortage of elevator
 10 mechanics, the verification of time in the industry,
 11 and the terms of the apprentice's temporary permit."

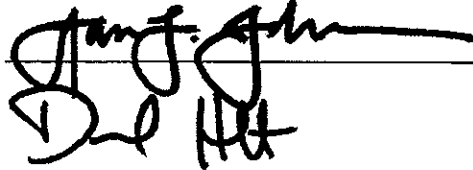
12 SECTION 7. In codifying the new sections added by section
 13 2 of this Act, the revisor of statutes shall substitute
 14 appropriate section numbers for the letters used in designating
 15 the new sections in this Act.


16 SECTION 8. Statutory material to be repealed is bracketed
 17 and stricken. New statutory material is underscored.

18 SECTION 9. This Act shall take effect on July 1, 2018.

19

INTRODUCED BY:






H.B. NO. 1630

Report Title:

Elevator Mechanics; Apprenticeship; Licensure Requirements

Description:

Amends requirements for apprenticeship and licensure of elevator mechanics and adds provisions relating to examination, license renewals, continued competency, scope of work, and remote interaction.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.

HB HMS 2017-4314-1



HB 1630

TESTIMONY

**PRESENTATION OF THE
ELEVATOR MECHANICS LICENSING BOARD**

TO THE HOUSE COMMITTEE ON
LABOR AND PUBLIC EMPLOYMENT

TWENTY-NINTH LEGISLATURE
Regular Session of 2018

Tuesday, January 30, 2018
9:30 AM

TESTIMONY ON HOUSE BILL NO. 1630, RELATING TO ELEVATOR MECHANICS.

TO THE HONORABLE AARON LING JOHANSON, CHAIR, AND MEMBERS OF THE
COMMITTEE:

My name is Kedin Kleinhans, and I am the Executive Officer of the Elevator Mechanics Licensing Board ("Board"). Thank you for the opportunity to testify on H.B. 1630, which is a companion to S.B. 2494. The Board has not had an opportunity to fully review and discuss this bill, but it is similar to last session's bill, H.B. 1381, Relating to Elevator Mechanics. As such, the Board supports some sections of this bill but has concerns about other sections, as set forth in this testimony.

This measure amends Hawaii Revised Statutes ("HRS") chapter 448H by adding an examination requirement, revising the procedure for license renewals, adding a new section regarding scope of practice, adding a new section regarding remote interaction, adding and revising definitions, revising the powers and duties of the Board, revising the qualifications for licensure, and creating criteria for the issuance of temporary permits for apprentices.

Regarding the proposed section 448H-A, Examinations, the Board recommends deleting paragraph (1), page 1, lines 11-13, and paragraph (3), page 1, lines 16-17. Since the Department of Commerce and Consumer Affairs' Professional and Vocational Licensing Division provides for elevator mechanic fees (as well as fees for all other boards, commissions, and programs) in Hawaii Administrative Rules chapter 53, paragraph (1) is unnecessary. In

addition, paragraph (3) is too restrictive, and therefore should be removed. The Board recommends retaining paragraph (4), as that will help retain the integrity of the exam.

Regarding the proposed section 448H-C, Continued competency; renewals, the Board supports the eight-hour continuing education requirements but is still discussing the type of documentation that will be sufficient.

The Board recommends adding language for a random audit, similar to provisions other licensing boards have regarding continuing education requirements, as it will help the Board enforce the continuing education requirements while reducing the workload in verifying compliance of those requirements. Additionally, the Board recommends adding language that would allow elevator mechanics licensed in the second half of the biennium to begin meeting the C5 requirements in the following biennium.

Regarding proposed section 448H-D(a), Elevator mechanics scope of work, the Board respectfully requests the exclusion on page 4, lines 1-2 be revised to make clear that only cleaning and painting elevators cabs are excluded from the scope of work requiring an elevator mechanic's license. As currently drafted, the exclusion could be broadly interpreted to apply to all the work enumerated on page 4, lines 1-6. To that end, a period could be added after the word "painting" on page 4 line 2, and a new sentence could begin with the word "[m]Maintenance" to create two sentences.

Regarding the language on page 4, subsection (b), if the intent of this subsection is to not require licensure for elevator demolition where the entire building is being demolished, the Board respectfully suggests that the sentence be revised to add "being" on page 4, line 17 before "completely" so that the sentence reads "entire building is being completely demolished down to and including" This revision may more accurately capture work that would occur during demolition.

The Board supports the definitions for “conveyance” on page 5, lines 11-13 and “elevator mechanic” on page 6, lines 7-19, and the Board agrees that electrical adjustments such as updating software, changing parameters, and resetting faults of any conveyance fall within the scope of an elevator mechanic.

The Board was unable to take a position on the proposed minimum qualifications for licensure, page 9, line 18 to page 10, line 4. Currently, applicants may either complete a formal training program or obtain training under a licensed elevator mechanic. As proposed, this bill would eliminate the latter avenue of training. The Board would like to make sure that all applicants receive the same training, and obtaining it in a formal program would accomplish that. However, the Board would not want to prevent qualified individuals from being licensed or inadvertently exacerbate the shortage of licensed elevator mechanics in Hawaii.

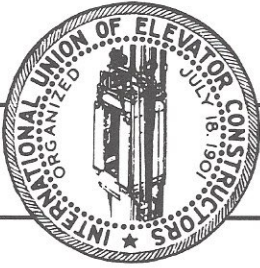
The Board is aware that certain small businesses in Hawaii’s elevator mechanic industry work solely on a specific set of conveyances, such as American with Disabilities Act lifts, and these businesses do not perform work on elevators and escalators. However, the repair of these lifts fall within the scope of a licensed elevator mechanic. The Board is also aware that employees of these businesses have difficulty getting licenses due to their limited training. Accordingly, requiring these individuals to attend formal training programs for conveyances on which they do not perform work would be onerous. The Board will continue to discuss this bill and explore options to address the impact it will have on these small businesses.

As the Board has not had an opportunity to fully review this bill, the Board is unable to take a position on the following sections: (1) HRS section 448H-B, Application fees; license renewals; (2) HRS section 448H-D, Elevator mechanics scope of work; (3) HRS section 448H-E, Remote interaction; (4) HRS section 448H-1, page 5, line 19 to page 6, line 3, the definition of “apprentice elevator mechanic”; (5) HRS 448H-5, Powers and duties of the board, paragraph

(7), page 8, line 17; and (6) HRS section 448H-7, Temporary permit, paragraph (2), page 11, lines 3-11.

The Board will meet again to discuss these issues at its next Board meeting on February 2, 2018.

Thank you for the opportunity to testify on H.B. 1630.



LOCAL UNION NO. 126



OF THE

International Union of Elevator Constructors

AFFILIATED WITH THE AFL-CIO

SUITE 215, 707 ALAKEA STREET • HONOLULU, HI 96813 • TELEPHONE (808) 536-8653 • FAX (808) 537-3779

The Twenty-Ninth Legislature
Regular Session of 2018
Hawaii State House of Representatives
Committee on Labor and Public Employment

Tuesday, January 30, 2018
9:30 AM, Conference Room 309

House Bill No. 1630 – Relating to Elevator Mechanics

The Honorable Aaron Ling Johanson, Chair, Daniel Holt, Vice-Chair, and Esteemed Members of the House Committee on Labor and Public Employment

HB 1630 proposes to amend the current statutes that govern the licensing of elevator mechanics within the State of Hawaii. It has been numerous years since the statute has been updated and during this same period technology has advanced exponentially. In order for elevator mechanics to keep pace with this technology they must show and exhibit continued competence in their craft. Not only does this hone the skillset of the elevator mechanic but it will necessitate the elevator mechanic to stay current with the latest codes and technology.

The International Union of Elevator Constructors, Local 126 represents the men and women installing, repairing, and maintaining all elevators, escalators, and other vertical transportation in the State of Hawaii. The Elevator Constructor is a highly skilled craft with some of the most stringent and extensive education within the elevator industry and the construction industry as a whole. However, the current State of Hawaii licensing requirements does not coincide with the standards and the level of technology that are currently being introduced and installed.

The proposed amendments to HRS 448H are meant to strengthen the licensing law and help to discourage unlicensed activity by adding continued competency, increasing and defining the qualifications to become licensed, adding a 9000 hour on the job training requirement which, will remove the task of apprenticeship registration by the Department of Commerce and Consumer Affairs, better defining an elevator mechanic's scope of work, and better defining the powers and duties of the elevator mechanic's licensing board.

Licensing is in place for the safety and protection of the consumer and strengthening the elevator mechanic's licensing laws can only serve to benefit our industry as a whole by raising the bar for elevator mechanics which in turn will provide a better and safer product to the riding public. When it comes to safety there is no compromise and for these reasons the International Union of Elevator Constructors, Local 126 is in **strong support** of HB 1630.

Respectfully submitted,

Marc Yamane

Business Representative

International Union of Elevator Constructors, Local 126

HB-1630

Submitted on: 1/29/2018 9:11:40 AM

Testimony for LAB on 1/30/2018 9:30:00 AM

Submitted By	Organization	Testifier Position	Present at Hearing
Geno Godinet	Access Lifts of Hawaii, Inc.	Oppose	Yes

Comments:

This is part of the testimony / comments sent on behalf of Access Lifts of Hawaii, Inc.

Thank you.

Hello, my name is Geno Godinet. I am the owner and operator of Access Lifts of Hawaii, Inc.. We are a license elevator contractor and have been in business since 1989. I have been in the industry for over 50 years. We are located on 1525 Young Street in Honolulu, Hawaii 96816, our phone number is 808-955-4387.

I, Geno Godinet and my company, Access Lifts of Hawaii, Inc. support the intent of the measure with comments and oppose Section 5.

Our comment; to point out that there is an industry within the elevator industry that needs to be addressed and separated. This industry within the elevator industry is the ADA (Americans Disability Act) accessibility equipment.

ADA accessibility equipment technicians should have a separate apprenticeship, licensing criteria and examination program separate from HB 1630. The reason is that accessibility lift equipment is not like main stream commercial elevators, escalators or freight elevators. With this bill, it would require ADA tech mechanics to be licensed for commercial elevators, escalators and freight elevators when in fact they'll never install or service and repair these types of equipment.

Oppose Section 5: §448H-6 Qualifications for Licensing.

We oppose this section in its' entirety due to the fact that this license is ONLY for main stream elevators and related equipment, escalators and freight elevators, etc. It does not cover or apply to any ADA accessibility equipment for installation, service and repairs of: Inclined (stairway) and vertical platform wheelchair lifts, chair lifts and residential home elevators.

ADA accessibility requires an apprenticeship, licensing or certification program, specifically for this industry separate from the main stream elevator industry.

Attached, please find a copy of CAT Program Introduced in 2005. The CAT Education Program is the nationally recognized training program included in NAEC's National Guidelines for Apprenticeship Standards (C2011-03) approved by the U.S. Department of Labor Office of Apprenticeship for ADA accessibility equipment. In addition, please find information on ADA accessibility equipment. Please note, this program is currently being used in 90% of the mainland states.

HB 1630

**LATE
TESTIMONY**

National Association of Elevator Contractors

CAT[®] EDUCATION

Program Guide

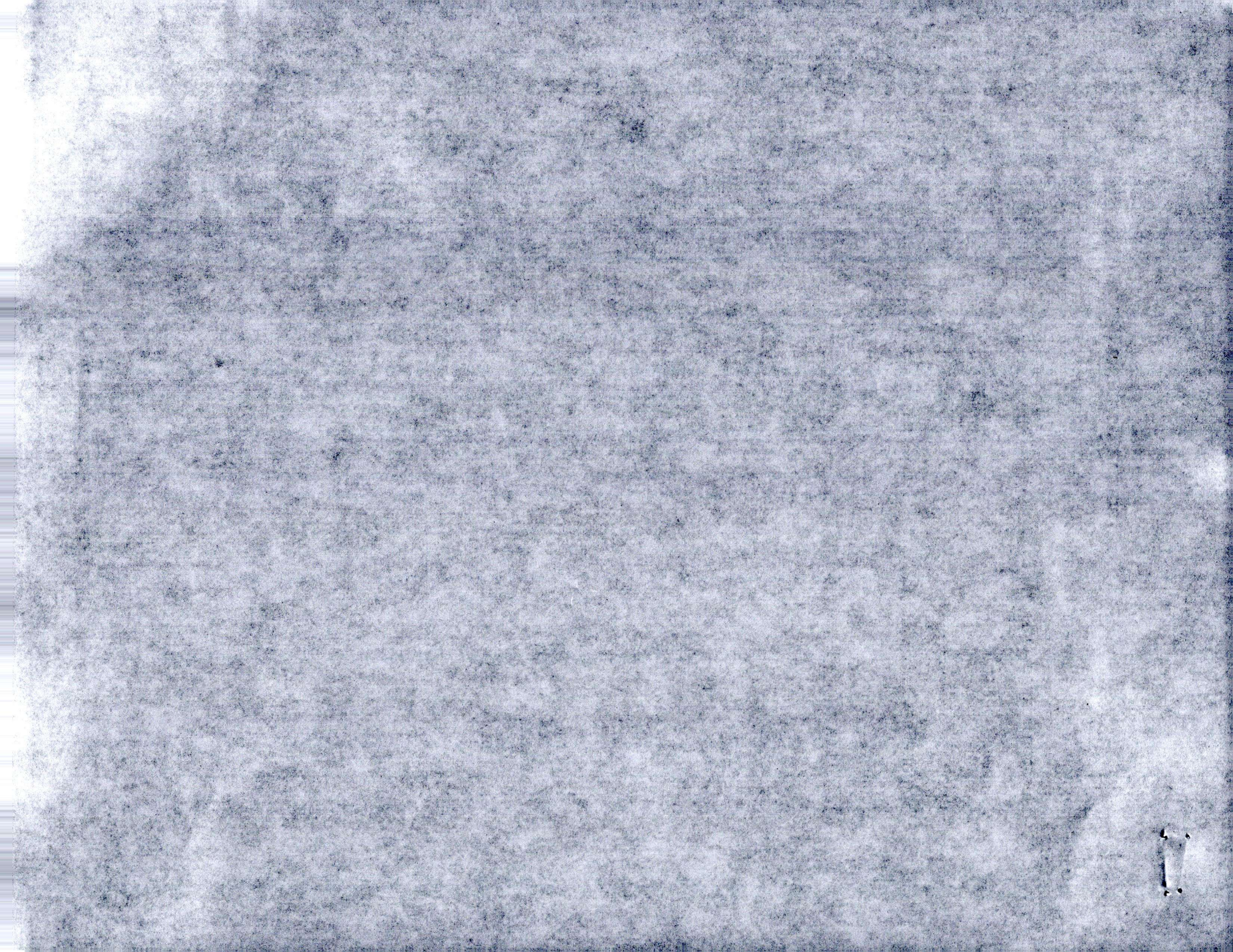
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NAEC'S CAT® EDUCATION PROGRAM

The Certified Accessibility and Private Residence Lift Technician (CAT®) Education Program is sponsored and administered by the National Association of Elevator Contractors (NAEC). The purpose of the CAT® Education Program is to provide the accessibility/residential lift industry technical, mechanical, construction, and maintenance workforces with a means of obtaining and verifying critical education and training requirements related to compliance with industry codes, private residence elevator and accessibility equipment specific technical theory, components, and competencies. It is a program which spans two years and 5 courses of study. In addition to unit exams given during the coursework, an exam will be given at the completion of the program. Each course will include skills verifications related to the coursework. The skills must be completed in the presence of a CAT or CAT-S before going onto the next course.

The CAT® Education Program is the nationally recognized training program included in NAEC's National Guidelines for Apprenticeship Standards (C2011-03) approved by the U.S. Department of Labor Office of Apprenticeship.

All CAT® Education course materials are available from Elevator World, Inc. They may be purchased on their website, www.elevatorbooks.com, or by calling 251.479.4514. Purchasers will need to provide their candidate number assigned to each CAT® candidate.

Program information may be obtained from the NAEC website at www.naec.org, or by calling 800.900.6232 or 770.760.9660.

Program Definitions

- **Candidate** is a participant/learner in the CAT® Education Program; an individual who has met all of the application requirements of the NAEC CAT® Education Program and has been accepted into the program.
- **CAT®** is a Certified Accessibility and Private Residence Technician who has met all the application requirements of the NAEC CAT® Certification Program, passed the required certification exam and has maintained their certification by completing all requirements of the annual renewal process. A current CAT® will hold a CAT® ID issued by the NAEC Certification Board
- **CAT-S** is a CAT® supervisor/administrator; an individual who is a CAT® (see definition above) and who has successfully completed the NAEC CAT® Supervisor Training Course. Each participating candidate must have access to a CAT-S. *

***Temporary Modification: Effective March 30, 2014 through March 30, 2018.**

A CAT-S will be allowed to administer the CAT program skills portion for a period of 4 years. (March 30, 2014 through March 30, 2018). Remote proctoring will be required on all exams for this option.



Education Program Outline

Candidate Application Process

- CAT Candidate Qualifications:
 - Must have a high school diploma, GED or equivalent;
 - Must be at least 18 years of age;
 - Must have access to the supervision of a CAT-S;
 - Must pay the application fee and annual candidate administration fee;
 - Must be able to read and write in English;
 - Must be a citizen of the United States or be legally authorized by the United States government to work and participate in a training program. The exception to this requirement is for individuals living outside the United States and not working in the United States; and
 - In addition to the above criteria NAEC strongly recommends that the CAT Candidate complete a Basic Skills Assessment (TABE test).
- Complete and submit online application at www.naec.org.
- NAEC will return your application for review and signature.
- Return to NAEC.
 - Application signed by candidate and authorized representative of employer;
 - Copy of High School Diploma or GED transcript;
 - Copy of photo ID that includes date of birth;
 - Certification Statement signed by candidate, CAT-S and authorized representative of employer;
 - Code of Ethics signed by candidate;
 - Application fee of \$200 for NAEC members or \$625 for non-members

Curriculum

- Consists of 5 courses:
 - Course 1: Introduction to the Vertical Transportation Industry
 - Course 2: Vertical Platform Lifts
 - Course 3: Inclined Platform Lifts
 - Course 4: Inclined Stairway Chairlifts
 - Course 5: Private Residence Elevators
- Courses must be completed in order;
- Approximately 2 years to complete; 300 total classroom hours;
- Course units consist of three basic parts:
 - Text based workbook.
 - On the job skills verification.
 - Unit/course exams (minimum passing score 85%).
- On the job skills must be completed in the presence of a CAT[®] or CAT-S.
- Upon completion of each unit or course an exam will be given. The exam will be
 - Online.
 - Closed book.
 - Questions chosen from study questions at the end of each unit/course chapter of the core curriculum.
 - Proctored by the candidate's CAT-S and carried out in accordance with NAEC testing guidelines.
- Curriculum can be purchased from approved NAEC vendor, Elevator World, Inc., at www.elevatorbooks.com using the candidate number assigned upon approval of program application.



Certificate of Completion

An individual will be awarded a Certificate of Completion for the CAT® Education Program and can apply for CAT® Certification based on the following criteria:

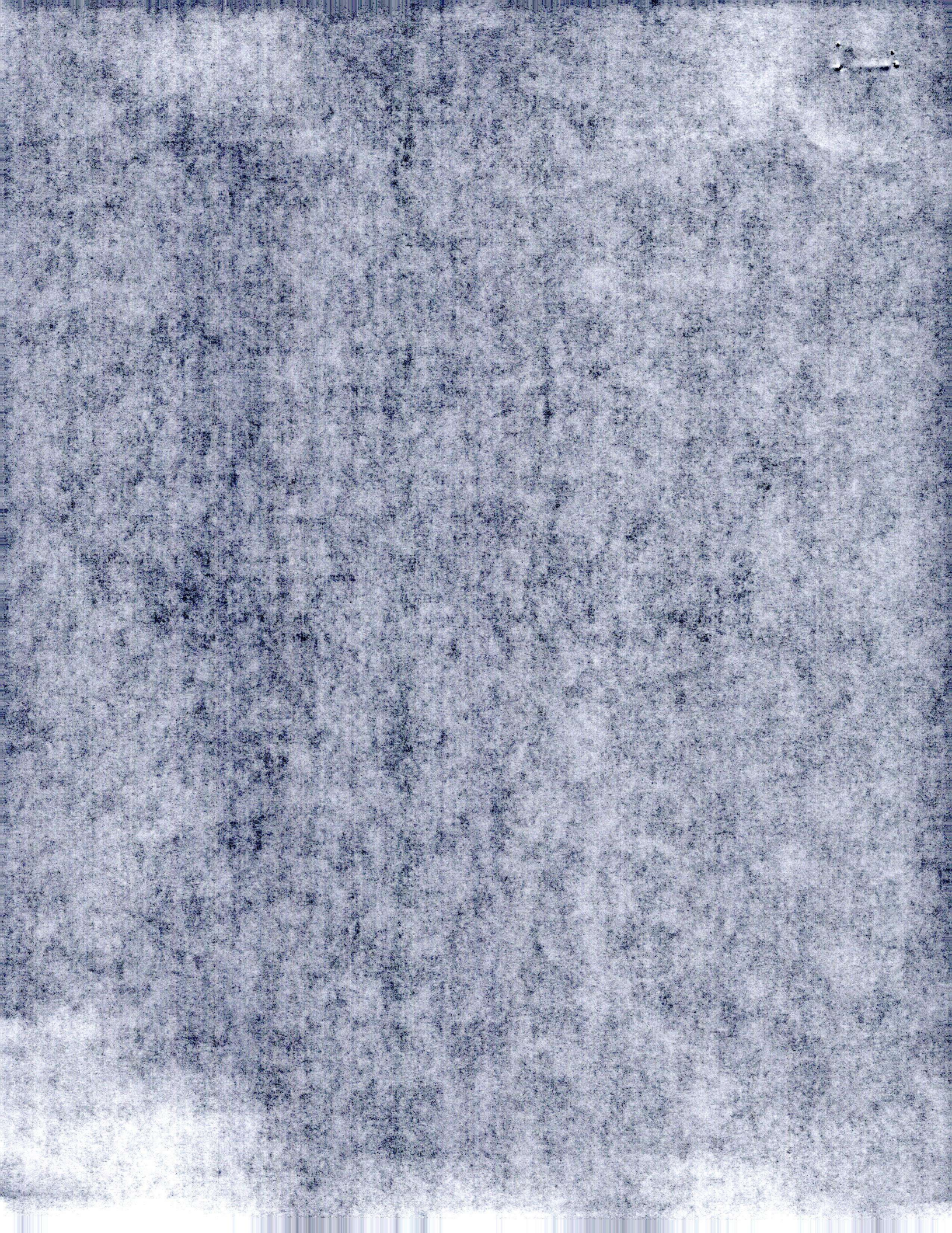
- Has met all of the application requirements of the NAEC CAT® Education Program;
- Has successfully completed all course requirements of CAT Education Program's curriculum (Course 1-5);
- Has documented at least 4,200 additional on-the-job training hours from the time of their candidate application approval;
- Has completed the required skills verifications; and
- Has passed the Final Exam

The Final Exam will be:

- Online;
- Closed book;
- Questions randomly chosen from study questions in the curriculum;
- Proctored by the candidate's CAT-S and a competent adult who is not the supervisor or related to the candidate in accordance with proctoring guidelines;
- Carried out in accordance with NAEC testing guidelines.

Minimum passing score for Final Exam is 85%. If the applicant fails the Final Exam, the following process will be applicable:

- After the 1st Time – The candidate may retake the examination (2nd attempt) after a 15-day waiting period,
- After Failing the 2nd Time – The candidate may retake the examination(3rd attempt) after a 15-day waiting period and paying a \$100 fee,
- After Failing the 3rd Time – The candidate may retake the examination (4th attempt) after a 60-day waiting period and paying a \$100 fee. Additionally, the candidate's CAT-S, and an officer of the candidate's company, must submit a signed and dated statement certifying that the candidate studied the respective curriculum chapter(s) that the candidate failed.
- After Failing the 4th Time – The candidate must repeat the entire Curriculum.



Curriculum Outline

COURSE 1: INTRODUCTION TO VERTICAL TRANSPORTATION INDUSTRY

Course 1 total: Class hours – 76
Field hours – 1000

COURSE 2: VERTICAL PLATFORM LIFTS

Course 2 total: Class hours – 40
Field hours – 500

COURSE 3: INCLINED PLATFORM LIFTS

Course 3 total: Class hours – 40
Field hours – 500

YEAR 1: TOTAL CLASS HOURS = 156 / TOTAL FIELD HOURS = 2,000

COURSE 4: INCLINED STAIRWAY CHAIRLIFTS

Course 4 total: Class hours – 20
Field hours – 400

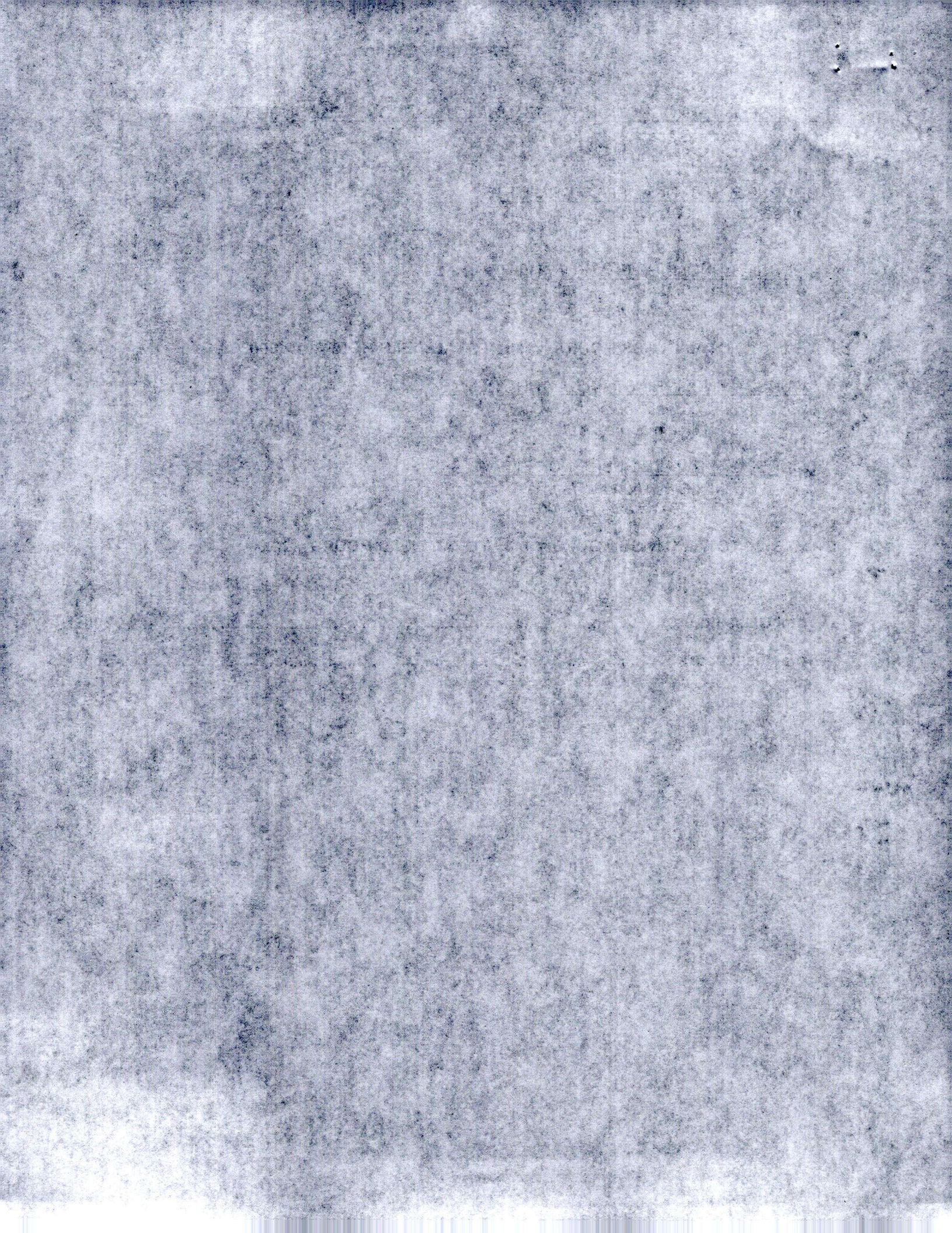
COURSE 5: PRIVATE RESIDENCE ELEVATORS

Course 5 total: Class hours – 124
Field hours – 1,800

YEAR 2: TOTAL CLASS HOURS = 144 / TOTAL FIELD HOURS = 2,200

Total Class hours 300

Total Field hours4200



CAT-S

Each candidate must have access to a CAT-S. In order to qualify as a CAT-S, an individual must first be certified as a CAT® and then must take and pass the CAT-S Examination. The CAT-S Examination is an online open book exam. An individual must obtain a score of 85% in order to pass the examination.

For a period of one year, beginning July 1, 2016 and ending June 30, 2017, the status of an archived CAT/CAT-S based on experience can renew and qualify to take the CAT-S examination. All the following criteria must be met for an archived individual to reinstate their CAT/CAT-S and become a CAT-S:

- An individual must first have been certified as a CAT/CAT-S for a minimum of one year prior to becoming archived
- Worked in the elevator/escalator industry a minimum of 30 years (documented proof required)
- Achieved the age of 60 years
- Pay a \$1,000 application fee
- Pass/re-pass the CAT-S examination
- Obtain 10 hours annually of CAT approved continuing education to maintain the CAT-S status once reinstated

At the end of the one year period, expiring June 30, 2017, the criteria for an archived individual to reinstate their CAT/CAT-S to CAT-S eligibility will become:

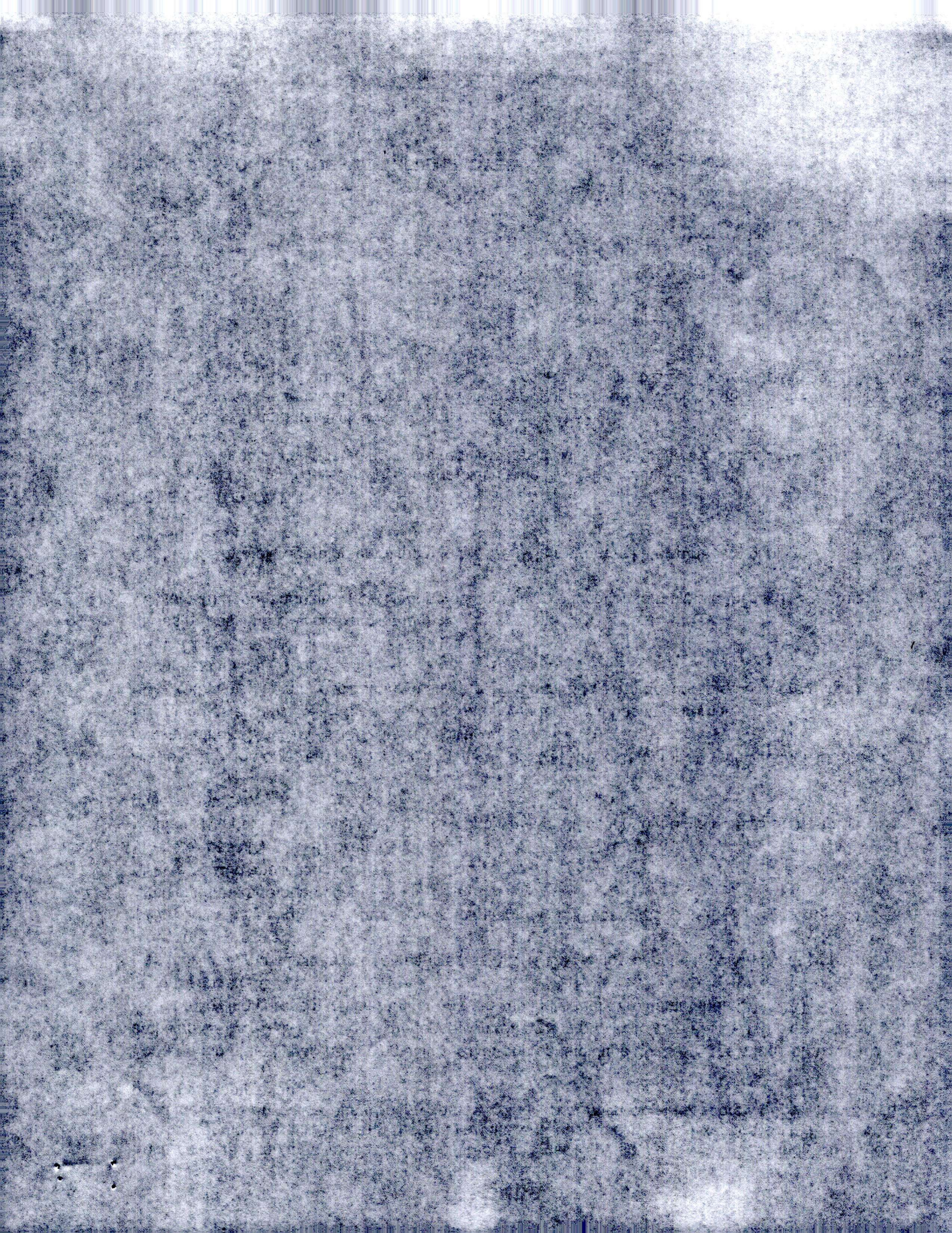
- Certified as a CAT/CAT-S for a minimum of ten years prior to becoming archived
- Worked in the elevator/escalator industry a minimum of 30 years (documented proof required)
- Achieved the age of 60 years
- Pay a \$1,500 application fee
- Pass/re-pass the CAT-S examination
- Obtain 10 hours annually of CAT approved continuing education to maintain the CAT-S status

Contact Kathy Bell regarding enrollment in the CAT-S program at kathy@naec.org or 800-900-6232.

ROLE OF THE CAT-S

- Help the Candidate succeed in completing the CAT® Education Program
- Ensure that candidates have the required basic skills to complete the program study materials.
- Assist candidates with their program application.
- Ensure that candidates have met all their requirements prior to taking each exam.
- Ensure that the online exams are taken in accordance with NAEC Testing Guidelines.

CAT-S RESPONSIBILITIES TO THE EMPLOYER



Like any industry-based training program, the CAT® Education program requires coordination between the learner and company operations to help ensure consistency in training, conservation of human and fiscal resources, and assurance that the related activities are conducted within the company policies, procedures, and respective industry safety rules, regulations, and codes. There are several key responsibilities associated with the CAT-S and company operations. These responsibilities include the following:

- To help screen and identify new employees who have the potential to successfully complete the training program.
- To ensure that all of the internal company paperwork for the candidate is properly completed and maintained (e.g., purchase orders and checks if the company is paying for the program, training records, etc.). Although the CAT-S would not actually be responsible for completing this paper work, the CAT-S would supervise the completion of such requirements.
- To ensure that the candidate has opportunities to learn and complete the various skills and tasks correlated with the CAT® Education Program and that appropriate supervisors assist in the skills verification portion of the program.
- To ensure that all program assessments and examinations are taken by each assigned Candidate and that these assessments and examinations were conducted in an environment conducive for such activities as specified by the NAEC Education Program. This responsibility includes ensuring that the assessments and examinations are properly proctored.
- To ensure that company management is kept up-to-date with the progress of each assigned candidate.
- To serve as a liaison between NAEC and the respective company.
- To ensure that the CAT® Education Program within the company is conducted in accordance with program guidelines.
- To ensure that all company and pertinent industry safety standards, procedures, and codes are followed throughout the candidate training activities.



CAT-S RESPONSIBILITIES TO THE CANDIDATE

The role of the CAT-S in the education program is a required element to help ensure that the candidate completes the program as designed and in a timely manner. This role should be viewed as more of a mentoring process where the CAT-S helps guide the candidate through the many steps of the education program. The specific responsibilities of the CAT-S as associated with the Candidate are as follows:

- To ensure that the reading and mathematics assessments are completed by each employee that may potentially participate in the education program and that these assessments are conducted in an environment conducive for such activities as specified in other portions of this publication.
- To assist identified employees with completing the online application for the education program.
- To assist the employee, once he or she officially becomes a candidate, in developing a study schedule and assist the candidate in developing good study habits.
- To assist the employee through the study process by providing a schedule and being available regularly to answer any technical questions the candidate may have.
- To ensure that all training assessments and examinations are taken by each assigned candidate and that these assessments and examinations are conducted in an environment conducive for such activities as specified by the NAEC Certification Board.
- To ensure that all Candidates have access to company personnel to facilitate the skills verification check-off.
- To review the results of examinations taken by the Candidate and to make arrangements for additional study activities in the event that a candidate has failed an examination.
- To take other reasonable efforts to help the candidate successfully complete the NAEC CAT® Education Program.

CAT-S TRAINING KIT

CAT-S applicants can purchase the CAT-S kit from Elevator World at www.elevatorbooks.com.

The kit contains all of the coursework. However some reference materials that the Candidate receives are not in the CAT-S kit. Attached is a book list broken down by year. A CAT-S may order these books separately as needed or as a supplemental library for the company. The supplemental books for the CAT-S are available at Elevator World.

SUPPLEMENTAL BOOKS FOR CAT-S

- Core Curriculum
 - Elevator Industry Field Employees Safety Handbook
 - ADA
 - Building Transportation
 - National Electrical Code 2011 (NEC)
 - *Compilation of VPL Manufacturer Information*
 - *Compilation of IPL Manufacturer Information*
 - *Compilation of ISC Manufacturer Information*
 - *Compilation of PRE Manufacturer Information*

NAEC CAT Education Program Fees

First Year Candidate Fees

	NAEC Member	Non-Member
Candidate Fee includes: ▪ Application, Administration Fee & Testing	\$ 200.00	\$ 625.00
Course I – Introduction to the Vertical Transportation Industry ▪ Course Guide ▪ Introduction to Vertical Transportation Industry Textbook	\$ 315.00	\$ 420.00
▪ Skills Verification Portfolio ▪ <i>Elevator Industry Field Employees' Safety Handbook</i>		▪ ADA ▪ <i>Building Transportation</i> ▪ <i>Poster of Accessibility Systems</i>
Course II – Vertical Platform Lifts ▪ Course Guide ▪ Vertical Platform Lifts textbook ▪ Skills Verification Portfolio	\$ 420.00	\$ 525.00
▪ <i>Compilation of VPL Manufacturer Information</i>		▪ <i>National Electrical Code 2011 (NEC)</i>
Course III – Inclined Platform Lifts ▪ Course Guide ▪ Inclined Platform Lifts textbook	\$ 262.00	\$ 367.00
▪ Skills Verification Portfolio		▪ <i>Compilation of IPL Manufacturer Information</i>
Cost for First Year of Program per Candidate	\$ 1,197.00	\$ 1,937.00

Second Year Candidate Fees

	NAEC Member	Non Member
Candidate Fee includes: ▪ Administration Fee & Testing	\$ 170.00	\$ 625.00
Course IV – Inclined Stairway Chairlifts ▪ Course Guide ▪ Inclined Stairway Chairlifts textbook	\$ 210.00	\$ 315.00
▪ Skills Verification Portfolio		▪ <i>Compilation of ISC Manufacturer Information</i>
Course V – Private Residence Elevators ▪ Course Guide ▪ Private Residence Elevators Vol 1 & 2 textbooks	\$ 420.00	\$ 525.00
▪ Skills Verification Portfolio		▪ <i>Compilation of PRE Manufacturer Information</i>
Cost for Second Year of Program per Candidate	\$ 800.00	\$ 1,465.00

Please note that the above fees are subject to change without notice.

CAT-S Kit Fees

CAT-S Core Curriculum Kit ▪ CAT-S Training Manual ▪ CAT-S Log Book ▪ Course 1 – Intro to Vertical Transportation Industry	\$ 630.00	\$ 785.00
▪ Course 2 – Vertical Platform Lifts ▪ Course 3 – Inclined Platform Lifts ▪ Course 4 – Inclined Stairway Lifts		▪ Course 5 – Private Residence Elevators ▪ <i>Poster of Accessibility Systems</i>
(Please note each CAT-S Kit can be one-time purchases – the kits can be maintained in-house and used by more than one CAT-S. The CAT-S Training Manual and CAT-S Log Books are elements of the kit that cannot be shared. They can be purchased separately after the purchase of the initial Kit if you have multiple CAT-S' in your company)		
Additional CAT-S Training Manuals	\$ 55.00 EACH	\$ 70.00 EACH
Additional/replacement CAT-S Log Books	\$ 30.00 EACH	\$ 35.00 EACH
TABE Assessment Materials: ▪ TABE-PC Starter Set – includes starter software & 7 test admins ▪ TABE-PC 50 – includes 50 test admins (requires starter set) ▪ TABE-PC 100 - includes 100 test admins (requires starter set)	\$ 175.00 \$ 442.00 \$ 837.00	\$ 200.00 \$ 530.00 \$1,005.00

Please note that the above fees are subject to change without notice.

Code of Ethics

Every program participant is required to sign a document attesting that he or she will follow the NAEC CAT® Code of Ethics.

CANDIDATE CODE OF ETHICS

In studying to become a CAT®, studying to renew a CAT certification, and working as a CAT®, I understand and agree to follow all elements of the NAEC CAT® Code of Ethics as specified in the following:

- *Providing falsified or misleading information related to my CAT® renewal constitutes good and sufficient grounds for the immediate cancellation of my CAT® Certification.*
- *Providing falsified or misleading information related to my CAT® Candidate Skills Verification constitutes good and sufficient grounds for the immediate cancellation of my CAT® Candidate status. Providing falsified or misleading information related to a CAT® Candidate Skills Verification constitutes good and sufficient grounds for the immediate cancellation of my CAT® status.*
- *Cheating or receiving help of any type not authorized by the NAEC on any education program examination or test constitutes good and sufficient grounds for the immediate cancellation of my CAT® Candidate status.*
- *Providing falsified or misleading information on work related documents, reports, and logs while working as a CAT® constitutes good and sufficient grounds for the immediate cancellation of my CAT® status.*
- *Failing to follow related industry codes, standards, local and federal laws related to my work related duties, and company work rules constitutes good and sufficient grounds for the immediate cancellation of my CAT® status.*

CAT-S CODE OF ETHICS

In carrying out the responsibilities of a CAT-S, I understand and agree to follow all elements of the NAEC CAT-S Code of Ethics as specified in the following:

- *Ensure that every candidate under my charge is dealt with in a fair and unbiased manner. Ensure that the confidentiality of every CAT® candidate under my charge is protected and that personal and CAT® program progress information will only be provided to the management of the sponsoring company and supervisors required to know to properly conduct their jobs.*
- *Ensure that CAT® program assessments and examinations of every CAT® under my charge are properly proctored and that verification by legal identification with pictures is provided to the proctor before the respective CAT® candidate takes each assessment and examination. In the case of the CAT® program, proper proctoring means that the CAT® candidate will not be permitted to use books, notes, or any other information during the examinations and that no one is permitted to help or coach the CAT® candidate during the examinations. Also, there will be at least one company employee in the same room with the CAT® candidate during the entire assessment and examination process.*
- *Ensure that the skills verification for every CAT® candidate under my charge is signed off only by a qualified CAT® and that verification by legal picture identification is provided to the CAT® who will be conducting skills verification for the respective CAT® candidate.*
- *Notify my employer and the NAEC in the event that I have witnessed, or have reason to believe, that an individual has obtained CAT® candidate status, CAT®, or CAT-S certification under false pretenses.*
- *Not use any questions in the training of candidates that are known to be on the final CAT® Certification Exam.*
- *To act in a professional manner when conducting CAT-S responsibilities*

Education Program Curriculum Details

Core Curriculum

The CAT Education Core Curriculum covers approximately two years of study and is divided into five courses. All coursework is available in complete kits from Elevator World, Inc. at www.elevatorbooks.com. Kits include required supplemental materials.

COURSE 1: INTRODUCTION TO THE VERTICAL TRANSPORTATION INDUSTRY

Class hours: 76 / Field hours: 1,000

LEARNING OBJECTIVES

Upon completion of Course 1, the candidate should have:

- Gained knowledge of basic safety
- Demonstrated instruction on proper use of tools
- Gained general knowledge of National Applicable Codes and Regulations
- Gained knowledge of basic electricity
- Demonstrated the ability to print reading
- Gained knowledge of installation basics

- | | |
|---|---|
| 1. Vertical Transportation History | 5. Types of Accessibility & Residential Equipment |
| 2. Organizations Relevant to the Vertical Transportation Industry | 6. General Safety |
| 3. National Applicable Codes and Regulations | 7. Introduction to Basic Electricity |
| 4. Accessibility Industry Glossary of Terms | 8. Print Reading |
| | 9. Installation |

ADDITIONAL REFERENCE MATERIALS

- Accessibility Systems Poster
- *Elevator Industry Field Employees' Safety Handbook*

COURSE 2: VERTICAL PLATFORM LIFTS

Class hours: 40 / Field hours: 500

LEARNING OBJECTIVES

Upon completion of Course 2, the candidate should have:

- Gained fundamental knowledge of the overview of equipment
- Gained fundamental knowledge of the safety procedures
- Gained fundamental knowledge of the installation procedures
- Gained fundamental knowledge of the wiring, power supplies and control circuits
- Gained fundamental knowledge of the operation of equipment

- | | |
|--|---|
| 1. Overview | 6. Safeties and Governors |
| 2. Landing Doors and Gates | 7. Hoistway/Runway Enclosure |
| 3. Landing Door and Gate-Locking Devices | 8. Wiring, Power Supplies, Control Circuits and Operation |
| 4. Machinery Tower/Mast | 9. Other Components |
| 5. Platforms | |

ADDITIONAL REFERENCE MATERIALS

- *National Electrical Code (NEC)*
- *VPL Manufacturers Compilation*

COURSE 3: INCLINED PLATFORM LIFTS

Class hours: 10 / Field hours: 500

LEARNING OBJECTIVES

Upon completion of Course 3, the candidate should have gained:

- Fundamental knowledge of the overview of equipment

LATE

TESTIMONY for Measure:

LATE

Committee	LAB
Committee Referrals	LAB
Date of Hearing	1-30-18
Organization	Access Lift Hawaii.
Name of Testifier	
Job Title of Testifier	TONY ARUAN
Position – Circle One	<input checked="" type="radio"/> Support / <input checked="" type="radio"/> Oppose / <input type="radio"/> Comments
Category – Circle One	Fed Govt. / State Govt. / County Govt. / Industry / Private
Notes:	