Utah Fire Service Certification System

APPARATUS DRIVER/OPERATOR PUMPER & AERIAL

CERTIFICATION STANDARD

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Apparatus Driver/Operator Technical Committee

The Certification Council would like to recognize and extend a voice of appreciation to the following fire service professionals for their work on the Apparatus Driver Operator certification standard. These individuals devoted many hours to reviewing the National Fire Protection Association (NFPA) 1002 standard, Certification Test Bank, curriculum text books, and developing the skills for this standard.

Thank You…

Jason Earl, Deputy Chief
Orem Fire Department
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Adam Archuleta, Captain
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INTRODUCTION

The Utah Fire and Rescue Academy (UFRA) has evolved into a dynamic organization that provides fire and emergency service–related training, professional accredited certification, and resource assistance. The Utah Fire Service Certification System (UFSCS) has been administered by UFRA since the system's inception in the early 1980s. The governing body for the firefighter certification system in the state of Utah is the Utah Fire Service Certification Council (UFSCC). The members of the council represent various areas of the state as well as a variety of department types.

The entire system is based on international professional job performance standards from NFPA and NWCG. Fire service training must be utilized to its maximum potential. Any overlap, fragmentation, and lack of basic structure must be eliminated. Standardization is the natural complement and necessity. Through these national standards and certification, firefighters and fire departments have a tool to measure specific levels of skills, abilities, and knowledge. Testing takes place all over the state of Utah and is usually scheduled by fire department training officers for members of one or more local agencies to test at their own facilities using their own equipment.

The Utah Fire Service Certification System creates uniformity through certification. Certification allows a fire service professional to be a part of the National Registry (Pro Board and IFSAC), which verifies that a person has been trained at a national standard. Firefighters, hazardous materials responders, and rescue personnel can earn various certifications. Volunteer, part-time, and career firefighters must all meet the same standard to certify. Most fire departments in Utah have certified personnel even though there is no law requiring it.

> "Certification from an accredited entity is a statement of success, an indisputable mark of performance belonging to individual fire service professionals. Each successful candidate for certification from an accredited entity knows that he or she has been measured against peers and meets rigorous national standards. Certification affords the individual a uniformity and portability of qualifications. In addition, the creditability of an organization is enhanced by having members certified to national consensus standards."
>
> —theproboard.org
>
> IFSAC "provides accreditation to entities that certify the competency of and issue certificates to individuals who pass examinations based on National Fire Protection Association (NFPA) fire service professional qualifications and other standards approved by the Assembly."
>
> —ifsac.org

The following certification requirements are based on the objectives listed in NFPA 1002, *Standard for Fire Apparatus Driver/Operator Professional Qualifications*, (National Fire Protection Association, 2017), as verified and adopted by the Utah Fire Service Certification Council.

APPARATUS DRIVER/OPERATOR PUMPER

CERTIFICATION STANDARD

CERTIFICATION REQUIREMENTS

Entrance Requirements

In order to certify within the Utah Apparatus Driver/Operator (ADO) - Pumper program, candidates must fulfill the following requirements:

1- Complete entrance requirements.
2- Meet pre-requisite, certified Firefighter I, Hazardous Materials Awareness, Hazardous Materials Operations with UFSCC.
3- Set up and maintain department records.
4- Train on the required written and practical objectives.
5- Pass a department "In House" practical skills examination.
6- Meet any other training requirements/prerequisites as defined by the certification Council.
7- Pass both written and practical skills examination administered by the certification Council.
8- Request ADO-Pumper certification.
9- Request re-certification.

Physical Fitness Requirements

The UFSCC acknowledges the importance of and need for physical fitness requirements as listed in the NFPA 1001, 2019 edition, Standard on *Fire Fighter Professional Qualifications.* Many agencies and departments have existing policies, regulations, etc. already in place regarding these requirements. The handling of physical fitness requirements is a **LOCAL MATTER**, outside the authority and jurisdiction of the UFSCC. The Council will not check, test, evaluate or determine how individual agencies meet these requirements. Some departments have found it necessary to waive any type of physical fitness requirements due to their own special needs. As a local decision, this is permitted. However, due to the amount of physical, mental and emotional stress inherent in this profession, **the Utah Fire Service Certification Council strongly recommends careful evaluation before altering or doing away with any existing physical fitness requirements.**

The requirements listed in NFPA 1001, 2019 ed., Chapter 1 are:

1. Meet the minimum educational requirements established by the authority having jurisdiction.

2. The Utah Fire Service Certification Council Policy 11.3 requires that a candidate must be 18 years of age to test and be certified.

3. Meet the medical requirements of NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments,* chapter 5, subsection 5.1.1, as determined by the medical authority of the AHJ.

4. Physical fitness requirements for entry-level personnel should be developed and validated by the authority having jurisdiction. Physical fitness requirements should be in compliance with applicable Equal Employment Opportunity regulations and other legal requirements

Additional Requirements

In addition, NFPA 1002 standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 edition lists the following general requirements:

1. The Fire Apparatus Driver/Operator shall be licensed to drive all vehicles they are expected to operate in accordance with Utah State law.

2. The Fire Apparatus Driver/Operator shall be subject to periodic medical evaluations, as required by NFPA 1500 standard on *Fire Department Occupational Safety and Health Program,* Section 8-1, Medical requirements, to determine that the driver / operator is medically fit to perform the duties of a Fire Apparatus Driver/Operator (NFPA 1002, 1.4.2).

Department Training Officers

For departments to enroll in the certification process, it is necessary for the department to assign training officers. Departments who **do not** have certified personnel to act as training officers for certification training should contact the Utah Fire & Rescue Academy at (801) 863-7700 or 1-888-548-7816 for assistance in setting up and monitoring certification training.

Department training instructors shall be certified at the level they are teaching. In addition, the Certification Council strongly recommends that training officers and instructors be state certified at the Instructor I level.

Department training officers or instructors will be responsible for certification training. Their primary responsibility will be to teach, evaluate, and in-house test department personnel on the skill and evolution requirements for each level of certification training.

The final entrance requirement is to complete the "Intent to Participate" form provided in Appendix I and return it to the Certification Council. Remember, participation in the certification process is **VOLUNTARY**. Once you have enrolled, you can withdraw if desired.

If a department is already participating in the Utah Fire Service Certification System, it will not be necessary to file another "Intent to Participate" form.

DEPARTMENT TRAINING

The position of an Apparatus/Driver is one that requires a high level of skill and knowledge. The training that is given to and received by ADO candidates should be of the highest quality and degree. All training received must meet the requirements of NFPA 1002; Chapter 5 (2017 edition) and the skills as approved by the UFSCC contained within the Utah standard. All training received must be documented and recorded on a training record found in this standard. All testing for ADO-Pumper will be conducted following the policies and procedures of the UFSCC.

Training for ADO-Pumper is conducted at the department level or could be received through a joint training agreement between departments on a regional level. Regardless of where the training is received it must prepare the candidate to be a competent and effective apparatus operator.

The course material should be referenced to the following textbook to prepare the candidate to successfully pass the state certification examination. A comprehensive list of hydraulic information is found in Appendix D of this standard. These formulas are used on the written examination and will be available during the written examination.

Written Objectives

Written objectives for ADO-Pumper Apparatus are covered in the following text:

- **IFSTA, Pumping and Aerial Apparatus Driver/Operator Handbook, 3rd Edition, 5th Printing**
- **NFPA 1002, Standard on Fire Apparatus Drive/Operator Professional Qualifications, 2017 Edition.**
- **NFPA 1500, Fire Department Occupational Safety and Health.**

These textbooks are available from various fire service bookstores. A current list of IFSTA textbook sources is available by calling the certification office at 1-888-548-7816.

There are numerous methods departments have used to help prepare their personnel for the written examination. Considering the high level of skill and knowledge that is required of an Apparatus Driver Operator, the Council recommends that the candidate participates in a comprehensive class and receive instruction on both skills and written requirements.

Skill Objectives

Each of the skill objectives shall be completed swiftly, safely and with competence as definedbelow:

- **Swiftly** - Each skill objective must be completed within the allotted time.

- **Safely** - Each skill objective must be completed safely. Conduct that could injure an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing ortraining to see that it is safe and functional.

- **Competence** - Each skill objective is performed in accordance with the Utah standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Department Training Records

Each candidate shall have a current, accurate, and complete training record on file with the department which indicates that they have been trained on all skill objectives. The Training Record mustbe completed in its entirety in order to test. Training Records may be completed on a computer or by hand.Departments may set up their own training records, use the one provided in this standard, or the fillable Training Record found online on UFRA's website. If a department chooses to set up their own training record it must meet the following requirements:

1. Certification level clearly defined with NFPA standard number and edition.
2. Signature line for the candidate attesting that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed.
3. Signature line for the Chief/Training Officer attesting that the candidate has been trained on all skills and a complete In-House Comprehensive Exam was administered and passed.
4. The date of completion for the training record is recorded.
5. All skills from the Utah Certification Standard for this level are listed on the training record and columns exist for:
    a. Training Record – Date/Inst
    b. In-House Comprehensive Exam –Date/Inst/Pass

Department "In House" Skills Examination

At the completion of the department's skills training, the department is required to hold an "in-house" skills examination for the level being trained. This is a comprehensive "in house" skill test conducted by the department training officers. This test is to ensure that skill mastery has been maintainedfrom the beginning to the end of the training process, and to prepare candidates for the state examination. Training officers may utilize other personnel to assist in administering the exam; however, they must be certified at the level they are in-house testing.

Proctor instructions for the examination are in Appendix H. In-house testers shall follow the proctor instruction sheet to provide for uniformity and fairness during the exam. It is recommended that candidates be given two attempts at any skill. **If they fail on the second try, then they have failed the evaluation and are required to go through additional training by the department trainer.** No training, teaching, or coaching is allowed during the test. After the evaluation, using the test to teach and train is recommended.

If skill weaknesses are evident, the department should conduct additional training and hold a new department "in house" skill examination to ensure their personnel has fully mastered allrequired skills. Only those individuals who successfully pass the department skill test will be allowed to participate in the certification council's skill "spot check" examination. Department records must show that all candidates have successfully passed the "in-house" exam.

CERTIFICATION EXAMINATIONS

After completion of the training process, the Chief/Administrator can request testing for the candidate using the "Examination Request" form in Appendix I. The candidate will then have three attempts to pass the written examination. A separate application must be sent to the Certification Council for each attempt. Request forms must reach the Certification Council no later than 30 days prior to the examination date. The entire examination process must be completed within one year of the first written exam date.

Written Examinations

The written examination is a randomly generated **100**-question test covering the written objectives of the ADO - Pumper standard. This is a closed book test. Calculators are allowed on the written exam and will be provided by the Certification office. No other calculators will be allowed. The comprehensive list of fire flow formulas provided in Appendix D will be allowed for use during the written examination and will provided for by the Certification Tester.

A minimum score of 70% is required to pass the certification exam. Firefighters failing the first attempt of the written exam will be permitted to retest no sooner than 30 days from the date of the last exam. Three attempts are given to pass the exam. If a candidate fails the written examination three times, he/she has failed the certification process and must wait 1 year from the date of the last failed exam before re-entering testing. Exam results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

SAMPLE WRITTEN EXAMINATION QUESTIONS:

Being aware of all that is happening at the sides and to the rear of the apparatus are techniques of:

a- aggressive driving b- offensive driving
c- defensive driving d- responsive driving

A reduced speed of_____is suggested when crossing blind or heavily traveled intersections?
a - 15-20 mph b - 25-30 mph
c - 20-25 mph d - 30-35 mph

Skills "Spot Check" Examinations

This is a two-step examination. A department record check and the skills "spot check" examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts theexamination.

Training records are checked. If records are inadequate, corrective action must be taken before proceeding to the next step. The records must meet minimum requirements and are checked for the following:

1. Candidate has been trained in each skill for the level being evaluated.

2. A department training officer has signed off each skill.

3. Each candidate has passed a department "in-house" skills examination.

The skill "spot check" examination is graded on a 100% pass/fail basis. The test is graded inthe following three areas:

- **Swiftly** - Each skill objective must be completed within the allotted time.

- **Safely** - Each skill objective must be completed safely. Conduct that could injure anindividual or damage equipment is unacceptable. Equipment should be checked prior to skill testingor training to see that it is safe and functional.

- **Competence** - Each skill objective is performed in accordance with the Utah standard. This includes performing the proper steps in sequence. Competence will be measured inaccordance with the UFSCS skill objectives.

Candidates are "spot checked" on three skills. No prior notification of the skills being testedwill be given. Candidates are given two attempts if necessary, to perform each skill. If they fail on the second attempt, the applicants must wait 30 days before the third and final attempt. Candidates taking thirdattempts will test on the skill they missed plus an additional skill from the section of the standard they failedduring the previous two attempts. **No training, teaching, or coaching is allowed during this state test.**

During the skill examination a SPOTTER will be used. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. The spotter will not DIRECT the driver when to stop duringa test.

Candidates who have failed the third attempt of the written examination or the skill examination then they have failed the certification process and must wait 1 year from the date of the failedthird attempt to re-enter state testing. The candidate will begin testing with a new 1st attempt of the writtenexamination.

Please note * **Striking the cone** – includes any part of the cone (i.e., the base)

ADO-PUMPER CERTIFICATION

When all requirements for certification have been met, applicants are eligible to be certified. The chief/administrator may apply to the Utah Fire Service Certification Council for certification for those candidates who have successfully completed the certification training/testing process. Requests for state certification must be submitted to the Certification Office using the Certification/Recertification Request form provided in Appendix I. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Effective January 1, 2025, the fee structure for first, second, and third attempts on exams has changed. All exam attempts are $75, except for Firefighter I and II, Hazardous Materials Awareness and Operations. (See Appendix I for more details.)

Candidates who have met the requirements for certification will continue to have access to their wallet ID card and certificate online via the UFRA Certification and Training Lookup System at https://uvu.edu/ufra/lookup/. Patches are included with each certification (if available for that level). Additional patches are $10. New printed certificates with an original seal attached may be requested from the Certification Department for a fee of $20 per certificate. A hard wallet ID card is $20.

The new fee structure applies to Utah fire departments only. **All other Utah agencies will be assessed a $90 fee per attempt for each level**. Reciprocity is $200 per application (for all levels), but it must include Pro Board or IFSAC certificates (with an IFSAC seal).

Prerequisites for ADO-Pumper Certification

Applicants for certification at the **Apparatus Driver/Operator – Pumper** level must be state certified by theUtah Fire Service Certification Council at the Firefighter I and/or NWCG FFT1. ADO-Pumper level certification will not be issued until candidates have fulfilled this requirement.
To qualify to train for a certain level, candidates must have completed the prerequisite(s).

Training Level	Trains on NFPA 1002	Prerequisite(s)
Apparatus Driver/Operator – Pumper	Chapter 5	Firefighter I and/or NWCG FFT1

Re-certification

Certification at ADO-Pumper level is valid for a three-year period. Each certified ADO-Pumper may renew certification by having the Chief/Administrator of the participating agency submit the "Certification/Re-certification Form" provided in Appendix I.

Each certified ADO shall participate in at least 36 hours of structured class and skill training per year to maintain competency. A total of 108 hours of training is required during the previous certification period.

For More Information on Utah Firefighter Certification, contact the:

Utah Fire Service Certification Council
Utah Fire & Rescue Academy
3131 Mike Jense ParkwayProvo, UT 84601,
801-863-7709 www.uvu.edu/ufra,

ADO - PUMPER CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- ❑ Each candidate has met requirements listed in NFPA 1002, Chapter 1.

- ❑ Each candidate has met the additional requirements as required by NFPA 1002, Chapter 1:
  1- Valid driver license.
  2- Medical evaluation as required by NFPA 1500, Section 8

- ❑ Each candidate has trained on the ADO-Pumper level written objectives.

DEPARTMENT TRAINING RECORDS:

- ❑ Each candidate has a training record on file with the department that shows:
  1- A learning experience in each skill objective.
  2- Dates of training.
  3- Initials of instructors.

- ❑ Each candidate has trained on the ADO-Pumper level written objectives.

DEPARTMENT "IN HOUSE" SKILLS EXAMINATION:

- ❑ Each candidate has successfully completed an "In House" skills examination.

- ❑ Results of exam are documented in department training records.

ADDITIONAL TRAINING /PREREQUISITE REQUIREMENTS:

- ❑ Each candidate is state certified through the UFSCC at the Firefighter I, and/or NWCG FFT1.

CERTIFICATION EXAMINATIONS:

- ❑ Each candidate has passed the UFSCC written examination.

- ❑ Each candidate has passed the UFSCC skill

- ❑ "Spot Check" examination administered by an approved Certification Tester.

ADO - PUMPER CERTIFICATION:

- ❑ Chief/Administrator request certification for candidates using the "Certification/Re-certification Request" form.

ADO-PUMPER APPARATUS SKILL OBJECTIVES

PREVENTIVE MAINTENANCE

1. Perform and document routine tests, inspections, and servicing functions on specified systems and components.

A. For a fire department apparatus (Pumper).

REFERENCE: NFPA 1002, 2017 Edition, 4.2.1, 4.2.2, 4.3.7, 5.1.1

CONDITION: Given a fire department pumping apparatus, inspection form or check-off sheet. Sample check-off sheet provided in **Appendix A or a department check-off sheet that covers all items listed below.**

COMPETENCE:

- Check batteries for fluid level and corrosion (if **maintenance** free, check indicator for correct color).
- Check braking system for fluid level/drain air tanks of water.
- Check Suspension (clips, shackles, leaf springs, U-bolts, etc.)
- Check coolant system for fluid level, leaks, and cleanliness.
- Check electrical system for corrosion and tight connections.
  - Siren and other warning devices.
  - Headlights, running lights, and turn signal flashers.
  - Emergency warning lights.
- Check fuel level.
- Check hydraulic fluids for fluid level and leaks, if applicable.
- Check engine oil for fluid level and leaks.
- Check transmission for fluid level and leaks.
- Check power steering for fluid level and leaks.
- Check other fluid levels, as appropriate.
- Check tires for pressure and wear.
- Check steering system for range of motion and looseness.
- Check engine belts for tightness and wear.
- Check tools, appliances, and equipment, fixed equipment, lighting.
- Check windshield wiper blades and fluid.
- Start apparatus and monitor gauges and other control devices.
- Identify, document, and report deficiencies found.

TIME: 20:00 Minutes

B. Fire department pump system.

REFERENCE: NFPA 1002, 2017 Edition, 5.1.1

CONDITION: Given a fire department pumping apparatus, maintenance and inspection form or check off sheet, determine readiness of fire pump on apparatus.

COMPETENCE:
- Check water tank for level and leaks in system.
- Check foam tank for level and leaks in system (if applicable).
- Check primer oil, if applicable.
- Exercise all pump valves.
- Check and clean intake strainers/anode.
- Check pump gearbox/transfer case for proper oil level and traces of water.
- Start apparatus and place apparatus in pump gear.
- Operate the pump primer with all pump valves closed.
- Operate the transfer valve while pumping from booster tank or other water source (if applicable).
- Check pump shaft for excessive leaks, if applicable.
- Operate the pump pressure control device(s). (Intake/discharge/ pressure governor as applicable).

TIME: 20:00 Minutes

DRIVING OPERATIONS

<u>NOTICE:</u> The driving skills in this standard are used to determine candidate's qualifications to become certified by the Utah Fire Service Certification Council at the level of ADO-Pumping Apparatus. The passing of these skills does not qualify a candidate for any other certification or licenser, such as a Commercial Drivers License (CDL) and is not intended to certify, verify or approve an individual's ability to drive fire apparatus on state or federal highways. The responsibility to determine who will drive fire apparatus resides with the local fire department or the authority having jurisdiction.

2. Operate a fire department pumper so that the vehicle is safely operated in compliance with all applicable state and local laws, departmental rules and regulations.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.1, 4.3.6
NFPA 1500, 2013 Edition, 4.2
Utah Criminal and Traffic Code, Chapter 41-6.

CONDITION: Given a fire department pumping apparatus and a predetermined route that incorporates the maneuvers and features specified below, and that the driver/operator is expected to encounter during normal operations:

<u>NFPA 1002 4.3.1</u>
4.3.1(1) Four left turns and four right turns
4.3.1(2) A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length.
4.3.1 (3) One through-intersection and two intersections where a stop has to be made.
4.3.1(4) One railroad crossing
4.3.1(5) One curve, either left or right
4.3.1(6) A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes.
4.3.1(7) A downgrade steep enough and long enough to require down-shifting and braking.
4.3.1(8) An upgrade steep enough and long enough to require gear changing to maintain speed
4.3.1(9) One underpass or a low clearance or bridge.

<u>Note</u>: Conditions 1 – 9 may be modified if the jurisdiction does not have a means to train on the skill due to geographic limitations, manufacturer's recommendations or department SOP's. In the absence of these limitations and prohibitions, all of the skills should be trained on and certified to:

COMPETENCE:
- Adjust and use mirrors.
- Use seat belts for all occupants.
- Observe all posted speed limits.
- Maintain safe following distances.
- Maintain control of the vehicle while accelerating, decelerating, and turning.
- Stop fully at all stop signs or stop lights.
- Use turn signals.
- Keep apparatus in correct lane of travel.
- Monitor all gauges so vehicle is operated within manufactures specifications.

TIME: As determined by route

SPOTTER INSTRUCTIONS: Skills 3 through 6 will be tested on a controlled and unobstructed training ground. Duties of the spotter for testing purposes may be different from the spotter's duties during normal operations. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. Because the training ground is a controlled and unobstructed environment, the spotter will NOT direct the driver when to stop during a test unless damage might occur. Assisting the driver in completing the skill will result in an automatic fail for the driver. It is the intent of certification testing to assess whether the driver is aware of the dimensions of the apparatus.

3. Back a vehicle from a roadway into restricted spaces on both the right and left sides of the vehicle. (Alley Dock)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.2, 4.3.6

CONDITION: Given a fire department pumping apparatus, spotter, cones, and a restricted space 12ft in width, requiring 90-degree right or left-hand turns from a 40ft wide roadway, so that the vehicle is parked within the restricted area without having to stop and adjust travel and without striking cones. A marker should be placed on the ground, on the left side of the apparatus, to mark where the front left tire should be spotted, and where to stop the apparatus and park.
*** See Appendix B for diagram of course and instructions.**

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus, for safety only.
- Stop apparatus so that the center of the left front wheel is within 6" of the center of the marker.
- Completed skill correctly without striking cones.

Please note * **Striking the cone** – includes any part of the cone (i.e., the base)

TIME: 5:00 Minutes

4. Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.3, 4.3.6

CONDITION: Given a fire department pumping apparatus, spotter, cones, and a roadway with obstructions, so that the vehicle is maneuvered through the obstructions without stopping and without striking cones. *** See Appendix B for diagram of course and instructions.**

*Spacing of 4 cones should be measured 38 feet from base to base. For apparatus lengths that exceed 36 feet, the course may be modified to apparatus length plus 2 feet base to base. Please note * Striking the cone – includes any part of the cone (i.e., the base)

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without striking cones.

TIME: 5:00 Minutes

5. Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.4, 4.3.6

CONDITION: Given a fire department pumping apparatus, spotter, cones, area where vehicle cannot make a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without crossing over or striking cones. *** See Appendix B for diagram of course and instructions.** Please note * Striking the cone – includes any part of the cone (i.e., the base)

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without crossing over or striking cones.

TIME: 5:00 Minutes

6. Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.5, 4.3.6

CONDITION: Given a fire department pumping apparatus, spotter, cones, course that requires the operator to move through areas of restricted horizontal clearances, so that the operator accurately judges the ability of the vehicle to pass through the openings without striking cones. *** See Appendix B for diagram of course and instructions.** Please note * Striking the cone – includes any part of the cone (i.e., the base)

COMPETENCE:
- Adjust and use mirrors.
- Driver/passengers wearing seat belts.
- Completed skill correctly without striking cones.
- Place the apparatus bumper within 18" of the cone at the finish line without crossing over it.

TIME: 5:00 Minutes

PUMPING OPERATIONS

7. Produce effective hand or master streams, given the source specified for the following, so that the pump is safely engaged, all pressure control and vehicle safety devices are set, the rated flow for the nozzle is achieved and maintained and the apparatus is continuously monitored.

A. Fire Hydrant Transition/Handline.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.1

CONDITION: Given a fire department pumping apparatus, supply hose (2 1/2" or larger), attack line minimum 100 feet 1 1/2" or 1 3/4" hoseline, appropriate fittings and tools, pre-established water supply not connected to the inlet, Operator plus 1-firefighter to assist with hydrant and 1-firefighter to assist with hoseline.

COMPETENCE:
- Stop apparatus, set brake.
- Engage pump.
- Chock wheels.
- Engage tank to pump (department standard).
- Open correct discharge valve and charge appropriate attack line.
- Gradually develop pump discharge pressure in attack line.
- Make supply line connection to intake.
- Signal hydrant for water.
- Smooth transition from tank water to hydrant supply (monitor valves, gauges, and throttle).
- Set discharge relief valve or pressure governor as per department standard.
- Monitor discharge pressure.
- Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP.

TIME: 5:00 Minutes

B. Fire Hydrant – Master Stream Device.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.1

CONDITION: Given a fire department pumping apparatus, supply hose (2 1/2" or larger), appropriate fittings and tools, Mounted master stream device or portable pre-established water supply not connected to the inlet, Operator plus 1-firefighter to assist with hydrant and 2 firefighters to assist with hoselines and Master stream device (if portable master stream device is used).

COMPETENCE:
- Stop apparatus, set brake.
- Engage pump.
- Chock wheels.
- Engage tank to pump (department standard).
- Make supply line connection.
- If using portable master stream device, set up device away from apparatus using a minimum of 100 feet of supply hose.
- Properly secure device.

• Signal for water from hydrant.
• Open appropriate discharge valve(s).
• Gradually develop pump discharge pressure to master stream device.
• Set discharge relief valves or pressure governor per department standard.
• Monitor discharge pressure.
• Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP

TIME: 5:00 Minutes for Mounted Master Stream Device
10:00 Minutes for Portable Master Stream Device

C. Draft Supply Source – Handline.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.1

CONDITION: Given a fire department pumping apparatus, hard suction intake hose, appropriate fittings and tools, 10 ft. ladder, portable water tank (if being used as water source), 100 ft. of 1 1/2" or 1 3/4" attack line. Operator plus 2-firefighters to assist with setting up equipment.

COMPETENCE:
• Position apparatus at drafting location.
• Connect sections of hard suction hose together (department standard).
• Connect strainer to hard suction hose, attach rope (department standard).
• Connect to apparatus, tighten all connections.
• Place ladder into static water source (if necessary).
• Lower intake hose into static source.
• Engage pump.
• Pick up draft.
• Gradually open appropriate valve to charge hand-line.
• Flow water from handline or master stream device for 1 minute at appropriate pressure.
• Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP

TIME: 10:00 Minutes

8. Establish a relay pumping evolution, produce an effective water supply, so that the pump is safely engaged, all pressure control and vehicle safety devices are set, the rated flow is achieved, and the apparatus is continuously monitored for potential problems.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.5

CONDITION: Given 2 fire department pumping apparatus with 200 feet 2 1/2" or larger hose, appropriate hose adapters and appliances, 4 firefighter team (2 firefighters per apparatus). With "Attack" pumper positioned 200 ft. from "Source" pumper. Candidate being evaluated will be at the Source Pumper.
* Relay Chart reference can be found in Appendix E.

COMPETENCE:
• Position "Source" pumper at water source (hydrant or draft location).
• Ensure supply lines from Source pumper are connected to Attack pumper.
• Establish water supply to "Source" pumper intake.
• All pumpers except source pumper open a discharge to exhaust air from lines.
• Pump required discharge pressure from Source pumper to Attack pumper, based on max distance/constant pressure relay method.

- Through radio communication ensure that the Attack pumper has water flowing from discharge opening at an appropriate pressure (20 psi intake as a minimum).
- Correctly shut down relay (from attack to source)

TIME: 10:00 Minutes

9. Produce a foam fire stream so that properly proportioned foam is delivered. (USE THE COMPETENCY THAT IS APPROPRIATE FOR THE TYPE OF FOAM EQUIPMENT THAT YOUR DEPARTMENT HAS).

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.6

CONDITION: Given a fire department pumping apparatus, foam concentrate, **foam eductor**, foam nozzle, or other portable foam producing equipment, with hoseline set up, 2 firefighter team to manage the hose line.

COMPETENCE:
- Set concentrate percentage on the proportioner.
- Place pickup tube in foam container.
- Ensure nozzle flow rate and eductor flow rate match.
- Set appropriate pump discharge pressure.
- Ensure back pressure does not exceed 65% to 70% of rated eductor inlet pressure.
- Deliver properly proportioned foam.
- Clean/flush system when skill complete (not included in time limit).
- Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP.

OR

CONDITION: Given a fire department pumping apparatus, foam concentrate, **apparatus mounted foam system**, foam nozzle, with hoseline set up, 2 firefighter team to manage the hose line.

COMPETENCE:
- Set concentrate percentage on the proportioner.
- Set metering valve.
- Set appropriate pump discharge pressure.
- Deliver properly proportioned foam.
- Clean/flush system when skill complete (not included in time limit).
- Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP.

TIME: 5:00 Minutes

10. Supply water to a fire sprinkler or standpipe system so that water is supplied to the system at the correct volume and pressure.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.7, 5.2.7

CONDITION: Given a fire department pumping apparatus, 2- lengths 2 ½" or 3" hose, additional hose tools or appliances, pre-established water supply not connected to the inlet, 2-firefighter team to make connection from apparatus to FDC.

COMPETENCE:
- Position and stop apparatus, set brake.
- Engage pump.
- Chock wheels.

• Open tank to pump (department standard).
• Open correct discharge valve and charge appropriate supply line(s) to FDC.
• Make supply line connection to intake.
• Signal hydrant for water.
• Gradually develop pump discharge pressure in supply line(s).
• Set discharge relief valve or pressure governor per department standard.
• Monitor discharge pressure.
• Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP

TIME: 5:00 Minutes

GENERAL OPERATION REQUIREMENTS

11. Demonstrate safety procedures for mounting, use of seat belts, hearing protection and other safety equipment on apparatus, and safely dismounting fire apparatus.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.1

CONDITION: Wearing full structural firefighter protective clothing, fire apparatus equipped with seat belts, radio headsets or other noise barriers.

COMPETENCE:

- Use handrails, steps to mount apparatus.
- Properly fasten seat belts.
- Don hearing protection if needed.
- Uses handrails and steps to dismount apparatus.
- Complete skill in allotted time.

TIME: 2 minutes

12. Demonstrate the ability to operate an apparatus at an emergency scene. ***NEW SKILL***

REFERENCE: NFPA 1002, 2017 Edition, 5.2.2

CONDITION: Given a report of a traffic accident, and beginning in the apparatus in a seated position (engineer/pumper operator), wearing PPE (as per AHJ), traffic and scene control devices and equipment. Following AHJ's/ SOP's.

COMPETENCE:

- Positions apparatus – protecting the scene (as per AHJ)
- Use handrails and steps to dismount apparatus.
- Identify situation hazards and safety measures.
- Deploy traffic and scene control devices.
- Select proper tool(s) and equipment.
- Carry tools in a safe manner.
- Establish and operate in the protected work area as directed.
- Maintain scene safety.
- Complete skill in allotted time.

TIME: 3 minutes (Time begins on a voice command from the tester i.e. "start"/"begin".)

13. Demonstrate the assembly and connection of the equipment necessary for drafting from a static water supply source.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.3

CONDITION: Wearing full structural firefighter protective clothing, 2 sections 2½" or larger hard suction hose, appropriate adapters and tools, roof ladder, 2-firefighter team.

COMPETENCE:

- Fasten rope to strainer to aid in handling hard suction hose.
- Check for presence of gaskets.
- Couple strainer to hard suction hose.
- Couple the two sections of hard suction hose together, taking care not to get dirt in coupling.
- Connect completed hose to apparatus.
- Keep minimum of 24 inches of water surrounding the strainer.
- Use rubber mallet to ensure an airtight connections.
- Complete skill in allotted time.

TIME: 5 minutes

14. Demonstrate a hand lay of 300 ft. of supply line, 2½" or larger from a pumper to a water source.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.3

CONDITION: Wearing full structural firefighter full structural firefighter protective clothing, appropriate equipment to connect to hydrant, approximately 300 ft. of supply hose, 4-firefighter team.

COMPETENCE:

- Shoulder load 50ft. of hose from hose bed, approximately 50' between firefighter.
- Lay entire length with no kinks or tangles.
- Connect to hydrant.
- Complete skill in allotted time.

TIME: 5 minutes

15. Demonstrate the assembly and connecting of the equipment necessary for drafting from a <u>Portable water tank</u>.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.3

CONDITION: Wearing full structural firefighter protective clothing, 2 sections 2½" or larger hard suction hose, appropriate adapters and tools, portable water tank, 2-firefighter team.

COMPETENCE:

- Set-up portable water tank.
- Check for presence of gaskets.
- Fasten rope to strainer aid in handling hard suction hose.
- Couple strainer to hard suction hose.
- Couple the two sections of hard suction hose together, taking care not to get dirt in coupling.
- Connect completed hose to apparatus.
- Use rubber mallet to ensure an air-tight connection.

- Complete skill in allotted time.

TIME: 12 minutes

16. A. Demonstrate hydrant-to-pumper hose connections in order to supply a <u>Forward hose lay</u>.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.3

CONDITION: Wearing full structural firefighter protective clothing, 2½" or larger supply hose, gate valves, spanner wrenches and hydrant wrench, (given apparatus operator, not tested).

COMPETENCE:

- Select correct equipment to connect to hydrant.
- Loop hose around hydrant, secure hose.
- Signal apparatus operator to proceed.
- Connect hydrant gate valves.
- Open hydrant completely, flush (open gradually to prevent water hammer).
- Charge hoseline (slowly) when signal is given.
- Shut hydrant down slowly to prevent water hammer and check drain.
- (Apparatus operator makes all pumper connections).
- Complete skill in allotted time.

TIME: 3 minutes

B. Demonstrate hydrant-to-pumper hose connections in order to supply a Reverse hose lay.

REFERENCE: NFPA 1002, 2017 Edition, 5.2.3

CONDITION: Given the assignment of water supply. Wearing full structural firefighter protective clothing, 2 1/2" or larger supply hose, gate valves, spanner wrenches, hydrant wrench, 2-firefighter team, (given apparatus operator, not tested).

COMPETENCE:

- Remove and ground 50 ft. of supply hose from apparatus.
- Kneel on hose and signal apparatus operator to proceed to hydrant.
- At the hydrant, select correct equipment to connect to hydrant.
- Connect hydrant gate valves.
- Open hydrant completely, flush, (open gradually to prevent water hammer).
- Charge supply line (slowly) when signal is given by apparatus operator.
- Shut hydrant down slowly to prevent water hammer and check drain.
- (Apparatus operator makes all pumper connections).
- Complete skill in allotted time.

TIME: 3 minutes

17. Demonstrate receiving a report of a fire or emergency situation from the public and initiate appropriate action.

REFERENCE: NFPA 1002, 2017 Edition, 4.4.1, 4.4.4

CONDITION: Given a fire or emergency scenario.

COMPETENCE:

- Identify self.
- Record time of call.

- Record type and address of incident.
- Record callers name and call back number.
- Ask questions for additional information.
- Advise caller to call 911.
- Hang up after caller.
- Relay message to dispatch.
- Complete skill in allotted time.

TIME: 1 minute

18. Demonstrate the ability to operate fire station phone and intercom equipment as you receive an call from the public.

REFERENCE: NFPA 1002, 2017 Edition, 4.4.2

CONDITION: Given a scenario, department phone/intercom, follow AHJ – SOP.

COMPETENCE:

- Identify self.
- Record time of call.
- Record message.
- Record callers name and call back number.
- Hang up after caller.
- Relay caller's information.
- Complete skill in allotted time.

TIME: 1 minute

19. Demonstrate the ability to operate radio equipment and distinguish between routine or emergency traffic.

REFERENCE: NFPA 1002, 2017 Edition, 4.4.1

CONDITION: Given a scenario, mobile/portable radio equipment, follow AHJ – SOP.

COMPETENCE:

- Turn on power.
- Set to correct channel.
- Adjust volume.
- Adjust squelch (if radio is equipped).
- Perform radio check according to the AHJ's SOP's. (simulate).
- Demonstrate the ability to transmit and receive messages – according to the AHJ.
- Information was accurate and clear.
- Complete skill in allotted time.

TIME: 1 minute

UTAH FIRE SERVICE CERTIFICATION SYSTEM

APPARATUS DRIVER/OPERATOR - PUMPER

NFPA 1002, 2017 Edition

APPARATUS DRIVER/OPERATOR - PUMPER
TRAINING RECORD / IN-HOUSE COMPREHENSIVE EXAM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer Name:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained on and a complete In- House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	TRAINING RECORD		IN-HOUSE COMPREHENSIVE EXAMS			SKILL
	DATE	INST	DATE	INST	PASS	
PREVENTATIVE MAINTENANCE						1A. Perform and document routine tests, inspections, and servicing functions for a fire department apparatus.
						1B. Perform and document routine tests, inspections, and servicing functions for the pumping system on apparatus.
DRIVING OPERATIONS						2. Operate a fire department pumper so that the vehicle is safely operated in compliance with all state and local laws, department rulesand regulations.
						3. Back a vehicle from a roadway into restricted spaces on both right andleft sides of the vehicle. (Alley Dock)
						4. Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)
						5. Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)
						6. Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)
PUMPING OPERATIONS						7A. Produce effective fire stream, hydrant – transition/handline.
						7B. Produce effective fire stream, hydrant – master stream.

PUMPING OPERATIONS							7C. Draft supply source – handline.
							8. Establish a relay pumping operation.
							9. Produce a foam fire stream so that properly proportioned foam is delivered.
							10. Supply a sprinkler/standpipe system.
OPERATIONS	5.2.1						11. *Demonstrate safety procedures for **mounting and dismounting** fire apparatus.
	5.2.2						12. *Demonstrate the ability to operate at an emergency scene.
	5.2.3						13. *Demonstrate the assembly and connection of the equipment necessary for drafting from a **static water supply source**.
	5.2.3						14. *Demonstrate a **hand lay** of 300 ft. of supply line, 2½" or larger from a pumper to a water source.
	5.2.3						15. *Demonstrate the assembly and connecting of the equipment necessary for drafting from a **Portable water tank**.
	5.2.3						16. A. *Demonstrate hydrant-to-pumper hose connections in order to supply a **Forward hose lay**.
	5.2.3						B. *Demonstrate hydrant-to-pumper hose connections in order to supply a **Reverse hose lay**.
General Requirements	4.4.1, 4.4.4						17. *Demonstrate receiving a report of a fire or emergency situation from the public and initiate appropriate action.
	4.4.2						18. *Demonstrate the ability to operate fire station phone and intercom equipment as you receive an call from the public.
	4.4.1						19. *Demonstrate the ability to operate radio equipment and distinguish between routine or emergency traffic.
** See asterisk above (These skills have been added to the standard to meet accreditation requirements).*							

APPARATUS DRIVER/OPERATOR AERIAL

CERTIFICATION STANDARD

CERTIFICATION REQUIREMENTS

Entrance Requirements

In order to certify within the Utah Apparatus Driver/Operator (ADO) - Aerial program, candidates must fulfill the following requirements:

1- Complete entrance requirements.
2- Meet pre-requisites, UFSCC certified as ADO – Pumper.
3- Set up and maintain department records.
4- Train on the required written and practical objectives.
5- Pass a department "In House" practical skills examination.
6- Meet any other training requirements/prerequisites as defined by the certification Council.
7- Pass both written and practical skills examination administered by the certification Council.
8- Request ADO-Aerial certification.
9- Request recertification.

Physical Fitness Requirements

The UFSCC acknowledges the importance of and need for physical fitness requirements as listed in the NFPA 1001, 2019 edition, Standard on *Fire Fighter Professional Qualifications.* Many agencies and departments have existing policies, regulations, etc. already in place regarding these requirements. The handling of physical fitness requirements is a **LOCAL MATTER**, outside the authority and jurisdiction of the UFSCC. The Council will not check, test, evaluate or determine how individual agencies meet these requirements. Some departments have found it necessary to waive any type of physical fitness requirements due to their own special needs. As a local decision, this is permitted. However, due to the amount of physical, mental and emotional stress inherent in this profession, **the Utah Fire Service Certification Council strongly recommends careful evaluation before altering or doing away with any existing physical fitness requirements.**

The requirements listed in NFPA 1001, 2019 ed., Chapter 1 are:

1. Meet the minimum educational requirements established by the authority having jurisdiction.

2. The Utah Fire Service Certification Council Policy 11.3 requires that a candidate must be 18 years of age to test and be certified.

3. Meet the medical requirements of NFPA 1582, *Standard on Comprehensive Occupational Medical Program for Fire Departments,* chapter 5, subsection 5.1.1, as determined by the medical authority of the AHJ.

4. Physical fitness requirements for entry-level personnel should be developed and validated by the authority having jurisdiction. Physical fitness requirements should be in compliance with applicable Equal Employment Opportunity regulations and other legal requirements

Additional Requirements

In addition, NFPA 1002 standard for Fire Apparatus Driver/Operator Professional Qualifications, 2017 edition lists the following general requirements:

1. The Fire Apparatus Driver/Operator shall be licensed to drive all vehicles they are expected to operate in accordance with Utah State law.

2. The Fire Apparatus Driver/Operator shall be subject to periodic medical evaluations, as required by NFPA 1500 standard on *Fire Department Occupational Safety and Health Program,* Section 8-1, Medical requirements, to determine that the driver / operator is medically fit to perform the duties of a Fire Apparatus Driver/Operator (NFPA 1002, 1.4.2).

Department Training Officers

For departments to enroll in the certification process, it is necessary for the department to assign training officers. Departments who **do not** have certified personnel to act as training officers for certification training should contact the Utah Fire & Rescue Academy at (801) 863-7700 or 1-888-548-7816 for assistance in setting up and monitoring certification training.

Department training instructors shall be certified at the level they are teaching. In addition, the Certification Council strongly recommends that training officers and instructors be state certified at the Instructor I level.

Department training officers or instructors will be responsible for certification training. Their primary responsibility will be to teach, evaluate, and in-house test department personnel on the skill and evolution requirements for each level of certification training.

The final entrance requirement is to complete the "Intent to Participate" form provided in Appendix I and return it to the Certification Council. Remember, participation in the certification process is **VOLUNTARY**. Once you have enrolled, you can withdraw if desired.

If a department is already participating in the Utah Fire Service Certification System, it will not be necessary to file another "Intent to Participate" form.

DEPARTMENT TRAINING

The position of an Apparatus/Driver for an aerial device is one that requires a high level of skill and knowledge. The training that is given to and received by ADO-Aerial candidates should be of the highest quality and degree. All training received must meet the requirements of NFPA 1002; Chapters 4 and 6 (2017 edition) and the skills as approved by the UFSCC contained within the Utah standard. All training received must be documented and recorded on a training record. All testing for ADO-Aerial will be conducted following the policies and procedures of the UFSCC.

Training for ADO-Aerial is conducted at the department level or could be received through a joint training agreement between departments on a regional level. Regardless of where the training is received it must prepare the candidate to be a competent and effective Aerial Apparatus Operator.

The course material should be referenced to the following textbooks to prepare the candidate to successfully pass the state certification examination.

Written Objectives

Written objectives for ADO-Aerial Apparatus are covered in the following text:

- **IFSTA, Pumping and Aerial Apparatus Driver/Operator Handbook, 3rd Edition, 1st Printing**

- **NFPA 1002, Standard on Fire Apparatus Drive/Operator Professional Qualifications, 2017 Edition.**
- **NFPA 1500, Fire Department Occupational Safety and Health.**

These textbooks are available from various fire service bookstores. A current list of IFSTA textbook sources is available by calling the certification office at 1-888-548-7816.

There are numerous methods departments have used to help prepare their personnel for the written examination. Considering the high level of skill and knowledge that is required of an Apparatus Driver Operator, the Council recommends that the candidate participates in a comprehensive class and receive instruction on both skills and written requirements.

Skill Objectives

Each of the skill objectives shall be completed swiftly, safely and with competence as definedbelow:

- **Swiftly** - Each skill objective must be completed within the allotted time.

- **Safely** - Each skill objective must be completed safely. Conduct that could injure anindividual or damage equipment is unacceptable. Equipment should be checked prior to skill testingor training to see that it is safe and functional.

- **Competence** - Each skill objective is performed in accordance with the Utah standard. This includes performing the proper steps in sequence. Competence will be measured inaccordance with the UFSCS skill objectives.

Department Training Records

Each candidate shall have a current, accurate, and complete training record on file with the department which indicates that they have been trained on all skill objectives. The Training Record mustbe completed in its entirety in order to test. Training Records may be completed on a computer or by hand.Departments may set up their own training records, use the one provided in this standard, or the fillable Training Record found online on UFRA's website. If a department chooses to set up their own training record it must meet the following requirements:

1. Certification level clearly defined with NFPA standard number and edition.
2. Signature line for the candidate attesting that all skills have been trained on and a complete In-House Comprehensive Exam was administered and passed.
3. Signature line for the Chief/Training Officer attesting that the candidate has been trained on all skills and a complete In-House Comprehensive Exam was administered and passed.
4. The date of completion for the training record is recorded.
5. All skills from the Utah Certification Standard for this level are listed on the training record and columns exist for:
    a. Training Record – Date/Inst
    b. In-House Comprehensive Exam –Date/Inst/Pass

Department "In House" Skills Examination

At the completion of the department's skills training, the department is required to hold an "in-house" skills examination for the level being trained. This is a comprehensive "in house" skill test conducted by the department training officers. This test is to ensure that skill mastery has been maintainedfrom the beginning to the end of the training process, and to prepare candidates for the state examination. Training officers may utilize other personnel to assist in administering the exam; however, they must be certified at the level they are in-house testing.

Proctor instructions for the examination are in Appendix H. In-house testers shall follow the proctor instruction sheet to provide for uniformity and fairness during the exam. It is recommended that candidates be given two attempts at any skill. **If they fail on the second try, then they have failed the evaluation and are required to go through additional training by the department trainer.** No training, teaching, or coaching is allowed during the test. After the evaluation, using the test to teach and train is recommended.

If skill weaknesses are evident, the department should conduct additional training and hold a new department "in house" skill examination to ensure their personnel has fully mastered allrequired skills. Only those individuals who successfully pass the department skill test will be allowed to participate in the certification council's skill "spot check" examination. Department records must show that all candidates have successfully passed the "in-house" exam.

CERTIFICATION EXAMINATIONS

After completion of the training process, the Chief/Administrator can request testing for the candidate using the "Examination Request" form in Appendix I. The candidate will then have three attempts to pass the written examination. A separate application must be sent to the Certification Council for each attempt. Request forms must reach the Certification Council no later than 30 days prior to the examination date. The entire examination process must be completed within one year of the first written exam date.

Written Examinations

The written examination is a randomly generated **100**-question test covering the written objectives of the ADO - Aerial standard. This is a closed book test. Calculators are allowed on the written exam and will be provided by the Certification office. No other calculators will be allowed. The comprehensive list of fire flow formulas provided in Appendix D will be allowed for use during the written examination and will provided for by the Certification Tester.

A minimum score of 70% is required to pass the certification exam. Firefighters failing the first attempt of the written exam will be permitted to retest no sooner than 30 days from the date of the last exam. Three attempts are given to pass the exam. If a candidate fails the written examination three times, he/she has failed the certification process and must wait 1 year from the date of the last failed exam before re-entering testing. Exam results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

SAMPLE WRITTEN EXAMINATION QUESTIONS:

Being aware of all that is happening at the sides and to the rear of the apparatus are techniques of:
a- aggressive driving
b- offensive driving
c- defensive driving
d- responsive driving

Large scale defensive operations often require the use of:
a- elevated master streams.
b- large diameter hose.
c- large fire streams.
d- all of the above.

Skills "Spot Check" Examinations

This is a two-step examination. A department record check and the skills "spot check" examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts theexamination.

Training records are checked. If records are inadequate, corrective action must be taken before proceeding to the next step. The records must meet minimum requirements and are checked for the following:

1. Candidate has been trained in each skill for the level being evaluated.

2. A department training officer has signed off each skill.

3. Each candidate has passed a department "in-house" skills examination.

The skill "spot check" examination is graded on a 100% pass/fail basis. The test is graded inthe following three areas:

- **Swiftly** - Each skill objective must be completed within the allotted time.

- **Safely** - Each skill objective must be completed safely. Conduct that could injure anindividual or damage equipment is unacceptable. Equipment should be checked prior to skill testingor training to see that it is safe and functional.

- **Competence** - Each skill objective is performed in accordance with the Utah standard. This includes performing the proper steps in sequence. Competence will be measured inaccordance with the UFSCS skill objectives.

Candidates are "spot checked" on three skills. No prior notification of the skills being testedwill be given. Candidates are given two attempts if necessary, to perform each skill. If they fail on the second attempt, the applicants must wait 30 days before the third and final attempt. Candidates taking thirdattempts will test on the skill they missed plus an additional skill from the section of the standard they failedduring the previous two attempts. **No training, teaching, or coaching is allowed during this state test.**

During the skill examination a SPOTTER will be used. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. The spotter will not DIRECT the driver when to stop duringa test.

Candidates who have failed the third attempt of the written examination or the skill examination then they have failed the certification process and must wait 1 year from the date of the failedthird attempt to re-enter state testing. The candidate will begin testing with a new 1st attempt of the writtenexamination.

ADO-AERIAL CERTIFICATION

When all requirements for certification have been met, applicants are eligible to be certified. The chief/administrator may apply to the Utah Fire Service Certification Council for certification for those candidates who have successfully completed the certification training/testing process. Requests for state certification must be submitted to the Certification Office using the Certification/Recertification Request form provided in Appendix I. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Effective January 1, 2025, the fee structure for first, second, and third attempts on exams has changed. All exam attempts are $75, except for Firefighter I and II, Hazardous Materials Awareness and Operations. (See Appendix I for more details.)

Candidates who have met the requirements for certification will continue to have access to their wallet ID card and certificate online via the UFRA Certification and Training Lookup System at https://uvu.edu/ufra/lookup/. Patches are included with each certification (if available for that level). Additional patches are $10. New printed certificates with an original seal attached may be requested from the Certification Department for a fee of $20 per certificate. A hard wallet ID card is $20.

The new fee structure applies to Utah fire departments only. All other Utah agencies will be assessed a $90 fee per attempt for each level. Reciprocity is $200 per application (for all levels), but it must include Pro Board or IFSAC certificates (with an IFSAC seal).

Prerequisites for ADO-Aerial Certification

Applicants for certification at the Apparatus Driver Operator – Aerial level must be state certified by the Utah Fire Service Certification Council at the ADO-Pumper level. Certification will not be issued until candidates have fulfilled this requirement.

Re-certification

Certification at ADO-Pumper level is valid for a three-year period. Each certified ADO-Aerial may renew certification by having the Chief/Administrator of the participating agency submit the "Certification/Re-certification Form" provided in Appendix I.

Each certified ADO shall participate in at least 36 hours of structured class and skill training per year to maintain competency. A total of 108 hours of training is required during the previous certificationperiod.

For More Information on Utah Firefighter Certification, contact the:

Utah Fire Service Certification Council
Utah Fire & Rescue Academy
3131 Mike Jense Parkway
Provo, UT 84601
1-888-548-7816
www.uvu.edu/ufra

ADO - AERIAL CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- ❑ Each candidate has met requirements listed in NFPA 1002, Chapter 1.

- ❑ Each candidate has met the additional requirements as required by NFPA 1002, Chapter 1:
  1- Valid driver license.
  2- Medical evaluation as required by NFPA 1500, Section 8

- ❑ Each candidate has trained on the ADO-Aerial level written objectives.

DEPARTMENT TRAINING RECORDS:

- ❑ Each candidate has a training record on file with the department that shows:
  1- A learning experience in each skill objective.
  2- Dates of training.
  3- Initials of instructors.

- ❑ Each candidate has trained on the ADO-Aerial level written objectives.

DEPARTMENT "IN HOUSE" SKILLS EXAMINATION:

- ❑ Each candidate has successfully completed an "In House" skills examination.

- ❑ Results of exam are documented in department training records.

ADDITIONAL TRAINING /PREREQUISITE REQUIREMENTS:

- ❑ Each candidate is state certified through the UFSCC at the Apparatus Driver Operator - Pumper level.

CERTIFICATION EXAMINATIONS:

- ❑ Each candidate has passed the UFSCC written examination.

- ❑ Each candidate has passed the UFSCC skill

- ❑ "Spot Check" examination administered by an approved Certification Tester.

ADO - AERIAL CERTIFICATION:

- ❑ Chief/Administrator request certification for candidates using the "Certification/Re-certification Request" form.

ADO-AERIAL APPARATUS SKILL OBJECTIVES

PREVENTIVE MAINTENANCE

1. Perform and operate (when necessary to determine operational readiness) routine tests, inspections, and servicing functions on specified systems and components and document results on appropriate forms.

A. For a fire department aerial apparatus.

REFERENCE: NFPA 1002, 2017 Edition, 4.2.1, 4.2.2, 4.3.7

CONDITION: Given a fire department aerial apparatus, inspection form, or check-off sheet (Sample check-off sheet provided in Appendix A).

COMPETENCE:
- Check batteries for fluid level and corrosion (if **maintenance** free, Check indicator for correct color).
- Check braking system for fluid level/drain air tanks of water.
- Check Suspension. (clips, shackles, leaf springs, U-bolts, etc.)
- Check coolant system for fluid level, leaks, and cleanliness.
- Check electrical system for corrosion and tight connections.
  - Siren and other warning devices.
  - Headlights, running lights, and turn signal flashers.
  - Emergency warning lights.
- Check fuel level.
- Check hydraulic fluids for fluid level and leaks, if applicable.
- Check engine oil for fluid level and leaks.
- Check transmission for fluid level and leaks.
- Check power steering for fluid level and leaks.
- Check other fluid levels, as appropriate.
- Check tires for pressure and wear.
- Check steering system for range of motion and looseness.
- Check engine belts for tightness and wear.
- Check tools, appliances, and equipment, fixed equipment, lighting.
- Check windshield wiper blades and fluid.
- Start apparatus and monitor gauges and other control devices.
- Identify, document, and report deficiencies found.

TIME: 20:00 Minutes

B. Fire department aerial device system.

REFERENCE: NFPA 1002, 2017 Edition, 6.1.1

CONDITION: Given a fire department aerial apparatus, determine readiness of aerial device on an aerial apparatus. Department check sheets may be used. (Sample check-off sheet provided in Appendix A).

COMPETENCE:
- Check pulleys/cable system, if applicable.
- Check aerial device hydraulic system(s).
- Check hydraulic fluid level.
- Operate PTO shift.
- Operate aerial device.
- Check slides/slide blocks, and/or rollers, if applicable.
- Check for adequate lubrication of the aerial device.
- Check stabilizing system(s).
- Check aerial device safety systems/interlocks.
- Check leveling gauges.
- Check breathing air system, if applicable.
- Check communication system.
- Check nozzle/waterway, if applicable.
- Check tools, appliances, and equipment, fixed equipment, lighting.
- Identify, document and report deficiencies found.

TIME: 20:00 Minutes

DRIVING OPERATIONS

<u>NOTICE</u>: The driving skills in this standard are used to determine candidate's qualifications to become certified by the Utah Fire Service Certification Council at the level of ADO-Aerial Apparatus. The passing of these skills does not qualify a candidate for any other certification or licenser, such as a Commercial Driver's License (CDL) and is not intended to certify, verify or approve an individual's ability to drive fire apparatus on state or federal highways. The responsibility to determine who will drive fire apparatus resides with the local fire department or the authority having jurisdiction.

2. Operate a fire department aerial apparatus so that the vehicle is safely operated in compliance with all applicable state and local laws, departmental rules and regulations.

REFERENCE: NFPA 1002, 2017 Edition, 4.3.1, 4.3.6, 6.1.3
NFPA 1500, 2013 Edition, 4-2.
Utah Criminal and Traffic Code 1993 Edition, Chapter 41-6.

CONDITION: Given a fire department aerial apparatus and a predetermined route on a public way that incorporates the maneuvers and features specified below, and that the driver/operator is expected to encounter during normal operations:

<u>NFPA 1002 4.3.1</u>
4.3.1(1) Four left turns and four right turns.
4.3.1(2) A straight section of urban business street or a two-lane rural road at least 1.6 km (1 mile) in length.
4.3.1 (3) One through-intersection and two intersections where a stop has to be made.
4.3.1(4) One railroad crossing.
4.3.1(5) One curve, either left or right.
4.3.1(6) A section of limited-access highway that includes a conventional ramp entrance and exit and a section of road long enough to allow two lane changes.
4.3.1(7) A downgrade steep enough and long enough to require down-shifting and braking.
4.3.1(8) An upgrade steep enough and long enough to require gear changing to maintain speed.
4.3.1(9) One underpass or a low clearance or bridge.

<u>Note</u>: Conditions 1 – 9 may be modified if the jurisdiction does not have a means to train on the skill due to geographic limitations, manufacture's recommendations. In the absence of these limitations and prohibitions, all of the skills should be trained on and certified to.

COMPETENCE:
- Adjust and use mirrors.
- Use seat belts for all occupants.
- Observe all posted speed limits.
- Maintain safe following distances.
- Maintain control of the vehicle while accelerating, decelerating, and turning.
- Stop fully at all stop signs or stop lights.
- Use turn signals.
- Keep apparatus in correct lane of travel.
- Monitor all gauges so vehicle is operated within manufactures specifications.

TIME: As determined by route

<u>SPOTTER INSTRUCTIONS</u>: Skills 3 through 6 will be tested on a controlled and unobstructed training ground. Duties of the spotter for testing purposes may be different from the spotter's duties during normal operations. The purpose of having a spotter assist while backing an apparatus is to protect life and property. The spotter should alert the driver if property damage could occur or damage the apparatus. Because the training ground is a controlled and unobstructed environment, the spotter will NOT be allowed to assist in directing the driver when to stop the apparatus during the test unless damage may occur. It is the intent of certification to assess whether the driver is aware of the dimensions of the apparatus.

3. Back a vehicle from a roadway into restricted spaces on both the right and/or left sides of the vehicle. (Alley Dock)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.2, 6.1.2
*** See Appendix C for diagram of course and instructions.**

CONDITION: Given a fire department aerial apparatus, spotter, cones, and a restricted space 12 ft. in width, requiring 90-degree right or left-hand turns from the roadway, so that the vehicle is parked within the restricted area without having to stop, and adjust travel and without striking cones. A marker should be placed on the ground, on the left side of the apparatus, to mark where the front left tire should be spotted, and where to stop the apparatus and park. Please note * Striking the cone – includes any part of the cone (i.e., the base)

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Stop apparatus by aligning center of left tire within 6" of the center of the mark on the ground indicating where the apparatus should be stopped and parked.
- Completed skill correctly without striking cones.

TIME: 5:00 Minutes

4. Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.3, 6.1.2
*** See Appendix C for diagram of course and instructions.**

CONDITION: Given a fire department aerial apparatus, spotter, 4 cones, large area or roadway to operate, so that the vehicle is maneuvered around the cones without stopping and without striking any cones. Please note * Striking the cone – includes any part of the cone (i.e., the base)

*** Measure distance between cones from the base of the cones. Distance between cones should be aerial apparatus length + 2 ft.**

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without striking cones.

TIME: 5:00 Minutes

5. **Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)**

REFERENCE: NFPA 1002, 2017 Edition, 4.3.4, 6.1.2
*** See Appendix C for diagram of course and instructions.**

CONDITION: Given a fire department aerial apparatus, spotter, cones, area where vehicle cannot make a U-turn without stopping and backing up, so that the vehicle is turned 180 degrees without passing over or striking cones. Please note * Striking the cone – includes any part of the cone (i.e., the base)

***Turnaround area should be square and determined by length of aerial apparatus plus 20 feet.**

COMPETENCE:
- Adjust and use mirrors for backing.
- Driver/passengers wearing seat belts.
- Spotter used to back apparatus for safety only.
- Completed skill correctly without striking cones.

TIME: 5:00 Minutes

6. Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)

REFERENCE: NFPA 1002, 2017 Edition, 4.3.5, 4.3.6, 6.1.2
*** See Appendix C for diagram of course and instructions.**

CONDITION: Given a fire department aerial apparatus, cones, course that requires the operator to move through areas of restricted horizontal clearances, so thatthe operator accurately judges the ability of the vehicle to pass through the openings without striking cones. Please note * Striking the cone – includes any part of the cone (i.e., the base)

*** Width measurements for this skill may be modified due to the varying widths of apparatus. Modification should be based on the track width of the apparatus being used for training. To obtain a final width, measure the apparatus being used and add 2 inches on each side the track width and that will be the final width for training and testing purposes.**

COMPETENCE:
- Adjust and use mirrors.
- Driver/passengers wearing seat belts.
- Completed skill correctly without stopping or striking cones.
- Place the apparatus bumper within 18 inches of the cone at the finish line without crossing over it.

TIME: 5:00 Minutes

AERIAL OPERATIONS

7. Maneuver and position an aerial apparatus so that the apparatus is properly positioned for safe aerial device (<u>PLATFORM or LADDER</u>) deployment for rescue and ventilation activities *(6-12 inches from the roof/windowsill for skills testing purposes only and following AHJ policies and procedures)*. Each skill shall be operated from a different control station on the apparatus (Turntable, Panel, Rear Bumper, or Remote wire or wireless controls). The operator will be able to successfully position anaerial device to a:

A. Window.

REFERENCE:	NFPA 1002, 2017 Edition, 6.2.1, 6.2.2, 6.2.3
CONDITION:	Given an aerial apparatus, an incident location, an assignment, and spotter. **Spotter is there ONLY to assist the operator in guiding the aerial device to the objective.**
COMPETENCE:	• Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain). • Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize). • Set park brake, engage PTO, (chock wheels if applicable). • Verbalize assessment of surface conditions for stabilization purposes. • Stabilize apparatus using stabilizing devices, use leveling gauge. • Switch selector valve to aerial device – if not automatic. • Verbalize weight restrictions while operating aerial device. • Elevate, rotate, extend and lower aerial device (AERIAL LADDER or PLATFORM device) level with windowsill for RESCUE operations. • Elevate, rotate, extend and lower aerial device (AERIAL LADDER or PLATFORM) to side of window frame for VENTILATION operations.
TIME:	10:00 Minutes

B. Roof.

REFERENCE: NFPA 1002, 2017 Edition, 6.2.1, 6.2.2, 6.2.3

CONDITION: Given an aerial apparatus, an incident location, an assignment, and Spotter. **Spotter is there ONLY to assist the operator in guiding the aerial device to the objective.**

COMPETENCE:
- Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain).
- Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize).
- Set park brake, engage PTO, (chock wheels if applicable).
- Verbalize assessment of surface conditions for stabilization purposes.
- Stabilize apparatus using stabilizing devices, use leveling gauge.
- Switch selector valve to aerial device – if not automatic.
- Verbalize weight restrictions while operating aerial device.
- **AERIAL LADDER**: elevate, rotate, extend device and lower to target area, extended 6 feet above roof (following manufactures recommendation for supported and unsupported positions), for RESCUE or VENTILATION operations.
- **PLATFORM**: elevate, rotate, extend and lower platform level with roof for RESCUE or VENTILATION operations.

TIME: 10:00 Minutes

C. Elevated Master stream.

REFERENCE: NFPA 1002, 2017 Edition, 6.2.1, 6.2.2, 6.2.3, 6.2.5

CONDITION: Given an aerial apparatus, an incident location, an assignment, pre-established water supply not connected to the inlet and Spotter. **Spotter is there to assist the operator in guiding the aerial device to the Objective and may assist at the hydrant.**

COMPETENCE:
- Position aerial apparatus for operation, (upwind, out of collapse zone, correct position for grade/terrain).
- Assess overhead hazards for deployment of aerial device, i.e. overhead wires, powerlines, and trees (must verbalize).
- Set park brake, engage PTO, (chock wheels if applicable).
- Verbalize assessment of surface conditions for stabilization purposes.
- Stabilize apparatus using stabilizing devices, use leveling gauge.
- Switch selector valve to aerial device – if not automatic.
- Verbalize weight restrictions while operating aerial device.
- Make water supply connection to apparatus/calls for water.
- Activate water flow to nozzle.
- Establish and verbalize correct PDP (within +/- 10 psi) and the method used to determine PDP (if equipped with a pump).
- Adjust nozzle position and pattern, flow effective water stream.

TIME: 10:00 Minutes

8. Lower an aerial device using the emergency operating system so that the aerial device is safely lowered to its bedded position. (Simulated emergency)

REFERENCE: NFPA 1002, 2017 Edition, 6.2.4

CONDITION: Given an aerial apparatus and a situation that would require emergency action (i.e., loss of power, engine failure), 2-firefighter team (operator and assistant). Apparatus engine should be off, battery switch and ignition switch should be on.

COMPETENCE:
- Verbalize notifying Incident Command of situation, loss of apparatus power.
- Demonstrate activation of auxiliary system as per manufacture recommendations.
- Verbalize procedure to raise, retract, rotate, and lower aerial device to bedded position using auxiliary system.
- Verbalize procedure to lift outriggers using auxiliary system.
- Verbalize appropriate EPU cycle time. (Time on vs. Time off)

TIME: 5:00 Minutes

UTAH FIRE SERVICE CERTIFICATION SYSTEM
APPARATUS DRIVER/OPERATOR - AERIAL

NFPA 1002, 2017 Edition

APPARATUS DRIVER/OPERATOR - AERIAL
TRAINING RECORD / IN-HOUSE COMPREHENSIVE EXAM

Candidate Name:	**Department:**
Candidate Signature:	**Date of Completion:**
Chief/Training Officer Name:	**Chief/Training Officer Signature:**

This form may be completed on a computer but must be printed out for the Certification Tester to verify on test day. Date of completion and signatures of Chief/Training Officer and Candidate must be original signatures. Signatures attest that all skills have been trained onand a complete In-House Comprehensive Exam was administered and passed. Falsification of signatures or any component of this document may result in the revocation, suspension, or denial of certification.

SECTION	**TRAINING RECORD**		**IN-HOUSE COMPREHENSIVE EXAMS**			**SKILL**
	DATE	**INST**	**DATE**	**INST**	**PASS**	
PREVENTATIVE MAINTENANCE						1A. Perform and document routine tests, inspections, and servicing functions for a fire department aerial apparatus.
						1B. Perform and document routine tests, inspections, and servicing functions for the Aerial device of apparatus.
DRIVING OPERATIONS						2. Operate a fire department pumper so that the vehicle is safely operated in compliance with all state and local laws, department rules and regulations.
						3. Back a vehicle from a roadway into restricted spaces on both right and left sides of the vehicle. (Alley Dock)
						4. Maneuver vehicle around obstructions on a roadway while moving forward and in reverse. (Serpentine)
						5. Turn a vehicle around 180 degrees within a confined space. (Confined Space Turnaround)
						6. Maneuver a vehicle in restricted horizontal clearances. (Diminishing Clearance)

AERIAL OPERATIONS						7A. Positioning aerial device at Window for rescue or ventilation activities.
						7B. Positioning aerial device at Roof for rescue or ventilation activities.
						7C. Positioning aerial device for Elevated Master Stream operations.
						8. Lower aerial device using Emergency Operation system.

APPENDIX – A
WEEKLY VEHICLE REPORT

Weekly Emergency Vehicle Report

Department_____ Station_____

Apparatus Number_____ Type_____

	Day of the week/Date	~~Mon~~	~~Tues~~	~~Wed~~	~~Thu~~	~~Fri~~	~~Sat~~	~~Sun~~
Engine Comp.								
1	Radiator Coolant							
2	Engine Oil Level							
3	Transmission Fluid							
4	Power Steering Fluid							
5	Belts/Pulleys							
6	Hoses and Hydraulic Lines							
7	Air Filter							
8	Batteries							
9	Other Hydraulic Fluids							
10	Engine (loose wires, etc.)							
In the Cab								
1	Fuel Level							
2	Odometer Reading							
3	Brakes							
4	Air Pressure							
5	Battery Voltage							
6	Check Gauges							
7	Check Switches							
8	Siren/Horn/Siren Brake							
9	Steering Wheel Play							
10	Mirrors							
11	Panel Lights							
12	Interior Lights							
13	Radio							
14	Heater/AC Controls							
Walk Around								
1	General Body Condition							
2	Suspension							
3	Steering Linkage							
4	Listing/Fluid Leaks							
5	Emergency Lights							
6	Vehicle Lights							
7	Spot/Scene Lights							
8	Wiper Blades/Washer Fluid							
9	Tires (Press/Tread)							
10	Ground Ladders							
11	Tools/ Fixed Equipment							
12	**Start Apparatus/Monitor**							
13	Driver Initials/Badge#							

Aerial Inspection

	Day of the week	Mon	Tues	Wed	Thu	Fri	Sat	Sun
1	Hydraulic Fluid Level							
2	Hydraulic System/PTO							
3	Stabilizers and Pads							
4	Interlocks							
5	Leveling Gauges							
6	Aerial Control Stations							
7	Operate Aerial							
8	Visual Inspection							
9	Slides/Slide Blocks/Rollers							
10	Nozzle/Waterway							
11	Communication System							
12	Master Stream Controls							
13	Spot Lights/Flood Lights							
14	Lubrication							
15	Cables							
16	Pulleys							
17	Rams/Cylinders							
18	Hydraulic Hoses/Tubing							
19	Breathing Air							
20	Attached Tools/Equipment							
21	E.P.U. Operation (weekly)							

Pump Check

1	Tank Water Level							
2	Foam Level							
3	Primer Oil Level							
4	Pump Transfer Case Oil Level							
5	Intake Strainers/Anode							
6	Relief Valve Strainer							
7	Operate all Valves/Drains							
8	Primer Operation							
9	Operate Transfer Valve							
10	Pump Operation							
11	Relief valve/Governor Op.							
12	LDH Bleeder							

Remarks By Person Completing Form	Date	Name

APPENDIX – B
ADO-PUMPER DRIVING SKILLS DIAGRAMS / INSTRUCTIONS

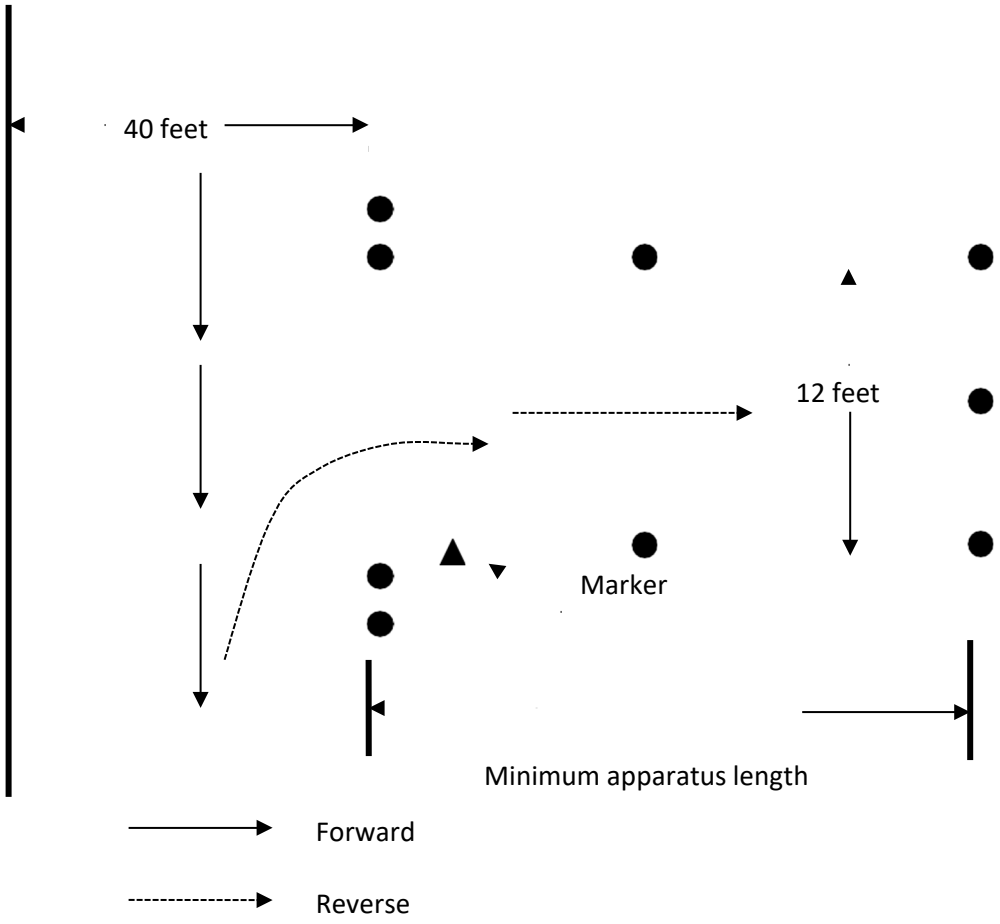
ALLEY DOCK - PUMPER

The Alley Dock measures a driver's ability to drive past a simulated dock or stall, back the apparatus into the space provided, and stop smoothly.

Instructions: Drive past the stall on either the left or right, then back the apparatus into the restricted area without having to stop and pull forward and without striking cones. Front bumper may not pass over the border of the 40ft roadway. Please note * Striking the cone – includes any part of the cone (i.e., the base)

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

*Measure distance between cones from the base of the cones.



SERPENTINE - PUMPER

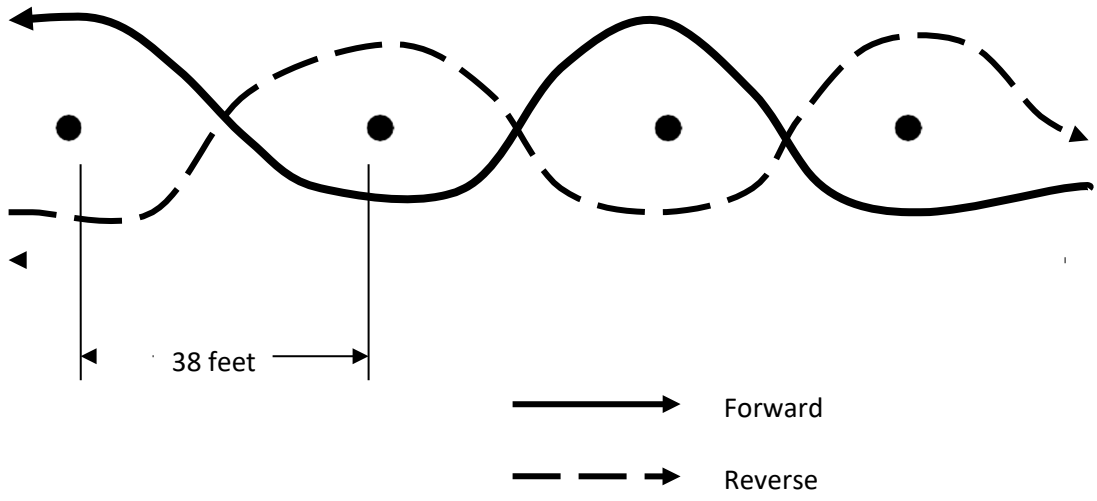
The Serpentine exercise measures a driver's ability to steer the apparatus in close limits without stopping.

Instructions: The driver will drive the apparatus along the left side of the cones in a straight line and stop just beyond the last cone. The driver then should back the apparatus between the markers by passing to the left of cone #1, to the right of cone #2, to the left of cone #3, and to the right of cone #4. At this point the driver should stop the vehicle and then drive it forward between the markers by passing to the left of cone #4, to the right of cone #3, to the left of cone #2 and to the right of cone #1. Please note * Striking the cone – includes any part of the cone (i.e., the base)

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the base of the cones.

* Spacing of cones should be measured 38 feet from base to base. For apparatus lengths that exceed 36 feet, the course may be modified to apparatus length plus 2 feet base to base.



DIMINISHING CLEARANCE - PUMPER

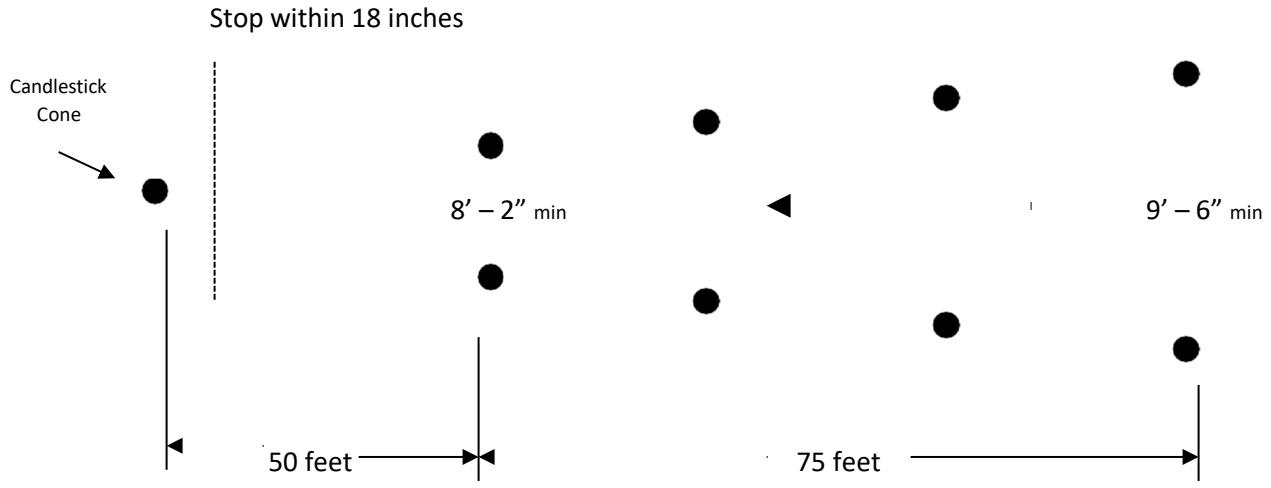
The Diminishing Clearance exercise measures a driver's ability to steer the apparatus in a straight line, to judge distance from wheel to object, and to stop at a finish line.

Instructions: The course is created by arranging 2 rows of cones to form a lane 75ft long. The lane varies in width from 9ft 6in. to a diminishing clearance of 8ft 2in. The finish cone should have an extended flag/candlestick cone so the driver can see the finish cone from cab. The driver should maneuver the apparatus through this lane without touching the cones. The apparatus should be stopped at a finish cone 50ft beyond the last cone within 18in of the finish cone. No portion of the vehicle should protrude beyond this point. Please note * Striking the cone – includes any part of the cone (i.e., the base)

NOTE: Width measurements for this skill may be modified due to the varying widths of apparatus. Modification should be based on the track width of the apparatus being used for training. To obtain a final width, measure the apparatus being used and add 2 inches on each side the track width (from bulge to bulge on the widest axle) and that will be the final width for training and testing purposes. For example, if an apparatus has a track width of 8 feet 4 inches wide then the final set of cones should be 8 feet 8 inches.

* Establish a centerline, mark off 75 feet, set the two ends of the Alley up and then sight in the middle cones to line them up. The Alley is in a "V" shape, one side is not straight with the other side angled.

* Measure distance between cones from the base of the cones



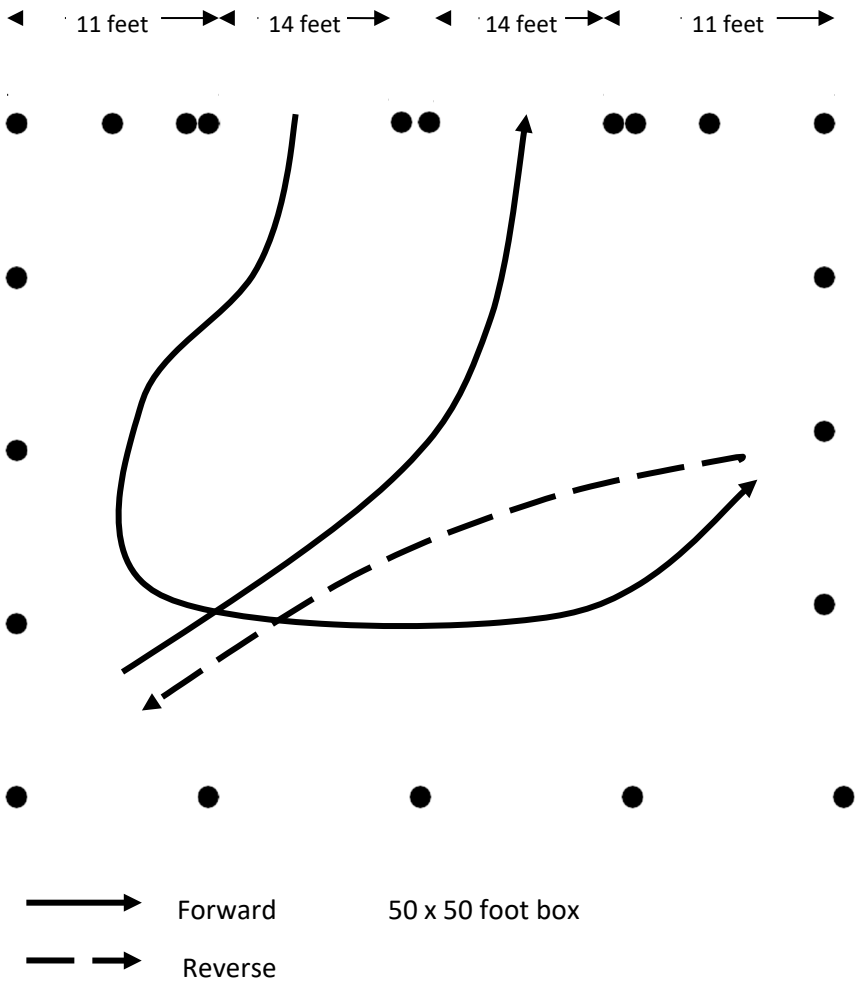
CONFINED SPACE TURNAROUND - PUMPER

This exercise measures the driver's ability to turn the vehicle around in a confined space without striking obstacles.

Instructions: The course is created by making a 50ft square area with a 14ft wide entry and exit. The driver moves into the area from the entry point, turns the vehicle 180 degrees, and leaves the area throughthe exit. There is no limitation on the number of times the driver has to maneuver the vehicle to accomplishthis skill, but no portion of the vehicle should extend over the boundary lines of the space and no cones shall be hit. Please note * Striking the cone – includes any part of the cone (i.e., the base)

NOTE: Always use a spotter when backing fire apparatus for safety purposes. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the inside base of the cones.



APPENDIX – C
ADO-AERIAL DRIVING SKILLS DIAGRAMS / INSTRUCTIONS

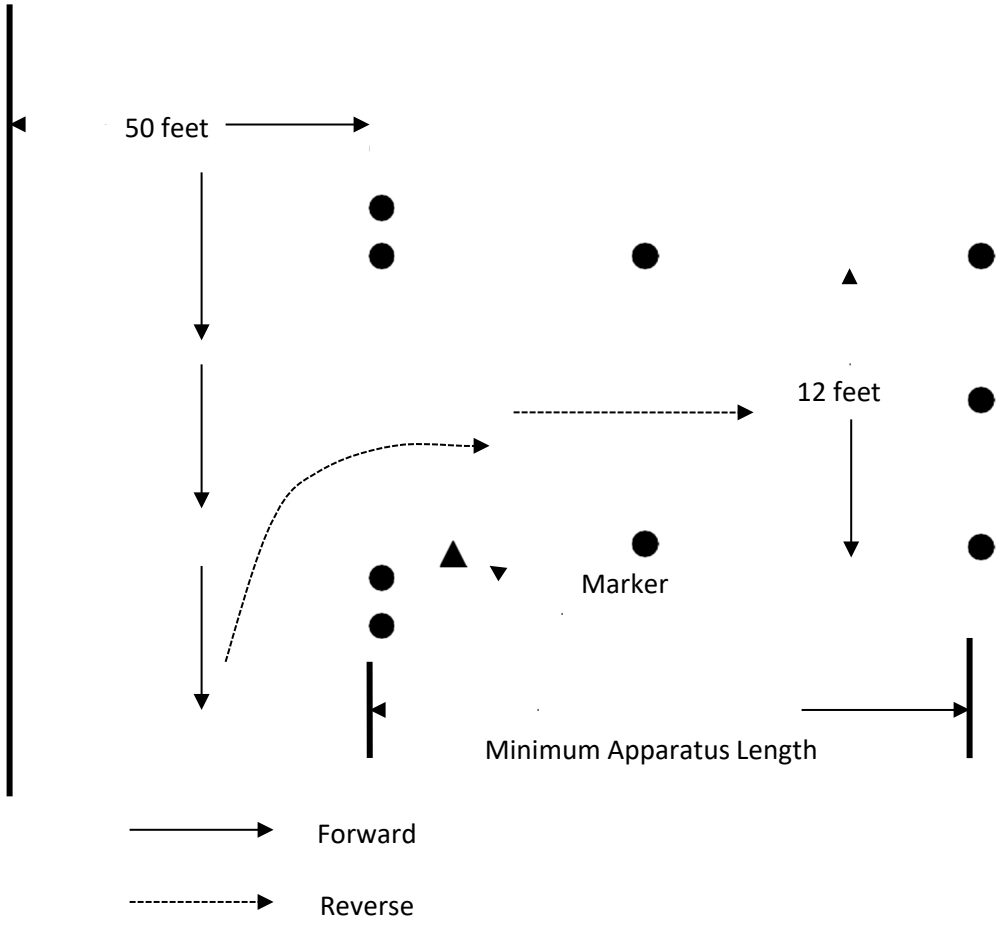
ALLEY DOCK - AERIAL

The Alley Dock measures a driver's ability to drive past a simulated dock or stall, back the apparatus into the space provided, and stop smoothly.

Instructions: Drive past the stall on either the left or right, then back the apparatus into the restricted area without having to stop and pull forward and without striking cones.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area. The front bumper may not pass over the border of the 50ft roadway.

* Measure distance between cones from the base of the cones.



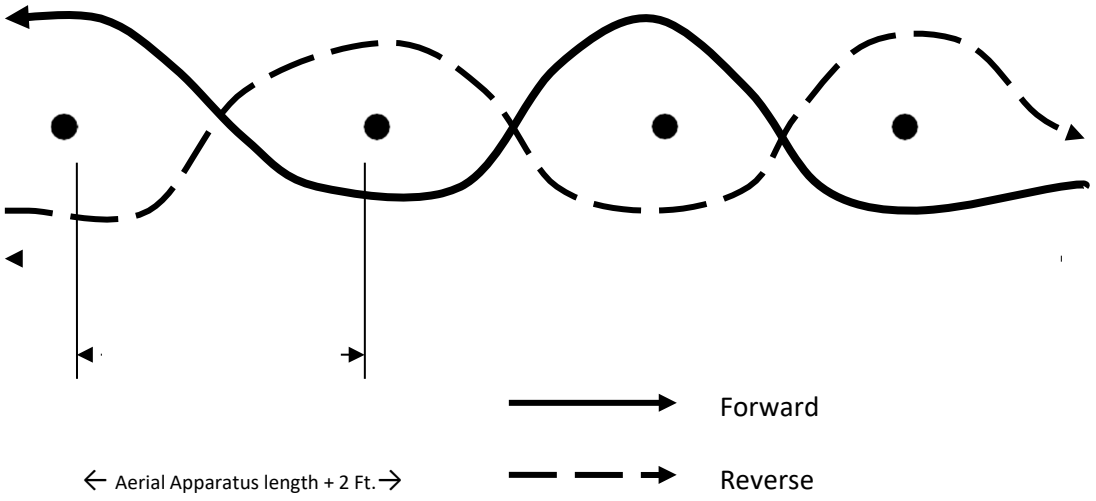
SERPENTINE - AERIAL

The Serpentine exercise measures a driver's ability to steer the apparatus in close limits without stopping.

Instructions: The driver will drive the apparatus along the left side of the cones in a straight line and stop just beyond the last cone. The driver then should back the apparatus between the markers by passing to the left of cone #1, to the right of cone #2, to the left of cone #3, and to the right of cone #4. At this point the driver should stop the vehicle and then drive it forward between the markers by passing to the left of cone #4, to the right of cone #3, to the left of cone #2 and to the right of cone #1.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the base of the cones. Distance between cones should be aerial apparatus length + 2 ft.



DIMINISHING CLEARANCE - AERIAL

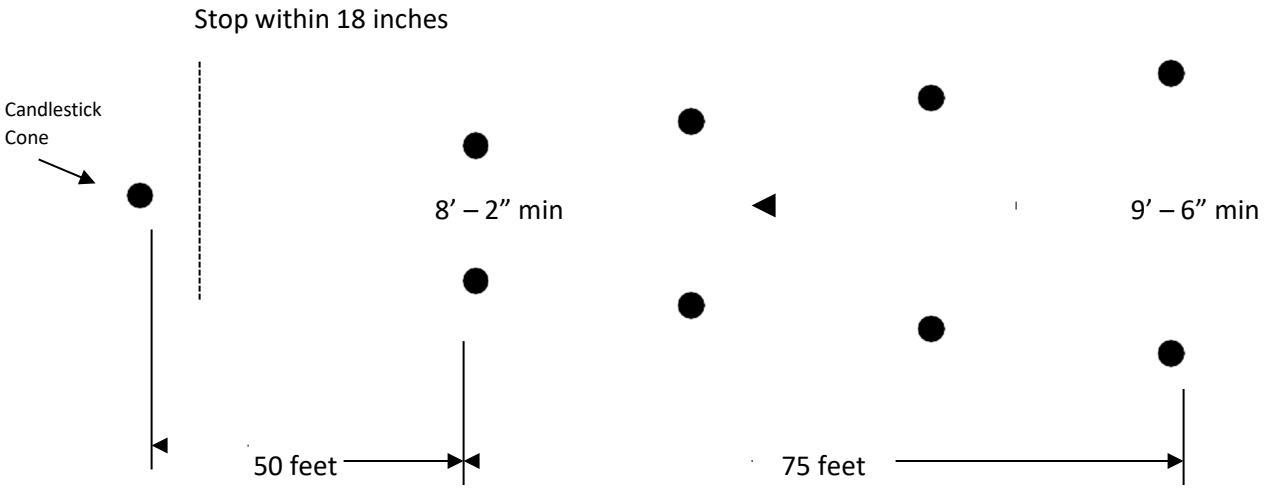
The Diminishing Clearance exercise measures a driver's ability to steer the apparatus in a straight line, to judge distances from wheel to object and to stop at a finish line.

Instructions: The course is created by arranging 2 rows of cones to form a lane 75 feet long. The lane varies in width from 9 feet 6 inches to a diminishing clearance of 8 feet 2 inches. The driver should maneuver the apparatus through this lane without touching the cones. The apparatus should be stopped at a finish cone 50 feet beyond the last cone within the bumper of the apparatus within 18 inches of the finish cone. No part of the apparatus should protrude beyond this point.

NOTE: Width measurements for this skill may be modified due to the varying widths of apparatus. Modification should be based on the track width of the apparatus being used for training. To obtain a final width, measure the apparatus being used and add 2 inches on each side the track width and that will be the final width for training and testing purposes. For example, if an apparatus has a track width of 8 feet 4 inches wide then the final set of cones should be 8 feet 8 inches.

*Establish a centerline mark off 75 feet, set the two ends of the Alley up and then sight in the middle cones to line them up. The Alley is in a "V" shape, one side is not straight with the other side angled.

*Measure distance between cones from the base of the cones



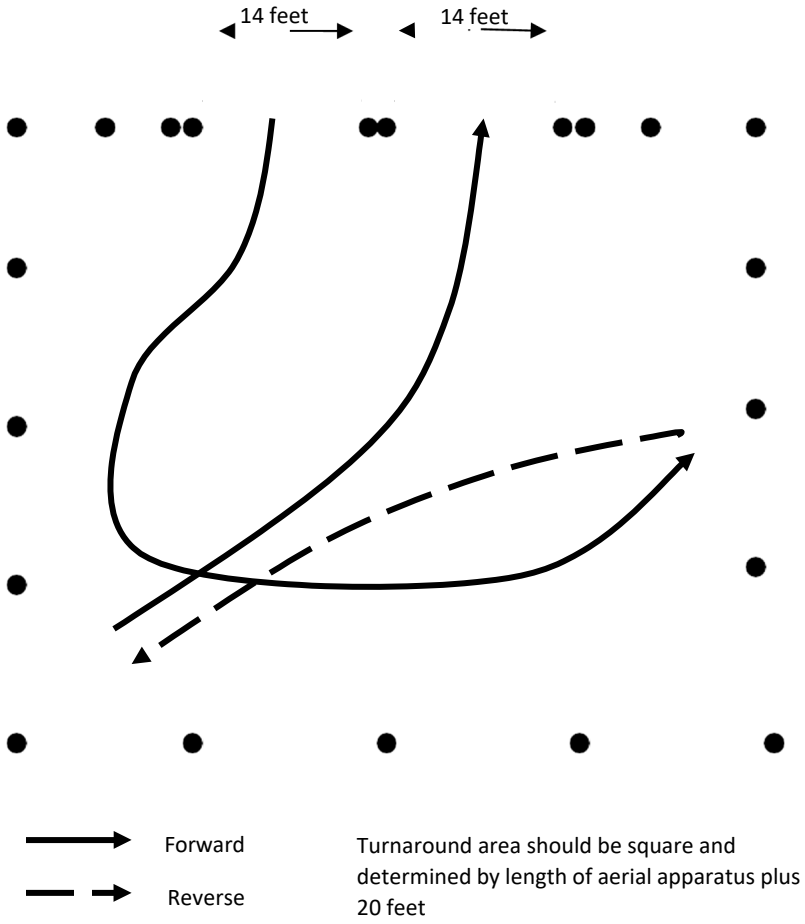
CONFINED SPACE TURNAROUND - AERIAL

This exercise measures the driver's ability to turn the vehicle around in a confined space without striking obstacles.

Instructions: The course is created by making a square area based on the length of the aerial apparatus plus 20 feet. The entry and exit width is 14 feet. The driver moves into the area from the entry point, turns the vehicle 180 degrees, and leaves the area through the exit. There is no limitation on the number of times the driver has to maneuver the vehicle to accomplish this skill, but no portion of the vehicle should extend over the boundary lines of the space and no cones shall be hit.

NOTE: Always use a spotter when backing fire apparatus. When apparatus is moving forward, the spotter must be either properly seated in the apparatus with all safety restraints fastened or outside of the coned area.

* Measure distance between cones from the base of the cones.



APPENDIX - D
FIRE FLOW FORMULAS

Friction Loss and Nozzle Flow Reference

Friction Loss per 100' Fire Hose
$FL = CQ^2$

GPM	1 ½" hose	1 ¾" hose	2 ½" hose	3" hose w/ 2 ½" coups	4" hose	5" hose	6" hose
100	24.0	15.5	2.0				
125	37.5	24.2	3.1	1.2			
200		62.0	8.0	3.2			
250		96.8	12.5	5.0			
300			18.0	7.2	1.8		
350			24.5	9.8	2.4		
400			32.0	12.8	3.2	1.3	
450				16.2	4.1	1.6	
500				20.0	5.0	2.0	1.2
600				28.8	7.2	2.9	1.8
700				39.2	9.8	3.9	2.4
800				51.2	12.8	5.1	3.2
900				64.8	16.2	6.5	4.0
1000					20.0	8.0	5.0
1100					24.2	9.7	6.0
1200					28.8	11.5	7.2
1300					33.8	13.5	8.4
1400					39.2	15.7	9.8
1500					45.0	18.0	11.2

Solid Stream Nozzle Flow Rates
$GPM = 29.7\ d^2\ \sqrt{NP}$

Tip Size (inches)	Tip Size (decimal)	Handline Flow @ 50 psi	For field use Round to	Master Stream @ 80 psi	For field use Round to
1/2	0.5	52	50		
5/8	0.625	82	80		
3/4	0.75	118	120		
7/8	0.875	161	160		
15/16	0.9375	184	180		
1	1	210	200		
1 1/8	1.125	266	250		
1 1/4	1.25	328	325	415	400
1 3/8	1.375			502	500
1 1/2	1.5			597	600
1 5/8	1.625			701	700
1 3/4	1.75			814	800
1 7/8	1.875			933	900
2	2			1,063	1,000

Fire Hose Friction Loss Coefficients – Single Line

Hose diameter and type	coefficient (C)
¾" booster	1,100
1" booster	150
1 ¼" booster	80
1 ½"	24
1 ¾" with 1 ½" couplings	15.5
2"	8
2 ½"	2
3" with 2 ½" couplings	0.8
3" with 3" couplings	0.677
3 ½"	0.34
4" hose	0.2
4 ½" hose	0.1
5" hose	0.08
6" hose	0.05

Standpipe Friction Loss Coefficients

4" pipe	0.374
5" pipe	0.126
6" pipe	0.052

Nozzle Pressures

Solid stream nozzles – handline 50 psi
Solid stream nozzles – master streams 80 psi Fog nozzles – most types 100 psi
*Fog nozzle pressures may vary by manufacturer.

Friction Loss Allowances – Appliances, Apparatus, Systems

Master stream appliances flowing at capacity	25 psi
Aerial devices	25 psi
Wye and manifold appliances flowing >350 GPM	10 psi
Standpipe system	25 psi

Fire Hose Friction Loss Coefficients – Siamese Lines of Equal Length

Hose diameter and type	coefficient (C)
Two 2 ½"	0.5
Three 2 ½"	0.22
Two 3" with 2 ½" couplings	0.2
One 3" with 2 ½" couplings, one 2 ½"	0.3
One 3" with 3" couplings, One 2 ½"	0.27
Two 2 ½", one 3" with 2 ½" couplings	0.16
Two 3" with 2 ½" couplings, one 2 ½"	0.12

Additional Water Available from Hydrant

$$\text{Percent drop} = \frac{(\text{static pressure} - \text{residual pressure}) \times 100}{\text{Static pressure}}$$

Percent decrease of pump intake pressure	Additional Water available
0-10%	3 times amount being delivered
11-15%	2 times amount being delivered
16-25%	same amount as being delivered
25% +	less than the amount being delivered

First Digit Method

Get the static pressure, open the line, get the residual pressure
Subtract the residual pressure from the static pressure = psi drop
Multiply the first digit of the static by 1,2, or 3 = volumes available
If the psi drop is = or < 1st digit x 1 = 3 like volumes are available
If the psi drop is = or < 1st digit x 2 = 2 like volumes are available
If the psi drop is = or < 1st digit x 3 = 1 like volume is available
Any psi drop greater than 1st digit x3 = no additional water available

Area, Volume and Weight

Capacity = 7.5 gallons x cubic feet

Capacity = volume in gallons
7.5 = number of galls per cubic foot
cubic feet = area filled with water

Capacity = L x W x D x 7.5

Capacity = volume in gallons of rectangular storage
L = length in feet
W = width in feet
D = depth in feet
7.5 = number of gallons per cubic foot

Capacity = π x r^2 D x 7.5

Capacity = volume in gallons of cylindrical storage
r = radius in feet
D = average depth in feet (or length of horizontal tank)
7.5 = number of gallons per cubic foot

Weight = 62.5 lbs. x cubic feet

Weight = total weight of water
62.5 = pounds per cubic foot of water
cubic feet = area filled with water

$A = \pi r^2$

A = area of circle in square inches
R = radius of circle in inches
π = the constant pi = 3.1416

Velocity, Flow and Friction loss

$V = 12.1 \sqrt{NP}$

V = flow velocity in feet per second
12.1 = a constant
NP = nozzle pressure in pounds per square inch

$GPM = 29.7 \times d^2 \times \sqrt{NP}$

GPM = discharge in gallons per minute
29.7 = a constant for fire protection nozzles
d = nozzle diameter in inches
NP = nozzle pressure in pounds per square inch

$FL = CQ^2L$

FL = friction loss in pounds per square inch
C = friction loss coefficient for type and size of hose(s)
Q = flow rate in hundreds of gallons per minute
L = hose length in hundred of feet

Q = GPM / 100

Q = flow rate in hundreds of gallons per minute
GPM = actual flow through hose
100 = a constant

L = hose length / 100

L = hose length in hundred of feet
Hose length = actual length of hose
100 = a constant

$C = FL / Q^2$

C = friction loss coefficient for hose
FL = friction loss in pounds per square inch
Q = flow rate in hundreds of gallons per minute
L = hose length in hundred of feet

Elevation Pressure = 0.5 H

Elev. Press. = Elevation pressure in psi
0.5 = a constant
H = height in feet

Elevation Pressure = 5 psi x (number of stories -1)

PDP = NP + TPL

PDP = Pump discharge pressure in psi
NP = Nozzle pressure in psi
TPL = Total pressure loss in psi (appliance, friction and elevation losses)

NR = 1.57 d^2NP

NR = solid stream nozzle reaction in pounds
1.57 = a constant for solid stream nozzles
d = nozzle diameter in inches
NP = nozzle pressure in pounds per square inch

NR = 0.0505 GPM √ NP

NR = fog nozzle reaction in pounds
0.0505 = a constant for fog nozzles
GPM = actual flow in gallons per minute
NP = nozzle pressure in pounds per square inch

L = 1.13 Hg

L = height of lift in feet
1.13 = a constant
HG = inches of mercury

Pressure correction = $\frac{\text{lift + total intake friction loss}}{2.3}$

$NPDP_{PPS}$ = PDP – intake pressure

$NPDP_{PPS}$ = net pump discharge pressure at positive pressure source
Intake Pressure = intake pressure from positive pressure source

$NPDP_{Draft}$ = PDP + pressure correction

$NPDP_{Draft}$ = net pump discharge pressure at draft
Pressure correction = pressure correction for draft

FL per 100 feet = Q^2

FL = friction loss in 100 feet of 3” hose
Q = flow in hundreds of galls per minute

FL per 100 feet = Q^2 / 5

FL = friction loss in 100 feet of 4” hose
Q = flow in hundreds of gallons per minute

FL per 100 feet = Q^2 / 10

FL = friction loss in 100 feet of 5’ hose
Q = flow in hundreds of gallons per minute

APPENDIX - E
RELAY CHART

Maximum Distance Relay

Implementing a Maximum Distance Relay operation

Step 1, Determine relay distance
Step 2, Determine required flow
Step 3, Determine maximum distance between pumpers
Step 4, Divide relay distance by maximum distance from table 1, round result up and add one additional pumper
Step 5, Position Attack Pumper
Step 6, Position Source at "Key" hydrant
Step 7, Lay out hose and place Relay Pumpers at intervals determined by Table 1
Step 8, All pumpers except source pumper open a discharge to exhaust air from the lines
Step 9, Source pumper throttles up to proper PDP
Step 10, 1st Relay pumper closes unused discharge once a steady stream of water flows through it, then throttles up to proper PDP
- All successive Relay pumpers follow the same procedure
Step 11, All Driver/Operators set their intake relief valves, as needed.
Step 12, Attack pumper adjusts PDP to supply attack lines.
- Maintain water flow during temporary shutdowns by using one or more discharges as waste or dump lines

Example: (1,000 gpm relay over 10,000 feet using 5" LDH) 10000÷2050=4.87(5)+1=6 Pumpers total

Table 1 - Maximum distance relay lengths in feet

Flow in gpm	One 2 1/2	One 3	One 4	One 5	Two 2 1/2's	One 2 1/2 & one 3	Two 3's
250	1,440	3,600	13,200	33,000	5,760	9,600	14,400
500	360	900	3,300	8,250	1,440	2,400	3,600
750	160	400	1,450	3670	640	1050	1,600
1000	90	225	825	2,050	360	600	900
1250*	50	140	525	1,320	200	375	500

Maximum distance relay pump discharge pressure

2 1/2 & 3 inch - Maintain 200 psi PDP
4 & 5 inch - Maintain 185 psi PDP
1,250 gpm requires a 1,750 gpm pump to achieve. * PDP accounts for 20 psi residual pressure for the next pumper in the relay

Key positions in a relay operation

Source Pumper - Positioned at the "Key" hydrant
Relay Pumper/Pumpers - Spaced evenly throughout the relay at intervals determined from Table 1
Attack Pumper - Placed at a forward "Key" attack position

1 mile = 5280 Feet

Constant Pressure Relay (Maximum Volume)

Implementing a constant pressure relay operation

Step 1, Position Attack Pumper
Step 2, Position Source Pumper at "Key" hydrant
Step 3, Lay out hose and place Relay Pumpers at 750 foot intervals
Step 4, All pumpers except source pumper open a discharge to exhaust air from the lines
Step 5, Source pumper throttles up to 175 psi
Step 6, 1st Relay pumper closes unused discharge once a steady stream of water flows through it, then throttles up to 175 psi.
- All successive Relay pumpers follow the same procedure
Step 7, All Driver/Operators set their intake relief valves, if needed.
Step 8, Attack pumper adjusts PDP to supply attack lines.
- Maintain water flow during temporary shutdowns by using one or more discharges as waste or dump lines

Maximum volume at 750 feet by hose layout

	One 2 1/2	One 3	One 4	One 5	Two 2 1/2's	One 2 1/2 & one 3	Two 3's
Max flow	321 gpm	508 gpm	1017 gpm	1607 gpm	643 gpm	830 gpm	1017 gpm

Maximum volume relay pump pressure

Source and Relay pumpers - Maintain 175 psi
Attack Pumper - adjust PDP as needed making sure to dump excess pressure
**** PDP accounts for 20 psi residual pressure for the next pumper in the relay***

Key positions in a relay operation

Source Pumper - Positioned at the "Key" hydrant
Relay Pumper/Pumpers - Spaced evenly throughout the relay at intervals of 750 feet
Attack Pumper - Placed at a forward "Key" attack position

1 mile = 5280 Feet

APPENDIX - F
IN-TAKE HOSE DRAFTING CHART

ALLOWANCES FOR FRICTION LOSS INTAKE HOSE			
RATED CAPACITY OF THE PUMP IN GPM	**DIAMETER OF THE INTAKE HOSE IN INCHES**	**FOR EVERY 10' OF INTAKE HOSE**	**ALLOWANCE IN FEET FOR EACH ADDITIONAL 10' OF INTAKE HOSE**
500	4 4 ½	6 3 ½	Plus 1 Plus ½
750	4 5	7 4 ½	Plus 1 ½ Plus 1
1000	4 ½ 5 6	12 4 ½ 4	Plus 2 ½ Plus 1 ½ Plus ½
1250	5 6	12 ½ 6 ½	Plus 2 Plus ½
1500	**5 (dual) 6 (dual)**	**4 ½ 2**	**Plus 1 Plus ½**
1750	**5(dual) 6(dual)**	6 ½ 3	Plus 1 Plus ½
2000	**5(dual) 6(dual)**	**8 4**	**Plus 1 ½ Plus ½**

FROM TABLE 11.2A IFSTA ADO-P CH. 11

DRAFTING GUIDELINES

It is important to know the difference in elevation between the pump and the water source when drafting water from a pond or stream. When drafting water, the air at atmospheric pressure is removed from the hose line, creating a vacuum (negative pressure) within the pump chamber. The atmospheric pressure (weight of air) on the water's surface forces the water up through the suction hose to the pump.

The maximum height to which an engine or pump can lift water is determined by the atmospheric pressure. At sea level, the atmosphere exerts an average pressure of 14.7 pounds per square inch (psi). Atmospheric pressure will vary due to changes in the weather. However, these changes tend to moderate themselves so that the average pressure will tend to go back toward 14.7 pounds per square inch. That is why it is safe to use this value of 14.7 pounds per square inch as a constant for calculations.

Maximum Lift: 14.7 x 2.304

Attainable Lift: Current Elevation x 2.304

Retrieved from, http://math.fire.org/index.php?option=com_content&view=article&id=32&Itemid=46

APPENDIX - G
7 -STEP BRAKE SYSTEM CHECK GUIDE

Seven Step Brake System Check Guide:

(Adapted from the Utah CDL handbook)

1. Test low-pressure warning

With the engine off, electrical power on, and enough air pressure that the low-pressure signal is not on. Step on and off of the brake pedal to reduce air pressure to the point that the low air alarm activates. This should be before the air pressure drops below 60 psi.

2. Testing the spring brakes

Continue to step on and off the brake pedal to reduce the air pressure. The yellow parking brake knob should pop out when the air pressure reaches the 20-40 psi range.

3. Test air pressure build up

Start the engine and engage the fast idle (900-1100 RPM). Air pressure should build into the 85-100 psi range within 45 second in a dual air system.
Larger air systems may take longer, check the manufacturer's specs.

4. Test for air leaks

With the air system fully charged, turn off the engine and release the parking brake. After the initial pressure drop, observe air pressure for one minute. Pressure drop of >2 psi in one minute may be a problem or indicate a leak.
Apply moderate braking pressure and hold for one minute, after the initial pressure drop, observe air pressure for one minute. Pressure drop of >3 psi in one minute may be a problem or indicate a leak.

5. Test air compressor governor operation

Start engine and engage the fast idle. (900-1100 RPM). Observe air pressure rise until the compressor cuts out. (Typically 125 psi.). With the engine still running, slowly step on and off the pedal to reduce the air pressure to the point where the air compressor starts building air again. (Typically 100 psi.)
Check manufacturer's specs for exact pressures.

6. Test parking brake

Apply the parking brake and remove the wheel chocks. Place transmission in gear and gently raise engine RPM's to a fast idle to see if the parking brake holds. The apparatus should not move.

7. Test service brakes

Release the parking brakes, move the apparatus forward at about 5 mph.
Firmly apply the brakes, note any pull to one side, unusual feel or delay in stopping.

APPENDIX - H
IN-HOUSE PROCTOR INSTRUCTIONS

Proctor Instructions for In-House Comprehensive Examination

As the training officers for your department, you are authorized by the Certification Council to conduct an in-house skills examination (100%) for this level of certification. You must be certified to the level that you are testing. For example, if you're FF II you can test both FF I and II, Awareness and Operations. The in-house skills examination must be completed and signed off prior to the actual certification spot check exam (administered by a UFRA certification tester).

- **Prior to conducting the test, review each candidate's training record.**
  It is important that before doing this in-house training skills test, the candidate has completed training in all areas for the level being tested.

- **Select and brief a safety officer.**
  Select a safety officer to assist you during the test. This person is there to protect the candidates from injury during the testing process, is not taking the test, and is not assisting with the testing process. The safety officer must be qualified at the level being tested.

To better evaluate the skills being tested and determine the candidate's readiness for the <u>State Spot Check exam</u>, follow these in-house exam instructions:

1. This is a TEST and there should be NO COACHING or TRAINING during the testing process. If a candidate fails to perform a skill, that skill will count as a first attempt failure and they will be given a second attempt. If they fail a second attempt, they need to be retrained on that skill and tested again. Only **qualified** candidates that have passed with **100%** should be allowed to take the State Spot Check exam.

2. Before beginning the testing process, conduct a meeting with all candidates and review the testing process. Explain that this is a test and that the same process being used for the in-house exam will be used during the state exam.

3. Designate two separate areas for students testing: One area for those who are in the testing process and one area for those who have not yet begun the testing process. If separate areas are not available, make sure someone is in the room to ensure that students do not discuss the testing material. Make sure these areas have no training manuals or other reference materials for students to look at while awaiting testing.

4. To evaluate a candidate's performance, use the following as a guide:
   a. The skill is completed in the allotted time.
   b. Competence is shown by completing all performance criteria.
   c. Safety is a priority while completing the skill.

5. At each test station, the tester will read the skill to be demonstrated, the condition to be met, and the time limit to complete each skill. This information is contained in the skill section of each standards packet. Do this with each student as they come to each testing station. Ask for any questions. As each skill is tested and completed, sign it off in the section provided on the candidate's training record.

By conducting the in-house skills examination in this manner, you will prepare your candidates to successfully pass the State Spot Check exam. This will also ensure that training records are current and that only those who are truly prepared take the Certification Examination.

APPENDIX - I

CERTIFICATION FORMS

Certification Forms are located on our website at UVU.edu/UFRA under Certification
https://www.uvu.edu/ufra/certification/certification_forms.html

Which includes the following forms:
Intent to Participate
Examination Request
Certification/Recertification Request

CERTIFICATION FEES – Effective January 1, 2025

1st Attempt	2nd Attempt	3rd Attempt	Certification Item
Certification Levels Tested (per individual)			
$ 10	$ 50	$ 75	Firefighter I
$ 10	$ 50	$ 75	Firefighter II
N/A	N/A	$ 75	Live Fire (tied with Firefighter I and II)
$ 10	$ 50	$ 75	Hazardous Materials Awareness
$ 10	$ 50	$ 75	Hazardous Materials Operations
****The skills fee will be waived on the first and second attempt if taken the same day as the written exam.** Fire departments in fifith/sixth-class counties will continue to receive a free first attempt for Firefighter I, Firefighter II, Hazardous Materials Awareness, and Hazardous Materials Operations.			
$ 75	$ 75	$ 75	**All other levels**
$ 90	$ 90	$ 90	Accredited Firefighter Academies (AFAs), "non-fire department" agencies
Recertification Requests			
$ 10			All levels - For each individual (excluding Technician levels)
$ 10			All "Technician" levels (Training Record required), for each individual
Reciprocity			
$ 200			Per application (for all levels) must have Pro Board or IFSAC seals included
Other			
$ 10			Additional patches
$ 20			Printed original certificate with seal
$ 20			ID card
$ 350			Out-of-state testing/certfication: Officer I-IV (per level)