

Utah Fire Service Certification System

TECHNICAL RESCUE HEAVY VEHICLE RESCUE



CERTIFICATION STANDARD

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Ted Black, Utah State Fire Marshal

Utah State Fire Marshal’s Office

Utah Fire & Rescue Academy Staff

Brad Wardle, Director

Jolene Chamberlain, Assistant Director

Joan Aaron, Certification Program Manager

Certification Specialists:

Jennifer Lindley – Northern Region

Trudy Meister – Central Region

Sharon Stokes – Salt Lake County/Southern Region

For questions or comments concerning this or other Utah certification standards, please contact:

Utah Fire Service Certification Council

Utah Fire & Rescue Academy

Utah Valley University

3131 Mike Jense Parkway

Provo, Utah 84601

Phone 801-863-7709

Fax 801-374-0681

www.uvu.edu/ufra

Heavy Vehicle Rescue 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 Heavy Vehicle Rescue certification standard. These individuals devoted many hours to reviewing the National Fire Protection Association (NFPA) 1006 standard, certification test banks, and curriculum textbooks to develop the wording for the skills for each discipline within this standard.

Thank You.

Heavy Vehicle Rescue Committee

TJ Brewer

Moab Fire Department, Chief

*Certification Council Representative

Jason Buhler, Fire/Heavy Rescue Captain

Salt Lake City Fire Department

William Mackintosh, Captain

Salt Lake City Fire Department

Kris Maxfield, Battalion Chief

West Jordan Fire Department

Chris Whetton, Captain

Weber Fire District

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INTRODUCTION

The Utah Fire & 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 (UFSCS) creates uniformity by 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. The UFSCC believes that by participating in this certification program firefighters and fire departments will be better prepared to provide safety and fire protection for their communities.

“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

The following certification requirements are based on the objectives listed in Chapter 9, “**Heavy Vehicle Rescue**,” in NFPA 1006, *Standard for Technical Rescue Personnel Professional Qualifications* (National Fire Protection Association, 2021), as verified and adopted by the Utah Fire Service Certification Council (UFSCC).

In NFPA 1006 (2021), **heavy vehicles** are defined as “heavy duty highway, off-road, construction, or mass transit vehicles constructed of materials presenting resistance to common extrication procedures, tactics, and resources and posing multiple concurrent hazards to rescuers from occupancy, cargo, size, construction, weight, or position” (3.3.83).

TECHNICAL RESCUE CERTIFICATION REQUIREMENTS

Entrance Requirements

Certification at the Technical Rescue – Heavy Vehicle Rescue; Awareness, Operations, and Technician levels is a unique process. Because of the method and manner in which NFPA has established to become certified, candidates must complete the prerequisites and/or requirements for any of the specialty areas as set forth in Chapter 9 of NFPA 1006 (2021). In order to certify at the Technical Rescue levels, candidates must fulfill the following requirements:

1. Complete entrance requirements.
2. Set up and maintain department records.
3. Train on the required written and practical objectives in the specialty areas outlined in Chapter 9, “Heavy Vehicle Rescue.”
4. Pass an in-house practical skills examination for each specialty area.
5. Meet any other training requirements/prerequisites as defined by the Certification Council.
6. Pass both written and practical skills examinations administered by the Certification Council.
7. Request Technical Rescue Certification for each specialty area completed.
8. Request recertification at the end of each 3-year certification period.

Physical Fitness Requirements

The UFSCC acknowledges the importance of and need for physical fitness requirements as listed in NFPA 1006. 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.**

“All technical rescue activities should be carried out in the safest possible manner, including the consideration that all risks taken are to benefit the operation. Technical rescue skills require a high degree of physical activity, coordination, operational planning, and a strong knowledge of all applicable protocols” (NFPA 1006, 1.3.9).

Here are the entrance requirements outlined in NFPA 1006 (1.3.9, A.1.3.9):

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 at least 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*, (2022), as determined by the medical authority of the AHJ.
4. Technical rescue operations involve activities that pose great physical and mental challenges requiring the rescuer to perform challenging physical activities in a high-stress environment. 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.
5. Prior to beginning training as technical rescue personnel, a minimum medical training requirement should be met.

6. People having the potential for encountering hazardous materials on an incident scene should be trained to recognize the hazard and to implement exposure and control methods.

Department Training Officers

For a department 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) 863-7709 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 C 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 a Heavy Vehicle Rescuer is one that requires a high level of skill and knowledge. The training that is given to and received by the candidate should be of the highest quality and degree. All training received must meet the requirements of NFPA 1006 (2021), including the sections regarding technical specialty areas in Chapter 9, and the skills as approved by the UFSCC contained within this Utah certification standard. All training received must be documented and recorded in the Training Record. All testing for Heavy Vehicle Rescue will be conducted following the Policies and Procedures of the UFSCC.

Training for Technical Rescue can be obtained by completing one of the following training courses or methods in order to qualify to take the state certification examination.

1. Heavy Vehicle Rescue course which meets the requirements of NFPA 1006, Chapter 9 (2021 edition), A Training Record, provided in this standard, must be completed for each person.
2. Department Based Training – Departments can create their own Heavy Vehicle Rescue course which meets the requirements as outlined in NFPA 1006 Heavy Vehicle Rescue area contained in Chapter 9 (2021 edition). A Training Record, provided in this standard, must be completed for each person involved in the department-based training.

The course material should be referenced to the following textbook(s) to prepare the candidate to successfully pass the State Certification examination.

Written Objectives

Written objectives for Heavy Vehicle Rescue are covered in:

- Chapter 9, “Heavy Vehicle Rescue,” in NFPA 1006 (2021)
- David Sweet, *Vehicle Rescue and Extrication*, revised 2nd edition (Jones & Bartlett Learning, 2022)

This textbook is available from various fire service bookstores or on the internet. A list of current resources are available online at uvu.edu/ufra.

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 a Heavy Vehicle Rescuer, the Council recommends that the candidate participate in a comprehensive class and receive instruction on both skills and written requirements.

Skill Objectives

Each candidate **must** be trained and evaluated in the performance of **all** skills as found in this Utah certification standard. Each of the skill objectives shall be completed swiftly, safely, and with competence as defined below:

- **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 or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification 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 must be 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 use 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. Indicate the certification level and its corresponding NFPA standard number and edition.
2. Include a signature line for the candidate, which attests that all skills have been trained on and a complete in-house comprehensive exam was administered and passed.
3. Include a signature line for the Chief/Training Officer, which attests that the candidate has been trained on all skills and a complete in-house comprehensive exam was administered and passed.
4. Include a line to record the date the Training Record was completed.
5. List all the skills from this Utah certification standard for this level. Include columns indicating the date of trainings, training instructors, the date of exams, exam instructors, and whether the candidate passed each exam (see the Training Record on page 14 in this standard).

Department In-House Skills Examination

At the completion of the department's training, the department is required to hold an in-house skills examination for the level being trained. This is a comprehensive in-house skills examination conducted by the department training officers. This test is to ensure that skill mastery has been maintained from 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 B in this standard. 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 skills examination to ensure their personnel have fully mastered all required skills. Only those individuals who successfully pass the department skill test will be allowed to participate in the Certification Council's skills 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 C. The candidate will then have three attempts to pass the written examination. A separate request must be sent to the Certification Office for each attempt. Request forms must reach the Certification Office 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 test covering the written objectives of the Technical Rescue standard of NFPA 1006 (2021).

| Chapter 9 Certification Level | # of Questions |
|--------------------------------------|-----------------------|
| Heavy Vehicle Rescue - Awareness | 30 |
| Heavy Vehicle Rescue - Operations | 30 |
| Heavy Vehicle Rescue - Technician | 30 |

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 allowed to pass the exam. If a candidate fails the written examination three times, they failed the certification process and must wait one year from the date of the last failed exam before reentering testing. Exam results are forwarded to the Chief/Administrator within 30 days following the receipt of the completed exam.

Skills Spot Check Examinations

This is a two-step examination. The first step is a department records check and the second is the skills spot check examination. A Certification Tester appointed by the Utah Fire Service Certification Council conducts the examination.

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 and evolution for the level being evaluated.
2. A department training officer has signed off each skill and evolution.
3. Each candidate has passed a department in-house skills and evolution examination.

The skills spot check examination is graded on a 100% pass/fail basis. The test is graded in the 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 an individual or damage equipment is unacceptable. Equipment should be checked prior to skill testing or training to see that it is safe and functional.
- **With Competence.** Each skill objective must be performed in accordance with this Utah certification standard. This includes performing the proper steps in sequence. Competence will be measured in accordance with the UFSCS skill objectives.

Evolution Examinations: Candidates are spot checked on one Evolution Examination for each level (Awareness, Operations, Technician). This is a 100% pass/fail test. If a candidate fails any portion of the skill, then they have failed the evolution and must retest the entire evolution. Candidates who fail the second attempt must wait **30 days** before the third and final attempt. **No training, teaching, or coaching is allowed during this state test.**

- Heavy Vehicle Rescue Awareness: one Evolution Examination
- Heavy Vehicle Rescue Operations: one **Team** Evolution Examination
- Heavy Vehicle Rescue Technician: one **Team** Evolution Examination

The skills will be from NFPA 1006 (2021), Chapter 17. Candidates are given two attempts to perform each skill/evolution. If they fail on the **second attempt**, the applicants must wait 30 days before the third and final attempt. Participants taking **third attempts** will test on the skill/evolution they missed and one additional skill.

Candidates who have failed the third attempt of the written examination or the skills examination have failed the certification process and must wait **one year** from the date of the failed third attempt to reenter state testing. The candidate will begin testing with a new **first attempt** of the written examination, following a request for examination. If a candidate wishes to enter a new course, the candidate may petition the Certification Office to reenter the certification examination process no sooner than 120 days after their **third attempt** failure. In the petition, candidates must explain the reason(s) behind their request to reenter the process.

TECHNICAL RESCUE 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 Council using the Certification/Recertification Request form provided in Appendix C. The names are then checked against the official state records to ensure that each individual listed has met all requirements and prerequisites.

Candidates who have met the requirements are issued a certificate. The Chief/Administrator is then notified that the newly acquired certification will be available to view and print within 10 business days of the issue date via the UFRA Certification and Training Lookup System at <https://uvu.edu/ufra/lookup/>. Patches are at cost. New printed certificates with an original seal attached may be requested from the Certification Office for a fee of \$10 per certificate. Wallet cards are sent to candidates if their photos are five years old or newer. A \$40 testing/certification fee will be assessed if the candidate passes their written exam on the second attempt, and a \$60 fee will be assessed if the candidate passes their written exam on the third attempt.

***The above fee table applies to Utah Fire Departments only. All other agencies will be assessed a testing/certification fee of \$90 per level.**

Prerequisites for Technical Rescue Certification

To qualify to train on the NFPA 1006 section listed in the left column, candidates must have completed the prerequisite training indicated in the right column.

| Training | Prerequisites |
|---|----------------------|
| Common Passenger Vehicle Rescue- Technician (8.3) | 8.2 |
| Heavy Vehicle Rescue - Awareness (9.1) | |
| Heavy Vehicle Rescue - Operations (9.2) | 8.3, 9.1 |
| Heavy Vehicle Rescue - Technician (9.3) | 9.2 |

Recertification

Certification at the Technical Rescue level is valid for a three-year period. Each certified Technical Rescuer may renew certification by having the Chief/Administrator of the participating agency submit the Certification/Recertification Request provided in Appendix C.

Certified candidates should participate in at least 36 hours of structured class and skill training per year to maintain competency and stay current on their skills. This 36 hours is for all certified levels combined, not 36 hours for each individual level. A total of 108 hours of training is required for the previous three-year certification period.

Recertification for Technician Levels

Certifications are valid for a three-year period. Each certified technician may renew certification by having the Chief/Administrator of the participating agency submit an "Application for Recertification" provided in Appendix C. Because of the high level of skill required of a Heavy Vehicle Rescue Technician, the Certification Council requires that candidates must complete an in-house comprehensive examination on all technician level skills contained in this standard, as part of their recertification process. The original copy of the completed in-house comprehensive exam must accompany the recertification request.

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
1-801-863-7709 www.uvu.edu/ufra

TECHNICAL RESCUE CERTIFICATION CHECKLIST

ENTRANCE REQUIREMENTS:

- ☐ Each candidate has met the requirements listed in NFPA 1006, 2021 edition.
- ☐ Each candidate has trained on the Technical Rescue 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 Technical Rescue level written objectives.

DEPARTMENT IN-HOUSE SKILLS EXAMINATION:

- ☐ Each candidate has successfully completed an in-house skills and evolution examination.
- ☐ Exam results are documented in department training records.

CERTIFICATION EXAMINATIONS:

- ☐ Each candidate has passed the UFSCC written examination.
- ☐ Each candidate has passed the UFSCC skills and evolution examination.
- ☐ A Spot Check examination was administered by an approved UFRA Certification Tester(s).

TECHNICAL RESCUE CERTIFICATION:

- ☐ The Chief/Administrator has requested certification for candidates using the Certification/Recertification Request.

SECTION I
HEAVY VEHICLE RESCUE - AWARENESS

HEAVY VEHICLE RESCUE – AWARENESS SKILL OBJECTIVES

It is responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

To complete the skills contained in this chapter, the AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

1. Identify and don appropriate PPE.

| | |
|-------------|---|
| REFERENCE: | NFPA 1006, 2021 edition, 9.1.2 |
| CONDITION: | Given a heavy vehicle incident, information, and applicable reference materials (photo), PPE: helmet, gloves, boots, turnouts/long-sleeved coveralls, eye protection, hearing protection. |
| SCENARIO | Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine and don appropriate PPE. |
| COMPETENCE: | <ul style="list-style-type: none">• Identify situation hazards (potential fire hazards)• Don turnouts or long-sleeved coveralls and boots (AHJ)• Don eye protection• Don helmet (and hood if appropriate)• Don gloves |
| TIME: | 2 minutes |

2. Identify hazards and establish control zones.

| | |
|-------------|--|
| REFERENCE: | NFPA 1006, 2021 edition, 9.1.2 |
| CONDITION: | Given a heavy vehicle incident, information, and applicable reference materials (photo), PPE: helmet, gloves, boots, turnouts/long-sleeved coveralls, eye protection, hearing protection. |
| SCENARIO | Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Identify hazards and needs, and establish control zones. |
| COMPETENCE: | <ul style="list-style-type: none">• Identify situation hazards (potential fire hazards)• Identify hazmat hazards• Identify traffic hazards• Identify electrical hazards• Identify and establish control zones• Isolate and deny entry |
| TIME: | 4 minutes |

3. Demonstrate the ability to read, gather information, identify needs, request additional resources, and gather information from witnesses.

REFERENCE: NFPA 1006, 2021 edition, 9.1.1-9.1.3

CONDITION: Given a heavy vehicle incident, information, and applicable reference materials (photo), PPE: helmet, gloves, boots, turnouts/long-sleeved coveralls, eye protection, and hearing protection.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s).

COMPETENCE:

- Wear appropriate PPE
- Identify situation hazards (potential fire hazards) and safety measures
- Gather information, manage and interview witnesses
- Identify number of victims
- Identify need for additional resources
- Identify type of vehicle(s)
- Request additional resources as needed

TIME: 2 minutes

4. Demonstrate ability to apply all operational protocols (AHJ). Determine, follow, and implement applicable department SOGs/SOPs or standard practices.

REFERENCE: NFPA 1006, 2021 edition, 9.1.3, 9.1.4

CONDITION: Given department SOG/SOPs, heavy vehicle incident information, and applicable reference materials (photo), verbalize.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine, follow, and implement applicable department SOG/SOPs or standard practices (AHJ). Demonstrate ability to document.

COMPETENCE:

- Identify and explain any relevant department (AHJ) heavy vehicle extrication incident SOG/SOPs (verbally).

TIME: 1 minute

5. Mitigate existing or potential hazards. Report to supervisor/incident commander when tasks are complete.

REFERENCE: NFPA 1006, 2021 edition, 9.1.2, 9.1.4

CONDITION: Given a heavy vehicle incident, information, and applicable reference materials (photo), verbalize.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Verbalize need for and placement of mitigation and control devices.

COMPETENCE:

- Control traffic hazards
- Control spill hazards
- Isolate electrical hazards
- Mitigate other potential hazards
- Report to supervisor/incident commander when tasks are complete.

TIME: 2 minutes

HEAVY VEHICLE RESCUE AWARENESS EVOLUTION

It is responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

To create a more realistic testing environment, the individual skills have been assembled into these examination evolutions. Candidates must train and complete an In-House exam on all skills and examination evolutions. The evolution will be graded on a 100% Pass/Fail basis.

The AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

Evolution: Demonstrate awareness level skills for heavy vehicle rescue.

REFERENCE: NFPA 1006, 2021, 9.1.1-9.1.4

CONDITION: Given a heavy vehicle incident, information, and applicable reference materials (photo), wearing full PPE, verbalize.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Utilize available resources (engine with extrication tools). Demonstrate (verbally) awareness level skills.

COMPETENCE:

- Wear appropriate PPE
- Identify situation hazards
- Identify isolation methods (control zones)
- Identify scene security
- Gather information, interview witnesses, read, etc.
- Identify fire suppression needs
- Mitigate safety hazards
- Identify the number of victims
- Identify and request additional resources as needed
- Report to supervisor/incident commander when tasks are complete and function within the incident management system as assigned

TIME: 20 minutes

UTAH FIRE SERVICE CERTIFICATION SYSTEM

HEAVY VEHICLE RESCUE - AWARENESS

NFPA 1006, 2021 edition
9.1.1-9.1.4

HEAVY VEHICLE RESCUE - AWARENESS TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

| Candidate Name: | | | | Department: | | |
|--|-----------------|------------|------------------------------|--|------|---|
| Candidate Signature: | | | | Date of Completion: | | |
| Chief/Training Officer: | | | | 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 OBJECTIVES & EVOLUTION |
| | DATE | INSTRUCTOR | DATE | INSTRUCTOR | PASS | |
| 9.1.2 | | | | | | 1. Identify and don proper PPE. |
| 9.1.2 | | | | | | 2. Identify hazards and establish control zones. |
| 9.1.1-9.1.3 | | | | | | 3. Demonstrate the ability to read, gather information, identify needs, request additional resources, and gather information from witnesses. |
| 9.1.3,9.1.4 | | | | | | 4. Demonstrate ability to apply all operational protocols (AHJ). Determine, follow, and implement applicable department SOG/SOPs or standard practices. |
| 9.1.2, 9.1.4 | | | | | | 5. Mitigate existing or potential hazards. Report to supervisor/incident commander when tasks are complete. |
| EVOLUTION | | | | | | Demonstrate Awareness Level Skills for Heavy Vehicle Rescue |

SECTION II
HEAVY VEHICLE RESCUE - OPERATIONS

HEAVY VEHICLE RESCUE – OPERATIONS SKILL OBJECTIVES

It is the responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

The AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

1. Identify and don appropriate PPE.

REFERENCE: NFPA 1006, 2021 edition, 9.2.4, 9.2.9

CONDITION: Given a vehicle incident, information, and applicable reference materials (photo), PPE: helmet, gloves, boots, turnouts/long-sleeved coveralls, eye protection, hearing protection.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine and don appropriate PPE.

COMPETENCE:

- Identify situation hazards (potential fire hazards)
- Don turnouts or long-sleeved coveralls and boots (AHJ)
- Don eye protection
- Don helmet (and hood if appropriate)
- Don gloves
- Complete skill in allotted time

TIME: 2 minutes

2. Perform an incident size-up. Create an Incident Action Plan (IAP). Verbalize safety procedures and emergency evacuation signals.

REFERENCE: NFPA 1006, 2021 edition, 9.2.1

CONDITION: Given a heavy vehicle incident (provided photo), information, and applicable reference materials, tactical worksheet (AHJ), personnel accountability protocol, and SOPs.

SCENARIO: Given a heavy vehicle accident with a trapped victim that requires extrication. Develop a plan that will utilize available resources (engine with extrication tools) to safely remove victim.

COMPETENCE:

- Identify situation hazards
- Identify isolation methods (control zones)
- Identify scene security
- Identify fire suppression needs
- Identify safety measures

- Identify stabilization needs
- Identify additional resources
- Identify the number of victims
- Create an Incident Action Plan (IAP), AHJ tactical worksheet, and apply operational protocols
- Identify safety procedures and evacuation signals

TIME: 5 minutes

3. Identify heavy vehicle anatomy.

REFERENCE: NFPA 1006, 2021 edition, 9.2.1

CONDITION: Given a heavy vehicle resting on its wheels.

SCENARIO: Given a heavy vehicle resting on its wheels identify major components if present.

COMPETENCE:

- Identify applicable posts (A, B, C, etc.)
- Identify fire wall
- Identify strut tower
- Identify rocker panel
- Identify types of glass
- Identify Nader pins/hinges
- Identify piston struts
- Identify batteries
- Identify air suspension systems
- Demonstrate ability to identify types of vehicles

TIME: 2 minutes

4. Identify fire and explosive hazards and manage ignition potentials. Demonstrate use of extinguishing devices and fire control strategies.

REFERENCE: NFPA 1006, 2021 edition, 9.2.2, 9.2.4

CONDITION: Given 1¾" hand-line or fire extinguisher, PPE, 2-member team, verbalize.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine proper mitigation techniques, follow and implement applicable department SOG/SOPs or standard practices (AHJ).

COMPETENCE:

- Wear appropriate PPE
- Operate within the ICS
- Identify and manage ignition sources
- Identify proper mitigation steps
- Deploy proper extinguishing device, applying fire control strategies
- Identify safety procedures

TIME: 1 minute

5. Select, operate, and monitor stabilization devices. Stabilize a heavy vehicle so it is prevented from moving during the rescue operation.

REFERENCE: NFPA 1006, 2021 edition, 9.2.3

CONDITION: Given basic extrication tool kit, stabilization devices, appropriate PPE, and a 4-6 member team.

SCENARIO: Given a heavy vehicle resting upright on its wheels, stabilize the vehicle.

COMPETENCE:

- Wear appropriate PPE
- Determine entry, exit, and tool placement points
- Determine rescue activities to be accomplished
- Isolate suspension of cab if applicable
- Select stabilization points
- Select stabilization devices and apply to heavy vehicle
- Operate stabilization devices
- Monitor stabilization devices
- Maintain incident stability and scene safety

TIME: 7 minutes

6. Manage potential harmful energy sources and SRS systems.

REFERENCE: NFPA 1006, 2021 edition, 9.2.2, 9.2.4

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle.

SCENARIO: Given a heavy vehicle, locate the 12-volt battery and SRS systems. Identify, isolate and/or disable.

COMPETENCE:

- Wear appropriate PPE
- Identify and mitigate battery hazards
- Remove trim to identify air bag cylinder locations
- Operate tools and devices for securing and disabling hazards
- Maintain incident stability and scene safety

TIME: 5 minutes

7. Determine and create egress opening for – rescue from a vehicle resting upright.

A. Identify and create additional entry/exit point(s) on a heavy vehicle.

REFERENCE: NFPA 1006, 2021 edition, 9.2.5, 9.2.6

CONDITION: Given a heavy vehicle, appropriate PPE, fire safety measures, power and hand tools to accomplish task.

SCENARIO: Given a heavy vehicle with a damaged inoperable doorway. Create a new doorway in the side of the vehicle, large enough to assist in victim (dummy) recovery/removal efforts.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Identify area of the vehicle that is structurally weaker than the rest of the vehicle
- Identify patient safety and medical considerations
- Identify emergency escape route(s)
- Choose appropriate tool package to cut through vehicle while minimizing patient harm
- Identify and avoid any electrical, hydraulic, or pneumatic hazards and take appropriate safety measures
- Have appropriate hose lines in place in case of fire
- Maintain incident stability and scene safety

TIME: 30 minutes

7. B. Remove a windshield on a heavy vehicle.

REFERENCE: NFPA 1006, 2021 edition, 9.2.5, 9.2.6

CONDITION: Given a heavy vehicle with an intact windshield. Appropriate hand tools, proper PPE, remove windshield sections in one solid piece of glass.

SCENARIO: Given a heavy vehicle with intact windshield. Remove compression band around window glass and pull glass from remaining gasket.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Select and operate appropriate tools and equipment
- Identify and remove compression band from the center of the window gasket
- Pull glass out of remaining gasket
- Demonstrate safety procedures and emergency evacuation signal

TIME: 10 minutes

7. C. Make additional roof opening for victim removal.

REFERENCE: NFPA 1006, 2021 edition, 9.2.5 - 9.2.6

CONDITION: Given a stabilized side resting heavy vehicle, appropriate hand and power tools, proper PPE.

SCENARIO: Given a heavy vehicle resting on its side and already stabilized. Identify areas on the roof that are structurally weaker and create an additional opening large enough for victim (dummy) removal.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Identify patient safety and medical considerations
- Select and operate appropriate tools and equipment
- Identify roof rails and cut between rails, creating a large enough opening for victim removal
- Demonstrate safety procedures and emergency evacuation signal

TIME: 10 minutes

7. D. Identify and overcome all emergency and non-emergency entry and exit points on a heavy vehicle.

REFERENCE: NFPA 1006, 2021 edition, 9.2.5 - 9.2.6

CONDITION: Given a heavy vehicle, appropriate PPE, hand and power tools necessary to overcome door locking systems.

SCENARIO: Given a heavy vehicle with all doors in the closed position. Identify and overcome locking mechanisms as needed to open all entry/exit points.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Identify patient safety and medical considerations
- Select and operate appropriate tools and equipment
- Identify entry and egress points for rescuers and victims.
- Identify if locking mechanisms are mechanical, electric, pneumatic, or hydraulically operated.
- Identify all release mechanisms, and open doors with appropriate tools.
- Secure doors in the open position so doors will not impede rescue efforts.
- Demonstrate safety procedures and emergency evacuation signal

TIME: 15 minutes

8. A. Disentangle and remove victim from heavy vehicle, using a dash jack.

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy) using a dash jack.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Make appropriate relief cuts in A-post
- Crush or cut fender/wheel-well (if applicable)
- Displace dash vertically with spreaders
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

8. B. Disentangle and remove victim from heavy vehicle, using a dash roll.

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy) using a dash roll.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Make appropriate relief cuts in A-post
- Crush or cut fender/wheel-well
- Displace dash with ram
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

8. C. Disentangle and remove victim from heavy vehicle – Pedal removal/displacement.

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy) by removing or displacing a pedal.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Displace dash if necessary
- Remove or displace pedals
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

8. D. Disentangle and remove victim from heavy vehicle - Steering wheel

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 3-4 member team, and a stabilized heavy vehicle that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the steering wheel. Disentangle the victim (dummy) by removing or displacing the steering wheel.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Displace dash if needed
- Remove or displace steering wheel
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

8. E. Remove seat(s) from a heavy vehicle so that entrapped victims can be freed up for patient care and removal.

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given a heavy vehicle, 2-member team, proper PPE, hand tools, appropriate power tools, backup hose line in place. (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle (side or wheel resting), with a simulated victim or manikin pinned by a damaged seat. Assuring patient care and protection are addressed, remove seat from vehicle so that the victim (dummy) is free for removal.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety, protection, and medical considerations
- Use protective measures to protect victim and rescuers.
- Select proper tools and equipment.
- Identify entry and exit corridors.
- Use power tools appropriately so no further victim harm occurs, and seat is removed swiftly and safely.
- Remove victim to safe area using appropriate immobilization techniques.

TIME: 15 minutes

9. Terminate a heavy vehicle incident, so that rescuers and bystanders are protected during the termination process.

REFERENCE: NFPA 1006, 2021 edition, 9.2.9

CONDITION: At the completion of a heavy vehicle extrication incident, terminate incident.

COMPETENCE:

- Wear appropriate PPE
- The party responsible for operation, maintenance, or removal of the affected heavy vehicle is notified of any modification or damage created during the extrication process
- Scene control is transferred to responsible party
- Potential or existing hazards are communicated to the responsible party
- Command is terminated

TIME: 5 minutes

HEAVY VEHICLE RESCUE - OPERATIONS EVOLUTION

To create a more realistic testing environment, the individual skills have been assembled into this examination evolution. Candidates must train and complete an in-house exam on all skills and examination evolutions. The evolution will be graded on a 100% percent pass/fail basis.

It is the responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

The AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

| | |
|--------------------------|---|
| SKILL EXAM EVOLUTION: | <p>Demonstrate Heavy Vehicle Rescue - Operations level skills. Working as part of a 5-8 member team, fulfill assigned team roles, including but not limited to: Rescue Officer, spread, cutter, reciprocating saw (if needed), support personnel, and other AHJ protocols. Safety Officer must be qualified and provided by the AHJ.</p> <p>The lead tester will assign team roles (on the exam day). The candidates must not know their “assigned” team roles prior to the evolution exam.</p> <p><i>*The evolution exam is a team evolution but is graded individually; the whole team is not penalized if one or more members do not fulfill their required tasks. Each team member must have the knowledge/skills of each role.</i></p> |
| REFERENCE: | NFPA 1006, 2021, 9.2 |
| CONDITION: | Given a heavy vehicle resting on its wheels, incident information, applicable reference materials, rescue/hose dummy, 5-8 member team, wearing full PPE, stabilization tools and equipment, extinguisher/safety line, follow AHJ policies. (See Appendix A regarding hose dummy.) |
| SCENARIO: | Given a heavy vehicle incident requiring extrication or disentanglement of victim(s) (dummy). Utilize available resources (engine with extrication tools). Extricate patient from the vehicle. Demonstrate operations-level skills. |
| COMPETENCE: | <ul style="list-style-type: none">• Wear appropriate PPE• Perform an incident size-up, create an Incident Action Plan (IAP)• Verbalize safety procedures and emergency evacuation signals• Identify the number of victims• Identify and request additional resources as needed• Identify fire and explosive hazards and manage ignition potentials• Identify extinguishing devices and fire control strategies• Select, operate, and monitor stabilization devices• Manage potential harmful energy sources and SRS systems• Determine and create egress opening.• Remove seat(s)• Disentangle and remove victim from heavy vehicle by performing operations-level techniques• Report to supervisor/incident commander when tasks are complete and function within the incident management system as assigned• Maintain incident stability and scene safety• Terminate incident |
| TIME: | 20 minutes |

UTAH FIRE SERVICE CERTIFICATION SYSTEM

HEAVY VEHICLE RESCUE - OPERATIONS

NFPA 1006, 2021 edition 9.2

HEAVY VEHICLE RESCUE - OPERATIONS TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

| Candidate Name: | | | | | Department: | |
|---|-----------------|------------|------------------------------|------------|--|---|
| Candidate Signature: | | | | | Date of Completion: | |
| Chief/Training Officer: | | | | | Chief/Training Officer Signature: | |
| <p>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.</p> | | | | | | |
| SECTION | TRAINING RECORD | | IN-HOUSE COMPREHENSIVE EXAMS | | | SKILL |
| | DATE | INSTRUCTOR | DATE | INSTRUCTOR | PASS | |
| 9.1 | | | | | | <i>Heavy Vehicle Rescue prerequisites have been met prior to Heavy Vehicle Rescue operations.</i> |
| 9.2.4, 9.2.9 | | | | | | 1. Identify and don appropriate PPE. |
| 9.2.1 | | | | | | 2. Perform an incident size-up. Create an Incident Action Plan (IAP). Verbalize safety procedures and emergency evacuation signals. |
| 9.2.1 | | | | | | 3. Identify heavy vehicle anatomy. |
| 9.2.2, 9.2.4 | | | | | | 4. Identify fire and explosive hazards and manage ignition potentials. Demonstrate use of extinguishing devices and fire control strategies. |
| 9.2.3 | | | | | | 5. Select, operate, and monitor stabilization devices. |
| 9.2.2, 9.2.4 | | | | | | 6. Manage potential harmful energy sources and SRS systems |
| 9.2.5, 9.2.6 | | | | | | 7. Determine and create egress opening for rescue – vehicle resting upright: <ul style="list-style-type: none"> a. Identify and create entry/exit points on a heavy vehicle b. Remove windshield on heavy vehicle c. Make additional roof opening for victim removal d. Identify and overcome all emergency and non-emergency entry and exit points on a heavy vehicle. |
| 9.2.7, 9.2.8 | | | | | | 8. Disentangle and remove victim from vehicle. <ul style="list-style-type: none"> a. Dash jack b. Dash roll c. Pedal removal/displacement d. Steering wheel e. Remove seat(s) from a heavy vehicle |
| 9.2.9 | | | | | | 9. Terminate a vehicle incident. |
| EVOLUTION | | | | | | Demonstrate Heavy Vehicle Rescue - Operations Level Skills |

SECTION III
HEAVY VEHICLE RESCUE - TECHNICIAN

HEAVY VEHICLE RESCUE – TECHNICIAN SKILL OBJECTIVES

It is the responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

The AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

1. Identify and don appropriate PPE.

REFERENCE: NFPA 1006, 2021 edition, 9.3.2-9.3.7

CONDITION: Given a heavy vehicle incident, information, PPE: helmet, gloves, boots, turnouts/long-sleeved coveralls, eye protection, hearing protection.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine and don appropriate PPE.

COMPETENCE:

- Identify situation hazards (potential fire hazards)
- Don turnouts or long-sleeved coveralls and boots (AHJ)
- Don eye protection
- Don helmet (and hood if appropriate)
- Don gloves

TIME: 2 minutes

2. Perform an incident size-up. Create an Incident Action Plan (IAP). Verbalize safety procedures and emergency evacuation signals.

REFERENCE: NFPA 1006, 2021 edition, 9.3.1

CONDITION: Given a heavy vehicle incident, tactical worksheet (AHJ), personnel accountability protocol, and SOPs.

SCENARIO: Given a heavy vehicle incident with a trapped victim that requires extrication. Develop a plan that will utilize available resources (engine with extrication tools) to safely remove victim.

COMPETENCE:

- Identify situation hazards
- Identify isolation methods (control zones)
- Identify scene security
- Identify fire suppression needs
- Identify safety measures
- Identify stabilization needs
- Identify additional resources
- Identify the number of victims
- Create an Incident Action Plan (IAP), AHJ tactical worksheet, and apply operational protocols

- Identify safety procedures and evacuation signals

TIME: 5 minutes

3. Identify heavy vehicle anatomy.

REFERENCE: NFPA 1006, 2021 edition, 9.3.1, 9.3.5

CONDITION: Given a heavy vehicle resting on its wheels.

SCENARIO: Given a heavy vehicle resting on its wheels, identify major components.

COMPETENCE:

- Identify applicable posts (A, B, C, etc.)
- Identify fire wall
- Identify strut tower
- Identify rocker panel
- Identify types of glass
- Identify Nader pins/hinges
- Identify piston struts
- Identify batteries
- Identify air suspension systems
- Demonstrate ability to identify types of heavy vehicles

TIME: 2 minutes

4. Identify fire and explosive hazards and manage ignition potentials. Demonstrate use of extinguishing devices and fire control strategies.

REFERENCE: NFPA 1006, 2021 edition, 9.3.1, 9.3.5

CONDITION: Given 1¾" hand-line or fire extinguisher, PPE, and 2-member team – verbalize.

SCENARIO: Given a heavy vehicle incident requiring extrication or disentanglement of victim(s). Determine proper mitigation techniques, follow and implement applicable department SOGs/SOPs or standard practices (AHJ).

COMPETENCE:

- Wear appropriate PPE
- Identify and manage ignition sources
- Identify proper mitigation steps
- Deploy proper extinguishing device, applying fire control strategies
- Identify safety procedures and evacuation signals

TIME: 1 minute

5. Stabilize a vehicle that has come to rest in a configuration or environment where multiple hazards must be managed to access.

REFERENCE: NFPA 1006, 2021 edition, 9.3.2, 9.3.5

CONDITION: Given extrication tool kit, stabilization devices, appropriate PPE, and a 4-6 member team.

SCENARIO: Given a heavy vehicle incident, stabilize the heavy vehicle.

COMPETENCE:

- Wear appropriate PPE
- Determine entry, exit, and tool placement points
- Determine rescue activities to be accomplished
- Isolate suspension of cab if applicable
- Select stabilization points
- Select stabilization devices and apply to heavy vehicle
- Operate stabilization devices
- Monitor stabilization devices
- Maintain incident stability and scene safety

TIME: 10 minutes

6. Manage potential harmful energy sources and SRS systems.

REFERENCE: NFPA 1006, 2021 edition, 9.3.1, 9.3.5

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle.

SCENARIO: Given a heavy vehicle, locate the battery and SRS systems. Identify, isolate and/or disable.

COMPETENCE:

- Wear appropriate PPE
- Identify and mitigate battery hazards
- Remove trim to identify air bag cylinder locations
- Operate tools and devices for securing and disabling hazards
- Maintain incident stability and scene safety

TIME: 5 minutes

7. Stabilize a heavy vehicle using marrying techniques.

REFERENCE: NFPA 1006, 2021 edition, 9.3.2

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, a heavy vehicle on its side and resting against another obstruction (i.e., car, tree, tractor, etc.)

SCENARIO: Given a heavy vehicle on its side, stabilize utilizing marrying techniques.

COMPETENCE:

- Wear appropriate PPE
- Determine if the object or obstruction is stable
- Utilize appropriate marrying techniques
- Continually monitor vehicle stabilization
- Maintain incident stability and scene safety

TIME: 10 minutes

8. A. Determine and create egress opening for rescue – heavy vehicle resting on its side, its roof, or an object. Door removal

REFERENCE: NFPA 1006, 2021 edition, 9.3.5

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized vehicle that has a battery disconnected with hazards identified (SRS).

SCENARIO: Given a stabilized (and power source isolated) passenger vehicle resting on its side with the roof against an obstruction, remove glass and topside doors.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Address patient safety and medical considerations
- Select proper tools and equipment
- Secure all vehicle glass by using the appropriate glass management techniques
- Remove door
- Maintain incident stability and scene safety
- Verbalize patient removal considerations
- Continually monitor vehicle stabilization

TIME: 15 minutes

8. B. Determine and create egress opening for rescue – heavy vehicle resting on its side. Roof removal/roof flap

REFERENCE: NFPA 1006, 2021 edition, 9.3.5

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle on its side or resting on another object, that has a battery disconnected with hazards identified (SRS).

SCENARIO: Given a stabilized (and power source isolated) passenger vehicle resting on its side or resting on another object. Remove/flap roof.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Address patient safety and medical considerations
- Select proper tools and equipment

- Secure all vehicle glass by using the appropriate glass management techniques
- Remove or flap the roof
- Maintain incident stability and scene safety
- Verbalize patient removal considerations
- Continually monitor vehicle stabilization

TIME: 7 minutes

9. Prepare and lift a heavy vehicle, given a heavy vehicle incident – Without compromising vehicle stability.

REFERENCE: NFPA 1006, 2021 edition, 9.3.3

CONDITION: Given a heavy vehicle incident, 6-8 member team, vehicle tool kit (i.e., high-pressure air bags, bottle jack, etc.), wearing appropriate PPE.

SCENARIO: Given a heavy vehicle incident, lift a portion of the vehicle 8-12 inches.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Select proper tools and equipment
- Calculate the weights
- Identify center of gravity
- Identify lifting points
- Deploy cribbing or stabilization devices (struts)
- Deploy and operate lifting devices
- Safely capture load while lifting (lift an inch, crib an inch)
- Continually monitor vehicle stabilization
- Maintain incident stability and scene safety.

TIME: 45 minutes

10. Coordinate lifting or moving, utilizing heavy equipment (i.e., crane, tow truck, etc.).

REFERENCE: NFPA 1006, 2021 edition, 9.3.4

CONDITION: Given a stabilized heavy vehicle, 6-8 member team, equipment (i.e., crane, tow truck, etc., [AHJ]), wearing appropriate PPE.

SCENARIO: Given a heavy vehicle incident, lift a portion of the vehicle 8-12 inches.

COMPETENCE:

- Wear appropriate PPE
- Identify vehicle features/hazards
- Select proper tools and equipment
- Calculate the weights - verbal
- Identify center of gravity - verbal
- Identify lifting points - verbal
- Coordinate lift with heavy equipment operator

- Safely manage load while lifting (8-12 inches)
- Continually monitor vehicle stabilization
- Maintain incident stability and scene safety

TIME: 45 minutes

11. A. Disentangle and remove victim from heavy vehicle resting on its side, its roof, or another object. Dash jack/dash roll.

REFERENCE: NFPA 1006, 2021 edition, 9.2.7, 9.2.8

CONDITION: Given an assignment, extrication equipment, specialized tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy).

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Displace dash using appropriate technician method
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

11. B. Disentangle and remove victim from heavy vehicle resting on its side, its roof, or another object. Pedal removal/displacement.

REFERENCE: NFPA 1006, 2021 edition, 9.3.5, 9.3.7

CONDITION: Given an assignment, extrication equipment, tools (AHJ), PPE, 2-member team, and a heavy vehicle resting on its side, its roof or another object, stabilized that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy) by removing or displacing a pedal.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Displace dash if necessary
- Remove or displace pedals
- Disentangle the victim
- Maintain incident stability and scene safety

- Remove victim to safe area using appropriate immobilization techniques

TIME: 7 minutes

11. C. Disentangle and remove victim from heavy vehicle resting on its side, its roof, or another object. Steering wheel removal/displacement

REFERENCE: NFPA 1006, 2021 edition, 9.3.5-9.3.7

CONDITION: Given an assignment, extrication equipment, tools (AHJ), PPE, 2-member team, and a **stabilized** heavy vehicle resting on its side, its roof, or another object, that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a **stabilized** heavy vehicle with a patient pinned under the dash. Disentangle the victim (dummy) by removing or displacing the steering wheel.

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment
- Use protective measures to protect victim and rescuers
- Displace dash (if needed)
- Remove or displace steering wheel 6+ inches
- Disentangle the victim
- Maintain incident stability and scene safety
- Remove victim to safe area using appropriate immobilization techniques

TIME: 10 minutes

11. D. Disentangle and remove victim from heavy vehicle resting on its side, its roof, or another object. Seat removal.

REFERENCE: NFPA 1006, 2021 edition, 9.3.5-9.3.7

CONDITION: Given an assignment, extrication equipment, tools (AHJ), PPE, 2-member team, and a stabilized heavy vehicle resting on its side, its roof or another object, that has a battery disconnected with hazards identified (SRS). (Front door of heavy vehicle is already removed.) (See Appendix A regarding hose dummy.)

SCENARIO: Given a stabilized heavy vehicle with a patient pinned. Disentangle the victim (dummy) by removing the seat(s).

COMPETENCE:

- Wear appropriate PPE
- Address patient safety and medical considerations
- Select proper tools and equipment.
- Use protective measures to protect victim and rescuers.
- Identify entry and exit corridors
- Use power tools appropriately so no further victim harm occurs, and seat is removed
- Remove victim to safe area using appropriate immobilization techniques

TIME: 15 minutes

Heavy Vehicle Rescue - Technician Evolution

To create a more realistic testing environment, the individual skills have been assembled into this examination evolution. Candidates must train and complete an in-house exam on all skills and examination evolutions. The evolution will be graded on a 100% percent pass/fail basis.

It is the responsibility of the AHJ to ensure all fluids have been drained from the vehicles prior to the certification exam. If vehicles have not been drained the certification exam will be cancelled.

The AHJ must be able to provide a safe testing environment for all candidates and accept all liability for candidate safety. The AHJ must have the capacity to provide a safe testing location for the incident.

REFERENCE: NFPA 1006, 2021, 9.3

SKILL EXAM
EVOLUTION:

Demonstrate Technician-level skills lifting a heavy vehicle. Working as part of a 5-8 member team, fulfill assigned team roles, including but not limited to: Rescue Officer, spread, cutter, reciprocating saw (if needed), support personnel, and other AHJ protocols. Safety Officer must be qualified and provided by the AHJ.

The lead tester will assign team roles (on the exam day). The candidates must not know their “assigned” team roles prior to the evolution exam.

**The evolution exam is a team evolution but is graded individually; the whole team is not penalized if one or more members do not fulfill their required tasks. Each team member must have the knowledge/skills of each role.*

CONDITION:

Given a heavy vehicle resting on its side, its roof, or on another object, incident information, and applicable reference materials, wearing full PPE, rescue dummy, 5-8 member team, stabilization and lifting tools and equipment, extinguisher/safety line, AHJ approved. (See Appendix A – rescue/hose dummy.)

SCENARIO:

Given a heavy vehicle resting on its side, its roof, or another object that is resting on top of a viable victim (dummy). Utilize available resources (engine with extrication tools). Extricate patient from underneath the vehicle by demonstrating technician-level lifting and stabilization skills.

COMPETENCE:

- Wear appropriate PPE
- Perform an incident size-up. Create an Incident Action Plan (IAP)
- Verbalize safety procedures and emergency evacuation signals
- Identify the number of victims
- Identify and request additional resources as needed
- Identify fire and explosive hazards and manage ignition potentials
- Identify extinguishing devices and fire control strategies
- Select, operate, and monitor stabilization devices
- Manage potential harmful energy sources and SRS systems
- Determine tool placement points
- Isolate suspension (if applicable)
- Select stabilization points
- Select stabilization devices and apply to heavy vehicle

- Operate stabilization devices
- Calculate the weights
- Identify center of gravity
- Identify lifting points
- Deploy and operate lifting devices
- Safely capture load while lifting (lift an inch, crib an inch)
- Continually monitor vehicle stabilization
- Package, immobilize and remove patient appropriately
- Report to supervisor/incident commander when tasks are complete and function within the incident management system as assigned
- Maintain incident stability and scene safety
- Terminate command

TIME:

60 minutes

UTAH FIRE SERVICE CERTIFICATION SYSTEM

HEAVY VEHICLE RESCUE - TECHNICIAN

NFPA 1006, 2021 edition

9.3

HEAVY VEHICLE RESCUE - TECHNICIAN TRAINING RECORD / IN-HOUSE COMPREHENSIVE FORM

| Candidate Name: | | | | | Department: | |
|--|-----------------|------------|------------------------------|------------|--|---|
| Candidate Signature: | | | | | Date of Completion: | |
| Chief/Training Officer: | | | | | 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 OBJECTIVES & EVOLUTION |
| | DATE | INSTRUCTOR | DATE | INSTRUCTOR | PASS | |
| | | | | | | <i>Heavy Vehicle Rescue prerequisites have been met prior to Heavy Vehicle Rescue technician.</i> |
| 9.3.2-9.3.7 | | | | | | 1. Identify and don appropriate PPE. |
| 9.3.1 | | | | | | 2. Perform an incident size-up. Create an Incident Action Plan (IAP). Verbalize safety procedures and emergency evacuation signals. |
| 9.3.1, 9.3.5 | | | | | | 3. Identify heavy vehicle anatomy. |
| 9.3.1, 9.3.5 | | | | | | 4. Identify fire and explosive hazards and manage ignition potentials. Demonstrate use of extinguishing devices and fire control strategies. |
| 9.3.2, 9.3.5 | | | | | | 5. Stabilize a vehicle that has come to rest in a configuration or environment where multiple hazards must be managed to access. |
| 9.3.1, 9.3.5 | | | | | | 6. Manage potential harmful energy sources and SRS systems |
| 9.3.2 | | | | | | 7. Stabilize a heavy vehicle using marrying techniques. |
| 9.3.5 | | | | | | 8. Determine and create egress opening for rescue – heavy vehicle resting on its side, its roof, or object: a. Door removal b. Roof removal/roof flap |
| 9.3.3 | | | | | | 9. Prepare and lift a heavy vehicle given a heavy vehicle incident – Without compromising vehicle stability. |
| 9.3.4 | | | | | | 10. Coordinate lifting or moving, utilizing heavy equipment (i.e., crane, tow truck, etc.). |
| 9.3.5, 9.3.6, 9.3.7 | | | | | | 11. Disentangle and remove victim from heavy vehicle resting on its side, its roof or another object. a. Dash jack/dash roll b. Pedal removal/displacement c. Steering wheel removal/displacement d. Seat removal |
| Evolution | | | | | | Demonstrate technician-level skills for Heavy Vehicle Rescue. |

APPENDIX A

Heavy Vehicle photo examples:



YouTube Search: "How to Build a Hose Dummy (by Samuel Hittle)"

https://www.youtube.com/watch?v=_Pf90MGUujc



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| <p>APPENDIX B IN-HOUSE PROCTOR INSTRUCTIONS</p> |
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Proctor Instructions for In-House Comprehensive Examinations

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 (completed 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, that the candidate has completed training in all areas for the level being tested.

- **Safety Officer selected and briefed**

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.

To better evaluate the skills being tested and determine the candidate's readiness for the State Spot Check exam, 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 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 shown 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 assure that training records are current and that only those who are truly prepared take the Certification Examination.

APPENDIX C
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