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- **Part Number: 1926**
  - **Part Number Title: Safety and Health Regulations for Construction**
  - **Subpart: 1926 Subpart CC**
  - **Subpart Title: Cranes & Derricks in Construction**
  - **Number: 1926 1427**
  - **Title: Operators training, certification and evaluation**
  - **GPO Source: e-CFR**
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- [1926.1427\(a\)](#)
- The employer must ensure that, prior to operating any equipment covered under subpart CC, the person is operating the equipment during a training period in accordance with paragraph (f) of this section, or the operator is qualified or certified to operate the equipment in accordance with the following:
  - 1926.1427(a)(1)
  - When a non-military government entity issues operator licenses for equipment covered under subpart CC, and that government licensing program meets the requirements of paragraphs (e)(2) and (j) of this section, the equipment operator must either be:
    - 1926.1427(a)(1)(i)
    - Licensed by that government entity for operation of equipment within that entity's jurisdiction; or
    - 1926.1427(a)(1)(ii)
    - qualified in compliance with paragraph (d) of this section.
  - [1926.1427\(a\)\(2\)](#)
  - Where paragraph (a)(1) of this section is not applicable, the certification or qualification must comply with one of the options in paragraphs (b) through (d) of this section.
  - 1926.1427(a)(3)
  - *Exceptions:* Operator qualification or certification under this section is not required for operators of derricks (see § 1926.1436), sideboom cranes (see § 1926.1440), or equipment with a maximum manufacturer-rated hoisting/lifting capacity of 2,000 pounds or less (see § 1926.1441).
  - 1926.1427(a)(4)
  - Whenever operator qualification or certification is required under § 1926.1427, the employer must provide the qualification or certification at no cost to operators who are employed by the employer on November 8, 2010.
  - [1926.1427\(b\)](#)
  - *Operator training.* The employer must provide each operator-in-training with sufficient training, through a combination of formal and practical instruction, to ensure that the operator-in-training develops the skills, knowledge, and ability to recognize and avert risk necessary to operate the equipment safely for assigned work.
  - 1926.1427(b)(1)
  - The employer must provide instruction on the knowledge and skills listed in paragraphs (j)(1) and (2) of this section to the operator-in-training.
  - 1926.1427(b)(2)
  - The operator-in-training must be continuously monitored on site by a trainer while operating equipment.
  - 1926.1427(b)(3)
  - The employer may only assign tasks within the operator-in-training's ability. However, except as provided in paragraph (b)(3)(v) of this section, the operator-in-training shall not operate the equipment in any of the following circumstances unless certified in accordance with paragraph (c) of this section:
    - 1926.1427(b)(3)(i)

- If any part of the equipment, load line, or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone (see § 1926.1408(a)(1)), could get within 20 feet of a power line that is up to 350 kV, or within 50 feet of a power line that is over 350 kV.
- 1926.1427(b)(3)(ii)
- If the equipment is used to hoist personnel.
- 1926.1427(b)(3)(iii)
- In multiple-equipment lifts.
- 1926.1427(b)(3)(iv)
- If the equipment is used over a shaft, cofferdam, or in a tank farm.
- 1926.1427(b)(3)(v)
- In multiple-lift rigging operations, except where the operator's trainer determines that the operator-in-training's skills are sufficient for this high-skill work.
- [1926.1427\(b\)\(4\)](#)
- The employer must ensure that an operator-in-training is monitored as follows when operating equipment covered by this subpart:
  - 1926.1427(b)(4)(i)
  - While operating the equipment, the operator-in-training must be continuously monitored by an individual ("operator's trainer") who meets all of the following requirements:
    - 1926.1427(b)(4)(i)(A)
    - The operator's trainer is an employee or agent of the operator-in-training's employer.
    - 1926.1427(b)(4)(i)(B)
    - The operator's trainer has the knowledge, training, and experience necessary to direct the operator-in-training on the equipment in use.
    - 1926.1427(b)(4)(ii)
    - While monitoring the operator-in-training, the operator's trainer performs no tasks that detract from the trainer's ability to monitor the operator-in-training.
    - 1926.1427(b)(4)(iii)
    - For equipment other than tower cranes: The operator's trainer and the operator-in-training must be in direct line of sight of each other. In addition, they must communicate verbally or by hand signals. For tower cranes: The operator's trainer and the operator-in-training must be in direct communication with each other.
    - 1926.1427(b)(4)(iv)
    - The operator-in-training must be monitored by the operator's trainer at all times, except for short breaks where all of the following are met:
      - 1926.1427(b)(4)(iv)(A)
      - The break lasts no longer than 15 minutes and there is no more than one break per hour.
      - 1926.1427(b)(4)(iv)(B)
      - Immediately prior to the break the operator's trainer informs the operator-in-training of the specific tasks that the operator-in-training is to perform and limitations to which he/she must adhere during the operator trainer's break.
      - 1926.1427(b)(4)(iv)(C)
      - The specific tasks that the operator-in-training will perform during the operator trainer's break are within the operator-in-training's abilities.
    - 1926.1427(b)(5)
    - *Retraining.* The employer must provide retraining in relevant topics for each operator when, based on the performance of the operator or an evaluation of the operator's knowledge, there is an indication that retraining is necessary.
  - 1926.1427(c)

- *Operator certification and licensing.* The employer must ensure that each operator is certified or licensed to operate the equipment as follows:
  - 1926.1427(c)(1)
  - *Licensing.* When a state or local government issues operator licenses for equipment covered under subpart CC, the equipment operator must be licensed by that government entity for operation of equipment within that entity's jurisdiction if that government licensing program meets the following requirements:
    - 1926.1427(c)(1)(i)
    - The requirements for obtaining the license include an assessment, by written and practical tests, of the operator applicant regarding, at a minimum, the knowledge and skills listed in paragraphs (j)(1) and (2) of this section.
    - 1926.1427(c)(1)(ii)
    - The testing meets industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel.
    - 1926.1427(c)(1)(iii)
    - The government authority that oversees the licensing department/office has determined that the requirements in paragraphs (c)(1)(i) and (ii) of this section have been met.
    - 1926.1427(c)(1)(iv)
    - The licensing department/office has testing procedures for re-licensing designed to ensure that the operator continues to meet the technical knowledge and skills requirements in paragraphs (j)(1) and (2) of this section.
    - 1926.1427(c)(1)(v)
    - For the purposes of compliance with this section, a license is valid for the period of time stipulated by the licensing department/office, but no longer than 5 years.
  - 1926.1427(c)(2)
  - *Certification.* When an operator is not required to be licensed under paragraph (c)(1) of this section, the operator must be certified in accordance with paragraph (d) or (e) of this section.
  - 1926.1427(c)(3)
  - *No cost to employees.* Whenever operator certification/licensure is required under this section, the employer must provide the certification/licensure at no cost to employees.
  - 1926.1427(c)(4)
  - *Provision of testing and training.* A testing entity is permitted to provide training as well as testing services as long as the criteria of the applicable governmental or accrediting agency (in the option selected) for an organization providing both services are met.
  - 1926.1427(c)(5)
  - *Deficiencies.* If the auditor determines that there is a significant deficiency ("deficiency") in the program, the employer must ensure that:
    - 1926.1427(d)
    - *Certification by an accredited crane operator testing organization.*
      - 1926.1427(d)(1)
      - For a certification to satisfy the requirements of this section, the crane operator testing organization providing the certification must:
        - 1926.1427(d)(1)(i)
        - Be accredited by a nationally recognized accrediting agency based on that agency's determination that industry-recognized criteria for written testing materials, practical examinations, test administration, grading, facilities/equipment, and personnel have been met.
        - 1926.1427(d)(1)(ii)
        - Administer written and practical tests that:

- 1926.1427(d)(1)(ii)(A)
- Assess the operator applicant regarding, at a minimum, the knowledge and skills listed in paragraphs (j)(1) and (2) of this section.
- 1926.1427(d)(1)(ii)(B)
- Provide certification based on equipment type, or type and capacity.
- 1926.1427(d)(1)(iii)
- Have procedures for operators to re-apply and be re-tested in the event an operator applicant fails a test or is decertified.
- 1926.1427(d)(1)(iv)
- Have testing procedures for re-certification designed to ensure that the operator continues to meet the technical knowledge and skills requirements in paragraphs (j)(1) and (2) of this section.
- 1926.1427(d)(1)(v)
- Have its accreditation reviewed by the nationally recognized accrediting agency at least every 3 years.
- 1926.1427(d)(2)
- If no accredited testing agency offers certification examinations for a particular type of equipment, an operator will be deemed to have complied with the certification requirements of this section for that equipment if the operator has been certified for the type that is most similar to that equipment and for which a certification examination is available. The operator's certificate must state the type of equipment for which the operator is certified.
- 1926.1427(d)(3)
- A certification issued under this option is portable among employers who are required to have operators certified under this option.
- 1926.1427(d)(4)
- A certification issued under this paragraph is valid for 5 years.
- [1926.1427\(e\)](#)
- *Audited employer program.* The employer's certification of its employee must meet the following requirements:
  - 1926.1427(e)(1)
  - *Testing.* The written and practical tests must be either:
    - 1926.1427(e)(1)(i)
    - Developed by an accredited crane operator testing organization (see paragraph (d) of this section); or
    - 1926.1427(e)(1)(ii)
    - Approved by an auditor in accordance with the following requirements:
      - 1926.1427(e)(1)(ii)(A)
      - The auditor is certified to evaluate such tests by an accredited crane operator testing organization (see paragraph (d) of this section).
      - 1926.1427(e)(1)(ii)(B)
      - The auditor is not an employee of the employer.
      - 1926.1427(e)(1)(ii)(C)
      - The approval must be based on the auditor's determination that the written and practical tests meet nationally recognized test development criteria and are valid and reliable in assessing the operator applicants regarding, at a minimum, the knowledge and skills listed in paragraphs (j)(1) and (2) of this section.
      - 1926.1427(e)(1)(ii)(D)
      - The audit must be conducted in accordance with nationally recognized auditing standards.
    - 1926.1427(e)(2)
    - *Administration of tests.*
    - 1926.1427(e)(2)(i)

- The written and practical tests must be administered under circumstances approved by the auditor as meeting nationally recognized test administration standards.
- 1926.1427(e)(2)(ii)
- The auditor must be certified to evaluate the administration of the written and practical tests by an accredited crane operator testing organization (see paragraph (d) of this section).
- 1926.1427(e)(2)(iii)
- The auditor must not be an employee of the employer.
- 1926.1427(e)(2)(iv)
- The audit must be conducted in accordance with nationally recognized auditing standards.
- 1926.1427(e)(3)
- *Timing of audit.* The employer program must be audited within 3 months of the beginning of the program and at least every 3 years thereafter.
- 1926.1427(e)(4)
- *Requalification.* The employer program must have testing procedures for re-qualification designed to ensure that the operator continues to meet the technical knowledge and skills requirements in paragraphs (j)(1) and (2) of this section. The re-qualification procedures must be audited in accordance with paragraphs (e)(1) and (2) of this section.
- 1926.1427(e)(5)
- *Deficiencies.* If the auditor determines that there is a significant deficiency ("deficiency") in the program, the employer must ensure that:
  - 1926.1427(e)(5)(i)
  - No operator is qualified until the auditor confirms that the deficiency has been corrected.
  - 1926.1427(e)(5)(ii)
  - The program is audited again within 180 days of the confirmation that the deficiency was corrected.
  - 1926.1427(e)(5)(iii)
  - The auditor files a documented report of the deficiency to the appropriate Regional Office of the Occupational Safety and Health Administration within 15 days of the auditor's determination that there is a deficiency.
  - 1926.1427(e)(5)(iv)
  - Records of the audits of the employer's program are maintained by the auditor for 3 years and are made available by the auditor to the Secretary of Labor or the Secretary's designated representative upon request.
  - 1926.1427(e)(6)
  - *Audited-program certificates.* A certification under this paragraph is:
    - 1926.1427(e)(6)(i)
    - Not portable: Such a certification meets the requirements of paragraph (c) of this section only where the operator is employed by (and operating the equipment for) the employer that issued the certification.
    - 1926.1427(e)(6)(ii)
    - Valid for 5 years.
    - [1926.1427\(f\)](#)
    - *Pre-qualification/certification training period.* An employee who is not qualified or certified under this section is permitted to operate equipment only as an operator-in-training and only where the requirements of this paragraph are met.
      - 1926.1427(f)(1)
      - The employer must provide each operator-in-training with sufficient training prior to operating the equipment to enable the operator-in-training to operate the equipment safely under limitations established by this section (including continuous monitoring) and any additional limitations established by the employer.

- 1926.1427(f)(2)
- The tasks performed by the operator-in-training while operating the equipment must be within the operator-in-training's ability.
- 1926.1427(f)(3)
- *Trainer.* While operating the equipment, the operator-in-training must be continuously monitored by an individual ("operator's trainer") who meets all of the following requirements:
  - 1926.1427(f)(3)(i)
  - The operator's trainer is an employee or agent of the operator-in-training's employer.
  - 1926.1427(f)(3)(ii)
  - The operator's trainer is either a certified operator under this section, or has passed the written portion of a certification test under one of the options in paragraphs (b) through (e) of this section, and is familiar with the proper use of the equipment's controls.
  - 1926.1427(f)(3)(iii)
  - While monitoring the operator-in-training, the operator's trainer performs no tasks that detract from the trainer's ability to monitor the operator-in-training.
  - 1926.1427(f)(3)(iv)
  - For equipment other than tower cranes: The operator's trainer and the operator-in-training must be in direct line of sight of each other. In addition, they must communicate verbally or by hand signals. For tower cranes: The operator's trainer and the operator-in-training must be in direct communication with each other.
  - 1926.1427(f)(4)
  - *Continuous monitoring.* The operator-in-training must be monitored by the operator's trainer at all times, except for short breaks where all of the following are met:
    - 1926.1427(f)(4)(i)
    - The break lasts no longer than 15 minutes and there is no more than one break per hour.
    - 1926.1427(f)(4)(ii)
    - Immediately prior to the break the operator's trainer informs the operator-in-training of the specific tasks that the operator-in-training is to perform and limitations to which he/she must adhere during the operator trainer's break.
    - 1926.1427(f)(4)(iii)
    - The specific tasks that the operator-in-training will perform during the operator trainer's break are within the operator-in-training's abilities.
  - 1926.1427(f)(5)
  - The operator-in-training must not operate the equipment in any of the following circumstances unless the exception stated in paragraph (f)(5)(v) of this section is applicable:
    - 1926.1427(f)(5)(i)
    - If any part of the equipment, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone (see § 1926.1408(a)(1)), could get within 20 feet of a power line that is up to 350 kV, or within 50 feet of a power line that is over 350 kV.
    - 1926.1427(f)(5)(ii)
    - If the equipment is used to hoist personnel.
    - 1926.1427(f)(5)(iii)
    - In multiple-equipment lifts.
    - 1926.1427(f)(5)(iv)
    - If the equipment is used over a shaft, cofferdam, or in a tank farm.
    - 1926.1427(f)(5)(v)
    - In multiple-lift rigging operations, except where the operator's trainer determines that the operator-in-training skills are sufficient for this high-skill work.

- 1926.1427(g)
- [Reserved].
- 1926.1427(h)
- *Language and literacy requirements.*
- 1926.1427(h)(1)
- Tests under this section may be administered verbally, with answers given verbally, where the operator candidate:
  - 1926.1427(h)(1)(i)
  - Passes a written demonstration of literacy relevant to the work.
  - 1926.1427(h)(1)(ii)
  - Demonstrates the ability to use the type of written manufacturer procedures applicable to the class/type of equipment for which the candidate is seeking certification.
  - [1926.1427\(h\)\(2\)](#)
  - Tests under this section may be administered in any language the operator candidate understands, and the operator's certification documentation must note the language in which the test was given. The operator is only permitted to operate equipment that is furnished with materials required by this subpart, such as operations manuals and load charts, that are written in the language of the certification.
- 1926.1427(i)
- [Reserved].
- [1926.1427\(j\)](#)
- *Certification criteria.* Certifications must be based on the following:
  - 1926.1427(j)(1)
  - A determination through a written test that:
    - 1926.1427(j)(1)(i)
    - The individual knows the information necessary for safe operation of the specific type of equipment the individual will operate, including all of the following:
      - 1926.1427(j)(1)(i)(A)
      - The controls and operational/performance characteristics.
      - 1926.1427(j)(1)(i)(B)
      - Use of, and the ability to calculate (manually or with a calculator), load/capacity information on a variety of configurations of the equipment.
      - 1926.1427(j)(1)(i)(C)
      - Procedures for preventing and responding to power line contact.
      - 1926.1427(j)(1)(i)(D)
      - Technical knowledge of the subject matter criteria listed in appendix C of this subpart applicable to the specific type of equipment the individual will operate. Use of the appendix C criteria meets the requirements of this provision.
      - 1926.1427(j)(1)(i)(E)
      - Technical knowledge applicable to the suitability of the supporting ground and surface to handle expected loads, site hazards, and site access.
      - 1926.1427(j)(1)(i)(F)
      - This subpart, including applicable incorporated materials.
    - 1926.1427(j)(1)(ii)
    - The individual is able to read and locate relevant information in the equipment manual and other materials containing information referred to in paragraph (j)(1)(i) of this section.
  - 1926.1427(j)(2)
  - A determination through a practical test that the individual has the skills necessary for safe operation of the equipment, including the following:

- 1926.1427(j)(2)(i)
- Ability to recognize, from visual and auditory observation, the items listed in § 1926.1412(d) (shift inspection).
- 1926.1427(j)(2)(ii)
- Operational and maneuvering skills.
- 1926.1427(j)(2)(iii)
- Application of load chart information.
- 1926.1427(j)(2)(iv)
- Application of safe shut-down and securing procedures.
- [1926.1427\(k\)](#)
- *Effective dates.*
- [1926.1427\(k\)\(1\)](#)
- Apart from the evaluation and documentation requirements in paragraphs (a) and (f), this section is effective on December 10, 2018.
- [1926.1427\(k\)\(2\)](#)
- The evaluation and documentation requirements in paragraphs (a) and (f) are effective on February 7, 2019.
- [75 FR 48156, August 9, 2010; 79 FR 57798, September 26, 2014; 82 FR 51998, November 9, 2017; 83 FR 56244-56247, November 9, 2018]
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