

NCCERTM

National Center for Construction
Education and Research



CRANE OPERATOR

CERTIFICATION PROGRAM

CANDIDATE HANDBOOK

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Purpose of the NCCER Crane Operator Certification Program

The NCCER Crane Operator Certification Program is designed to support and advance the crane operation profession. As a candidate, here's what the program aims to achieve:

- ◆ **Promote Safety and Competency:** By setting clear standards for crane operator skills, the program helps ensure safer job sites and more competent operations.
- ◆ **Provide Reliable Certification:** The program uses validated and dependable assessment tools to accurately evaluate your knowledge and abilities as a crane operator.
- ◆ **Support Career Development:** Whether you're new to the field or looking to grow in your career, this program helps build the knowledge and skills essential for success in crane operation and hoisting.
- ◆ **Implement a Comprehensive Certification System:** The program is structured to provide consistent and professional certification opportunities for crane operators across the industry.
- ◆ **Assist Regulatory Agencies:** NCCER also provides technical support to organizations and agencies responsible for regulating crane operator certification and testing.

By participating in this program, you are contributing to a more skilled, professional, and safety-conscious workforce in the crane operation industry.

Development of the Crane Operator Certification Program

The NCCER Crane Operator Certification Program was developed to ensure you meet or exceed current ASME B30 standards and OSHA regulations. Throughout every stage, industry experts have contributed their experience to make sure assessments are valid, reliable, and fair. NCCER's test development team continually monitors test performance and quality to confirm your certification accurately reflects your skills.

Objectives of the Crane Operator Certifications

The NCCER Crane Operator Certification Program was developed to recognize individuals who demonstrate the professional knowledge and skills required to be designated as a Certified Crane Operator. The program is designed to achieve the following objectives:

- ◆ **Identify Qualified Operators:** Establish a clear standard for certification to ensure crane operators meet the minimum requirements for safe and effective operation.
- ◆ **Promote Excellence in the Profession:** Encourage the ongoing improvement of crane operation practices and help establish crane operation as a recognized and respected profession.

Achieving certification not only validates your competency—it also supports the broader goal of advancing safety and professionalism across the industry.

How to Access the NCCER Crane Operator Certification Program

The NCCER Crane Operator Certification Program is only available through an NCCER Crane Endorsed Accredited Assessment Program (AAP). These endorsed programs are authorized to administer certification assessments and ensure all testing meets NCCER standards.

Please note:

- ◆ Each endorsed AAP sets its own schedule and pricing for the services it offers.
- ◆ To find a Crane Endorsed AAP near you, visit www.nccer.org or contact NCCER Customer Support at 888-622-3720.

By working with an endorsed provider, you can be confident that your certification process will meet the highest industry and regulatory standards.

Accessing and Verifying Your NCCER Crane Operator Credentials

NCCER maintains all crane operator certification records—including assessment and practical exam results—in its Secure Credential Database.

As a certified candidate, here's how you can access and manage your credentials:

- ◆ **Print Credentials on Demand:** You or your Accredited Assessment Program (AAP) can print your credentials at any time using the NCCER system.
- ◆ **Request Traditional Printed Credentials:** You can also request official printed credentials to be mailed either directly to you or to your AAP.
- ◆ **Receive a Personalized NCCER Certification Card.** Certified Crane Operators are issued an NCCER wallet card that includes:
 - Your photo
 - A unique card number. This number allows for secure online verification of your certification through the NCCER Learning Platform.

This verification system can also be used by employers, inspectors, or other stakeholders to quickly and reliably confirm your certification status.

What You Need to Know About NCCER's Certification Policies

To make sure every certified crane operator meets the highest standards for safety and performance, NCCER follows a set of important policies. Here's what you, as a candidate, should know:

- ◆ **Complete the Entire Process:** You must successfully finish all parts of the certification process—this includes both the written assessment and the practical exam—to become certified.
- ◆ **Stay Physically and Medically Qualified:** You'll need to confirm—by signing an affidavit—that:
 - A medical professional has found you physically qualified to operate cranes under ASME B30 standards
 - You have passed a substance abuse test

These exams and tests must be updated at least every three (3) years.

- ◆ **Meet the Right Standards:** Your certification will match the specific type(s) of crane you're being tested on, and it will follow all current ASME B30 standards along with federal, state, and local regulations.
- ◆ **You Need to Show You're Ready:** If you don't show enough understanding in the subject areas expected of crane operators in your field, NCCER may deny certification. The goal is to ensure only qualified operators are certified.

- ◆ **We Keep the Program Current:** NCCER regularly reviews and updates the program to keep up with changes in crane technology, safety practices, and job site requirements.
- ◆ **We Look at the Full Picture:** Your certification isn't based on test scores alone. We also look at your overall performance to make a fair and complete decision.
- ◆ **Your Records Are Safe:** All your assessment and practical exam results are stored in NCCER's secure credential database, so your certification information is protected and easy to verify.

These policies are designed to support you on your path to becoming a confident, safe, and certified crane operator.

Confidentiality of Your Information

We take the privacy of your personal information seriously. Here's how your information is protected throughout the Crane Operator Certification Program:

- ◆ **Your Records Are Kept Confidential:** All records related to candidates and examiners are securely maintained and treated as confidential.
- ◆ **Your Personal Information:** Any information you provide directly (not through your employer) is only used by your Accredited Assessment Program (AAP) and NCCER. It won't be shared with anyone else unless:
 - You give written permission, or
 - You share your NCCER card number with a third party to allow them to verify your certification.
- ◆ **Employer-Supplied Information:** Any information submitted by your employer is also confidential and won't be shared without the employer's written permission.
- ◆ **Creating Your NCCER Account:** When you register, you'll create an NCCER account and accept the User Terms and Conditions. This allows NCCER to verify your certification status with your Accredited Assessment Program if needed.

We're committed to protecting your privacy every step of the way. If you ever have questions about how your information is used, feel free to reach out to NCCER or your AAP for more details.

How Candidates Are Evaluated for Certification

We know that quality matters more than just experience alone. That's why your certification as a crane operator is based on more than the number of hours you've spent operating equipment. When evaluating candidates for certification, here's what we focus on:

1. **Your Knowledge and Skills:** You must demonstrate a satisfactory level of knowledge and practical ability not only in general crane operation, but also in the specific crane type(s) for which you're seeking certification.
2. **Depth of Understanding:** It's not just about passing a test—we also evaluate whether your understanding of key safety and operational concepts is strong enough to truly earn the title of Certified [TYPE OF CRANE] Crane Operator.

By taking both your performance and your depth of knowledge into account, we aim to ensure that every NCCER-certified crane operator is fully prepared to perform safely, professionally, and confidently on the job.

Certification Requirements and Process

To become an NCCER Certified Crane Operator, you must demonstrate competencies outlined in the ASME B30 standards. Here are the steps you must complete:

- ◆ **Reading and Math Skills:** Show you can read, comprehend, and perform basic math based on your crane's operation and maintenance manuals.
- ◆ **Written Assessment:** Successfully pass the written exam specific to your crane type.
- ◆ **Practical Examination:** Complete and pass the practical examination for your crane type.
- ◆ **Affirmation Form:** Submit your Crane Operator Affirmation for Certification, confirming physical fitness and a negative substance abuse test result through the NCCER Assessment Platform.
- ◆ **Photo Upload:** Upload a professional photo to your NCCER account for your certification card.

After completing these steps, your certification will be valid for five years from the date issued.

Testing Accommodations

If you require special testing accommodations, you must submit written documentation from a qualified professional explaining your needs. Email your documentation to support@nccer.org. NCCER will review your request and notify you of approval or denial.

Scoring

Both your written assessment and practical examination are scored electronically to ensure accuracy and fairness.

- ◆ Your results are processed by computer-based scoring systems, so there's no human bias.
- ◆ You'll receive your score immediately after your tests have been submitted.

This quick feedback helps you know right away whether you've met the requirements for certification.

Retest Policy

If you do not pass your initial crane assessment or practical exam, you may retake it after waiting two days. If additional attempts are needed after the second attempt, a 30-day waiting period applies. You are limited to four attempts within any 12-month period.

Certification Timeline Policy

To earn your crane operator certification, you must successfully complete both the written assessment and the practical examination for your selected crane type(s). Here's what you need to know about the timing:

- ◆ You have 12 months from the date you pass either the written assessment or the practical exam to complete the other.
- ◆ If both are not successfully completed within 12 months, your results will expire, and you'll need to retake both parts to become certified.

Example:

- ◆ You pass the Telescopic Boom Crane assessment and practical exam, and your certification is issued on 7/30/2018.
 - Your certification will expire 7/30/2023 (valid for 5 years).
- ◆ Later, you pass the Lattice Boom assessment and practical exam on 2/15/2020.
 - That certification will expire 2/15/2025.

Each certification is tracked individually and remains valid for five years from the date it is issued.

Recertification

To maintain your status as a Certified Crane Operator, you must recertify every five (5) years by completing the full certification process again. This includes both the written assessment and the practical examination for your crane type(s).

Important Recertification Guidelines:

- ◆ You can only begin the recertification process within 180 days (about 6 months) before your current certification expires.
- ◆ Both the knowledge and practical exams must be completed within that 180-day window for your recertification to be processed.
- ◆ If your certification expires before you complete recertification, you will no longer be considered certified and must go through the initial certification process again.

Be sure to keep track of your certification expiration date and plan ahead so you have enough time to complete the recertification process.

Certification Validity and Revocation

Your NCCER Crane Operator Certification is valid for five (5) years from the date it is issued. However, certification status is not guaranteed for the full five years and may be reviewed or revoked at any time if there is reason to believe that your qualifications no longer meet NCCER's standards.

Ongoing Compliance Required

Certification is granted based on your ability to meet or exceed the minimum competency requirements outlined in current standards. If concerns arise about your ability to safely or effectively operate a crane, your certification may be subject to review. If it is determined that your performance no longer meets the necessary qualifications, your certification may be revoked.

Certification Revocation and Notification

If a decision is made not to certify or to revoke certification, and you have exhausted all appeal options, the following will occur:

- ◆ The revocation becomes effective immediately.
- ◆ A notification will be sent to you, your employer, and/or the Crane Endorsed Program (when applicable), clearly stating that:
 - Your certification status is no longer valid, and
 - You are expected to inform your employer that your certification has been terminated.

Limitations of the Crane Endorsed Program

Crane Endorsed Accredited Assessment Programs operate under NCCER's guidelines and do not have the authority to alter certification standards, impose additional requirements, or change your certification status outside of NCCER's policies and procedures.

Report Incidents or Changes

You must notify NCCER within 48 hours of any crane-related accident or significant change in your medical, physical, or operational abilities. Complete the Incident Report Form (available on the NCCER website) and submit it via email to support@nccer.org. Failing to report within this timeframe will result in immediate certification revocation.

How to Report

To fulfill this requirement:

1. Download and complete the Incident Report Form, available on the [NCCER website](#).
2. Submit the completed form and any supporting documentation via email to support@nccer.org.

Important: Failure to report an accident, incident, or qualifying change in ability within 48 hours will result in the immediate revocation of all active crane operator certifications.

Program Monitoring

NCCER reserves the right to collect and review performance feedback from Crane Endorsed Accredited Assessment Programs as part of its ongoing monitoring of certified operators.

Submitting a Complaint or Grievance as a Candidate

If you have concerns or complaints regarding certification processes, personnel, or assessments, you may submit a Candidate Grievance Form available on the NCCER website. Alternatively, contact NCCER Customer Support directly. Your complaint will be confidentially reviewed, investigated, and resolved promptly, and you'll be notified of the outcome.

Certification Revocation Policy

NCCER may revoke your certification for reasons including:

- ◆ Misrepresenting or falsifying documents.
- ◆ Failing a substance abuse test.
- ◆ Operator error causing a crane-related accident.

If your certification is revoked, you'll be immediately notified. You must inform your employer of your change in certification status. Revocation decisions can be appealed through NCCER's appeals process.

Reapplying After Certification Revocation

If your crane operator certification is revoked, your eligibility to reapply will depend on the reason for the revocation. NCCER takes the integrity of its Crane Operator Certification Program seriously, and all reapplications are subject to review and approval by the Crane Operator Certification Board.

Eligibility to Reapply

- ◆ **Failed Substance Abuse Test:** If your certification was revoked due to a failed substance abuse test, you may reapply for certification 12 months after the date of revocation.
- ◆ **Operator Error in a Crane Accident:** If your certification was revoked following an accident determined to be caused by operator error, you may reapply 12 months after the revocation date.
- ◆ **Misrepresentation or Falsified Documentation:** If your certification was revoked for misrepresentation or falsifying documents, you will not be eligible to reapply for certification.
- ◆ **Multiple Revocations:** If your certification has been revoked two or more times for any reason, you will not be permitted to reapply for certification.

Reapplication Process

If you are eligible to reapply:

- ◆ Your request must be submitted to the Crane Operator Certification Board for formal review.
- ◆ You may be required to provide additional documentation or verification to support your reapplication.
- ◆ You must complete all certification requirements again, including the written assessment, practical exam, medical and substance use affirmations, and any other applicable program steps.

Appeals Process

If your certification is suspended or revoked, you have the right to appeal within 30 days of notification. Submit your appeal and supporting evidence in writing to NCCER. The Appeals Committee will review your case, ensuring fairness and impartiality. You will receive updates throughout the appeal process and a formal decision within 30 days (unless otherwise notified). The decision of the Appeals Committee is final.

Resources and Forms

The forms and resources included in this handbook are provided for reference only. Always visit www.nccer.org for the most current versions and updates

Assessment Specifications

Each crane operator assessment includes:

- ◆ A breakdown of topics covered
- ◆ The number of questions
- ◆ The time allowed
- ◆ The minimum passing score

Refer to the specifications for your specific crane type to help you prepare effectively for your written exam.

Crane Operator Affirmation for Certification

Before you take the practical examination, you must complete and submit the Crane Operator Affirmation for Certification through the NCCER Assessment Platform.

This affirmation confirms that:

- ◆ You have been medically evaluated and are physically qualified to operate cranes per ASME B30 standards.
- ◆ You have passed a substance abuse test as required.
- ◆ You agree to maintain compliance with these requirements for the duration of your certification.

This affirmation is required for your credential to be issued.

User Terms and Conditions

When you create your NCCER online account, you must accept the User Terms and Conditions, which:

- ◆ Authorize NCCER to verify your training and/or assessment records.
- ◆ Release and hold NCCER harmless for the disclosure of information as part of this verification process.

You must accept these terms before any testing can take place.

Incident Report Form

If you are involved in a crane-related accident or incident while certified, you must complete and submit the Incident Report Form.

- ◆ The form must be sent to support@nccer.org within 48 hours of the incident.
- ◆ This is a mandatory requirement to maintain your certification status.

MOBILE CRANE PROGRAM

Structure of the Mobile Crane Operator Certification Program

The safety-related standards for crane design and operation are established by the American Society of Mechanical Engineers (ASME) in ASME B30.5 – Mobile and Locomotive Cranes. In alignment with these standards, NCCER has designed its Mobile Crane Operator Certification Program to reflect the complexity and variety of crane types used in the field.

Your certification will be determined by the combination of written assessments and practical examinations you complete. These are clearly outlined in the Mobile Crane Certification Matrix, which is represented visually in the program's flow-chart diagram.

Assessment and Practical Examination Overview

To earn certification as a Mobile Crane Operator, you must successfully complete both a written assessment and a practical examination specific to the crane type(s) you operate. These evaluations ensure that you possess the knowledge and hands-on skills necessary for safe and effective crane operation.

Written Assessments

There are five written assessments available for mobile crane operator certification:

- ◆ Boom Truck Crane
- ◆ Industrial/Carry Deck Crane
- ◆ Telescopic Boom Crane
- ◆ Lattice Boom Crane
- ◆ Service Truck Crane

Topics Covered in All Mobile Crane Written Assessments

All written exams include questions on the following subject areas:

- ◆ Operational characteristics and limitations
- ◆ Standard hand signals
- ◆ Inspections
- ◆ General safety practices
- ◆ Control functions and responses to crane/control malfunctions
- ◆ Capacity chart knowledge and calculations, including:
 - Gross and net capacities
 - Boom length, boom angle, and load radius
 - Basic load chart math

Practical Examinations

There are five practical examinations, each resulting in an equipment-specific certification:

- ◆ Industrial/Carry Deck Crane
- ◆ Telescopic Boom Crane
- ◆ Lattice Boom Crane
- ◆ Boom Truck Crane
- ◆ Service Truck Crane

Topics Covered in All Practical Examinations

During the practical exam, you will be evaluated on your ability to perform the following:

- ◆ Pre-operational inspection
- ◆ Proper machine setup
- ◆ Use of load chart information
- ◆ Securing procedures
- ◆ Operational skills, including:
 - Boom and hoist control
 - Swing operation
 - Simultaneous use of multiple controls
 - Following standard hand signals
 - Use of operational aids (if applicable)

ARTICULATING BOOM CRANE PROGRAM

Structure of the Articulating Crane Operator Certification Program

The safety-related standards for crane design and operation are established by the American Society of Mechanical Engineers (ASME) in ASME B30.22 – Articulating Boom Cranes. In alignment with these standards, NCCER has designed its Articulating Crane Operator Certification Program to reflect the complexity and variety of crane types used in the field.

Assessment and Practical Examination Overview

To earn certification as an Articulating Crane Operator, you must successfully complete both a written assessment and practical examination. These evaluations ensure that you possess the knowledge and hands-on skills necessary for safe and effective crane operation.

Written Assessments

There is one written assessment for the articulating crane operator certification. Topics Covered in the Articulating Crane Written Assessments:

- ◆ Operational characteristics and limitations
- ◆ Standard hand signals
- ◆ Inspections
- ◆ General safety practices
- ◆ Control functions and responses to crane/control malfunctions
- ◆ Capacity chart knowledge and calculations, including:
 - Gross and net capacities
 - Boom length, boom angle, and load radius
 - Basic load chart math

Practical Examinations

There is one practical examination for the articulating crane operator certification. During the practical exam, you will be evaluated on your ability to perform the following:

- ◆ Pre-operational inspection
- ◆ Proper machine setup
- ◆ Use of load chart information
- ◆ Securing procedures
- ◆ Operational skills, including:
 - Boom and hoist control
 - Swing operation
 - Simultaneous use of multiple controls
 - Following standard hand signals
 - Use of operational aids (if applicable)

TOWER CRANE PROGRAM

Structure of the Tower Crane Operator Certification Program

The safety-related standards for crane design and operation are established by the American Society of Mechanical Engineers (ASME) in ASME B30.3 – Tower Cranes and ASME B30.29- Self-Erecting Tower Crane. In alignment with these standards, NCCER has designed its Tower Crane Operator Certification Program to reflect the complexity and variety of crane types used in the field.

Assessment and Practical Examination Overview

To earn certification as a Tower Crane Operator, you must successfully complete both a written assessment and practical examination. These evaluations ensure that you possess the knowledge and hands-on skills necessary for safe and effective crane operation.

Written Assessments

There is one written assessment for the tower crane operator certification. Topics Covered in the Tower Crane Written Assessments:

- ◆ Operational characteristics and limitations
- ◆ Standard hand signals
- ◆ Inspections
- ◆ General safety practices
- ◆ Control functions and responses to crane/control malfunctions
- ◆ Capacity chart knowledge and calculations, including:
 - Gross and net capacities
 - Boom length, boom angle, and load radius
 - Basic load chart math

Practical Examinations

There is one practical examination for tower crane operator certification. During the practical exam, you will be evaluated on your ability to perform the following:

- ◆ Pre-operational inspection
- ◆ Proper machine setup
- ◆ Use of load chart information
- ◆ Securing procedures
- ◆ Operational skills, including:
 - Boom and hoist control
 - Swing operation
 - Simultaneous use of multiple controls
 - Following standard hand signals
 - Use of operational aids (if applicable)

OVERHEAD CRANE PROGRAM

Structure of the Overhead Crane Operator Certification Program

The safety-related standards for crane design and operation are established by the American Society of Mechanical Engineers (ASME) in ASME B30.2 – Overhead and Gantry Cranes and ASME B30.17- Crane and Monorails. In alignment with these standards, NCCER has designed its Overhead Crane Operator Certification Program to reflect the complexity and variety of crane types used in the field.

Assessment and Practical Examination Overview

To earn certification as an Overhead Crane Operator, you must successfully complete both a written assessment and practical examination. These evaluations ensure that you possess the knowledge and hands-on skills necessary for safe and effective crane operation.

Written Assessments

There is one written assessment for overhead crane operator certification. Topics Covered in the Overhead Crane Written Assessments:

- ◆ Operational characteristics and limitations
- ◆ Standard hand signals
- ◆ Inspections
- ◆ General safety practices
- ◆ Control functions and responses to crane/control malfunctions

Practical Examinations

There is one practical examination for overhead crane operator certification. During the practical exam, you will be evaluated on your ability to perform the following:

- ◆ Pre-operational inspection
- ◆ Operational skills, including:
 - Trolley and Bridge control
 - Hoist and control a load
 - Simultaneous use of multiple controls
 - Use of operational aids (if applicable)