



**NATIONAL COMMISSION FOR THE
CERTIFICATION OF CRANE OPERATORS (NCCCO)**

CANDIDATE HANDBOOK

- **MOBILE CRANE OPERATOR**
 - Lattice Boom Truck Cranes (LBT)
 - Lattice Boom Crawler Cranes (LBC)
 - Telescopic Boom Cranes—Swing Cab (TLL)
 - Telescopic Boom Cranes—Fixed Cab (TSS)
 - Boom Truck—Fixed Cab (BTF)
 - Service Truck Cranes (STC)



BOARD OF DIRECTORS

This candidate handbook contains complete program information as well as applications for the CCO Written and Practical Examinations you must pass to earn your CCO certification. Please read this handbook carefully and retain it for reference throughout the certification process.

Do not discard this document.

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This NCCCO certification program is accredited by the American National Standards Institute (ANSI) to ISO 17024 (General Requirements for Bodies Operating Certification Systems of Persons).



**ANSI Accredited Program
PERSONNEL CERTIFICATION**

0756
Mobile, Tower, Overhead,
Articulating, and Service Truck Crane
Operator, Digger Derrick Operator,
Signalperson, Rigger Level I and
Level II, Crane Inspector, and Lift
Director Programs Accredited

Dear Mobile Crane Operator Certification Candidate:

Welcome to the National Commission for the Certification of Crane Operators (NCCCO) national mobile crane operator certification program.

NCCCO is a nonprofit organization founded in 1995 to establish a fair and independent evaluation of crane operator knowledge and skills. Key to this industry-led effort was the development of the CCO Written and Practical Examinations, initially for mobile crane operators but now also for tower, overhead, and articulating crane operators, digger derrick operators, riggers, signalpersons, crane inspectors, and lift directors. These nationally recognized and internationally accredited certification programs are the culmination of many years' hard work by experts from the varied industries and groups that use cranes, including construction, steel erection, operating engineers, utilities, crane rental, petrochemicals, pulp and paper, and others.

The NCCCO Mobile Crane Task Force that developed this certification program was made up of experts from all aspects of the crane industry—crane operators, crane users, trainers, safety supervisors, manufacturers—who together represent many thousands of hours of crane-related experience. These volunteers gave freely of their time and expertise with the primary goal of improving the safety of all whose work brings them into contact with cranes and lifting equipment.

Until recently crane operator certification has been voluntary unless required by local jurisdictions or specific employers. However, in August 2010, the federal Occupational Safety and Health Administration (OSHA) enacted new national standards for cranes and derricks used in construction under 29 CFR 1926 Subpart CC. These new rules require that operators of most cranes above 2,000 lb. capacity when used in construction need to be either certified by an accredited crane operator testing organization such as NCCCO or qualified through an audited employer program. Section 1926.1427 of the new rule describes crane operator certification/qualification requirements. Option 1, which is anticipated to be the most commonly used, requires operators to be certified by a nationally accredited crane operator testing organization that tests operators through written and practical testing. Obtaining CCO certification from NCCCO meets all the requirements set forth by the new OSHA rule.

To ensure CCO examinations are—and remain—valid measurements of crane operators' proficiency, NCCCO teamed its exam development expertise with the task force's knowledge and experience. In addition to guiding the development of new examinations, NCCCO continually analyzes the performance of CCO exams and reports to the Exam Management Committees. To be able to provide fair and independent assessments, NCCCO does not conduct training, nor does it provide training materials.

NCCCO, as a third-party certification body, is fully committed to, and understands the importance of, delivering all certification activities on a foundation of impartiality. All policies and procedures are established in an objective manner and ultimately strive to achieve fairness throughout all activities. NCCCO prevents any conflicts of interest through detailed policies and procedures observed by staff, governing body representatives, and those involved in written and practical exam administration.

This candidate handbook has been developed to provide you with comprehensive information about the CCO Written and Practical Examinations leading to certification. NCCCO recognizes the commitment you are about to make and will do everything it can to make your experience a positive and successful one. If, after reading this handbook, there is anything you do not fully understand, please call NCCCO at 703-560-2391 or e-mail info@nccco.org. NCCCO staff will guide you through any aspects of the program that you would like explained in more detail.

Thank you for your interest—and good luck with your efforts to become CCO-certified!

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Introduction

PROGRAM DESCRIPTION

The National Commission for the Certification of Crane Operators (NCCCO) is an independent, nonprofit organization formed to set standards for fairly measuring the knowledge and proficiency required for the safe operation of cranes. NCCCO currently administers a nationwide program of certifications for crane operators and related trades, including riggers and signalpersons.

Based on extensive discussions with representatives from all segments of business and industry who recognize the impact of safety issues, NCCCO has identified the following potential benefits of operator certification:

- Fewer accidents, injuries, and fatalities
- Reduced risk of loss
- Assurance of operators' abilities
- Less property damage
- Improved safety records
- Enhanced public image of crane operators

All candidates are required to pass both Written and Practical Examinations to be certified. The Practical Examination Specialties correspond to the Written Exam Specialties, except that candidates may choose either the Lattice Boom Crawler Crane Practical Specialty or the Lattice Boom Truck Crane Practical Specialty.

The initial certification period is for five years, after which an operator is required to recertify. Periodic Written Examinations are necessary to ensure that certificants' knowledge of industry standards, equipment, and safety practices keeps pace with changes in these areas. NCCCO's subject matter experts, working in conjunction with psychometric consultants, reviewed the speed of such change in the industry and researched other comparable certification/licensing programs before determining that this goal could be achieved by setting the examination interval at five years; little, if any, additional benefit is believed would accrue by more frequent testing. A Practical (skills) Examination is not required for recertification, providing the certificant meets experience requirements.

CCO EXAMINATION DEVELOPMENT

The first step in the development of an objective test to measure what is required for safe crane operations was a job analysis study. The study identified the knowledge and skills necessary for safe crane operations. A representative number of crane operators then validated that the knowledge recommended by the experts was vital to safe

operations. The test blueprints and content specifications were then generated from the validation study.

Development of the *Mobile Crane Operator Written Examinations* (Core and Specialty Exams) involved a panel of crane operation content experts who worked with NCCCO staff to write and review all questions used in the examination. Each examination contains a unique combination of questions from the question bank. Questions are selected for examinations on the basis of the content areas and specialties defined by the test blueprints.

The CCO *Mobile Crane Operator Practical Examinations* were developed as fair and objective assessments of the essential skills a crane operator needs to operate mobile cranes safely. These exams were developed over a three-year period by an NCCCO task force staffed by experts from all aspects of the crane industry—crane operators, training directors, managers, supervisors, manufacturers—who together represent many thousands of hours of crane operating experience.

NCCCO teamed its exam development expertise with the task force's knowledge and experience. NCCCO guided the task force in establishing key elements of the program, including identifying essential skills, selecting tasks, standardizing test conditions, developing the scoring process, establishing reliability among tests, and creating flexible application and scheduling procedures.

In concert with the task force, NCCCO also helped design the Practical Examiner Accreditation Program whereby NCCCO trains and accredits CCO-certified crane operators to administer CCO Practical Examinations.

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Certification Policies

MOBILE CRANE OPERATOR

ELIGIBILITY

To be eligible for certification, candidates must:

- Be at least 18 years of age
- Meet medical requirements
- Comply with NCCCO's Substance Abuse Policy
- Pass Written Examinations (Core Exam and at least one Specialty Exam)
- Pass Practical Examination(s)
- Comply with NCCCO's Code of Ethics

EXPERIENCE

CCO certification exams are designed for operators who are trained and who currently work in crane operation.

PHYSICAL EVALUATION

Certified crane operators must continue to meet ASME B30 physical requirements throughout their certification period and attest to their agreement to this requirement in their applications.

In appropriate circumstances, means of compliance with ASME physical requirements may include, but are not limited to, a current Department of Transportation (DOT) Medical Examiner's Certificate.

CCO WRITTEN EXAMINATIONS

The Mobile Crane Operator Written Examination consists of a Core Examination in crane operation and up to four crane Specialty Examinations. Certification requires competency in both the Core and one or more Specialty designation(s).

The Core Examination has 90 multiple-choice questions. Candidates are allowed 90 minutes to complete the Core Examination. Each Specialty Examination consists of 26 multiple-choice questions. Candidates are allowed 60 minutes to complete each Specialty Examination.

All candidates are required to take the Core Examination, regardless of the Specialty(s) in which they wish to be certified.

Written exams may be taken as either paper/pencil tests (PPT), see page 7 for details, or computer-based tests (CBT), see page 9 for details.

The CCO Written Specialty Examinations are:

- Lattice Boom Crawler Cranes (LBC)
- Lattice Boom Truck Cranes (LBT)
- Telescopic Boom Cranes—Swing Cab (TLL)
- Telescopic Boom Cranes—Fixed Cab (TSS)*

Candidates must register for the Core and at least one of the Specialty Examinations. Candidates meeting the eligibility requirements may take the Written and Practical Examinations in any order.

*For information about the Service Truck Crane Operator program, a subcategory of the Telescopic Boom Crane—Fixed Cab (TSS) designation, please see page 35.

CCO PRACTICAL EXAMINATIONS

The Mobile Crane Operator Practical Examination demonstrates crane operation proficiency and is available for three crane types:

- Lattice Boom Cranes (covering both LBC and LBT)
- Telescopic Boom Cranes—Swing Cab (TLL)
- Telescopic Boom Cranes—Fixed Cab (TSS)

A candidate must pass the Written Core and at least one Specialty Examination as well as the corresponding Practical Exam(s) to be certified for a five-year period.

BOOM TRUCK OPERATOR

The CCO Boom Truck—Fixed Cab Operator certification is a subcategory of the CCO Telescopic Boom—Fixed Cab (TSS) certification and was developed specifically for the industries that use these machines.

A boom truck (commercial truck-mounted crane) is defined as a crane consisting of a rotating superstructure (center post or turntable), a fixed or telescopic boom, operating machinery, and one or more operator's stations mounted on a frame attached to a commercial truck chassis with a payload hauling capability whose power source powers the crane. Its function is to lift, lower, and swing loads at various radii, requiring the use of outriggers/stabilizers.

There is a wide variety of users of boom trucks, and given their application NCCCO has developed the following subcategories to test the specific knowledge and skills required for a boom truck operator:

- Boom Truck—Fixed Cab (BTF)

The written exam is a modified version of the current TSS written exam. Questions that are irrelevant to boom trucks have been removed, and replaced with questions that specifically deal with boom truck operations. The practical exam remains unchanged. Candidates for BTF must take the TSS practical exam, but the candidate is required to operate a boom truck during the exam.

Please note that the CCO Telescopic Boom—Fixed Cab Operator (TSS) certification covers Boom Truck—Fixed Cab cranes. Operators of Boom Truck—Fixed Cab cranes who currently possess a TSS certification are not required to also possess a Boom Truck—Fixed Cab operator certification. The reverse is not true, however. BTF certification is intended only for operators of Boom Truck—Fixed Cab cranes and not for those who operate other Telescopic Boom—Fixed Cab cranes. To be certified to operate all TSS cranes, candidates must achieve the full TSS certification (Core + TSS specialty written + TSS practical).

SHORT BOOM RESTRICTION

Candidates passing CCO Practical Exams on cranes not meeting minimum standardized boom configurations will have “Short Boom Restriction” added to their certification card for the applicable crane designation(s).

CCO CERTIFICATION TIME FRAMES

Candidates must pass Written Exams (Core + Specialty) and a Practical Exam for the designation(s) for which they seek certification. Candidates may take their Written and Practical Exams in any order.

Candidates have 12 months after they pass their first exam (Written or Practical) to pass the corresponding Written or Practical Exam(s) for the same designation(s). For example, a candidate passing the Written Exams (Core + Specialty) in the Telescopic Boom Cranes—Swing Cab (TLL) designation in January 2015 has until the end of January 2016 to pass the Telescopic Boom Cranes—Swing Cab (TLL) Practical Exam.

Any tests passed within a 12-month period count towards certification. For example, a candidate who passes the Written Core Exam in January 2015 and the Practical Exam in June 2015 but does not pass the corresponding Written Specialty Exam until February 2016 will then be required to retake (and pass) the Written Core Exam. The Practical Exam would count toward certification until the end of June 2016.

If a certified operator subsequently becomes certified in an additional operator designation by taking the appropriate written and practical exams, the certification period for

the additional designation expires at the same time his/her original certification (i.e., all operator designations expire on the same date, regardless of when in the five-year certification period the candidate passed them). If the new designation is added within the final 24 months of his/her certification period, the certificant is exempt from recertifying for the new designation after five years; after that, however, certificants must recertify for all designations during the 12 months prior to their certifications' expiration date. This ensures that all of the certificant's operator designations maintain the same expiration date.

RECERTIFICATION REQUIREMENTS

CCO certification is valid for five years. **Recertification candidates must complete all recertification requirements during the 12 months prior to their certification's expiration date.** This includes:

- Passing the Recertification Written Examination(s)
- Continuing to meet medical requirements
- Compliance with NCCCO's Substance Abuse Policy
- Compliance with the Code of Ethics

Candidates who can attest to at least 1,000 hours crane-related experience during their period of certification do not need to take the Practical Exam to recertify. *Crane-related experience* is defined as: operating, maintaining, inspecting, or training on cranes.

Recertification candidates who need to take the Practical Exam for any reason, however, must do so before their certification expires. **There is no grace period after their certification expires.** Candidates whose certification has lapsed must take both the regular Written and Practical Examinations again to be certified again.

The Recertification Written Examinations consist of a Core Examination in crane operation and up to four Specialty Examinations.

The Core Recertification Examination has 40 multiple-choice questions with a time limit of 45 minutes.

Each Specialty Recertification Examination consists of 10 multiple-choice questions with a time limit of 30 minutes.

All candidates are allowed two attempts to pass their Recertification Core and Specialty Exams before their certification expires. Candidates who are unsuccessful after two attempts must take and pass the regular Core and Specialty Exams.

Recertification candidates may take their Recertification Written Examinations up to one year prior to their certification's date of expiration. Regardless of the date of the

Recertification Examination within that one-year period, the new five-year certification period begins from the date of expiration of the candidate's initial certification.

NOTE: Candidates who recertify more than 12 months prior to their expiration date will have their new certification period begin immediately, not from the end of their current certification period.

Recertification Exams are available at regularly scheduled paper/pencil test administrations as well as via computer-based testing. Candidates wishing to recertify should contact the Test Site Coordinator who set up their initial certification. Candidates whose employment circumstances have changed should ask their new employer to schedule a test administration. Candidates may also locate open paper/pencil Written Exam Test Sites at www.nccco.org/testsites or apply online for paper/pencil or computer-based tests at www.nccco.org.

Candidates who are not certified in all Specialties may add a new Specialty at the same time as they take their Recertification Examinations by taking the full examination in that Specialty.

CODE OF ETHICS FOR CERTIFIED OPERATORS

CCO-certified crane operators must comply with NCCCO's Code of Ethics during their certification, as set forth below:

In my occupation, I will conduct myself in a manner:

- i. *So as to place the safety and welfare of others associated with my work above all other considerations;*
- ii. *So as to protect and preserve nearby general public property and the environment; and*
- iii. *So as to be free of bias with regard to religion, ethnicity, gender, age, national origin, and disability.*

Furthermore, in connection with my work and in my dealings with NCCCO, I will:

- iv. *Make management and appropriate personnel aware promptly if I have any safety concerns relating to the work that I am performing or with which I am involved;*
- v. *Not knowingly violate any safety-related regulations, warnings, or instructions set forth by OSHA, recognized safety standards, prevailing jurisdictions, or equipment manufacturers; and,*
- vi. *Not mislead, misrepresent or knowingly deceive others concerning my experience or the capabilities of myself*

or the equipment I am operating or with which I am working.

In addition, in my dealings with NCCCO, I will:

- vii. *Provide accurate and complete information and abide by NCCCO's policies and procedures, including this Code of Ethics, as they may be updated from time to time;*
- viii. *Not act dishonestly or unfairly in order to gain an advantage, or to provide another with an advantage, in connection with any dealings with NCCCO;*
- ix. *Cooperate fully and completely with any administrative inquiries or investigations by NCCCO; and,*
- x. *Not misrepresent or misuse any NCCCO card, or the NCCCO or CCO acronyms and logos, or any registered trademark or other intellectual property of NCCCO; and I understand that I must return the card to NCCCO immediately if required to do so.*

CCO-certified personnel who intentionally or knowingly violate any provision of the Code of Ethics will be subject to action by a peer review panel, the Ethics and Discipline Committee, which may result in suspension or revocation of certification.

DISCIPLINARY POLICY

NCCCO's Ethics and Discipline Committee is responsible for establishing and implementing standards of conduct, such as ethical standards and policies and procedures for disciplinary action. Grounds for revocation of certification status shall include, but not be limited to, the following:

1. Period of certification exceeded without renewal
2. Evidence of falsification of any information on any documents submitted to NCCCO or its agents
3. Evidence of non-compliance with NCCCO's Substance Abuse Policy
4. Evidence of culpability in an accident during certification period
5. Evidence of non-compliance with ASME B30 medical requirements
6. Evidence of non-compliance with the Code of Ethics

NCCCO has established policies and procedures to address alleged violations of the Code of Ethics fairly and consistently. The complaints procedures have been designed to ensure that only valid and actionable complaints are investigated and considered. These procedures also ensure that all parties involved in the complaint have an opportunity to document circumstances warranting the complaint and to respond to the complaint.

NCCCO has a two-tier process to ensure that issues regarding the practice and conduct of certified operators are fairly and reasonably investigated and determined, and that the public is protected against unprofessional and unethical conduct by certificants.

Complaints against certificants are initially investigated by NCCCO's Manager of Test Integrity, who reports to NCCCO's Ethics and Discipline Committee. If the complaint is considered actionable, the Ethics and Discipline Committee informs both the certificant and the complainant of the official opening of the investigation. Following the investigation of the complaint, the Ethics and Discipline Committee informs the certificant and the complainant of its decision.

If a sanction is imposed, the certificant may request an appeal of the decision to the NCCCO Board of Directors.

Appeals should be addressed to:

Chief Executive Officer
National Commission for the Certification of Crane
Operators (NCCCO)
2750 Prosperity Avenue, Suite 505
Fairfax, VA 22031

The decision of the NCCCO Board of Directors is final.

SUBSTANCE ABUSE POLICY

It is the policy of NCCCO that operators shall not use prescribed or over-the-counter substances that would impair their ability to operate equipment safely. This includes illegal drugs, controlled substances (including trace amounts), look-alike drugs, designer drugs, or any other substance that may have an effect on the human body of being a narcotic, depressant, stimulant, or hallucinogen.

An exception to this rule is that an operator may use such a substance or drug if it is prescribed by a licensed medical practitioner who is familiar with the operator's medical history and all assigned duties, and who has advised the operator the prescribed substance will not adversely affect the operator's ability to operate equipment safely.

CCO-certified operators shall comply with the substance abuse testing provisions of ASME B30. It is a condition of certification that operators certified by NCCCO attest

to their compliance with this Substance Abuse Policy. Non-compliance with this policy automatically revokes a candidate's certification status.

CERTIFICATION CARDS

Certified operators receive a laminated photo ID card at no cost when they certify for the first time and when they complete the requirements for recertification.

Replacement cards, cards showing certification in an additional designation, or updated cards for candidates who retake and pass a designation they previously failed may be obtained from NCCCO at a cost of \$25. Updated or replacement cards can be ordered online at: <http://www.nccco.org/newcard>.

CHANGE OF ADDRESS

Certificants who change their address must notify NCCCO as soon as possible. Failure to do so may cause important updates on NCCCO's programs to be missed that could affect a certificant's stature. Changes of address should be sent to NCCCO. They must be in writing but may be sent via letter or fax. A form for this purpose is provided in this handbook.



Written Examination Process

MOBILE CRANE OPERATOR

APPLICATION PROCESS TO TAKE THE WRITTEN EXAMINATION

Mobile Crane Operator written exams and recertification exams may be taken as either paper/pencil tests (PPT) at an approved NCCCO written exam test site or as computer-based tests (CBT) at approximately 300 PSI test centers across the country. The content of both test formats is identical; see the appropriate sections below for instructions on how to apply for either PPT or CBT exams.

Candidates Requesting Testing Accommodations

Arrangements for persons with disabilities will be provided upon request, in conformance with the Americans with Disabilities Act (ADA).

Professional documentation in support of a request for accommodation must be submitted to NCCCO no later than four weeks prior to the scheduled test date. For further information about testing accommodations, see the complete NCCCO Testing Accommodations Policy at: www.nccco.org/accommodations.

PAPER/PENCIL TESTING (PPT) OPTION

Candidates desiring to sit for paper/pencil written exam(s) should visit www.nccco.org/testsites to see a schedule of upcoming Test Dates and Locations and then submit a completed Candidate Application form with the appropriate documentation as directed on the form. Applications are due two weeks prior to the scheduled examination date. PPT application deadline examples are shown on page 9. Information about the specific locations of the Test Sites will be available approximately one to three months prior to the examination. Candidates eligible to sit for the examination will receive an admission letter approximately one week before the scheduled test administration date.

Submission of Application

To apply for paper/pencil exams, use the Candidate Application form at the back of this handbook. The Candidate Application with the appropriate fees, as well as any correspondence and requests for information concerning the administration of CCO examinations, should be sent to:

NCCCO—Testing Services Department
1960 Bayshore Blvd.
Dunedin, Florida 34698
Phone: 727-449-8525/Fax: 727-461-2746

Contact the Test Site Coordinator to confirm whether the application should be sent to the Test Site Coordinator or directly to NCCCO. Check the application to ensure that all information provided is accurate and complete. In addition to the completed application, make sure that the appropriate fees are enclosed.

Candidates may also submit applications and payment online:

- Paper/pencil tests (PPT): www.nccco.org/ppt-apps
- Computer-based tests (CBT): www.nccco.org/cbt-apps

Candidates must follow the directions carefully when filling in the required information. Incomplete applications, incorrect payment, and/or inaccurate documentation will delay the processing and incur additional fees. This could result in *NOT* being able to sit for the examination(s).

Deadlines

Please note that all deadlines are UPON RECEIPT deadlines. Candidates and Test Site Coordinators are solely responsible for making sure that completed and accurate applications reach NCCCO by the stated deadlines.

Examination Fees

For paper/pencil tests (PPT), the appropriate Written Exam fees must be enclosed with the Candidate Application. Checks, money orders, or credit cards (VISA, MasterCard, or American Express) may be used; do not send cash. Please include payment in the envelope with all the other application materials.

All returned checks are subject to a \$30 fee.

PPT Written Exam/Retest Fees:

- | | |
|--|-------|
| • Core plus one Specialty Exam or
Core Exam only (Specialty passed) | \$165 |
| • Core Exam plus two Specialty Exams | \$175 |
| • Core Exam plus three Specialty Exams | \$185 |
| • Core Exam plus four Specialty Exams | \$195 |
| • One Specialty Exam only (Core passed) | \$65 |
| • Two Specialty Exams (Core passed) | \$75 |
| • Three Specialty Exams (Core passed) | \$85 |
| • Four Specialty Exams (Core passed) | \$95 |

PPT Recertification Written Exam/Retest Fees:

• Core plus one Specialty Exam or Core Exam only (Specialty passed)	\$150
• Core Exam plus two Specialty Exams	\$155
• Core Exam plus three Specialty Exams	\$160
• Core Exam plus four Specialty Exams	\$165
• One Specialty Exam only (Core passed)	\$50
• Two Specialty Exams (Core passed)	\$55
• Three Specialty Exams (Core passed)	\$60
• Four Specialty Exams (Core passed)	\$65

Other Fees:

An additional \$50 late fee will be charged if the application is late.

An additional \$25 will be charged if a candidate:

- Wishes to reschedule without a valid reason (see Emergency Cancellations or Withdrawals)
- Needs a replacement certification card or score report

An additional \$30 fee will be charged if:

- An application form is incomplete
- Full payment is not received or a check is returned
- A credit card cannot be processed for any reason
- A candidate wants to add to (or change) the exams he/she plans to take after scheduling has been completed (in addition to the exam fee)

All application materials must be received at NCCCO's office according to the sample test schedule outlined under "Application Deadlines."

Applications received after the main application deadline—but at least four business days prior to the exam administration date—can be accepted for an additional \$50 late fee. For example, for a test administration on a Saturday, late applications that arrive at NCCCO's office by 5 p.m. (ET) on the Monday evening prior to the test will be accepted.

Candidate applications that arrive after that time cannot be accepted. ***Walk-in candidates cannot be accepted under any circumstances.***

Length of Test Day

NCCCO written exams are carefully designed to provide a reliable and valid assessment of a candidate's knowledge and skills. Time limits are carefully determined for each written exam to allow enough time for a prepared candi-

date to complete the exam and to provide for an efficient and successful administration of all exams to scheduled candidates on testing day.

To provide each candidate with a fair and standardized administration of the written examination(s), and to ensure the reliability and validity of the written examinations is maintained, it is not recommended that a candidate schedule written exams totaling more than six hours of testing time on the same day.

Rescheduling, Cancellations, and Withdrawals

Should a candidate be unable to sit for the examination, NCCCO must receive notification in writing no later than seven business days prior to the examination date. Candidate fees will be held up to one year. When the candidate reschedules, he/she will need to pay an additional \$25 rescheduling fee.

Candidates who wish to reschedule their CCO Written Examination(s) ***must*** notify NCCCO and submit the necessary documentation and fees by the deadline for the rescheduled test date.

Candidates withdrawing or canceling after the deadline or not sitting for the examination will forfeit all application fees and will NOT receive a refund.

Emergency Cancellations or Withdrawals

Only the following situations will be accepted as grounds for emergency cancellations or withdrawals:

- ***Called to work***—supporting documentation required: *letter from employer*
- ***Candidate illness***—supporting documentation required: *doctor's note*
- ***Family death***—supporting documentation required: *death certificate or obituary notice*

Requests for medical and personal emergency withdrawals are handled by NCCCO's Testing Services Department upon submission of a letter describing the situation. Full name, address, and social security number must be included along with the scheduled test date, site number, and supporting documentation indicated above.

NCCCO MUST receive written notification within seven business days after the scheduled examination date or all application fees will be forfeited. Candidates will, however, be allowed to reschedule for a future examination administration.

Candidates will NOT receive a refund if they decide they no longer wish to take the test.

Test Administration Schedule for CCO Examinations

Paper/pencil CCO Written Examinations are available for administration on demand with at least four weeks' notice.

Application Deadlines

Tests can be administered at any time as long as the application deadlines are adhered to. Sample deadlines shown below are for a test date of January 29.

Written Test Administration Request	
Form due four weeks prior to test date.	→ 1
Candidate Applications due two weeks prior to test.	→ 15
Test Day	→ 29

January						
S	M	T	W	Th	F	Sa
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

Admission Letters

For paper/pencil exams, approximately one week before the scheduled test date, registered and eligible candidates approved to take CCO Written Examinations will receive an admission letter by mail. The admission letter contains information regarding the test center address, the reporting time, the examination(s) the candidate is registered for, and the materials the candidate needs to bring on the day of the test administration. This admission letter should be presented at the Test Site to gain admittance to the examination(s).

Identification at the Test Site

Candidates must bring valid photo identification to the test site on the day of the test administration. Candidates will be required to sign the test site roster upon entry to the testing area.

Acceptable forms of photo identification for paper/pencil tests are a current:

- Passport
- Government-issued driver's license
- Military identification card
- U.S. Government-issued alien registration card
- Work identification

NOTE: Candidates without appropriate identification documents will NOT be admitted to take the CCO Written Examination(s) and all fees will be forfeited.

Materials to Bring to the Test Site

Each candidate must bring the following items to the test site:

- Photo identification
- Admission letter for the specific test date (recommended)
- Two sharpened #2 pencils (to complete the examination answer sheet)
- A good eraser

NOTE: No books, scratch paper, calculators, reference materials, beepers, cellular phones, or other personal items will be allowed in the examination room. A basic four-function calculator will be provided for use on the Specialty exams only.

Score Reporting

Paper/pencil CCO Written Examinations are electronically scored at NCCCO's facilities. For this reason, it is important to complete the answer sheet according to the instructions provided by the Chief Examiner on the day of the exam. Candidates will receive credit only for answers recorded on the scannable answer sheet. **Answers marked in the test booklet(s) will NOT be counted toward a candidate's score.**

All candidates will receive a score report of their performance. Examination results are mailed to candidates approximately 12 business days after the examination administration.

COMPUTER-BASED TESTING (CBT) OPTION

Candidates desiring to take their written exam(s) using the computer-based testing (CBT) option should visit www.nccco.org and click on the Computer-Based Testing link under Test Dates and Locations (www.nccco.org/cbt). This page includes links to a directory of approximately 300 PSI locations throughout the U.S. as well as the online application form.

Online applications may be completed and submitted at any time. Candidates should apply to take CBT exam(s) as soon as possible, but no later than five business days before their preferred exam date. Please note that site availability is not guaranteed on the preferred exam date, and availability can only be confirmed when scheduling the appointment.

After the candidate completes and submits the online application (with payment), an authorization email will be sent within 48 hours. **After receiving the authoriza-**

tion email, the candidate must wait 24 hours. Then the candidate must call the number provided in the email to schedule the test(s) with PSI; the PSI customer service representative will do his/her best to select a test date and location convenient for the candidate. PSI will send an appointment confirmation email within 24 hours. The candidate must then go to the selected test center at the scheduled date and time.

CBT Examination Fees

Candidates must pay the appropriate CBT Written Exam fees when they apply online. A credit card (VISA, MasterCard, or American Express) must be used to pay online. CBT exam payments are valid for one year. If the candidate does not schedule and test within 12 months, he/she forfeits the fees. This does not affect the deadline(s) for certification or recertification as specified on page 3.

CBT Written Exam/Retest Fees:

• Core Exam only (Specialty passed)	\$205
• Core Exam plus one Specialty Exam	\$215*
• Core Exam plus two Specialty Exams	\$241*
• Core Exam plus three Specialty Exams	\$262*
• Core Exam plus four Specialty Exams	\$283*
• One Specialty Exam only (Core passed)	\$100
• Two Specialty Exams (Core passed)	\$120*
• Three Specialty Exams (Core passed)	\$140*
• Four Specialty Exams (Core passed)	\$160*
• Service Truck Crane (STC) Operator Exam	\$205

CBT Recertification Written Exam/Retest Fees:

• Core Exam only (Specialty passed)	\$180
• Core Exam plus one Specialty Exam	\$185*
• Core Exam plus two Specialty Exams	\$195*
• Core Exam plus three Specialty Exams	\$205*
• Core Exam plus four Specialty Exams	\$215*
• One Specialty Exam only (Core passed)	\$75
• Two Specialty Exams (Core passed)	\$85*
• Three Specialty Exams (Core passed)	\$95*
• Four Specialty Exams (Core passed)	\$105*

****To receive discounted pricing, all CBT exams must be taken at the same test administration.***

Other Fees:

An additional \$25 will be charged if a candidate:

- Needs a replacement certification card or score report

An additional \$30 fee will be charged if:

- An application form is incomplete (e.g., name misspelled or does not match name on valid photo ID)
- A credit card cannot be processed for any reason
- Any changes are requested after submitting the application

NOTE: After the candidate has scheduled his/her appointment with PSI, no changes can be made. If the name for the scheduled appointment does not match that on the photo ID presented, all fees will be forfeited.

Rescheduling, Cancellation, or Withdrawal

CBT candidates may cancel and reschedule an examination appointment without forfeiting their fees if their cancellation notice is received at least 24 hours before the scheduled examination date. Candidates will NOT receive a refund if they no longer wish to take the test.

NOTE: A voice mail message is not an acceptable form of cancellation. Please call PSI at 800-211-2754 to speak with a PSI customer service representative.

Missed Appointment or Late Cancellation

A candidate's registration will be invalidated and the examination fee(s) will be forfeited if he/she:

- Does not cancel the appointment more than 24 hours before the scheduled examination date
- Does not appear for his/her examination appointment
- Arrives after examination start time
- Does not present proper identification

Identification at the Test Site

Candidates must bring photo identification to the test site on the day of the test administration. Candidates will be required to sign the test site roster upon entry to the testing area.

Acceptable forms of photo identification for computer-based tests are a current:

- Passport
- U.S. government- or state-issued driver's license
- Military identification card
- U.S. government-issued alien registration card

NOTE: Candidates without appropriate identification documents will NOT be admitted to take CCO Written Examination(s) and all fees will be forfeited. Work identification is NOT acceptable for computer-based testing centers.

Materials to Bring to the Test Site

Each candidate must bring the following items to the test site:

- Valid photo identification
- Confirmation email from PSI (recommended)

NOTE: No books, scratch paper, calculators, reference materials, beepers, cellular phones, or other personal items will be allowed in the examination room. A basic four-function calculator will be provided on-screen for the Specialty exams only.

Score Reporting

CBT candidates receive their test results immediately following their exams and should retain these score reports for their records.

TEST SITE INFORMATION (BOTH PPT AND CBT)

Test Security

For the purpose of test security, candidates who sit for CCO examination(s) acknowledge that they understand the following:

- This examination is the exclusive property of NCCCO.
- This examination and the questions contained therein are protected by federal copyright law.
- No part of the examination(s) may be copied or reproduced in part or whole by any means whatsoever, including memorization.
- Theft or attempted theft of an examination booklet or any of its pages is punishable as a felony.
- While at the examination site, candidates are considered professionals and shall be treated as such. In turn, candidates must conduct themselves in a professional manner at all times. While at the site, they shall not use words or take actions that are vulgar, obscene, libelous, or that would denigrate the staff or other candidates.
- No conversing or any other form of communication among the candidates is permitted once they enter the examination area.
- No smoking, eating, or drinking is allowed at the examination site.

- Candidate participation in any irregularity during the examination, such as giving or obtaining unauthorized information or aid, as evidenced by observation or subsequent statistical analysis, may be sufficient cause to terminate participation, invalidate the results of the examination, or other appropriate remedy.
- Candidates verify that they have successfully met the physical/medical requirements and are eligible to take this examination. If at any time it is confirmed that a candidate has not met all the requirements, the candidate will no longer be eligible for certification.
- A candidate's signature on the answer sheet for the administration of the examination confirms that the candidate has read and understands the above statements.

Candidate Question Comment Forms

Candidates can comment on the examination(s) as a whole or on specific items within an examination by writing their comments on the Candidate Question Comment Form. Written comments should reference the question number as well as the site code and the test date and should accompany the examination. Examination comments are reviewed by NCCCO content experts on a regular basis. An online form is available for computer-based tests.

NOTE: Only comments completed on the Candidate Question Comment Form at the test site will be considered for review.

TEST SCORING INFORMATION (PPT AND CBT)

CCO Written Examinations are criterion-referenced examinations; i.e., the passing score is set beforehand, and candidate performance on the examination is not compared to the performance of others taking the examination. In a criterion-referenced examination, a candidate must obtain a score equal to or higher than a predetermined passing score to pass the test. The passing scores represent absolute standards and are determined by panels of NCCCO content experts using a psychometrically accepted standard-setting methodology.

In reporting the examination results to candidates, statistical procedures are used to convert raw scores (i.e., the number of test questions answered correctly) to scaled scores, which are equivalent for all administrations of the examination(s). The scaled score is not a number-answered-correctly score.

Candidate results are reported as a scaled score, with a score of **70** representing the minimum passing score for this test. Written exam score reports include a strength and weakness report by content domain.

Candidate scores cannot be given over the telephone.

Hand Score Requests

Candidates not passing exam(s) may request from NCCCO a hand scoring of their answers, provided the request is made in writing within three months of the test date. Requests must be accompanied by a processing fee of \$25 for one failed test score or \$50 for two or more failed test scores per test administration.

Requests should be mailed to:

NCCCO—Testing Services Department
1960 Bayshore Blvd.
Dunedin, Florida 34698
Phone: 727-449-8525
Fax: 727-461-2746

In the event that the hand scoring of a failing candidate's answer sheet results in a passing score, the hand-scoring fee(s) will be refunded in full.

RETAKING THE EXAMINATION(S)

Candidates who fail an examination(s) may retake the examination(s). Candidates will need to reapply and pay all corresponding retest fees. CBT candidates may reapply any time after taking their exam(s); however, the new authorization email will be delayed pending the receipt of the exam results from PSI, which can take up to 72 hours.

INFORMATION RELEASE POLICY

NCCCO releases information pertaining to individuals who have successfully passed one or more CCO examinations according to its Information Release Policy (see page 52).



Written Examination Outline

CORE EXAMINATION—MOBILE CRANE OPERATOR

The Core examination portion of the NCCCO Written Examination tests the following knowledge areas relating to the operation of mobile cranes:

Domain 1: Site

- Approximately 20% of test

Domain 2: Operations

- Approximately 26% of test

Domain 3: Technical Knowledge

- Approximately 28% of test

Domain 4: Load Charts

- Approximately 26% of test

DOMAIN 1: SITE

1. Understand elements that affect ground stability:
 - a. Below surface (e.g., voids, tanks, loose fill)
 - b. On surface (e.g., retaining walls, slopes, excavations, depressions)
2. Know the proper use of supporting materials (e.g., mats, blocking/cribbing).
3. Know electric power line hazards during assembly/disassembly.
4. Know the requirements to travel without load.
5. Know how to identify and evaluate hazards concerning:
 - a. Access to job site
 - b. In-transit clearances
 - c. Pinch/crush points
 - d. Personnel
6. Know the responsibilities of the controlling entity concerning site conditions.
7. Know how to review lift requirements with site supervision.

DOMAIN 2: OPERATIONS

1. Know how to inspect the crane for unsafe conditions.
2. Know personnel safety requirements during crane inspections.
3. Know how to level the crane.
4. Know how to obtain dimensions, weight, and center of gravity of the load.
5. Know how to verify the radius.
6. Know electric power line hazards during operations.

7. Know wire rope:
 - a. Reeving
 - b. Parts of line
8. Know types of signals:
 - a. Hand signals
 - b. Voice/radio signals
 - c. Audible signals
 - d. New or non-standard signals
9. Know the requirements for:
 - a. Multi-crane lifts
 - b. Suspended personnel platforms
 - c. Duty cycle operations
 - d. Barge operations
 - e. Multi-drum operations
10. Know the effects of lifting loads from beneath the surface of the water.
11. Know the requirements and procedures for when load is not in full view of the operator.
12. Know the requirements of tag lines.
13. Know how to react to:
 - a. Block and line twisting
 - b. Personnel in fall zone
14. Know the use/function of the following operator aids:
 - a. Load moment indicator, load moment limiter, load weighing devices
 - b. Anti-two block devices
 - c. Boom angle indicator
 - d. Wind indicator
 - e. Drum rotation indicators
 - f. Radius indicators
15. Know alternative operating procedures when operator aids malfunction.
16. Know the use/function of the following safety devices:
 - a. Horn
 - b. Level indicator
17. Know emergency procedures for:
 - a. Electric power line contact
 - b. Loss of stability
 - c. Control malfunction
 - d. Carrier or travel malfunction
 - e. Two-blocking
 - f. Overloading
 - g. Fires

18. Know the effects of dynamic loading from:
 - a. Shock loading
 - b. Moving loads
19. Know the effect of side loading.
20. Know the effects of operating in various weather conditions (e.g., wind, temperature, wave action)
21. Understand the condition where backward stability presents limitations.
22. Know how to use the manufacturer-approved attachments and their effect on the crane's operation.
23. Know operator's authority to stop operations.
24. Know how to shut down and secure the crane when leaving it unattended.

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know current federal regulations and industry standards, including but not limited to ASME B30.5, B30.10, OSHA 1910.180, 1926 Subpart CC.
2. Know basic crane terminology and definitions.
3. Know functions and limitations of cranes and attachments.
4. Know the inspection requirements for:
 - a. Shift inspections
 - b. Monthly inspections
 - c. Annual inspections
 - d. Notifying supervision of inspection deficiencies
5. Know basic procedures for rigging devices and their use, such as slings, softeners, lifting beams, and shackles.
6. Know basic procedures for termination of wire rope.
7. Know the proper use of hook blocks and overhaul balls.
8. Know wire rope:
 - a. Types and designations of wire rope and their application
 - b. Replacement criteria and inspection procedures of running ropes
 - c. Maintenance and lubrication
9. Know relationship between line pull and safe working load of running ropes.
10. Know protective measures against electrical hazards and their limitations.
11. Know the significance of the instruments and gauge readings.

12. Know requirements for fall protection.
13. Know requirements for access and egress of the crane.

DOMAIN 4: LOAD CHARTS

1. Know the terminology necessary to use load charts.
2. Demonstrate basic math skills without the use of a calculator.
3. Know how to ensure that the load chart is the appropriate chart for the machine in its particular application.
4. Know how to use load charts, including:
 - a. The difference between capacity limited by stability and factors other than stability
 - b. The range diagram
 - c. The work area chart
 - d. "Parts-of-line" information



Written Examination Outline

SPECIALTY EXAMINATIONS—MOBILE CRANE OPERATOR

The Specialty Examinations for the NCCCO mobile crane operator certification program test the following knowledge areas relating to the operation of each of these types of cranes:

- Lattice Boom Truck Cranes (LBT)
- Lattice Boom Crawler Cranes (LBC)
- Telescopic Boom Cranes—Swing Cab (TLL)
- Telescopic Boom Cranes—Fixed Cab (TSS)
 - Boom Truck—Fixed Cab (BTF)

Each Specialty Exam only contains questions relevant to cranes within that specialty area. For example, questions about lattice booms will appear on LBT and LBC exams, but will NOT appear on TLL or TSS exams. Note that the BTF exam will only cover questions relevant to boom trucks.

Domain 1: Setup

- Approximately 23% of test

Domain 2: Operations

- Approximately 23% of test

Domain 3: Technical Knowledge

- Approximately 19% of test

Domain 4: Manufacturers' Load Charts

- Approximately 35% of test

DOMAIN 1: SETUP

1. Know the proper use of supporting materials (e.g., mats, blocking/cribbing).
2. Know proper boom assembly and disassembly procedures:
 - a. Lattice booms
 - b. Telescopic booms
 - c. Extensions/jibs
3. Know how to properly use:
 - a. Outriggers/stabilizers
 - b. Crawlers
4. Know how to use outrigger position indicators/sensors.

DOMAIN 2: OPERATIONS

1. Know how to operate a crane:
 - a. Stationary on rubber tires
 - b. On outriggers
 - c. Stationary on crawlers

2. Know how to pick and carry:
 - a. On rubber
 - b. On crawlers
3. Know how to shut down and secure the crane properly when leaving it unattended:
 - a. Lattice boom cranes
 - b. Telescopic boom cranes
4. Know the use/function of the following operator aids:
 - a. Boom length indicators
 - b. Boom hoist limiting devices
 - c. Luffing jib limiting devices
5. Know the use/function of the following safety devices:
 - a. Boom stops
 - b. Brake locks
 - c. Jib stops
6. Know power flow systems.
7. Know the procedures when approaching two-blocking for:
 - a. Telescopic boom cranes
 - b. Lattice boom cranes

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know basic crane terminology and definitions specific to different crane types.
2. Know functions and limitations and attachments specific to different crane types.
3. Know wire rope replacement criteria and inspection procedures (standing ropes)

DOMAIN 4: LOAD CHARTS

1. Understand different elements of load charts:
 - a. Apply load chart notes
 - b. Specifications
 - c. Range diagram
 - d. Work area diagram
 - e. Boom/jib erection charts
 - f. Rated capacity charts
2. Understand and apply manufacturers' load charts given various configurations:
 - a. Determining maximum radius for load placement
 - b. Determining gross capacity
 - c. Determining net capacity



Sample Questions

MOBILE CRANE OPERATOR

The following are sample test questions typical of the style and content of the questions used in NCCCO Written Examinations. Additional sample questions can be found on the NCCCO website at: www.nccco.org/mobile-sample-questions.

1. Unless the manufacturers state otherwise, truck cranes generally have no lifting capacity over which area?
 - a. The side
 - b. The rear
 - c. The front
 - d. The outriggers

2. *Working radius* is defined as the distance from the:
 - a. Base of the boom to the center of the load
 - b. Front of the crane to the center of gravity of the load
 - c. Center of rotation of the crane to the center of the load
 - d. Center of rotation of the crane to the center of gravity of the load

3. If a bold line is shown on a load chart, the capacities below the line:
 - a. Are based on the structural strength of the crane
 - b. Must not be used
 - c. Are based on the stability of the crane
 - d. Should only be used if the crane is set up on outriggers

4. Rough terrain crane capacities are generally greater over the:
 - a. Front
 - b. Rear
 - c. Right side
 - d. Left side

5. According to federal requirements, under what conditions is it OK for a person to ride the headache ball?
 - a. When there is no other way to gain access
 - b. When the lift has been approved by an engineer
 - c. When other means would be more dangerous
 - d. It is never OK

D	5
A	4
C	3
D	2
C	1
Answer	Question #



Reference List

MOBILE CRANE OPERATOR

The following reference materials are used by NCCCO's Written Examination Committee to verify the accuracy of CCO test questions.

Candidates are strongly advised to become familiar with manufacturers' load charts in preparing for the CCO certification examinations. Prices current at press time.

ANSI/ASME, B30.5 (2014) \$92.00 **MOBILE AND LOCOMOTIVE CRANES**

Order by Internet: <http://catalog.asme.org/>

Order by Mail:

American Society of Mechanical Engineers
22 Law Drive, Box 2900
Fairfield, NJ 07007
ph: 800-843-2763; fax: 201-882-1717

Payments accepted: Check, VISA, MasterCard, American Express, Discover, Diner's Club

MOBILE CRANE MANUAL \$70.00 **RIGGING MANUAL** \$46.00

Order by Internet: <http://www.csa.org/home.cfm>

Order by Mail:

Construction Safety Association of Ontario
21 Voyager Court South
Etobicoke, Ontario M9W5M7 Canada
ph: 800-781-2726; fax: 416-674-8866

Payments accepted: Check, VISA, MasterCard, American Express, Discover, Diner's Club

CRANE SAFETY MANUAL \$3.00

Order by Internet: <http://shop.aem.org/>

Order by Mail:

111 East Wisconsin Ave, Suite 940
Milwaukee, WI 53202-4879
ph: 414-272-0943; fax: 414-272-1170

Payments accepted: VISA, MasterCard, check, money order

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION, U.S. DEPARTMENT OF LABOR CODE OF FEDERAL REGULATIONS, PARTS 1926 SUBPART CC—CRANES AND DERRICKS IN CONSTRUCTION AND 1910.180—CRANES IN GENERAL INDUSTRY

Download from Internet: <http://www.osha.gov/>

IPT'S CRANE AND RIGGING HANDBOOK & MANUAL

Handbook	\$20.00 + S&H (\$9.00)
Manual	\$34.00 + S&H (\$10.00)

Order by Internet: <http://www.iptbooks.com/>

Order by Mail:

IPT Publishing and Training Ltd.
P.O. Box 9590
Edmonton, Alberta, T6E 5X2 Canada
ph: 780-962-4548; fax: 780-962-4819

Payments accepted: VISA, MasterCard, American Express, check, money order



Practical Examination Process

MOBILE CRANE OPERATOR

SKILLS TESTED

CCO Practical Examinations are available on three crane types:

- **Lattice Boom Crane (LBC and LBT):** includes lattice boom crawler cranes and lattice boom truck cranes
- **Telescopic Boom Crane—Swing Cab (TLL):** cranes having an operator’s station that rotates with the crane’s upperworks
- **Telescopic Boom Crane—Fixed Cab (TSS):** cranes having a fixed (non-rotating) operator’s station

NOTE: Candidates seeking the Boom Truck—Fixed Cab (BTF) certification will be required to take the exam on a boom truck. All testing parameters (e.g., time limits) will follow the TSS practical exams.

Candidates may take the Practical Examination on one, two, or all three of the crane types, provided they have passed/will pass the Written Examination for the corresponding designation within the 12-month time frame.

Written Exam	Corresponding Practical Exam
Lattice Boom Truck Crane	Lattice Boom Crane (Truck or Crawler)
Lattice Boom Crawler Crane	Lattice Boom Crane (Truck or Crawler)
Telescopic Boom Crane—Swing Cab	Telescopic Boom Crane—Swing Cab
Telescopic Boom Crane—Fixed Cab	Telescopic Boom Crane—Fixed Cab
Boom Truck—Fixed Cab	Telescopic Boom Crane—Fixed Cab (test must be taken on boom truck)

The Practical Examination is comprised of six main tasks that increase progressively in the skill level tested. Skills tested are: inspecting the equipment hoisting, booming, swinging, following hand signals, and combination (multifunction) operations. Crane operation with load and without load is required.

NCCCO adapts the Test Site Layout (CAD) for each model of crane used for the Practical Examination to ensure the examination remains standardized for all candidates, wherever and whenever they may test.

SCHEDULING A TEST

Candidates for the Practical Examination should contact their Test Site Coordinator to determine the date of the next scheduled Practical Exam. Candidates may also

visit the NCCCO website at www.nccco.org for a listing of upcoming open Test Sites.

TEST DAY

Candidates must report to the Test Site at the scheduled time. All candidates shall comply with Test Site requirements concerning personal protective equipment (PPE), **which at a minimum shall meet OSHA requirements.**

PRACTICAL SCORING

Candidate performance on the Practical Examinations is recorded by Practical Examiners accredited by NCCCO. Examiner requirements include meeting NCCCO requirements for certification, passing the Written and Practical Exams, and successfully completing an accreditation workshop.

The testing procedure has been developed to provide the highest degree of standardization and reliability. The Examiner’s task is primarily to record the performance of the candidate.

A candidate may lose points either through operational errors or exceeding established optimum time limits. Candidates’ performances are scored off site at NCCCO’s facilities.

PRACTICAL SCORE REPORTING

All candidates receive score reports of their performance. Examination results are mailed to candidates approximately 12 business days after the receipt of Practical Examination score sheets by NCCCO.

Please note that while Practical Examiners are encouraged to expedite score sheets after each test administration, they may batch score sheets from several test administrations over a number of days. This means that candidates may receive their score reports from NCCCO more than three weeks after their test administration.

Both the Practical Examination and the scoring system have been validated and verified by NCCCO’s pilot testing program. A score of 75 represents the minimum passing score for Mobile Crane Practical Examinations.

PRACTICAL EXAM CANDIDATE FEES

The examination fee for testing for one crane type is \$60. For each additional crane type applied for and taken at the same time, the fee is \$10. The appropriate fees must be submitted with the practical exam application through the Test Site Coordinator. The same fees apply for retest exams.

Practical Exam Candidate Fees

- 1 Crane Type \$60
- 2 Crane Types \$70
- 3 Crane Types \$80

PRACTICAL EXAM HAND SCORE REQUESTS

Candidates not passing the examination(s) may request from NCCCO hand scoring of their answer sheets, provided the request is made in writing within three months of the test date. Hand scored practical exam reports include details of a candidate's performance on each task.

Requests must be accompanied by a processing fee of \$25 for each test requested. Request(s) should be mailed to:

NCCCO—Testing Services Department
1960 Bayshore Blvd.
Dunedin, Florida 34698
ph: (727) 449-8525; fax: (727) 461-2746

In the event that the hand scoring of a failing candidate's answer sheet results in a passing score, the hand-scoring fee will be refunded in full.



Practical Examination Outline

MOBILE CRANE OPERATOR

The following is an outline of the practical testing procedure, as provided to candidates at the time of testing.

CANDIDATE INFORMATION AND INSTRUCTIONS

The following sections describe the specific tasks you will be performing when taking the Practical Examination. It is important that you understand these instructions. If there is anything you do not understand, please request clarification from the Examiner.

TASKS

The Practical Exam tasks are:

- **Task: Pre-Operational (Shift) Inspection**
- **Task 1: Place Chain in Stop Circle**
- **Task 2: Follow Hand Signals**
- **Task 3: Place Ball in Barrels**
- **Task 4: Negotiate Zigzag Corridor with Test Weight**
- **Task 5: Safe Shutdown and Securing Procedures**

There is also a Pre-Test Briefing, a Crane Walk Around, a Pre-Test Familiarization Period, and a Pre-Task Familiarization Period (prior to the Zigzag task) with a load. You will be required to complete all phases of the test in sequence.

You must report to the Test Site at the scheduled time. *All candidates shall comply with Test Site requirements concerning personal protective equipment (PPE), which at a minimum shall meet federal OSHA requirements.*

The Test Site Coordinator is responsible for setting the testing schedule. If you are familiar with the operation of the test crane, you may elect to test first to allow other candidates time to review the operator's manuals and load charts. Otherwise, selection shall be by random drawing or by assignment of the Test Site Coordinator.

During the Practical Examination, you are under the direction of the Examiner and must follow the Examiner's directions at all times.

Once you have completed all of the tests you are taking, you must leave the testing area. Only personnel involved in the administration of the test are allowed in the test area.

TIME LIMITS

For Task 1, Task 3, and Task 4 an *optimum time* limit has been set. If the task is completed within this time period, you receive no time penalty.

Once you exceed this time limit, however, you will lose points on a gradual basis. If you take one and a half times as long as the optimum time, you will have lost all the points allotted to that particular task. The optimum time for each task is stated as part of the task descriptions. At two times the optimum time the Examiner may end the task and move on to the next task.

PRE-TEST BRIEFING

While candidates are waiting to take their tests, they will have sufficient time to read this description of the tasks to be performed and review the operator's manual and load chart for the crane(s) they will operate. In addition, they will be informed of the make and model of the crane, the boom length, and the weight of the test load. They will also watch a short video showing all the tasks they will be required to perform during the examination.

Note that:

- The crane's LMI system (if the crane is so equipped) has been correctly programmed and will not interfere with the proper operation of the crane.
- The crane has been set up and leveled. A spirit level is available to verify that the crane is level.
- None of the target points have been placed at a radius that exceeds the crane's rated capacity.
- On telescopic boom cranes, the boom length has been pre-set. **Telescoping will not be permitted at any time.**
- All signals used throughout the test are in accordance with the Standard Method hand signals.

CIRCUMVENTING THE COURSE

Circumventing the course on CCO Mobile Crane Operator Practical Exams is defined as when:

1. Chain leaves the corridor while on or off the ground and passes more than one pole left still standing on the original string line before re-entering the corridor
2. Chain leaps from one leg of corridor to another with the chain off the ground, outside the corridor
3. Chain passes four or more poles consecutively with the chain off the ground, inside the corridor

All points for that task are lost if a circumvention occurs. The Examiner has the authority to stop the task at any time if he/she feels that you are attempting to circumvent any task.

UNSAFE ACT

If at any time during the Pre-Test Familiarization Period or during the test, you commit an unsafe act, you will be disqualified from continuing with the test. *Unsafe acts* include but are not limited to the following:

- Dropping the ball or load hook on ground (lattice boom cranes: free fall ONLY)
- Two-blocking of the crane
- Contacting the crane with the Test Weight
- Uncontrolled or reckless operation (must be sufficient to cause safety concern to personnel or crane)
- Failure to respond to a *stop* signal
- Contacting obstruction with crane or Test Weight

The Examiner has the authority to stop the test at any time for reasons of safety. Please ask the Examiner if you have any questions.

If you are disqualified due to an unsafe act, you will not be permitted to test *on any crane* until the next day.

CANDIDATE ID AND SIGNATURE

Prior to beginning the examination, the Examiner will ask you for a photo identification, such as a driver's license.

The Examiner will ask you if you have read the Candidate Information and Instructions and will answer any questions you may have. The Examiner will review the weather conditions and ask the candidates to sign indicating that they understand the instructions for the test and that they agree with the Examiner's assessment of the weather conditions.

WEATHER CONDITIONS AND EQUIPMENT PROBLEMS

The Examiner will use an anemometer to check the wind speed and then will record the weather conditions on the score sheet.

The Examiner has the responsibility to determine if weather conditions or equipment problems are such that a test needs to be suspended. If the test is interrupted due to weather conditions or equipment problems, the procedure for restarting is as follows:

- You will resume the test at the beginning of the task he/she was performing at the time of the interruption, except for Task 4, when he/she will go back to the beginning of either Task 4a or 4b, as appropriate.

- You will be entitled to a Pre-Test or Pre-Task Familiarization period before resuming the test.
- If testing resumes on a different machine, you must start the test over from the beginning. The first score sheet will be marked as "VOID" with an explanation and returned to NCCCO.
- If the testing is delayed to a different day, the test must be restarted from the beginning.

CRANE WALK AROUND

- Before you begin operations, you are allowed a couple of minutes to walk around the crane to ensure proper setup.

PRE-OPERATIONAL INSPECTION

- You will be asked to identify five items on the crane that are part of the pre-operational inspection.
- One at a time, you will be asked to describe how you would conduct the inspection and what deficiencies you would look for.
- You have approximately one minute per item.

PRE-TEST FAMILIARIZATION PERIOD

- You will be allowed 15 minutes to familiarize yourself with the crane and to examine anything on the crane that you feel is necessary to operate it comfortably.
- You will be allowed to get the feel of the controls and run the crane through its functions. The boom length has been preset. The brakes and other devices have been set according to the crane manufacturer's recommendation.
- You may not interfere with the test course, lift the Test Weight, or shadow the Zigzag Corridor or the barrels.
- You must finish the Pre-test Familiarization Period with the load hook under control and the chain on the ground at the Starting Point within the 15-minute period.
- The Examiner will notify you when there are ten, five, and one minute(s) remaining.
- If you are ready in less than 15 minutes, you may indicate this to the Examiner.
- If, at the end of the Pre-Test Familiarization Period, you feel that you are not ready to take the examination, you should notify the Examiner. You will have, in effect, disqualified yourself from taking the examination at this time, and you will be required to sign to that effect on the Candidate Score Sheet.

TASK 1: PLACE CHAIN IN STOP CIRCLE

Optimum Time: 1½ minutes

- At the Examiner's indication to start, at which point timing will begin, raise the ball and chain at least 10 ft. off the ground to clear all obstacles and personnel.
- Bring it from the Starting Point to the Stop Circle.
- Once the ball and chain reaches the Stop Circle, place it there such that the chain suspended from the hook makes contact with the ground inside the circle and remains there.
- The Examiner will give you a *stop* signal once the ball and chain are under control.
- Points will be deducted for the following:
 - a. Dragging chain or contacting ground outside of the circle
 - b. Hook or ball touching ground either inside or outside of the circle
 - c. Hook, ball, or chain contacting any part of the course or crane
 - d. Lifting the chain off the ground after it has made contact with the ground inside the circle
 - e. Exceeding the optimum time

TASK 2: FOLLOW HAND SIGNALS

This task is not timed.

- At the Examiner's direction, you will be guided back to the Starting Point using standard B30.5 hand signals.
- The Examiner will select four signals from the following:
 - a. *Hoist and stop*
 - b. *Swing and stop*
 - c. *Lower the load and stop*
 - d. *Lower the load slowly and stop*
 - e. *Lower the boom, raise the load, and stop*
 - f. *Raise the boom and stop*
 - g. *Lower the boom and stop*
 - h. *Raise the boom, lower the load, and stop*
- The Examiner may give the signals in any sequence.
- The Examiner or Proctor will remove the chain at the completion of this task.

TASK 3: PLACE BALL IN BARRELS

Optimum Times:

Telescopic Boom Crane—Fixed Cab: 3½ minutes

Telescopic Boom Crane—Swing Cab: 3½ minutes

Lattice Boom Crane: 4 minutes

- At the Examiner's indication to start, at which point timing will begin, bring the overhaul ball from the Starting Point and place it into Barrel #1. (If you knock over Barrel #1, at the Examiner's indication proceed to put the ball in Barrel #2.)
- The Examiner will determine when the horizontal line around the center of the ball has dropped below the rim of Barrel #1 and will so indicate to you. At the Examiner's indication, move the ball from Barrel #1 to Barrel #2.
- The Examiner will determine when the horizontal line around the center of the ball has dropped below the rim of the barrel. Hold the ball in Barrel #2 until instructed by the Examiner to remove it.
- Timing stops when the ball is completely clear of Barrel #2 and the Examiner has given you a *stop* signal.
- Points will be deducted for the following:
 - a. Moving barrel (2 in. or more)
 - b. Knocking over barrel
 - c. Hook or ball touching ground
 - d. Exceeding the optimum time

PRE-TASK FAMILIARIZATION PERIOD (WITH TEST WEIGHT)

This part of the test is not scored.

- At the Examiner's indication, bring the overhaul ball over the Test Weight located in the Test Weight Circle.
- The load will be attached to the crane's hook by the Examiner or Proctor.
- You are allowed to bring the Test Weight to the designated area, where you can get the feel of the load, test the brake, etc., before beginning the Zigzag Corridor task.
- You may not swing the load outside of the designated area or shadow the Zigzag Course.
- You will be allowed a maximum of five minutes for this Pre-Task Familiarization, by the end of which period you must have placed the Test Weight on the ground in the Test Weight Circle with the rigging taut.
- The Examiner will notify you when there is one minute remaining.

TASK 4: NEGOTIATE ZIGZAG CORRIDOR WITH TEST WEIGHT

Optimum Times:

Telescopic Boom Crane—Fixed Cab: 4 minutes each direction

Telescopic Boom Crane—Swing Cab: 3 minutes each direction

Lattice Boom Crane: 3 minutes each direction

- At the Examiner's direction to start, at which point timing will begin, lift the Test Weight into the air and swing, boom up or down, and hoist up or down as you judge necessary to guide the load through the Zigzag Corridor without touching the ground with the Test Weight, raising the Test Weight so high that the chain leaves the ground, or knocking over any part of the PVC pole barrier.
- Points will be deducted for the following:
 - a. Knocking ball off pole
 - b. Moving pole base off line
 - c. Knocking pole over
 - d. Chain leaving ground
 - e. Passing poles with chain off ground
 - f. Load touching ground
 - g. Circumventing the course
 - h. Exceeding the optimum time
- Timing stops when you have placed the Test Weight on the ground in the Stop Circle and the Examiner has given you a *stop* signal. The task is not complete until the load is placed completely within the outside perimeter of the circle and the Examiner has given you a *stop* signal. If the Examiner does not give you a *stop* signal, this indicates the weight is not within the circle and the task continues to be timed.
- Once you have placed the Test Weight in the Stop Circle and the Examiner has given you a *stop* signal, you may reposition the boom tip over the Test Weight if necessary. You may not lift or reposition the Test Weight.
- At this time the Examiner will reconstruct the corridor, as necessary.
- At the direction of the Examiner, at which point timing will begin, lift the Test Weight from the Stop Circle and travel through the corridor in reverse fashion.
- Timing stops when you have placed the Test Weight on the ground in the Test Weight Circle and the Examiner has given you a *stop* signal. The task is not complete until the load is placed completely within the outside perimeter of the circle and the Examiner

has given you a *stop* signal. If the Examiner does not give you a *stop* signal, this indicates the weight is not within the circle and the task continues to be timed.

- The Proctor will then detach the Test Weight from the load hook.
- At the Examiner's direction, swing the hook to the Starting Point and allow the Examiner to re-attach the chain.

TASK 5: SAFE SHUTDOWN AND SECURING PROCEDURES

- Before leaving the operator station, you will be required to apply safe shutdown procedures to the crane in preparation for the next candidate.
- Once the crane is shut down, you will leave the operator station and describe to the Examiner the procedures you would follow to secure the crane at the end of the work day.

POST-TEST PROCEDURES

Once you have completed the Practical Examination:

- The Examiner will record your performance.
- The Examiner is not permitted to review your score sheet or discuss your performance on the test.
- Exam results will be mailed to you within approximately twelve working days of the receipt of the score sheet by NCCCO.
- If you have made formal applications to test on any other cranes, return to the candidate briefing area.
- If you have completed all of your tests, you must leave the Test Site.

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Candidate Application Forms

MOBILE CRANE OPERATOR

Please photocopy and complete all sides of the following forms when applying for CCO Written and Practical Examinations.

- **Candidate Application—Written Examinations**
- **Candidate Application—Practical Examinations**
- **Recertification Application—Written Examinations**
- **Change of Address Form**

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Candidate Application

WRITTEN EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR (PAPER/PENCIL TESTS ONLY)

Please type or print neatly.

FULL LEGAL NAME <small>(as shown on driver's license)</small>		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER (if previously certified)		DATE OF BIRTH		CANDIDATE ID: <small>(if previously tested)</small>	
MAILING ADDRESS			CITY	STATE	ZIP
PHONE	CELL	FAX		E-MAIL	
COMPANY/ORGANIZATION				PHONE	
COMPANY MAILING ADDRESS			CITY	STATE	ZIP
<input type="checkbox"/> I AM REQUESTING TESTING ACCOMMODATIONS IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT (ADA). <i>(For details on NCCCO's Testing Accommodations policy, please see www.nccco.org/accommodations.)</i>					

WRITTEN EXAMINATION(S) FOR WHICH YOU ARE APPLYING

FILL IN the circle next to the crane type(s) for which you are applying; for Mobile Cranes, **CHECK** the load chart you want to use for that crane type. Also **FILL IN** the appropriate circle(s) below for correct fees. **NOTE:** If you are registering for Mobile Crane exams, you must register for the Mobile Core Exam and at least one Specialty Exam (unless you are a Retest Candidate).

If you are recertifying, please use separate Recertification Written Examination Application Form.

WRITTEN EXAMS

LOAD CHARTS		
<input type="radio"/> Mobile Core Exam	652603	(Check one for each Specialty Exam)
<input type="radio"/> Lattice Boom Crawler (LBC)	652620	<input type="checkbox"/> Terex/American
	652607	<input type="checkbox"/> Manitowoc
<input type="radio"/> Lattice Boom Truck (LBT)	652609	<input type="checkbox"/> Link-Belt
	652610	<input type="checkbox"/> Manitowoc
<input type="radio"/> Telescopic Boom—Swing Cab (TLL)	652612	<input type="checkbox"/> Grove (Truck Mount)
	652613	<input type="checkbox"/> Link-Belt (Rough Terrain)
<input type="radio"/> Telescopic Boom—Fixed Cab (TSS)	652616	<input type="checkbox"/> Manitex (Boom Truck)
	652660	<input type="checkbox"/> Shuttlelift (Carry Deck)
<input type="radio"/> Boom Truck—Fixed Cab (BTF)	652671	<input type="checkbox"/> Manitex (Boom Truck)
<input type="radio"/> Tower Crane	654601	
<input type="radio"/> Overhead Crane	653601	

OTHER FEES

- Candidate Late Fee (if applicable)..... \$50
- Incomplete Application Fee (if applicable)..... \$30
- Updated/Replacement Card \$25

ADD TO TOTAL AMOUNT AT RIGHT →

WRITTEN EXAM/RETEST FEES

MOBILE CRANE EXAMS

- Core Exam plus one Specialty Exam \$165
- Core Exam plus two Specialty Exams..... \$175
- Core Exam plus three Specialty Exams..... \$185
- Core Exam plus four Specialty Exams..... \$195

RETEST or ADDED SPECIALTY FEES

- Core Exam only or Core plus one Specialty (Retest)..... \$165
- One Specialty Exam (Retest or Added Specialty)..... \$65
- Two Specialty Exams (Retest or Added Specialty) \$75
- Three Specialty Exams (Retest or Added Specialty) \$85
- Four Specialty Exams (Retest)..... \$95

TOWER CRANE EXAMS

- Tower Crane Written Exam (new Candidate)..... \$165
- Tower Crane Written Exam (current CCO-certified Mobile Crane Operator, or new candidate taking exam same time as Mobile Crane exams) \$50

OVERHEAD CRANE EXAMS

- Overhead Crane Written Exam (new Candidate) \$165
- Overhead Crane Written Exam (current CCO-certified Mobile Crane Operator, or new candidate taking exam same time as Mobile Crane exams)..... \$50

TOTAL AMOUNT DUE \$

CANDIDATE APPLICATION (CONT'D)

WRITTEN EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

TEST SITE AT WHICH YOU INTEND TO TAKE THE WRITTEN EXAMINATION




TEST SITE NAME	TEST SITE COORDINATOR	
TEST SITE ADDRESS		
CITY	STATE	ZIP
TEST ADMINISTRATION NUMBER	DATE YOU INTEND TO TAKE THE CCO EXAMINATION	

I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties, consistent with NCCCO's Information Release policy. I have received a copy of the NCCCO Candidate Handbook, have read it, and agree to be bound by it. I also agree to be bound by all NCCCO policies and procedures, as they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with the ASME B30 standard for my certification designation and I will continue to comply with those requirements. I understand that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE	DATE
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METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	Personal check enclosed	<input type="checkbox"/>	Employer check enclosed	<input type="checkbox"/>	Money Order enclosed	<i>Please do not staple your check or money order.</i>
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If paying by credit card, complete the following information:

CREDIT CARD NUMBER	EXPIRATION DATE
NAME (Print as it appears on card)	SIGNATURE (on card)
SECURITY CODE*	

* Three- or four-digit code located on the card.

Checks and money orders should be payable to: NCCCO

Please send application and payments to:

NCCCO—Testing Services Department
 1960 Bayshore Blvd.
 Dunedin, Florida 34698

 Phone: 727-449-8525
 Fax: 727-461-2746
 Email: kqualls@nccco.org



Candidate Application

PRACTICAL EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

Please type or print neatly.

FULL LEGAL NAME <small>(as shown on driver's license)</small>		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER (if previously certified)		DATE OF BIRTH		CANDIDATE ID: <small>(if previously tested)</small>	
MAILING ADDRESS					
CITY				STATE	ZIP
PHONE	CELL	FAX		E-MAIL	
COMPANY/ORGANIZATION				PHONE	
COMPANY MAILING ADDRESS					
CITY				STATE	ZIP

INDICATE WITH A CHECK THE CRANE TYPE(S) YOU WISH TO BE TESTED ON:

- | | |
|---|---|
| <input type="checkbox"/> Lattice Boom Crane | <input type="checkbox"/> Tower Crane |
| <input type="checkbox"/> Telescopic Boom Crane—Swing Cab (TLL): Testing on a boom truck? <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Overhead Crane |
| <input type="checkbox"/> Telescopic Boom Crane—Fixed Cab (TSS): Testing on a boom truck? <input type="checkbox"/> Yes <input type="checkbox"/> No | |

TEST SITE AT WHICH YOU INTEND TO TAKE THE PRACTICAL EXAMINATION:

TEST SITE COORDINATOR NAME		PE SITE #:
PHONE	FAX	E-MAIL
TEST SITE PHYSICAL ADDRESS		
CITY		STATE ZIP

I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties, consistent with NCCCO's Information Release policy. I have received a copy of the NCCCO Candidate Handbook, have read it, and agree to be bound by it. I also agree to be bound by all NCCCO policies and procedures, as they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with the ASME B30 standard for my certification designation and I will continue to comply with those requirements. I further attest that I am physically and mentally capable of safely operating equipment on the day of the Practical Examination. I understand and agree that any personal injury and/or property damage resulting from or caused in any way by my participation in the CCO Practical Examination is not and shall not be the responsibility of NCCCO. I understand that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE	DATE
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CANDIDATE APPLICATION (CONT'D)

PRACTICAL EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

CCO CERTIFICATION CARD

Candidates who meet all the requirements for certification in any one designation are issued a certification card at no charge. Replacement and updated cards are available for an additional fee; see panel below.

Please email a digital color photo (without hat or sunglasses) to photos@nccco.org and label it with your full name and birth date. Enclose with your application form any required payment based upon the information listed below.

A 1½"× 1¾" passport color photo may be substituted for a digital photo; if submitting a passport photo, please give it to your Test Site Coordinator.

PRACTICAL EXAMINATION FEES

Checks and money orders must be made payable to NCCCO. Credit cards (Visa, Master Card, or American Express) may be used by completing the credit card information below.




Check the box(es) next to the Practical Exam type(s) for which you are registering.

Practical Examination Fees:

- One Mobile Crane type: \$60 Two Mobile Crane types: \$70 Three Mobile Crane types: \$80
- Tower Crane only: \$60
- Tower Crane (current CCO-certified Mobile Crane Operator, or new candidate registering for Mobile Crane Operator exams at the same time): \$50
- Overhead Crane only: \$60
- Overhead Crane (current CCO-certified Mobile Crane Operator, or new candidate registering for Mobile Crane Operator exams at the same time): \$50
- Updated/replacement card: \$25

METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

- 
 - 
 - 
 - Personal check enclosed
 - Employer check enclosed
 - Money order enclosed
- Please do not staple your check or money order.*

If paying by credit card, complete the following information:

CREDIT CARD NUMBER	<input type="text"/>	EXPIRATION DATE	<input type="text"/>
NAME (Print as it appears on card)	<input type="text"/>	SIGNATURE (on card)	<input type="text"/>
		SECURITY CODE*	<input type="text"/>

* Three- or four-digit code located on the card.

Checks and money orders should be payable to: NCCCO

Do not send this application to NCCCO. Give this application, along with payment and all necessary documentation, to your Test Site Coordinator on test day.



Recertification Application

WRITTEN EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR (PAPER/PENCIL TESTS ONLY)

Please type or print neatly.

FULL LEGAL NAME (as shown on driver's license)		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER		DATE OF BIRTH		CANDIDATE ID: 	
MAILING ADDRESS			CITY	STATE	ZIP
PHONE	CELL	FAX	E-MAIL		
COMPANY/ORGANIZATION			PHONE		
COMPANY MAILING ADDRESS			CITY	STATE	ZIP
<input type="checkbox"/> I AM REQUESTING TESTING ACCOMMODATIONS IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT (ADA). (For details on NCCCO's Testing Accommodations policy, please see www.nccco.org/accommodations .)					

WRITTEN EXAMINATIONS FOR WHICH YOU ARE APPLYING

This application is for recertification only. You may **ONLY** recertify for the designation(s) in which you are currently certified. **FILL IN** the circle next to the crane type(s) for which you are applying for recertification. If you would like to take Additional Examinations for cranes that you are not currently certified on, then **FILL IN** the examinations of your choice and **CHECK** the load chart you want to use for that crane type.

EXAMINATIONS

RECERTIFICATION EXAMS	LOAD CHARTS
<input type="radio"/> Core Exam 652605	(Check one for each Specialty Exam)
<input type="radio"/> Lattice Boom Crawler (LBC) 652625 652608	<input type="checkbox"/> Terex/American <input type="checkbox"/> Manitowoc
<input type="radio"/> Lattice Boom Truck (LBT) 652611 652635	<input type="checkbox"/> Link-Belt <input type="checkbox"/> Manitowoc
<input type="radio"/> Telescopic Boom—Swing Cab (TLL) 652614 652645	<input type="checkbox"/> Grove (Truck Mount) <input type="checkbox"/> Link-Belt (Rough Terrain)
<input type="radio"/> Telescopic Boom—Fixed Cab (TSS) 652656 652665	<input type="checkbox"/> Manitex (Boom Truck) <input type="checkbox"/> Shuttlelift (Carry Deck)
<input type="radio"/> Tower Crane 654602	
<input type="radio"/> Overhead Crane 653602	

ADDITIONAL EXAMINATIONS	LOAD CHARTS
	(Check one for each Specialty Exam)
<input type="radio"/> Lattice Boom Crawler (LBC) 652620 652607	<input type="checkbox"/> Terex/American <input type="checkbox"/> Manitowoc
<input type="radio"/> Lattice Boom Truck (LBT) 652609 652610	<input type="checkbox"/> Link-Belt <input type="checkbox"/> Manitowoc
<input type="radio"/> Telescopic Boom—Swing Cab (TLL) 652612 652613	<input type="checkbox"/> Grove (Truck Mount) <input type="checkbox"/> Link-Belt (Rough Terrain)
<input type="radio"/> Telescopic Boom—Fixed Cab (TSS) 652616 652660	<input type="checkbox"/> Manitex (Boom Truck) <input type="checkbox"/> Shuttlelift (Carry Deck)
<input type="radio"/> Boom Truck—Fixed Cab (BTF) 652671	<input type="checkbox"/> Manitex (Boom Truck)
<input type="radio"/> Tower Crane 654601	
<input type="radio"/> Overhead Crane 653601	

RECERTIFICATION EXAM FEES/RETEST FEES

- Mobile Core Exam plus one Specialty Exam \$150
- Mobile Core Exam plus two Specialty Exams \$155
- Mobile Core Exam plus three Specialty Exams \$160
- Mobile Core Exam plus four Specialty Exams \$165
- Tower Crane (only)..... \$150
- Tower Crane (with Mobile Crane)..... \$50
- Overhead Crane (only) \$150
- Overhead Crane (with Mobile Crane)..... \$50

- Mobile Core Exam or Core plus one Specialty Exam (Retest) \$150
- One Mobile Specialty Exam (Retest) \$50
- Two Mobile Specialty Exams (Retest)..... \$55
- Three Mobile Specialty Exams (Retest)..... \$60
- Four Mobile Specialty Exams (Retest)..... \$65

ADDITIONAL EXAM FEES*

(*ONLY for candidates adding to existing Mobile certifications; for candidates adding Mobile to Tower or Overhead certifications, use standard Written Exam Candidate Application form.)

- One Mobile Specialty Exam \$65
- Two Mobile Specialty Exams \$75
- Three Mobile Specialty Exams \$85
- Tower Crane Exam \$50
- Overhead Crane Exam \$50

OTHER FEES

- Candidate Late Fee (if applicable)..... \$50
- Incomplete Application Fee (if applicable)..... \$30

TOTAL AMOUNT DUE \$

CANDIDATE RECERTIFICATION APPLICATION (CONT'D)

WRITTEN EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

TEST SITE AT WHICH YOU INTEND TO TAKE THE WRITTEN EXAMINATION

TEST SITE NAME	TEST SITE COORDINATOR	
TEST SITE ADDRESS		
CITY	STATE	ZIP
TEST ADMINISTRATION NUMBER	DATE YOU INTEND TO TAKE THE CCO EXAMINATION	

I do NOT have 1,000 hours of documented crane-related experience and must take an CCO Practical Exam for each designation for which I wish to be recertified.

I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties, consistent with NCCCO's Information Release policy. I have received a copy of the NCCCO Candidate Handbook, have read it, and agree to be bound by it. I also agree to be bound by all NCCCO policies and procedures, as they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with the ASME B30 standard for my certification designation and I will continue to comply with those requirements. I further affirm either that I have maintained at least 1,000 hours of crane-related experience in the past five years or, if I have not maintained this experience, I have checked the box above this panel indicating that before my certification expires I will take and pass a practical exam for each designation for which I wish to be recertified. I understand that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE	DATE
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METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/> Personal check enclosed	<input type="checkbox"/> Employer check enclosed	<input type="checkbox"/> Money order enclosed	<i>Please do not staple your check or money order.</i>
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If paying by credit card, complete the following information:

CREDIT CARD NUMBER	EXPIRATION DATE
NAME (Print as it appears on card)	SIGNATURE (on card)
SECURITY CODE*	

* Three- or four-digit code located on the card.

Checks and money orders should be payable to: NCCCO

Please send application and payment to:

NCCCO—Testing Services Department
1960 Bayshore Blvd.
Dunedin, Florida 34698

Phone: 727-449-8525
Fax: 727-461-2746
Email: kqualls@nccco.org

CANDIDATE APPLICATION CHECKLIST

- I have completed and signed this *Recertification Exam Application*.
- I have provided credit card information or a check or money order for the correct amount due.
- I have emailed a color digital photo (full face, no sunglasses, no hat) to **photos@nccco.org** and labeled it with my full name and birth date.
- I do not have a digital photo, so I am attaching a 1 3/8" X 1 3/4" passport photo with this application.

For additional information regarding **recertification**, contact:

National Commission for the Certification of Crane Operators (NCCCO)
2750 Prosperity Avenue, Suite 505
Fairfax, VA 22031

Phone: 703-560-2391
Fax: 703-560-2392

info@nccco.org
www.nccco.org



Service Truck Crane Operator MOBILE CRANE OPERATOR

- **Program Description**
- **Written Exam Outline**
- **Practical Exam Outline**
- **Candidate Application—Written Examination**
- **Candidate Application—Practical Examination**

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Service Truck Crane Operator

MOBILE CRANE OPERATOR

PROGRAM DESCRIPTION

The CCO Service Truck Crane Operator certification (STC) is a subcategory of the CCO Telescopic Boom—Fixed Cab (TSS) certification [similar to the CCO Boom Truck—Fixed Cab (BTF) certification] and was developed specifically for the industries that use these smaller machines.

Service truck cranes are identified by their telescopic boom, where the base and mast structure is not integral to the stabilizer/outrigger system. Lifting is typically accomplished via a winch (electric or hydraulic) and its functions (rotation, elevation, telescoping) are either powered or manual. These machines tend to have relatively shorter boom lengths (10–35 ft.) and lower capacities (1–7 Tons) as compared to other Telescopic Boom—Fixed Cab machines (e.g., Boom Trucks, Carry Deck cranes). Additionally, operations are usually conducted by the use of radio remote or pendant control with the operator standing on the ground following the load.

Please note that the CCO Telescopic Boom—Fixed Cab Operator (TSS) and Boom Truck—Fixed Cab (BTF) certifications cover service truck cranes. Operators of service truck cranes who currently possess a TSS or BTF certification are not required to also possess the Service Truck Crane Operator certification. The reverse is not true, however. STC certification is intended only for operators of service truck cranes and not for those who operate larger Telescopic Boom—Fixed Cab or Boom Truck—Fixed Cab cranes. To be certified to operate all TSS cranes, candidates must achieve the full TSS certification (Core + TSS specialty written + TSS practical). To be certified to operate all BTF cranes, candidates must achieve the full BTF certification (Core + BTF specialty written + TSS practical taken on a boom truck).

ELIGIBILITY

To be eligible for the Service Truck Crane Operator certification, candidates must:

- Be at least 18 years of age
- Meet medical requirements
- Comply with NCCCO's Substance Abuse Policy
- Pass the STC Written Exam
- Pass the STC Practical Exam
- Comply with NCCCO's Code of Ethics

EXPERIENCE

CCO certification exams are designed for operators who are trained and who currently work in crane operation.

PHYSICAL EVALUATION

Certified service truck crane operators must continue to meet the same medical requirements as CCO-certified mobile crane operators. See page 3 for further details.

CCO WRITTEN EXAM

The Service Truck Crane Operator Written Examination consists of a single comprehensive exam with 70 questions. Candidates are allowed 90 minutes to complete the exam. Please note that candidates for the Service Truck Crane Operator program are not required to take the Mobile Crane Operator Core Exam.

Candidate results are reported as a scaled score, with a score of **70** representing the minimum passing score for this test. Written exam score reports include a strength and weakness report by content domain.

CCO PRACTICAL EXAM

The Service Truck Crane Operator Practical Exam demonstrates crane operation proficiency. It consists of five main tasks that increase progressively in the skill level tested. Skills tested are: inspecting the equipment, hoisting, booming, swinging, following hand signals, and combination (multifunction) operations. Crane operation with load and without load is required.

Both the Practical Examination and the scoring system have been validated and verified by NCCCO's pilot testing program. A score of **70** represents the minimum passing score for Mobile Crane Practical Examinations.

CCO CERTIFICATION TIME FRAMES

Candidates must pass both the STC Written and Practical Exams within twelve months of each other. Candidates may take their Written and Practical Exams in either order.

RECERTIFICATION REQUIREMENTS

CCO certifications are valid for five years. Recertification requirements are detailed page 4. Candidates who can attest to at least 500 hours of crane-related experience during their period of certification do not need to take the Practical Exam to recertify. *Crane-related experience* is defined as: operating, maintaining, inspecting, or training on cranes.

Recertification candidates who need to take the Practical Exam for any reason, however, must do so before their certification expires. There is no grace period after their certification expires. Candidates whose certification has lapsed must take both the regular Written and Practical Examinations again to be certified again.

CODE OF ETHICS FOR CERTIFIED OPERATORS

CCO-certified service truck crane operators are required to follow the same code of ethics as all other CCO-certified operators. NCCCO's Code of Ethics can be found on page 4.

DISCIPLINARY POLICY

CCO-certified service truck crane operators are subject to the same disciplinary policy as all other CCO-certified operators. NCCCO's Disciplinary Policy can be found on page 5.

SUBSTANCE ABUSE POLICY

CCO-certified service truck crane operators are required to follow the same substance abuse policy as all other CCO-certified operators. NCCCO's Substance Abuse Policy can be found on page 5.

WRITTEN EXAM PROCESS

Candidates for the service truck crane exams may take written exams either at NCCCO paper/pencil test sites or at approximately 300 PSI computer-based testing centers around the country. For more information about paper/pencil testing, see page 7; for more information about computer-based testing, see page 9.

Exam Fees:

- STC Written Exam (paper/pencil test): \$165
- STC Written Exam (computer-based test): \$205
- STC Practical Exam: \$60

SAMPLE QUESTIONS

For sample questions, please refer to page 16. For a sample service truck crane load chart question, see page 40.

REFERENCES

For a list of references, please refer to page 17.



Written Examination Outline

MOBILE CRANE OPERATOR—SERVICE TRUCK CRANES

The Service Truck Crane Operator Written Exam tests the following knowledge areas relating to the operation of service truck cranes:

Domain 1: Site

- Approximately 17% of test

Domain 2: Operations

- Approximately 44% of test

Domain 3: Technical Knowledge

- Approximately 21% of test

Domain 4: Manufacturers' Load Charts

- Approximately 17% of test

DOMAIN 1: SITE

1. Know the responsibilities of worksite personnel and their responsibilities concerning site conditions.
 - a. Controlling entity
 - b. Crane operator
2. Understand elements that affect ground stability:
 - a. Below surface (e.g., voids, tanks, loose fill)
 - b. On surface (e.g., retaining walls, slopes, excavations, depressions)
3. Know the proper use of supporting materials (e.g., mats, blocking, or cribbing).
4. Know electric power line hazards for:
 - a. Site access
 - b. Setup
5. Know how to identify and evaluate hazards concerning:
 - a. Access to job site
 - b. Pinch/crush points
 - c. Personnel during assembly/disassembly (outrigger/stabilizer setup)
6. Know how to review lift requirements with site supervision (if present).

DOMAIN 2: OPERATIONS

1. Know current federal regulations and industry standards, including but not limited to:
 - a. ASME B30.5
 - b. OSHA 1910.180
 - c. OSHA 1926 Subpart CC
 - d. SAE 765A
2. Know how to lift, swing, and place the load smoothly.

3. Know wire rope:
 - a. Reeving
 - b. Parts of line
4. Know types of signals:
 - a. Hand signals
 - b. Voice/audio signals
 - c. Audible signals
 - d. New or non-standard signals
5. Know how to shut down and secure the crane when leaving it unattended.
6. Know the limitations of operating in various weather conditions (e.g., wind, temperature).
7. Know how to obtain dimensions, weight, and center of gravity of the load. Know how to verify the radius.
8. Know basic procedures for rigging devices and their use, such as: slings, softeners, lifting beams, and shackles.
9. Know proper use of hook blocks and downhaul weights.
10. Know proper procedures and requirements for crane inspections:
 - a. Shift
 - b. Monthly
 - c. Annual
 - d. Repaired/modified
 - e. Notifying supervision of inspection deficiencies
11. Know and understand the use and function of operator aids, including:
 - a. Load moment indicator (LMI)
 - b. Anti-two block device/two-block damage prevention systems
 - c. Boom angle indicator
 - d. Boom length indicator
12. Know alternative operating procedures when operator aids malfunction.
13. Know and understand the use and function of safety devices, including:
 - a. Horns
 - b. Level indicator
 - c. Holding/check valve devices
 - d. Emergency stop
14. Know the proper procedures for operating safely near energized power lines.

15. Know the effects of lifting loads from beneath the surface of the water.
16. Know the requirements and procedures for when load is not in full view of the operator.
17. Know the requirements of tag lines.
18. Know how to react to:
 - a. Electric power line contact
 - b. Loss of stability
 - c. Control malfunction
 - d. Block and line twisting
 - e. Personnel under the load or in the fall zone
19. Know how to properly use outriggers/stabilizers, including the use of operational assist devices, such as outrigger/stabilizer position sensor monitors.
20. Know the effects of dynamic loading from:
 - a. Wind, extreme weather and wave action
 - b. Impact loading
 - c. Moving loads
 - d. Boom deflection
 - e. Side loading
21. Know how to use manufacturer-approved attachments and their effect on the crane's operation
22. Know the emergency response procedures for a vehicle fire
23. Know the effects of load share and load transfer in multi-crane lifts
24. Know the operator's authority to stop operations
25. Know how to react to changes in conditions that affect the safe operation of the crane

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know basic crane terminology and definitions.
2. Know functions and limitations of cranes and attachments.
3. Know general maintenance and lubrication requirements.
4. Know wire rope:
 - a. Construction and classification
 - b. Replacement criteria and inspection procedures
 - c. Capacity and multi-part rope requirements
 - d. Maintenance and lubrication
 - e. Implementing proper corrective measures
5. Know relationship between line pull and safe working load.

6. Know the limitations of protective measures against electrical hazards.
7. Know the significance of instruments, gauges, and machine power readings.
8. Know the requirements of standard and optional controls.
9. Know the emergency response procedure for:
 - a. Overloading
 - b. Two-blocking
10. Know power systems (e.g., hydraulic, electrical).

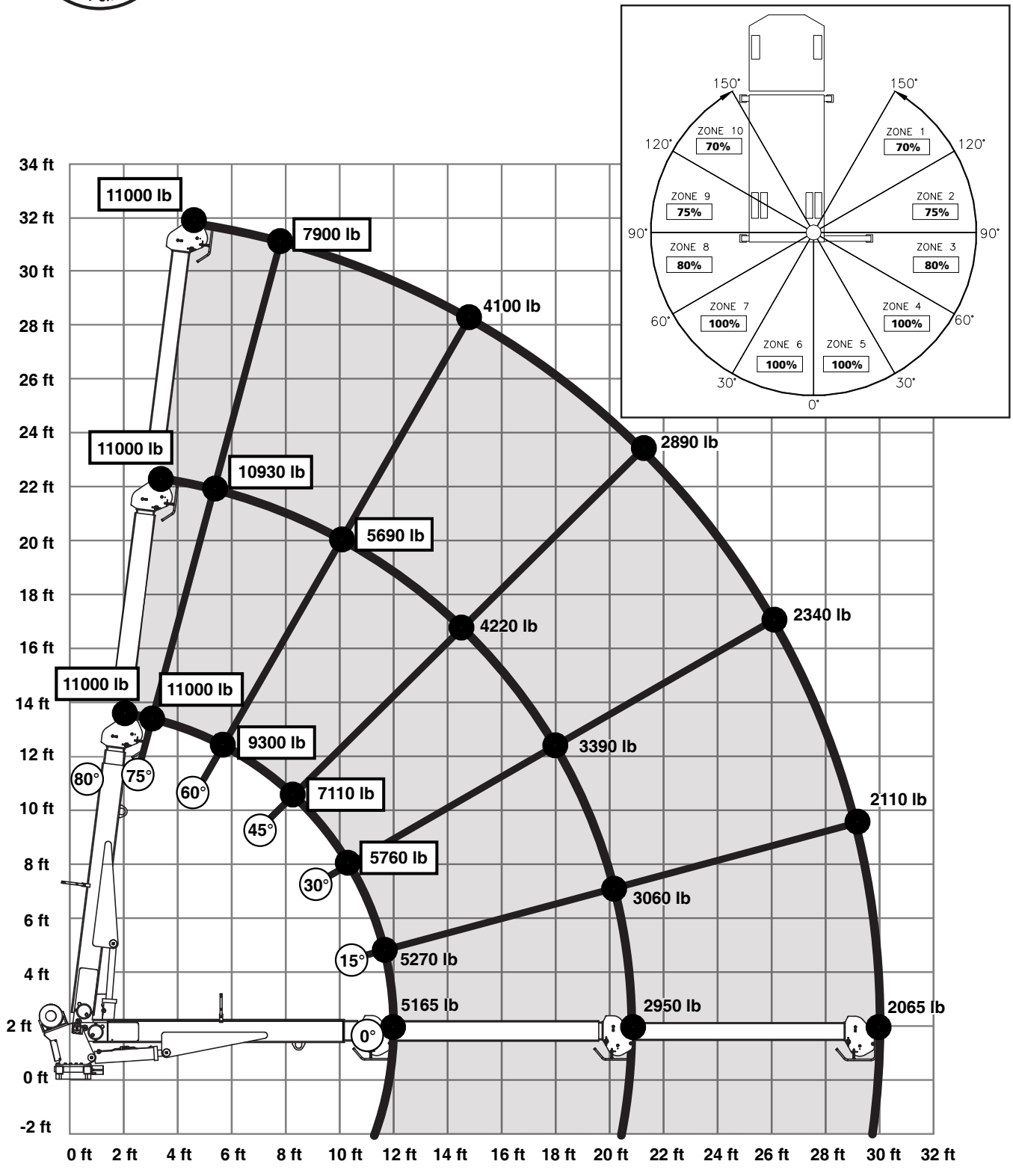
DOMAIN 4: MANUFACTURERS' LOAD CHARTS

1. Know terminology necessary to use load charts.
2. Know basic math.
3. Understand different elements of load charts:
 - a. Apply load chart notes
 - b. Rated capacity charts
 - c. Stability charts
4. Understand and apply manufacturer's load charts given various configurations:
 - a. Determining maximum radius for load placement
 - b. Determining gross capacity
 - c. Determining net capacity
 - d. Determining load moment
 - e. Determining intermediate values on capacity charts (boom length, radius, boom angle)
5. Know how to calculate net capacity, including factors such as:
 - a. Rigging weight
 - b. Limiting factors (e.g. line pull restriction, winch capacity)
 - c. Intermediate values on capacity charts (boom length, radius, boom angle)
6. Read and locate relevant information in the equipment manual and other materials containing information necessary for safe operation.



Sample Service Truck Crane Load Chart

MOBILE CRANE OPERATOR—SERVICE TRUCK CRANES



Max single part line: 5500 lb.

**** lb Two Part Line Required



Sample Load Chart Question

MOBILE CRANE OPERATOR—SERVICE TRUCK CRANES

Boom Length:	Fully Extended	Parts of Line:	1 part
Boom Angle:	30 degrees	Rigging:	N/A
Radius:	N/A	Load Block:	N/A
Lift Zone:	Zone 4		

1. In the configuration above, what is your gross capacity?

- (A) 2,340 lb.
- (B) 2,110 lb.
- (C) 2,065 lb.
- (D) 3,390 lb.

A	1
Answer	Question #



Practical Examination Outline

MOBILE CRANE OPERATOR—SERVICE TRUCK CRANES

The following is an outline of the practical testing procedure, as provided to candidates at the time of testing.

CANDIDATE INFORMATION AND INSTRUCTIONS

The following sections describe the specific tasks you will be performing when taking the Practical Examination. It is important that you understand these instructions. If there is anything you do not understand, please request clarification from the Examiner.

TASKS

The tasks that make up the Practical Examination are:

- Task 1: Pre-Operational Inspection
- Task 2: Chain in Circle
- Task 3: Test Weight in Pole Circle
- Task 4A: Zigzag Corridor (Forward)
- Task 4B: Zigzag Corridor (Reverse)
- Task 5: Safe Shutdown Procedures

There is also a Pre-Test Briefing, a Crane Walk Around, a Pre-Test Familiarization Period, and a Pre-Task Familiarization Period (prior to the Pole Circle task) with a load. You will be required to complete all phases of the test in sequence.

You must report to the Test Site at the scheduled time.

All candidates must comply with Test Site requirements concerning personal protective equipment (PPE), which at a minimum shall meet federal OSHA requirements.

The Test Site Coordinator is responsible for setting the test schedule. If you are familiar with the operation of the test crane, you may elect to test first to allow other candidates time to review the operator's manual and load charts. Otherwise, selection shall be by random drawing or by assignment of the Test Site Coordinator.

If you bring your own crane to test on, ensure that its annual inspections are up-to-date and the crane is in fully working order.

During the Practical Examination, you are under the direction of the Examiner and must follow the Examiner's directions at all times.

Once you have completed all of the tests you are taking, you must leave the testing area. Only personnel involved in the administration of the test are allowed in the test area.

TIME LIMITS

For Tasks 2 through 4b, an optimum time limit has been set. If the task is completed within this time period, you receive no time penalty.

PRE-TEST BRIEFING

While candidates are waiting to take their tests, they will have sufficient time to read this description of the tasks to be performed and review the operator's manual and load chart for the crane(s) they will operate. In addition, they will be informed of the make and model of the crane, the boom length, and the weight of the test load. They will also watch a short video showing all the tasks they will be required to perform during the examination.

Note that:

- The crane's LMI system (if the crane is so equipped) has been correctly programmed and will not interfere with the proper operation of the crane.
- The crane has been set up and leveled. A spirit level is available to verify that the crane is level.
- None of the target points have been placed at a radius that exceeds the crane's rated capacity.

CIRCUMVENTING THE COURSE

Circumventing the course on CCO Service Truck Crane Operator Practical Exams is defined as when:

- Chain leaves the corridor while on or off the ground and passes more than one pole left still standing on the original string line before re-entering the corridor
- Chain leapfrogs from one leg of corridor to another with the chain off the ground, outside the corridor
- Chain passes four or more poles consecutively with the chain off the ground, inside the corridor

All points for that task are lost if a circumvention occurs. The Examiner has the authority to stop the task at any time if he/she feels that you are attempting to circumvent any task.

UNSAFE ACT

If at any time during the test you commit an unsafe act, you will be disqualified from continuing with the test.

Unsafe acts include but are not limited to the following:

- Dropping the ball or load hook on ground
- Two-blocking of the crane
- Contacting the crane with the Test Weight
- Uncontrolled or reckless operation (must be sufficient to cause safety concern to personnel or crane)
- Failure to respond to a *stop* signal
- Contacting obstruction with crane or Test Weight

The Examiner has the authority to stop the test at any time for reasons of safety. Please ask the Examiner if you have any questions.

If you are disqualified due to an unsafe act, you will not be permitted to test *on any crane* until the next day.

CANDIDATE ID AND SIGNATURE

Prior to beginning the examination, the Examiner will ask you for photo identification, such as a driver's license.

The Examiner will ask you if you have read the Candidate Information and Instructions and will answer any questions you may have. The Examiner will review the weather conditions and ask the candidates to sign indicating that they understand the instructions for the test and that they agree with the Examiner's assessment of the weather conditions.

WEATHER CONDITIONS AND EQUIPMENT PROBLEMS

The Examiner will use an anemometer to check the wind speed and then will record the weather conditions on the score sheet.

The Examiner has the responsibility to determine if weather conditions or equipment problems are such that a test needs to be suspended. If the test is interrupted due to weather conditions or equipment problems, the procedure for restarting is as follows:

- You will resume the test at the beginning of the task you were performing at the time of the interruption, except for Task 4A or Task 4B, when you will go back to the beginning of the task, as appropriate.
- You will be entitled to a Pre-Test or Pre-Task Familiarization period before resuming the test.
- If testing resumes on a different machine, you must start the test over from the beginning. The first score

sheet will be marked as "VOID" with an explanation and returned to NCCCO.

- If the testing is delayed to a different day, the test must be restarted from the beginning.

CRANE WALK AROUND

- Before you begin operations, you are allowed a couple of minutes to walk around the crane to ensure proper setup.

TASK 1: PRE-OPERATIONAL INSPECTION

- You will be asked to identify five items on the crane that are part of the pre-operational inspection.
- One at a time, you will be asked to describe how you would conduct the inspection and what deficiencies you would look for.
- You have approximately one minute per item.

PRE-TEST FAMILIARIZATION PERIOD

- You will be allowed five minutes to familiarize yourself with the crane and to examine anything on the crane that you feel is necessary to operate it comfortably.
- You will be allowed to get the feel of the controls and run the crane through its functions. The brakes and other devices have been set according to the crane manufacturer's recommendation.
- You may not interfere with the test course, lift the Test Weight, or shadow the Zigzag Corridor.
- You must finish the Pre-test Familiarization Period with the load hook under control and the chain on the ground in Designated Area 1 within the five-minute period.
- The Examiner will notify you when there is one minute remaining.
- If you are ready in less than five minutes, you may indicate this to the Examiner.
- If, at the end of the Pre-Test Familiarization Period, you feel that you are not ready to take the examination, you should notify the Examiner. You will have, in effect, disqualified yourself from taking the examination at this time, and you will be required to sign to that effect on the Candidate Score Sheet.

TASK 2: CHAIN IN CIRCLE

Optimum Time: 1½ minutes

- At the examiner's indication to start, at which point timing will begin, raise the chain to clear all obstacles and test personnel.
- Bring the chain from its starting position inside Designated Area 1 (DA-1) over to Designated Area 2 (DA-2), and land the chain fully inside the circle.
- Once the chain makes contact with the ground inside the circle, do not lift the chain off the ground.
- Avoid contacting anything but DA-2.
- Once the chain is under control inside the circle, the Examiner will give you a *stop* signal.
- Points will be deducted for the following:
 - a. Dragging chain or contacting ground outside of the circle
 - b. Hook touching the ground either inside or outside of the circle
 - c. Hook or chain contacting any part of the course or crane
 - d. Lifting the chain off the ground after it has made contact with the ground inside the circle
 - e. Exceeding the optimum time

PRE-TASK FAMILIARIZATION PERIOD

- At the Examiner's indication, bring the hook over to the Test Weight located in Test Weight Area.
- The load will be attached to the crane's hook by either the Examiner or Proctor.
- You will be allowed to bring the Test Weight to the designated area, where you can get the feel of the load before beginning the Zigzag Corridor task.
- You may not swing the load outside the designated area or shadow the Zigzag Corridor.
- You will be allowed a maximum of five minutes for this Pre-Task Familiarization; by the end of this period you must have placed the Test Weight on the ground in the Test Weight Area with the rigging taut.
- The Examiner will notify you when there is one minute remaining.

TASK 3: TEST WEIGHT IN POLE CIRCLE

Optimum Time: 2 minutes

- At the Examiner's indication to start, timing will begin. Lift the Test Weight from the Test Weight Area and place it in DA-3.

- Once the Test Weight is in DA-3, the Examiner will give you the *stop* signal.
- If your time exceeds twice the optimum time, the Examiner may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Load touching ground outside of designated area
 - b. Knocking ball off pole
 - c. Knocking pole over
 - d. Exceeding the optimum time

TASK 4A: ZIGZAG CORRIDOR (FORWARD)

Optimum Time: 5½ minutes

- At the Examiner's indication to start, timing will begin. Guide the Test Weight through the Corridor. You will be permitted to use all of the crane's functions during this task.
- Avoid contacting anything; do not lift the chain off the ground; do not let the Test Weight touch the ground.
- Place the Test Weight inside DA-2. Once the Test Weight is inside the Designated Area, the Examiner will give you the *stop* signal. If the Test Weight is not within the outside perimeter of DA-2, timing will continue.
- If your time exceeds twice the optimum time, the Examiner may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking ball off pole
 - b. Moving pole base off line
 - c. Knocking pole over
 - d. Chain leaving ground
 - e. Passing poles with the chain off the ground
 - f. Load touching ground outside of designated area
 - g. Load touching the outriggers/stabilizers
 - h. Circumventing the course
 - i. Exceeding the optimum time

TASK 4B: ZIGZAG CORRIDOR (REVERSE)

Optimum Time: 6 minutes

- At the examiner's indication to start, timing will begin. Guide the Test Weight through the Corridor. You will not be permitted to use the telescoping function during this task.
- Avoid contacting anything; do not lift the chain off the ground; do not let the Test Weight touch the ground.
- Place the Test Weight inside DA-1. Once the Test Weight is inside the Designated Area, the Examiner will give you the *stop* signal. If the Test Weight is not

within the outside perimeter of DA-1, timing will continue.

- If your time exceeds twice the optimum time, the Examiner may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking ball off pole
 - b. Moving pole base off line
 - c. Knocking pole over
 - d. Chain leaving ground
 - e. Passing poles with the chain off the ground
 - f. Load touching ground outside of designated area
 - g. Load touching the outriggers/stabilizers
 - h. Circumventing the course
 - i. Exceeding the optimum time

TASK 5: SAFE SHUTDOWN PROCEDURES

- The Examiner will ask you to describe the safe shutdown procedures you would apply to the crane in preparation to leave the site.

POST-TEST PROCEDURES

Once you have completed the Practical Examination:

- The Examiner will record your performance.
- The Examiner is not permitted to review your score sheet or discuss your performance on the test.
- Exam results will be mailed to you within approximately 12 working days of NCCCO's receipt of the score sheet.
- If you have made formal applications to test on any other cranes, return to the candidate briefing area.
- If you have completed all of your tests, you must leave the Test Site.



Candidate Application

WRITTEN EXAMINATION—SERVICE TRUCK CRANE OPERATOR (PAPER/PENCIL TEST ONLY)

Please type or print neatly.

FULL LEGAL NAME <small>(as shown on driver's license)</small>		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER (if previously certified)		DATE OF BIRTH		CANDIDATE ID: <small>(if previously tested)</small>	
MAILING ADDRESS			CITY	STATE	ZIP
PHONE	CELL	FAX	E-MAIL		
COMPANY/ORGANIZATION				PHONE	
COMPANY MAILING ADDRESS			CITY	STATE	ZIP
<input type="checkbox"/> I AM REQUESTING TESTING ACCOMMODATIONS IN COMPLIANCE WITH THE AMERICAN WITH DISABILITIES ACT (ADA). <i>(For details on NCCCO's Testing Accommodations policy, please see www.nccco.org/accommodations.)</i>					

WRITTEN EXAMINATION FOR WHICH YOU ARE APPLYING

FILL IN the appropriate circle(s) below for correct fees.

WRITTEN EXAM/RETEST FEES

<input type="radio"/> Service Truck Crane Operator Written Exam—new candidate (655101)	\$165
OTHER FEES	
<input type="radio"/> Candidate Late Fee (if applicable)	\$50
<input type="radio"/> Incomplete Application Fee (if applicable)	\$30
<input type="radio"/> Updated/Replacement Card	\$25
TOTAL AMOUNT DUE	\$ <input style="width: 100px;" type="text"/>

CANDIDATE APPLICATION (CONT'D)

WRITTEN EXAMINATION—SERVICE TRUCK CRANE OPERATOR

TEST SITE AT WHICH YOU INTEND TO TAKE THE WRITTEN EXAMINATION




TEST SITE NAME	TEST SITE COORDINATOR	
TEST SITE ADDRESS		
CITY	STATE	ZIP
TEST ADMINISTRATION NUMBER	DATE YOU INTEND TO TAKE THE CCO EXAMINATION	

I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties, consistent with NCCCO's Information Release policy. I have received a copy of the NCCCO Candidate Handbook, have read it, and agree to be bound by it. I also agree to be bound by all NCCCO policies and procedures, as they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with the requirements for my certification designation and I will continue to comply with those requirements. I understand that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE	DATE
---------------------	------

METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/> Personal check enclosed	<input type="checkbox"/> Employer check enclosed	<input type="checkbox"/> Money Order enclosed	<i>Please do not staple your check or money order.</i>
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If paying by credit card, complete the following information:

CREDIT CARD NUMBER	EXPIRATION DATE	
NAME (Print as it appears on card)	SIGNATURE (on card)	SECURITY CODE*

* Three- or four-digit code located on the card.

Checks and money orders should be payable to: NCCCO

Please send application and payments to:

NCCCO—Testing Services Department
 1960 Bayshore Blvd.
 Dunedin, Florida 34698

 Phone: 727-449-8525
 Fax: 727-461-2746
 Email: kqualls@nccco.org



Candidate Application

PRACTICAL EXAMINATION—SERVICE TRUCK CRANE OPERATOR

Please type or print neatly.

FULL LEGAL NAME <small>(as shown on driver's license)</small>		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER (if previously certified)		DATE OF BIRTH		CANDIDATE ID: <small>(if previously tested)</small>	
MAILING ADDRESS					
CITY				STATE	ZIP
PHONE	CELL	FAX		E-MAIL	
COMPANY/ORGANIZATION				PHONE	
COMPANY MAILING ADDRESS					
CITY				STATE	ZIP

INDICATE WITH A CHECK THE EQUIPMENT YOU WISH TO BE TESTED ON:

Service Truck Crane

TEST SITE AT WHICH YOU INTEND TO TAKE THE PRACTICAL EXAMINATION:

TEST SITE COORDINATOR NAME		PE SITE #:
PHONE	FAX	E-MAIL
TEST SITE PHYSICAL ADDRESS		
CITY		STATE ZIP

I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties, consistent with NCCCO's Information Release policy. I have received a copy of the NCCCO Candidate Handbook, have read it, and agree to be bound by it. I also agree to be bound by all NCCCO policies and procedures, as they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with the ASME B30 standard for my certification designation and I will continue to comply with those requirements. I further attest that I am physically and mentally capable of safely operating equipment on the day of the Practical Examination. I understand and agree that any personal injury and/or property damage resulting from or caused in any way by my participation in the CCO Practical Examination is not and shall not be the responsibility of NCCCO. I understand that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE	DATE
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CANDIDATE APPLICATION (CONT'D)

PRACTICAL EXAMINATION—SERVICE TRUCK CRANE OPERATOR

CCO CERTIFICATION CARD

Candidates who meet all the requirements for certification in any one designation are issued a certification card at no charge. Replacement and updated cards are available for an additional fee; see panel below.

Please email a digital color photo (without hat or sunglasses) to **photos@nccco.org** and label it with your full name and birth date. Enclose with your application form any required payment based upon the information listed below.

A 1 3/8" X 1 3/4" passport color photo may be substituted for a digital photo; if submitting a passport photo, please give it to your Test Site Coordinator.




PRACTICAL EXAMINATION FEE

Check the box(es) next to the Practical Exam designation(s) for which you are registering:

- Service Truck Crane Operator: \$60
- Updated/replacement card: \$25

METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> 	<input type="checkbox"/> Personal check enclosed	<input type="checkbox"/> Employer check enclosed	<input type="checkbox"/> Money order enclosed	<i>Please do not staple your check or money order.</i>
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If paying by credit card, complete the following information:

CREDIT CARD NUMBER	<input type="text"/>	EXPIRATION DATE	<input type="text"/>
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Checks and money orders should be payable to: NCCCO

<input type="text"/>	<input type="text"/>	SECURITY CODE*	<input type="text"/>
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* Three- or four-digit code located on the card.

Do not send this application to NCCCO. Give this application, along with payment and all necessary documentation, to your Test Site Coordinator on test day.



Change of Address Form

Please use this form to advise of any changes of address. Please mail, fax, or email this completed form to:

NCCCO—Testing Services Department
1960 Bayshore Blvd.
Dunedin, Florida 34698

Phone: 727-449-8525
Fax: 727-461-2746
Email: info@nccco.org

Please type or print neatly.

FULL LEGAL NAME (as shown on driver's license)		First	Middle	Last	Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER	DATE OF BIRTH	CANDIDATE ID			

OLD ADDRESS

MAILING ADDRESS		
CITY	STATE	ZIP
PHONE	FAX	EMAIL
COMPANY / ORGANIZATION	PHONE	
COMPANY MAILING ADDRESS		
CITY	STATE	ZIP

NEW ADDRESS

MAILING ADDRESS		
CITY	STATE	ZIP
PHONE	FAX	EMAIL
COMPANY / ORGANIZATION	PHONE	
COMPANY MAILING ADDRESS		
CITY	STATE	ZIP

EFFECTIVE DATE OF CHANGE

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NCCCO Information Release Policy

A. Definitions

1. “NCCCO” means and refers to the National Commission for the Certification of Crane Operators acting through its staff and authorized agents and representatives.
2. “Releasable Information” means and refers to the following information: name, certification status, examination dates, certification dates, certification number(s), and designations.
3. “Third Party” means and refers to an employer, prospective employer, regulatory agency, or any other person or entity that makes an inquiry to NCCCO.

B. Policies

1. It shall be the policy of NCCCO to provide Releasable Information pertaining to individuals who have successfully passed one or more NCCCO examinations. It shall also be the policy of NCCCO to provide Releasable Information pertaining to such individuals on its website using such protocols as may be established.
2. Releasable Information may be released to a Third Party who makes a written request, including by electronic correspondence. Generally, Releasable Information will be released within one business day from actual receipt of a written request.
3. If a Third Party requests information concerning an individual who has not taken or successfully passed an NCCCO examination, NCCCO may release a statement confirming that, as of a given date, the individual does not appear on NCCCO’s list of successful candidates in one or more categories of certification.
4. If an applicant or certificant is under formal sanction, suspension, or revocation by NCCCO, then NCCCO may release a statement to that effect to any persons and by any reasonable means, including by means of a list published on the NCCCO website. In addition, if an individual applicant or certificant is under formal investigation, sanction, suspension, or revocation by NCCCO, then NCCCO may release a statement concerning the status of the applicant or certificant to any Third Party and to any jurisdiction that requires or accepts CCO certification as a basis for satisfying requirements to work in the jurisdiction. Any such statement to a Third Party or jurisdiction may identify the applicant or certificant, the certifications affected,

the actions taken, and the effective dates of any such actions.

5. If a Third Party seeks information other than the foregoing information, generally, absent a subpoena or similar legal process, such information will not be released. However, in the course of business, as circumstances reasonably warrant, NCCCO reserves the discretion to release information other than the foregoing information.
6. Certain situations may require or warrant the immediate verbal confirmation of an individual’s certification status or other Releasable Information in response to a written or verbal request. Under such circumstances, NCCCO may provide such immediate verbal confirmation, at its discretion. When such a verbal confirmation is provided, it shall be NCCCO’s policy to follow up with a written confirmation.
7. It shall be the policy of NCCCO to discuss score-related and test-specific matters only with a candidate or a candidate’s authorized legal representative.
8. NCCCO will release Releasable Information about an individual upon receipt of a written request (including electronic correspondence) from that individual. NCCCO may release information other than Releasable Information about an individual, at its discretion, upon receipt of a signed, notarized, written request from that individual. In addition, NCCCO will release information other than Releasable Information about an individual when required by a legal authority of competent jurisdiction under a duly-issued subpoena, subject to any objection, or as otherwise required by law.

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IMPORTANT CONTACT INFORMATION



NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS

2750 Prosperity Avenue, Suite 505
Fairfax, VA 22031-4312

Phone: 703-560-2391

Fax: 703-560-2392

Email: info@nccco.org



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