



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

CANDIDATE HANDBOOK

- **MOBILE CRANE OPERATOR**



BOARD OF DIRECTORS

This handbook and application packet for the NCCCO Mobile Crane Operator Written and Practical Examinations contains the following important documents: a Written Examination Candidate Application form, a Practical Examination Candidate Application form, and a Physical Examination form. Please read this handbook carefully and retain it for reference throughout the certification process.

Do not discard this document.

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National Commission for the
Certification of Crane Operators

NCCCO does not discriminate against any individual because of race, gender, age, creed, disability, or national origin.



Dear Mobile Crane Operator Certification Candidate:

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

This candidate handbook has been developed to provide you with comprehensive information about the NCCCO 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.

This NCCCO Mobile Crane Operator certification program is accredited by the American National Standards Institute (ANSI) and the National Commission for Certifying Agencies (NCCA).

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 NCCCO Written and Practical Examinations, initially for mobile crane operators but now also for tower, overhead, and articulating crane operators, riggers, and signalpersons.

These nationally recognized and 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 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.

To ensure NCCCO examinations are—and remain—valid measurements of crane operators' proficiency, NCCCO teamed the task force's knowledge and experience with the exam-development expertise of International Assessment Institute (IAI), which is based in Clearwater, Florida. In addition to guiding the development of new examinations, IAI continually analyzes the performance of NCCCO exams and reports to NCCCO's Exam Management Committees. IAI also assists NCCCO in the administration of its Written and Practical Examinations.

Thank you for your interest—and good luck!



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Mobile, Tower, and
Overhead Crane Operator
Programs Accredited



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Introduction

PROGRAM DESCRIPTION

The National Commission for the Certification of Crane Operators (NCCCO) is an independent, not-for-profit 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 construction safety issues, NCCCO has identified the following potential benefits of operator certification:

- Fewer accidents, injuries, and fatalities
- Reduced risk of loss
- Assurance of operator's 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. Candidates desiring to take the Practical Examination should contact their Test Site Coordinator or see the NCCCO website for a listing of open Test Sites.

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 and medical (physical) requirements.

NCCCO 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 survey was given to a representative number of crane operators, who 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 the staff of International Assessment Institute 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 NCCCO *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 knowledge and experience with the exam development expertise of International Assessment Institute (IAI). IAI guided the NCCCO 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 NCCCO task force, IAI also helped design the Practical Examiner Accreditation Program whereby NCCCO trains and accredits NCCCO-certified crane operators to administer NCCCO Practical Examinations.

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Certification Policies

MOBILE CRANE OPERATOR

ELIGIBILITY

To be eligible for certification, you 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 the NCCCO Code of Ethics

EXPERIENCE

NCCCO 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 periods and attest to their agreement to this requirement in their applications.

Means of compliance with ASME physical requirements include, but are not limited to, the following:

- NCCCO Physical Examination Form (see page 33 of this handbook)—valid for three years
- A current Department of Transportation (DOT) Medical Examiner's Certificate—valid for two years

NCCCO 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 category(s).

The Core Examination has 90 multiple-choice questions. Candidates are allowed 90 minutes to complete the Core Examination. Each Specialty Examinations 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.

The NCCCO 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.

NCCCO PRACTICAL EXAMINATIONS

The Mobile Crane Operator Practical Examination demonstrates crane operation proficiency and is available in 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.

NCCCO CERTIFICATION TIME FRAMES

Candidates must pass both a Written Exam and a Practical Exam in the category(s) they wish to be certified in. Candidates have 12 months after they pass their first exam (Written or Practical) in which to take the corresponding Written or Practical Exam in the same category. Candidates may take their Written and Practical Exams in any order. For example, a candidate passing the Written Exams (Core + Specialty) in the Telescopic Boom Cranes—Swing Cab (TLL) category has 12 months to pass the Telescopic Boom Cranes—Swing Cab (TLL) Practical Exam.

Candidates who do not take and pass both the Written (Core + Specialty) and Practical Exams within the 12-month time frame will be required to start the certification process again from the beginning.

If a certified operator subsequently becomes certified in additional Specialties by taking the appropriate written and practical Specialty exams, the five-year certification period for the additional Specialties begins at the same time as he/she was originally certified (i.e., all specialties expire on the same date, regardless of when in the five-year certification period the candidate passed them).

RECERTIFICATION REQUIREMENTS

NCCCO 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. Four of the questions in each Specialty Exam are load chart questions.

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 test administrations. 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 NCCCO Written Exam Test Sites at www.nccco.org/general/testsites.html or register for computer-based testing sites at www.iaexam.com/cbtapp.html.

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 CRANE OPERATORS

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

As an NCCCO-certified crane operator, I will perform my work in a manner:

- Free of bias with regard to religion, ethnicity, gender, age, national origin, and disability*
- So as to place the safety and welfare of workers associated with the lifting operation above all other considerations*
- So as to protect nearby general public property and the environment*

In addition, I will:

- Make my management aware if I have safety concerns relating to the lifting operations that I am performing*
- Not knowingly violate safety-related regulations, warnings, or instructions set forth by OSHA, recognized safety standards, or the crane manufacturer*
- Not misrepresent or knowingly deceive others concerning my experience or the capabilities of myself or the crane I am operating*
- Not misrepresent or misuse my certification card or the NCCCO logo, both of which are the property of NCCCO; and I understand that I must return the card to NCCCO immediately if required to do so*

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

Certified operators who wish to appeal a decision regarding revocation of their certification status must do so in writing, stating the grounds for the appeal. Appeals should be addressed to:

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

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 crane 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. The decision of the NCCCO Board of Directors is final.

SUBSTANCE ABUSE POLICY

It is the policy of NCCCO that crane operators shall not use prescribed or over-the-counter substances that would impair their ability to operate cranes 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 a crane safely.

NCCCO-certified crane operators shall comply with the substance abuse testing provisions of ASME B30. It is a condition of certification that crane 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. They may, however, hold only one card at a time.

Replacement cards, cards showing certification in an additional Specialty, or updated cards for candidates who retake and pass a Specialty they previously failed may be obtained from International Assessment Institute at a cost of \$25.

CHANGE OF ADDRESS

If you change your address, you must notify NCCCO as soon as possible. Failure to do so may cause you to miss important updates on the NCCCO program that could affect your certification.

Changes of address should be sent in writing via mail or fax to International Assessment Institute (IAI); a change of address form is provided on page 31 of this handbook for that purpose.

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Written Examination Process

MOBILE CRANE OPERATOR

APPLICATION PROCESS TO TAKE THE WRITTEN EXAMINATION

Candidates desiring to sit for NCCCO Written Exam(s) may submit a completed *Candidate Application* form or obtain further information from either NCCCO or its testing partner International Assessment Institute (IAI). Candidate applications must be submitted with the appropriate documentation to IAI. Applications are due two weeks prior to the scheduled examination date. Application deadline examples are shown on page 8.

Information about the specific locations of the Test Sites will be available approximately four weeks 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.

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, see the *Written Examination Test Site Coordinator Handbook*.

SUBMISSION OF APPLICATION

The *Candidate Application* and *Physical Examination* forms are located at the back of this handbook. Please photocopy these forms for your use. The *Candidate Application* with the appropriate fees, as well as any correspondence and requests for information concerning the administration of NCCCO examinations, should be directed to:

International Assessment Institute
Attention: NCCCO Testing
600 Cleveland Street, Suite 900
Clearwater, Florida 33755
Phone: 727-449-8525/Fax: 727-461-2746

Check your application to ensure that all information provided is accurate and complete. In addition to your completed application, make sure that you have enclosed the appropriate fees.

Follow the directions carefully when filling in the required information. Incomplete applications, incorrect payment, and/or inaccurate documentation will delay the process-

ing and incur additional fees. This could result in your *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 International Assessment Institute by the stated deadlines.

EXAMINATION FEES

The appropriate Written Exam fees must be enclosed with your application. Checks and money orders payable to *International Assessment Institute* are preferred. You may also pay by credit card (VISA, MasterCard, or American Express). Do not send cash. Please do not staple your check or money order to your application form, but do include your payment in the envelope with all the other application materials. *All returned checks will be subject to a \$25 fee.*

Written Exam Fees:

- Core Exam plus any 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

Written Exam Retest Fees:

- Core Exam only (Specialty passed) or Core 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
- 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

Recertification Written Exam Fees:

- Core Exam plus any one Specialty Exam \$150
- Core Exam plus two Specialty Exams \$155
- Core Exam plus three Specialty Exams \$160
- Core Exam plus four Specialty Exams \$165

Recertification Exam Retest Fees:

- Core Exam only (Specialty passed) or Core plus one Specialty Exam \$150
- 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:

You will be charged an additional \$50 late fee if your application is late.

You will be charged an additional \$25 fee if:

- You wish to reschedule without a valid reason (see Emergency Cancellations or Withdrawals)
- You need a duplicate/replacement certification card or score report

You will be charged an additional \$30 fee if:

- Your application form is incomplete
- You do not send in full payment
- Your credit card cannot be processed for any reason
- You want to add to (or change) the exams you plan to take after scheduling has been completed (in addition to the exam fee)

Your application materials must be received at International Assessment Institute’s office according to the sample test schedule outlined below.

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 IAI’s testing 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.*

RESCHEDULING, CANCELLATIONS, AND WITHDRAWALS

Should you be unable to sit for the examination, International Assessment Institute must receive notification in writing no later than seven business days prior to the examination date. Your fees will be held until you reschedule. When you reschedule you will need to pay an additional \$25 rescheduling fee.

Candidates who wish to reschedule their NCCCO Written Examination(s) *must* notify International Assessment Institute and submit the necessary documentation and fees to International Assessment Institute 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 International Assessment Institute. Please write a letter to International Assessment Institute describing your situation; include your full name, address, and social security number along with the scheduled test date, site number, and supporting documentation indicated above. **International Assessment Institute MUST receive your written notification within seven business days after the scheduled examination date or you will forfeit all application fees.** You will, however, be allowed to reschedule for a future examination administration.

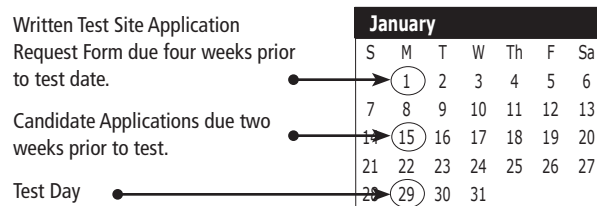
You will NOT receive a refund if you decide you no longer wish to take the test.

TEST ADMINISTRATION SCHEDULE FOR NCCCO EXAMINATIONS

NCCCO 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.



ADMISSION LETTERS

Approximately one week before the scheduled test date, registered and eligible candidates approved to take NCCCO 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 must be presented at the Test Site to gain admittance to the examination(s).

No candidate will be allowed to sit for the examination unless he/she submits an admission letter valid for the specific test date.

TEST SITE INFORMATION

Identification at the Test Site

In addition to an admission letter valid for the specific test date, 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 are:

- Passport
- Government-issued driver's license
- Work identification

NOTE: Candidates without appropriate identification documents will NOT be admitted to take the NCCCO Written Examination(s).

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
- Two sharpened #2 pencils (to complete the examination answer sheet)
- A good eraser

NOTE: No books, scratch paper, calculators, beepers, cellular phones, or other materials will be allowed in the examination room.

Test Security

For the purpose of test security, candidates who sit for NCCCO 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.
- Candidate participation in any irregularity occurring 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*. These comments should be accompanied by the candidate's name (which is optional), the specific examination and question referred to, the site code, and the test date. Examination comments are reviewed by NCCCO content experts on a regular basis.

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

TEST SCORING INFORMATION

Test Scoring

NCCCO 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.

Score Reporting

NCCCO Written Examinations are electronically scored by International Assessment Institute. 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.

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.

Candidate scores cannot be given over the telephone.

Hand Score Requests

Candidates not passing the examination(s) may request from International Assessment Institute a hand scoring of their answer sheets, 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:

International Assessment Institute
Attention: NCCCO Testing
600 Cleveland Street, Suite 900
Clearwater, Florida 33755
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.

RETAKE 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.

INFORMATION RELEASE POLICY

NCCCO may release any information regarding a candidate's examination application and a candidate's examination administration to any employer, regulatory agency, or any other person or entity that may inquire in writing to the Commission.

The name and certification status of individuals who have successfully passed NCCCO examinations may be published and released upon request to employers and other interested parties. NCCCO and International Assessment Institute will discuss score-related matters with the candidate or the candidate's legal representative only.



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: Manufacturers' Load Charts

- Approximately 26% of test

DOMAIN 1: SITE

1. Know the ability of supporting surfaces to handle the expected loads. Elements of concern include but are not limited to:
 - a. Weakness below the surface, such as voids, tanks, and loose fill
 - b. Weakness on the surface, such as retaining walls, slopes, excavations, and depressions
 2. Know the proper use of mats, blocking, or cribbing and outriggers or crawlers, as they affect the ability of supporting surfaces to handle the expected loads of the operation.
 3. Know electric power line hazards, corresponding regulations, and safety practices.
 4. Know how to identify and evaluate hazards associated with:
 - a. Access to job site
 - b. Site hazards, such as underground utilities
 - c. Transportation clearances
 5. Know how to review lift requirements with site supervision, including determining working height, boom length, load radius, load weight, crane capacity, travel clearance, extension of crawlers or outriggers/stabilizers, and counterweights.
3. Know how to pick, carry, swing, and place the load smoothly and safely on rubber tires and on outriggers/stabilizers or crawlers (where applicable).
 4. Know proper procedures and methods of reeving all wire ropes and methods of reeving multiple-part lines and selecting the proper load block and/or ball.
 5. Know standard signals as specified in ASME B30.5.
 6. Know how to shut down and secure the crane properly when leaving it unattended, based on manufacturer's recommendations in both normal and emergency conditions.
 7. Know the manufacturer's recommendations for operating in various weather conditions, and understand how environmental conditions affect the safe operation of the crane.
 8. Know how to verify the weight of the load and rigging prior to initiating the lift.
 9. Know how to determine where the load is to be picked up and placed, and know how to verify the radii.
 10. Know basic load rigging procedures.
 11. Know how to perform daily maintenance and inspection.
 12. Know how to use the following operator aids:
 - a. LMI
 - b. Anti-two block device
 - c. Boom angle indicator
 - d. Rated load indicator
 - e. Boom length indicators
 13. Know which operations reduce crane capacity or require specific procedures or skills, such as:
 - a. Multi-crane lifts
 - b. Suspended personnel platforms
 - c. Duty cycle operations
 - d. Barge operations
 14. Know the proper procedures for operating safely under the following conditions:
 - a. Traveling with suspended loads
 - b. Approaching two blocking
 - c. Operating near electric power lines
 - d. Using a suspended personnel platform
 - e. Lifting loads from beneath the surface of the water
 - f. Using various approved counterweight configurations

DOMAIN 2: OPERATIONS

1. Know which federal regulations and industry standards affect safe operation of cranes, including but not limited to ASME B30.5, B30.23, OSHA 1910.180, 1926.550.
2. Know how to conduct daily crane inspections for unsafe conditions/deficiencies and when to notify supervision of these conditions.

- g. Handling loads out of the operator's vision ("operating in the blind")
 - h. Using electronic communications techniques (e.g., radios) in various weather conditions
15. Know proper procedures for load control and the use of handheld tag lines.
 16. Know how to react to:
 - a. Electric power line contact
 - b. Loss of stability
 - c. Control malfunction
 - d. Block and line twisting
 - e. Carrier or travel malfunction
 17. Know how to use the outriggers properly in accordance with manufacturer's specifications.
 18. Know alternative operating procedures when operator aids malfunction.
 19. Know the effects of dynamic loading from:
 - a. Wind
 - b. Stopping and starting
 - c. Impact loading
 - d. Moving the load
 - e. Traveling with load (pick and carry)
 20. Know the effect of side loading.

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know basic crane terminology and definitions.
2. Know functions and limitations of the crane and attachments.
3. Know wire rope:
 - a. Construction and breaking strength
 - b. Inspection procedures
 - c. Replacement criteria and procedures
 - d. Capacity and when multi-part rope is needed
 - e. Maintenance and lubrication
 - f. Relationship between line pull and safe working load
4. Know rigging devices and their use, such as:
 - a. Slings
 - b. Spreaders
 - c. Lifting beams

- d. Wire rope fittings, such as clips, shackles, and wedge sockets
 - e. Saddles (softeners)
 - f. Clamps
 - g. Hook blocks and overhaul balls
5. Know the limitations of protective measures against electrical hazards.
 6. Know the effects of load share and load transfer in multi-crane lifts.
 7. Know the significance of the instruments, gauge readings, and machine power systems.
 8. Know the requirements of pre-operational inspections and maintenance.
 9. Know the uses and limitations of all operational devices/aids.
 10. Know how to calculate net capacity for the crane configuration using the applicable manufacturer's load chart.
 11. Know how to use manufacturer-approved attachments and their effect on the crane's operation.
 12. Know the principles of backward stability.

DOMAIN 4: MANUFACTURERS' LOAD CHARTS

1. Know the terminology necessary to use load charts.
2. Know how to ensure that the load chart is the appropriate chart for the machine in its particular application.
3. Know how to use capacity load charts; this includes knowing:
 - a. The operational limitations of load charts and footnotes
 - b. The difference between structural capacity and capacity limited by stability
 - c. What is included in load chart capacity
 - d. The range diagram and its relationship to the load chart
 - e. The work area chart and its relationship to the load chart
 - f. Where to find and how to use the parts-of-line information
 - g. The safe working load of hoist line
4. Know how to use the load chart together with the load indicators.



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)

Domain 1: Site

- Approximately 12% of test

Domain 2: Operations

- Approximately 30% of test

Domain 3: Technical Knowledge

- Approximately 23% of test

Domain 4: Manufacturers' Load Charts

- Approximately 35% of test

DOMAIN 1: SITE

1. Know the proper use of mats, blocking, or cribbing and outriggers or crawlers as they affect the suitability of supporting surfaces to handle the expected loads of the operation.
2. Know the limitations of machine clearances, extension of crawlers or outriggers/stabilizers, and counterweights.

DOMAIN 2: OPERATIONS

1. Know how to inspect the crane for unsafe conditions, complete required records, and communicate unsafe conditions to the proper authority.
2. Know how to pick, carry, swing, and place the load smoothly and safely on rubber tires and on outriggers/stabilizers or crawlers (where applicable).
3. Know proper boom assembly and disassembly techniques for:
 - a. Lattice booms
 - b. Extension and retraction of power pinned and/or manual boom extensions
 - c. Erection and dismantling of lattice extension jibs
4. Know how to react to changes in conditions that affect the safe operation of the crane.
5. Know how to shut down and secure the crane properly when leaving it unattended.

6. Know how to prepare the crane for transportation by loading or unloading on trailers, and be familiar with the differences between rail and barge loading.
7. Know how to move the crane (no load) safely under its own power:
 - a. Between job sites
 - b. Within job sites
 - c. Loading onto and unloading off of trailers
8. Know the manufacturer's specifications for operating in various weather conditions and understand how environmental conditions affect the safe operation of the crane.
9. Know how to level the crane properly.
10. Know how to perform daily maintenance and inspections.
11. Know how to use the following operator aids:
 - a. Wind indicator
 - b. Anti-two block device
 - c. Boom angle indicator
 - d. Boom angle device
 - e. Boom length indicators
12. Know the proper procedures for operating safely under the following conditions:
 - a. Traveling with suspended loads
 - b. Approaching two blocking
 - c. Operating near electric power lines
 - d. Using suspended personnel platforms
 - e. Using other than full outrigger/crawler extensions
 - f. Lifting loads from beneath the surface of the water
 - g. Using various approved counterweight configurations
 - h. Handling loads out of the operator's vision ("operating in the blind")
 - i. Using electronic communication techniques such as radios
13. Know emergency response procedures for:
 - a. Fire control
 - b. Electric power line contact
 - c. Loss of stability
 - d. Control malfunction
 - e. Two blocking
 - f. Overload
 - g. Carrier or travel malfunction

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know the functions and limitations of the crane and attachments.
2. Know basic crane terms.
3. Know the basics of machine power flow systems:
 - a. Mechanical
 - b. Electrical
 - c. Pneumatic
 - d. Hydraulic
 - e. Combination
4. Know how the boom hoist and load hoist(s) are driven and engaged to the power source.
5. Know the requirements of standard and optional controls.
6. Know the requirements of pre-operation inspection and maintenance.
7. Know how to use operational assist devices, including:
 - a. Anti-two block devices
 - b. Load moment indicators and rated load indicators
 - c. Outrigger position indicators
 - d. Mechanical levels
 - e. Boom angle indicators
 - f. Load indicating devices
 - g. Boom stops and boom hoist disconnect
 - h. Radius indicators
 - i. Drum rotation indicators and boom length indicators
8. Know how to use manufacturer-approved attachments and their effects on the crane.
9. Know the function and safe use of crawler position (extended or retracted), outriggers, and/or stabilizers.
10. Know how to assemble and disassemble boom sections, extensions, and jib.

DOMAIN 4: MANUFACTURERS' LOAD CHARTS

1. Know the terminology necessary to use load charts.
2. Know how to use load charts; for example:
 - a. The operational limitations of load charts and footnotes
 - b. How to relate the chart to the configuration of the crane—crawlers or outriggers extended or retracted, jib erected or offset, and various counterweight configurations
 - c. The difference between structural capacity and capacity limited by stability
 - d. What is included in load chart capacity
 - e. The range diagram and its relationship to the load chart
 - f. The work area chart and its relationship to the load chart
 - g. Where to find and how to use parts-of-line information
3. Know how to calculate net capacity for allowable configurations of the crane using the manufacturer's load chart.



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.

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 NCCCO test questions.

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

ANSI/ASME, B30.5 (2007) \$80.00
MOBILE AND LOCOMOTIVE CRANES

And successive addenda

ANSI/ASME, B30.23 \$52.00
PERSONNEL LIFTING SYSTEMS

And successive addenda

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 1926.550
AND 1910.180**

Order by Internet: <http://www.osha.gov/>

Order by Mail:

NCCCO
2750 Prosperity Avenue, Suite 505
Fairfax, VA 22031-4312
ph: 703-560-2391; fax: 703-560-2392
email: info@nccco.org

BOB'S RIGGING & CRANE HANDBOOK

Desk Size: \$24.00/Pocket Size: \$13.00

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

Order by Mail:

Pellow Engineering Services
406 West 50th South
Kansas City, MO 64112
ph: 877-473-5569; fax: 816-931-4113

Payments accepted: VISA, MasterCard, check, money order

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

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Order by Mail:

Operating Engineering Training Institute of Ontario
P.O. Box 636
Morrisburg, Ontario, K0C 1X0 Canada
ph: 613-543-2911; fax: 613-543-4136

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



Practical Examination Process

MOBILE CRANE OPERATOR

SKILLS TESTED

NCCCO Practical Examinations are available on three crane types:

- Lattice Boom Cranes
- Telescopic Boom Cranes—Swing Cab
- Telescopic Boom Cranes—Fixed Cab

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 in the corresponding category 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

The Practical Examination is comprised of four main tasks that increase progressively in the skill level tested. Skills tested are: 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 the facilities of International Assessment Institute.

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 International Assessment Institute.

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 IAI more than three weeks after their test administration.

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

PRACTICAL EXAM CANDIDATE FEES

The examination fee for testing on 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 your application through your 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 International Assessment Institute hand scoring of their answer sheets, 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 each test requested. Request(s) should be mailed to:

International Assessment Institute
Attention: NCCCO Testing
600 Cleveland Street, Suite 900
Clearwater, Florida 33755
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 four tasks that make up the Practical Examination are:

- **Task 1: Place overhaul ball chain in Stop Circle**
- **Task 2: Follow hand signals**
- **Task 3: Place overhaul ball in barrels**
- **Task 4: Negotiate Zigzag Corridor with Test Weight**

There is also a Pre-Test Briefing, 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 you are waiting to take your test, you 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) you will operate. In addition, you will be informed of the make and model of the crane, the boom length, and the weight of the test load. You will also watch a short video showing all the tasks you 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 if you wish 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. **You will not be permitted to telescope at any time.**
- All hand signals used throughout the test will be in accordance with ASME B30.5.

CIRCUMVENTING THE COURSE

Circumventing the course on the NCCCO Mobile Crane Operator Practical Exam is defined as when the load:

- Leaves the Zigzag Corridor and passes more than one pole without touching them before re-entering the corridor
- Leapfrogs from one leg of the Zigzag Corridor to another with the chain off the ground
- Passes more than four poles consecutively with the chain off the ground, inside or outside of the corridor

All points are lost if a circumvention occurs. The Examiner has the authority to stop the task at any time if he/she feels that the candidate is 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 overhaul ball or Test Weight (on ground, in barrel, etc.)
- Two blocking of the crane
- Uncontrolled or reckless operation
- Failure to respond to a *stop* signal
- Contacting an obstruction with the crane or Test Weight
- Any action that in the judgment of the Examiner could endanger personnel or equipment at the Test Site

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, your case will be reviewed by IAI and NCCCO, and you will be notified as to your eligibility for rescheduling your Practical Exam.

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 if you have read the Candidate Information and Instructions and will answer any questions you may have. He/she will review with you the weather conditions and ask you to sign indicating that you understand the instructions for the test and that you 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 record weather conditions on your 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 4, when you 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 you resume the test on a different machine, you will have the option of starting the entire test over from the beginning.
- If the testing is delayed to a different day, the test must be restarted from the beginning.

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 in the Start Circle 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 BALL 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 its starting position in the Start Circle 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 or ball contacting any part of the course or crane
 - d. 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 Start Circle 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 Start Circle and place it into Barrel #1. (If you knock over Barrel #1, at the Examiner's indication proceed to try and put the ball in Barrel #2.)
- The Examiner will determine when the horizontal white line painted 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 white line painted 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 LOAD

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 Start Circle and allow the Examiner to attach the chain in readiness for the next candidate. Remain in the cab or at the operator's station until the Examiner gives you a clear indication that you may leave. Set the swing brake and lock before leaving the cab.

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 International Assessment Institute'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 Forms

MOBILE CRANE OPERATOR

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

- **Candidate Application—Written Examination**
- **Candidate Application—Practical Examination**
- **Candidate Recertification Application—Written Examination**
- **Change of Address Form**
- **Physical Examination Form**
- **Physician Instructions for Medical Examinations**

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Candidate Application

WRITTEN EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

Please type or print neatly.

NAME	First	Middle	Last
NCCCO CERTIFICATION NUMBER (if previously certified)	DATE OF BIRTH	SOCIAL SECURITY #	
MAILING ADDRESS	CITY	STATE	ZIP
PHONE	CELL	FAX	E-MAIL
COMPANY/ORGANIZATION	PHONE		
COMPANY MAILING ADDRESS	CITY	STATE	ZIP
HAVE YOU PREVIOUSLY TAKEN ANY NCCCO EXAMS*? <input type="checkbox"/> NO <input type="checkbox"/> YES DATE LAST TESTED:			

*Fees for retest candidates are the same as for first-time candidates, as indicated below.

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	652620	<input type="checkbox"/> American LBC
	652607	<input type="checkbox"/> Manitowoc LBC
<input type="radio"/> Lattice Boom Truck	652609	<input type="checkbox"/> Link-Belt LBT
	652610	<input type="checkbox"/> Manitowoc LBT
<input type="radio"/> Telescopic Boom— Swing Cab	652612	<input type="checkbox"/> Grove TLL
	652613	<input type="checkbox"/> Link-Belt TLL
<input type="radio"/> Telescopic Boom— Fixed Cab	652616	<input type="checkbox"/> Manitex TSS
	652650	<input type="checkbox"/> Broderson TSS
<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 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
-
- Core Exam only (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 NCCCO-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 NCCCO-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 SITE NUMBER	DATE YOU INTEND TO TAKE THE CCO EXAMINATION		

Under penalties of perjury, 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. I have received a copy of the NCCCO Candidate Handbook and have read it; I understand and agree to be bound by all prevailing NCCCO policies and procedures. 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 category and I will continue to comply with those requirements.

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>
--	--	--	--	--	---	--

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)	SIGNATURE (on card)	SECURITY CODE*	<input type="text"/>

* Three- or four-digit security code located on the back of the card in the signature panel.

Checks and money orders should be payable to: International Assessment Institute—Attention: CCO Testing

Please send application and payments to:

International Assessment Institute—Attention: CCO Testing
 600 Cleveland Street, Suite 900
 Clearwater, Florida 33755
 Phone: 727-449-8525
 Fax: 727-461-2746

CANDIDATE APPLICATION CHECKLIST

<input type="checkbox"/> I have completed and signed the <i>Candidate Application</i> .
<input type="checkbox"/> I have provided credit card information or a check or money order for the correct amount due.



Candidate Application

PRACTICAL EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

Please type or print neatly.

NAME		First	Middle	Last
NCCCO CERTIFICATION NUMBER (if previously certified)			SOCIAL SECURITY #	
MAILING ADDRESS				DATE OF BIRTH
CITY			STATE	ZIP
PHONE	CELL	FAX		E-MAIL
COMPANY/ORGANIZATION			PHONE	
COMPANY MAILING ADDRESS				
CITY			STATE	ZIP
HAVE YOU PREVIOUSLY TAKEN ANY NCCCO EXAMS? <input type="checkbox"/> NO <input type="checkbox"/> YES DATE LAST TESTED: _____/_____/_____				

Indicate with a check the crane type(s) you wish to be tested on and the date you passed the corresponding Written Examination, if applicable. If you have passed the Written Exam(s), you must also provide a copy of either a score report or a certification card.

PRACTICAL EXAM	WRITTEN EXAM	DATE PASSED WRITTEN EXAM
<input type="checkbox"/> Lattice Boom	<input type="checkbox"/> Lattice Boom Crawler and/or Lattice Boom Truck	_____/_____/_____
<input type="checkbox"/> Telescopic Boom—Swing Cab	<input type="checkbox"/> Telescopic Boom—Swing Cab	_____/_____/_____
<input type="checkbox"/> Telescopic Boom—Fixed Cab	<input type="checkbox"/> Telescopic Boom—Fixed Cab	_____/_____/_____
<input type="checkbox"/> Tower Crane	<input type="checkbox"/> Tower Crane	_____/_____/_____
<input type="checkbox"/> Overhead Crane	<input type="checkbox"/> Overhead Crane	_____/_____/_____

TEST SITE AT WHICH YOU INTEND TO TAKE THE PRACTICAL EXAMINATION

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

Under penalties of perjury, 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. I have received a copy of the NCCCO Candidate Handbook and I have read it; I understand and agree to be bound by all prevailing NCCCO policies and procedures. 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 category and I will continue to comply with those requirements.

CANDIDATE SIGNATURE	DATE
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CANDIDATE APPLICATION (CONT'D)

PRACTICAL EXAMINATION—MOBILE, TOWER, & OVERHEAD CRANE OPERATOR

NCCCO CERTIFICATION CARD

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

Please attach a passport color photo (without hat or sunglasses) and enclose with your application form any required payment based upon the information listed below.

A digital photo may be substituted for a passport photo.

Attach Color
Passport Photo
Here

1-3/8" W x 1-3/4" H

PRACTICAL EXAMINATION FEES

Checks and money orders must be made payable to **International Assessment Institute—Attention: CCO Testing**. 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 category(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 NCCCO–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 NCCCO–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.

<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>
--	--	--	--	--	---	--

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)	SIGNATURE (on card)	SECURITY CODE*	<input type="text"/>

* Three or four digit security code located on the back of the card in the signature panel.

Checks and money orders should be payable to: International Assessment Institute—Attention: CCO Testing

Do not send this application to IAI or 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

Please type or print neatly.

NAME		First	Middle	Last
NCCCO CERTIFICATION NUMBER		DATE OF BIRTH		SOCIAL SECURITY #
MAILING ADDRESS		CITY		STATE ZIP
PHONE	CELL	FAX	E-MAIL	
COMPANY/ORGANIZATION			PHONE	
COMPANY MAILING ADDRESS		CITY		STATE ZIP

WRITTEN EXAMINATIONS FOR WHICH YOU ARE APPLYING

This application is for recertification only. You may **ONLY** recertify in the category(ies) 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. **You must also provide a copy of either a score report or a certification card.**

EXAMINATIONS

RECERTIFICATION EXAMS		LOAD CHARTS
<input type="radio"/> Core Exam	652605	(Check one for each Specialty Exam)
<input type="radio"/> Lattice Boom Crawler	652625	<input type="checkbox"/> American LBC
	652608	<input type="checkbox"/> Manitowoc LBC
<input type="radio"/> Lattice Boom Truck	652611	<input type="checkbox"/> Link-Belt LBT
	652635	<input type="checkbox"/> Manitowoc LBT
<input type="radio"/> Telescopic Boom— Swing Cab	652614	<input type="checkbox"/> Grove TLL
	652645	<input type="checkbox"/> Link-Belt TLL
<input type="radio"/> Telescopic Boom— Fixed Cab	652656	<input type="checkbox"/> Manitex TSS
	652655	<input type="checkbox"/> Broderson TSS
<input type="radio"/> Tower Crane	654602	
<input type="radio"/> Overhead Crane	653602	

ADDITIONAL EXAMINATIONS		LOAD CHARTS
<input type="radio"/> Core Exam	652603	(Check one for each Specialty Exam)
<input type="radio"/> Lattice Boom Crawler	652620	<input type="checkbox"/> American LBC
	652607	<input type="checkbox"/> Manitowoc LBC
<input type="radio"/> Lattice Boom Truck	652609	<input type="checkbox"/> Link-Belt LBT
	652610	<input type="checkbox"/> Manitowoc LBT
<input type="radio"/> Telescopic Boom— Swing Cab	652612	<input type="checkbox"/> Grove TLL
	652613	<input type="checkbox"/> Link-Belt TLL
<input type="radio"/> Telescopic Boom— Fixed Cab	652616	<input type="checkbox"/> Manitex TSS
	652650	<input type="checkbox"/> Broderson TSS
<input type="radio"/> Tower Crane	654601	
<input type="radio"/> Overhead Crane	653601	

EXAM FEES

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

RECERTIFICATION RETEST FEES

- Core Exam only (Retest) \$150
- One Specialty Exam (Retest) \$50
- Two Specialty Exams (Retest) \$55
- Three Specialty Exams (Retest) \$60
- Four Specialty Exams (Retest) \$65
- Tower or Overhead Crane (only) \$150
- Tower or Overhead Crane (with Mobile Crane) \$50

ADDITIONAL EXAM FEES

(ONLY for candidates adding to existing Mobile certifications)

- One Specialty Exam \$65
- Two Specialty Exams \$75
- Three Specialty Exams \$85
- Tower Crane Exam \$50
- Overhead Crane Exam \$50
- 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 SITE NUMBER	DATE YOU INTEND TO TAKE THE NCCCO EXAMINATION	

I do NOT have 1,000 hours of documented crane experience and must take an NCCCO Practical Exam.

Under penalties of perjury, 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. I have received a copy of the NCCCO Candidate Handbook and have read it; I understand and agree to be bound by all prevailing NCCCO policies and procedures. 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 category and I will continue to comply with those requirements.

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 security code located on the back of the card in the signature panel.

Checks and money orders should be payable to: International Assessment Institute—Attention: CCO Testing

Please send application and payments to: International Assessment Institute—Attention: CCO Testing
 600 Cleveland Street, Suite 900
 Clearwater, Florida 33755
 Phone: 727-449-8525
 Fax: 727-461-2746

CANDIDATE APPLICATION CHECKLIST

- I have completed and signed the *Candidate Application*.
- I have provided credit card information or a check or money order for the correct amount due.
- I have attached a color passport photo (full face, no sunglasses, no hat). A digital photo may be substituted for a passport photo.

**Attach Color
Passport Photo
Here**

1-3/8" W x 1-3/4" H

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

National Commission for the Certification of Crane Operators (NCCCO)		
2750 Prosperity Avenue, Suite 505	Phone: 703-560-2391	info@nccco.org
Fairfax, VA 22031	Fax: 703-560-2392	www.nccco.org



Change of Address Form

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

International Assessment Institute (IAI)
600 Cleveland Street, Suite 900
Clearwater, Florida 33755

Phone: 727-449-8525
Fax: 727-461-2746

Please type or print neatly.

NAME	FIRST	MIDDLE	LAST
NCCCO CERTIFICATION NUMBER		SOCIAL SECURITY #	

OLD ADDRESS

MAILING ADDRESS			
CITY		STATE	ZIP
PHONE	FAX	E-MAIL	
COMPANY / ORGANIZATION		PHONE	
COMPANY MAILING ADDRESS			
CITY		STATE	ZIP

NEW ADDRESS

MAILING ADDRESS			
CITY		STATE	ZIP
PHONE	FAX	E-MAIL	
COMPANY / ORGANIZATION		PHONE	
COMPANY MAILING ADDRESS			
CITY		STATE	ZIP

EFFECTIVE DATE OF CHANGE

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Physical Examination Form

Please type or print neatly.

NAME	First	Middle	Last
SOCIAL SECURITY #	<input type="text"/>	<input type="text"/>	<input type="text"/>
HOME ADDRESS			PHONE
CITY	STATE	ZIP	

HEALTH HISTORY

Yes	No	Yes	No	Yes	No
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IF ANSWER TO ANY OF THE ABOVE IS YES, PLEASE EXPLAIN

GENERAL APPEARANCE AND DEVELOPMENT: Good Fair Poor

VISION: For distance Right/20 Left/20 Both/20 Without corrective lenses
 With corrective lenses

Evidence of disease or injury: Right _____ Left _____

Color test: Right _____ Left _____

Horizontal field of vision: Right _____ Left _____

HEARING: Right ear _____ Left ear _____

Evidence of disease or injury: Right ear _____ Left ear _____

AUDIOMETRIC TEST: 500 HZ 1000 HZ 2000 HZ 3000 HZ 4000 HZ
 5000 HZ 6000 HZ 7000 HZ 8000 HZ

THROAT: _____

THORAX: Heart: _____

If organic disease is present, is it fully compensated? _____

Blood pressure: Systolic _____ Diastolic _____

Pulse: Before exercise _____ Immediately after _____

Lungs: _____

PHYSICAL EXAMINATION FORM (CONT'D)

ABDOMEN: Scars _____ Abdominal masses _____ Tenderness _____

HERNIA: Yes No If so, where? _____ Is truss worn? _____

GASTROINTESTINAL: Ulceration or other disease? Yes _____ No _____

GENITO-URINARY: Scars _____ Urinal discharge _____

REFLEXES: Rhomberg _____

Pupillary _____ Light: Right _____ Left _____

Accommodation _____ Right _____ Left _____

KNEE JERKS: Right Normal _____ Increased _____ Absent _____

Left Normal _____ Increased _____ Absent _____

REMARKS: _____

EXTREMITIES: Upper _____ Lower _____ Spine _____

LABORATORY & OTHER SPECIAL FINDINGS: Urine Spec. Gr. _____ Alb. _____ Sugar _____

Other Laboratory Data (Serology, etc.) _____

Radiological Data _____ Electrocardiograph _____

GENERAL COMMENTS: _____

NAME OF EXAMINING DOCTOR (PLEASE PRINT)	SIGNATURE	
ADDRESS OF EXAMINING DOCTOR		
CITY	STATE	ZIP

MEDICAL EXAMINER'S CERTIFICATE (ONLY TO BE COMPLETED IF OPERATOR IS FOUND QUALIFIED)

MEDICAL EXAMINER'S CERTIFICATE

I certify that I have examined

CRANE OPERATOR'S NAME

*with the knowledge of his/her duties,
I find him/her qualified under the regulations.*

Qualified only when wearing corrective lenses.

Qualified only when wearing a hearing aid.

Qualified—see Accommodation Statement attached.

A complete examination form for this person is on file in my office:

ADDRESS	
DATE OF EXAMINATION	NAME OF EXAMINING DOCTOR
SIGNATURE OF EXAMINING DOCTOR	
SIGNATURE OF OPERATOR	
ADDRESS OF OPERATOR	

MEDICAL EXAMINER'S CERTIFICATE

I certify that I have examined

CRANE OPERATOR'S NAME

*with the knowledge of his/her duties,
I find him/her qualified under the regulations.*

Qualified only when wearing corrective lenses.

Qualified only when wearing a hearing aid.

Qualified—see Accommodation Statement attached.

A complete examination form for this person is on file in my office:

ADDRESS	
DATE OF EXAMINATION	NAME OF EXAMINING DOCTOR
SIGNATURE OF EXAMINING DOCTOR	
SIGNATURE OF OPERATOR	
ADDRESS OF OPERATOR	



Physician Instructions

PLEASE GIVE THESE INSTRUCTIONS TO THE EXAMINING PHYSICIAN

PHYSICAL QUALIFICATIONS AND EXAMINATIONS OF CRANE OPERATORS

A person is physically qualified to operate a crane if that person:

1. Has no loss of a foot, a leg, a hand, or an arm, or has been granted a waiver
2. Has no impairment of the use of a foot, a leg, a hand, fingers, or an arm, and no other structural defect or limitation, which is likely to interfere with his/her ability to control and safely operate a crane or has been granted a waiver upon a determination that the impairment will not interfere with his/her ability to control and safely operate a crane
3. Has no established medical history or clinical diagnosis of diabetes mellitus currently requiring insulin for control
4. Has no current clinical diagnosis of myocardial infarction, angina pectoris, coronary insufficiency, thrombosis, or any other cardiovascular disease of a variety to be known accompanied by syncope, dyspnea, collapse, or congestive cardiac failure
5. Has no established medical history or clinical diagnosis of respiratory dysfunction likely to interfere with his/her ability to control and operate a crane safely
6. Has no current clinical diagnosis of high blood pressure likely to interfere with his/her ability to operate a crane
7. Has no established medical history or clinical diagnosis of rheumatic, arthritic, orthopedic, muscular, neuromuscular, or vascular disease that interferes with his/her ability to control and operate a crane safely
8. Has no established medical history or clinical diagnosis of epilepsy or any other condition that is likely to cause loss of consciousness or any loss of ability to control a crane
9. Has no mental, nervous, organic, or functional disease or psychiatric disorder likely to interfere with his/her ability to operate a crane
10. Has distant visual acuity of at least 20/40 (Snellen) in each eye without corrective lenses or visual acuity separately corrected to 20/40 (Snellen) or better with corrective lenses, distant binocular acuity of at least 20/40 (Snellen) in both eyes with or without corrective lenses, field of vision of at least 70 degrees in the horizontal median in each eye, and the ability to recognize the colors of traffic signals and devices showing standard red, green, and amber
11. When tested by use of an audiometric device, does not have an average hearing loss in the better ear greater than 40 decibels at 500 Hz, 1,000 Hz, 2,000 Hz, 3,000 Hz and 4,000 Hz with or without a hearing aid when the audiometric device is calibrated to American National Standard (formerly ASA Standard) Z24.5-1951
12. Does not use a prescribed or over-the-counter substance, including ethanol, which would impair the operator's performing safe operation of a crane. These include illegal drugs, controlled substances (including trace amounts), look-alike drugs, designer drugs, or any other substance that may have the effect on the human body of being a narcotic, depressant, stimulant, or hallucinogen. An exception to this ruling is that an operator may use such a substance or drug if the substance or drug 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 that the prescribed substance or drug will not adversely affect the operator's ability to safely operate a crane. The treating physician will also provide a waiver to the Medical Examiner. (See waiver statement.)

INSTRUCTIONS FOR PERFORMING AND RECORDING PHYSICAL EXAMINATIONS

The examining physician should review these instructions before performing the physical examination. Answer each question *YES* or *NO*, where appropriate.

The examining physician should be aware of the rigorous physical demands and mental and emotional responsibilities placed on the crane operators. In the interest of public safety, the examining physician is required to certify that the operator does not have any physical, mental, or organic defect of such a nature as to affect the operator's ability to operate a crane safely.

General Information. The purpose of this history and physical examination is to detect the presence of physical, mental, or organic defects of such a character and extent as to affect the applicant's ability to operate a crane safely. The examination should be made carefully and at least as completely as indicated by the attached form. History of certain defects may be cause for rejection or indicate the need for making certain laboratory tests or a further, and more stringent, examination. Defects may be recorded that do not, because of their character or degree, indicate that certification of physical fitness should be denied. However, these defects should be discussed with the applicant and he/she should be advised to take the necessary steps to ensure correction, particularly of those which, if neglected, might lead to a condition likely to affect his/her ability to operate safely.

General Appearance and development. Not marked overweight. Not any posture defect, perceptible limp, tremor, or other defects that might be caused by alcoholism, thyroid intoxication, or other illnesses including sedating or habit-forming drugs.

Head—eyes. When other than the Snellen chart is used, the results of such test must be expressed in values comparable to the standard Snellen test. If the applicant wears corrective lenses, these should be worn while applicant's visual acuity is being tested. If appropriate, indicate on the Medical Examiner's Certificate by checking the box *Qualified only when wearing corrective lenses*. In recording distance vision, use 20 feet as normal. Report all vision as a fraction with 20 as a numerator and the smallest type read at 20 feet as denominator. Note ptosis, discharge, visual fields, ocular muscle imbalance, color blindness, corneal scar, exophthalmos, or strabismus uncorrected by corrective lenses.

Contact lens wear may not be allowed in many work areas where mandatory eye protection disallows contact lens wear. The applicant must be made aware that safety glass eye wear may routinely be required at job sites and must also pass vision testing protocols with safety eye glasses specified and approved ANSI Z89.

Ears. Note evidence of mastoid or middle ear disease, discharge, symptoms of aura vertigo, or Meniere's Syndrome. When recording hearing an audiometer is used to test hearing. Record decibel loss at 500 Hz, 1,000 Hz, 2,000 Hz, 3,000 Hz, and 4,000 Hz.

Throat. Note evidence of disease, irremediable deformities of the throat likely to interfere with eating or breathing, or any laryngeal condition that could interfere with the safe operation of a crane.

Thorax—heart. Stethoscopic examination is required. Note murmurs and arrhythmias and any past or present history of cardiovascular disease of a variety known to be accompanied by syncope, dyspnea, collapse, enlarged heart, or congestive heart failures. An electrocardiogram is required when findings so indicate.

Blood Pressure. Record with either spring or mercury column type of sphygmomanometer. If the blood pressure is consistently above 160/90mm. Hg., further tests may be necessary to determine whether the operator is qualified to operate a crane.

Lungs. If any lung disease is detected, state whether active or arrested; if arrested, your opinion as to how long it has been quiescent.

Gastrointestinal system. Note any diseases of the gastrointestinal system.

Abdomen. Note wounds, injuries, scars, or weakness of muscles of abdominal walls sufficient to interfere with normal function. Any hernia should be noted if present. State how long and if adequately contained by truss.

Abnormal masses. If present, note location, if tender, and whether or not applicant knows how long they have been present. If the diagnosis suggests that the condition might interfere with the control and safe operation of a crane, more stringent tests must be made before the applicant can be certified.

Genitourinary. Urinalysis is required. Acute infections of the genitourinary tract, as defined by local and state public health laws, indications from urinalysis of uncontrolled diabetes, symptomatic albuminuria in the urine, or other findings indicative of health conditions likely to interfere with the control and safe operation of a crane will disqualify an applicant from operating a crane.

Neurological. If positive Romberg is reported, indicate degrees of impairment. Pupillary reflexes should be reported for both light and accommodation.

Knee jerks are to be reported absent only when not obtainable upon reinforcement and as increased when foot is actually lifted from the floor following a light blow on the patella; sensory vibratory and positional abnormalities should be noted.

Extremities. Carefully examine upper and lower extremities. Record the loss or impairment of a leg, foot, toe, arm, hand, or fingers. Note any and all deformities, the presence of atrophy, semiparalysis or paralysis, or varicose veins. If a hand or finger deformity exists, determine whether sufficient grasp is present to enable the operator to secure and maintain a grip on the controls. If a leg deformity exists, determine whether sufficient mobility and strength exists to enable the operator to operate pedals properly. Particular attention should be given to, and a record should be made of, any impairment

or structural defect that may interfere with the operator's ability to operate a crane safely.

Spine. Note deformities, limitation of motion, or any history of pain, injuries, or disease, past or presently experienced in the cervical or lumbar spine region. If findings so dictate, radiologic and other examinations should be used to diagnose congenital or acquired defects, spondylolisthesis, or scoliosis.

Recto-genital studies. Diseases or conditions causing discomfort should be evaluated carefully to determine the extent to which the condition might be handicapping while lifting, pulling, or during periods of prolonged operation that might be necessary as part of the operator's duties.

Laboratory and other special findings. Urinalysis is required, as well as such other tests as the medical history or findings upon physical examination may indicate are necessary. A serological test is required if the applicant has a history of luetic infection or present physical findings indicate the possibility of latent syphilis. Other studies deemed advisable may be ordered by the examining physician.

Diabetes. If insulin is necessary to control a diabetic condition, the operator is not qualified to operate a crane. If mild diabetes is noted at the time of examination and it is stabilized by use of a hypoglycemic drug and a diet that can be obtained while the operator is on duty, it should not be considered disqualifying. However, the operator must remain under adequate medical supervision.

General. The physician must date and sign his findings upon completion of the examination.

The medical examination shall be performed by a licensed doctor of medicine or osteopathy. A licensed ophthalmologist or optometrist may perform examinations pertaining to visual acuity, field of vision, and ability to recognize colors.

If the medical examiner finds that the person he/she examined is physically qualified to operate a crane, the medical examiner shall complete the Medical Examiner's Certificate and furnish one copy to the person examined and one copy to the employer.

The medical examiner must attach all treating physician, ophthalmologist, or optometrist medical information pertaining to the applicant. Waiver acceptance is up to the medical examiner when waiver is attached to applicant application. The medical examiner is expected to verify the waiver provided by treating physician and qualify or disqualify applicant because of his examination of the applicant.

The medical examiner is expected to perform testing as needed of all applicants and may submit an accommodation statement, if applicable, about an applicant's physical limitations to aid an employer with ADA guidelines. Any accommodation statements must be attached to medical artifaction.

Waiver by physician. Treating physicians must provide signed statements disclosing disease state and/or medication and that the applicant is qualified for the practical examination, and state, "I have examined the aforementioned crane operator applicant and within medical certainty I find the applicant at no greater risk than the general population as a result of any physical, mental, or organic defects, and can safely operate a crane with the aforementioned diagnosis and treatment regimen subject to passing the CCO practical examination."

IMPORTANT CONTACT INFORMATION



NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS

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