NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS (NCCCO)

CANDIDATE HANDBOOK

- DRILL RIG OPERATOR
 - Foundation Drill Rig (FDR)
 - Anchor/Micropile Drill Rig (AMP)



BOARD OF DIRECTORS

This candidate handbook contains complete program information as well as applications for the CCO Written and Practical Examinations you must pass to earn your CCO certification. This handbook reflects NCCCO's current policies at the time of publication; to be sure that you have the latest version of this book, see the Handbooks and Forms page on the NCCCO website. 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 Drill Rig Operator Certification Candidate:

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

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

The NCCCO Dill Rig Operator Task Force that developed this certification program was made up of experts from all aspects of the industry—operators, users, trainers, safety supervisors, manufacturers—who together represent many thousands of hours of 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 foundation drill rigs and anchor/micropile drill rigs.

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

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

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

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





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PROGRAM DESCRIPTION

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

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

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

All candidates are required to pass both Written and Practical Examinations to be certified.

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

CCO EXAMINATION DEVELOPMENT

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

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

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

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

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

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





ELIGIBILITY

To be eligible for certification, candidates must:

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

EXPERIENCE

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

PHYSICAL EVALUATION

Certified drill rig operators must continue to meet U.S. Department of Transportation (DOT) physical requirements (see 49 CFR 391.41) throughout their certification period, and must attest to their agreement to this requirement in their applications.

CCO WRITTEN EXAMINATIONS

The Drill Rig Operator Written Examination consists of a Core Examination in drill rig operation and up to two drill rig Specialty Examinations. Certification requires competency in both the Core and one or both Specialty designations.

The Core Examination has 90 multiple-choice questions. Candidates are allowed 90 minutes to complete the examination. Each Specialty Examination consists of 45 multiple-choice questions; candidates are allowed 45 minutes to complete each Specialty Examination.

The CCO Written Specialty Examinations are:

- Foundation Drill Rig (FDR)
- Anchor/Micropile Drill Rig (AMP)

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

CCO PRACTICAL EXAMINATIONS

The Drill Rig Operator Practical Examinations demonstrate the operator's proficiency and are available for two drill rig types:

- Foundation Drill Rig (FDR)
- Anchor/Micropile Drill Rig (AMP)

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

CCO CERTIFICATION TIME FRAMES

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

Candidates have 12 months after they pass their first exam (Written or Practical) to pass the corresponding Written or Practical Exam(s) for the same designation(s). For example, a candidate passing the Written Exams (Core + Specialty) in the Foundation Drill Rig (FDR) designation in January 2019 has until the end of January 2020 to pass the Foundation Drill Rig (FDR) Practical Exam.

Any tests passed within a 12-month period count towards certification. For example, a candidate who passes the Written Core Exam in January 2019 and the Practical Exam in June 2019 but does not pass the corresponding Written Specialty Exam until February 2020 will then be required to retake (and pass) the Written Core Exam. The Practical Exam would count toward certification until the end of June 2020.

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

Candidates for certification or recertification may petition for an extension of NCCCO's standard timeline(s). NCCCO staff shall have the discretion to make the initial determination of whether a requested extension should be granted. Petitions for an extension of time are generally denied absent a showing of extraordinary circumstances. Denials of such petitions may be appealed to the Appeals Committee.

CODE OF ETHICS FOR CERTIFIED OPERATORS

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

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

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

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

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

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

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

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

DISCIPLINARY POLICY

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

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

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

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

Complaints against certificants are initially investigated by NCCCO's Program Integrity Team, which reports to NCCCO's Ethics and Discipline Committee. If the complaint is considered actionable, the Ethics and Discipline Committee informs both the certificant and the complainant of the official opening of the investigation. Following the investigation of the complaint, the Ethics and Discipline Committee informs the certificant and the complainant of its decision. If a sanction is imposed, the certificant may request an appeal of the decision to the NCCCO Board of Directors.

Appeals should be addressed to:

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

The decision of the NCCCO Board of Directors is final.

SUBSTANCE ABUSE POLICY

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

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

It is a condition of certification that operators certified by NCCCO attest to their compliance with this Substance Abuse Policy. Non-compliance with this policy automatically revokes a candidate's certification status.

CERTIFICATION CARDS

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

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

CHANGE OF ADDRESS

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





APPLICATION PROCESS TO TAKE THE WRITTEN EXAMINATION

Drill Rig Operator written exams exams may be taken as paper/pencil tests (PPT) at an approved NCCCO written exam test site. See the appropriate sections below for instructions on how to apply for written exams.

Candidates Requesting Testing Accommodations

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

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

PAPER/PENCIL TESTING (PPT)

Candidates desiring to sit for paper/pencil written exam(s) should visit www.nccco.org/testsites to see a schedule of upcoming Test Dates and Locations and then submit a completed Candidate Application form with the appropriate documentation as directed on the form. Applications are due two weeks prior to the scheduled examination date. PPT application deadline examples are shown on page 8. Information about the specific locations of the Test Sites will be available approximately one to three months prior to the examination. Candidates eligible to sit for the examination will receive an admission letter approximately one week before the scheduled test administration date.

Submission of Application

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

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

Fax: 727-461-2746

Contact the Test Site Coordinator to confirm whether the application should be sent to the Test Site Coordinator or

directly to NCCCO. Check the application to ensure that all information provided is accurate and complete. In addition to the completed application, make sure that the appropriate fees are enclosed.

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

Deadlines

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

Examination Fees

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

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

PPT Written Exam/Retest Fees:

Drill Rig Core Exam\$150
 Foundation Drill Rig Specialty Exam\$50
 Anchor/Micropile Drill Rig Specialty Exam......\$50

Other Fees:

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

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

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

An additional \$30 fee will be charged if:

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

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

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

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

Length of Test Day

NCCCO written exams are carefully designed to provide a reliable and valid assessment of a candidate's knowledge and skills. Time limits are carefully determined for each written exam to allow enough time for a prepared candidate to complete the exam and to provide for an efficient and successful administration of all exams to scheduled candidates on testing day.

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

Rescheduling, Cancellations, and Withdrawals

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

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

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

Emergency Cancellations or Withdrawals

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

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

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

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

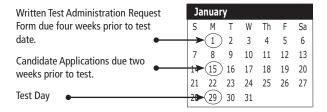
Candidates will NOT receive a refund if they decide they no longer wish to take the test.

Test Administration Schedule for CCO Examinations

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

Application Deadlines

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



Admission Letters

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

Identification at the Test Site

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

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

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

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

Materials to Bring to the Test Site

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

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

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

Score Reporting

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

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

TEST SITE INFORMATION

Test Security

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

- This examination is the exclusive property of NCCCO.
- This examination and the questions contained therein are protected by federal copyright law.
- No part of the examination(s) may be copied or reproduced in part or whole by any means whatsoever, including memorization.
- Theft or attempted theft of an examination booklet or any of its pages is punishable as a felony.
- While at the examination site, candidates are considered professionals and shall be treated as such. In turn, candidates must conduct themselves in a professional manner at all times. While at the site, they shall not use words or take actions that are vulgar, obscene, libelous, or that would denigrate the staff or other candidates.
- No conversing or any other form of communication among the candidates is permitted once they enter the examination area.
- No smoking, eating, or drinking is allowed at the examination site.
- Candidate participation in any irregularity during the examination, such as giving or obtaining unauthorized information or aid, as evidenced by observation or subsequent statistical analysis, may be sufficient cause to terminate participation, invalidate the results of the examination, or other appropriate remedy.
- Candidates verify that they have successfully met the physical/medical requirements and are eligible to take this examination. If at any time it is confirmed that a candidate has not met all the requirements, the candidate will no longer be eligible for certification.
- A candidate's signature on the answer sheet for the administration of the examination confirms that the candidate has read and understands the above statements.

Candidate Question Comment Forms

Candidates can comment on the examination(s) as a whole or on specific items within an examination by writing their comments on the Candidate Question Comment Form. Written comments should reference the question number as well as the site code and the test date

and should accompany the examination. Examination comments are reviewed by NCCCO content experts on a regular basis. An online form is available for computer-based tests.

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

TEST SCORING INFORMATION

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

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

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

Candidate scores cannot be given over the telephone.

Hand Score Requests

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

Requests should be mailed to:

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

Fax: 727-461-2746

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

RETAKING THE EXAMINATION(S)

Candidates who fail an examination(s) may retake the examination(s). Candidates will need to reapply and pay all corresponding retest fees.

INFORMATION RELEASE POLICY

NCCCO releases information pertaining to individuals who have successfully passed one or more CCO examinations according to its Information Release Policy (see page 32).



Written Examination Outline DRILL RIG OPERATOR—CORE AND SPECIALTY EXAMS

The CCO Drill Rig Operator Core and Specialty written examination tests the following knowledge areas relating to the operation of drill rigs:

Domain 1: Pre-Operations/Site Conditions

• Approximately 23% of test

Domain 2: Operations

• Approximately 34% of test

Domain 3: Technical Knowledge

• Approximately 31% of test

Domain 4: Tooling

• Approximately 4% of test

Domain 5: Communications

· Approximately 8% of test

DOMAIN 1: PRE-OPERATIONS/SITE CONDITIONS

- 1. Perform pre-work assessments—rig assessments and jobsite assessments.
- 2. Assess jobsite to identify (potential) hazards posed by existing structures.
 - a. Assess jobsite to identify (potential) hazards posed by proximity to existing structures
 - b. Assess jobsite to identify (potential) hazards overhead
 - c. Verify/assess depths of existing foundations
- 3. Complete jobsite assessment.
 - a. Before getting on rig, what do you do? Include this in the reference manual
- 4. Inspect work platforms to ensure they are ready for safe operation.
 - a. On surface
- 5. Assess/predict factors that will affect the stability of the drill rig.
- 6. Verify utilities have been located on job-site.
 - a. Interpret markings of utilities (above and below ground). Dig alert
 - b. Verify safe working distances from utilities different types of utilities (underground [markings], above ground [distance?])
- 7. Assess ground conditions.
 - a. Assess electric power line hazards prior to assembly/disassembly
- 8. Conduct and/or participate in Pre-shift/Preoperational Job Hazard Analysis (JHA) meetings.
 - a. Identify the purpose of the JHA

- b. Assess jobsite to identify potential hazards
- c. Conduct (complete) a JHA
- 9. Prepare and/or interpret written Job Hazard Analyses (JHA).

DOMAIN 2: OPERATIONS

- 1. Assess loading and unloading areas for potential hazards (ground conditions, utilities, existing structures, traffic, other).
 - a. Identify the process to stage equipment
 - b. Identify elements of assembly/disassembly
 - c. Identify sequence of assembly/disassembly
- 2. Travel (Tram) on jobsite to drilling location(s). Mobilization (on-site travel).
- Identify and explain the use and the function of safety devices.
- 4. Identify the basic configurations of equipment
- 5. Explain personnel safety requirements called for during drilling operations.
- 6. Identify and control the area of influence of the drill rig.
 - a. Secure shaft
- 7. Identify personal protection equipment (PPE) best practices
- 8. Interpret load charts (stability charts/lift capacity).
 - a. Verify (manufacturer specifications of equipment) dimensions, weights, center of gravity of the drill
- 9. Inspect the drill for unsafe conditions
 - a. Preform pre-operational inspections
 - b. Verify/determine documentation required to report rig condition/deficiencies (damage report).
 - c. Verify/determine when and who to notify regarding inspection deficiencies.
 - d. Inspect wire ropes and explain removal criteria for wire rope.
- 10. Use information found in the operator's manual.
- 11. Confirm (using operator manual) manufacturer approved attachments.
- 12. Implement safe drill rig set up procedures.
 - a. Set outriggers and stabilize base with proper supporting materials.
 - b. Boom up and verify swing radius (tail and front).
 - c. Install tool and other attachments.
 - d. Establish and maintain controlled access zone.
 - e. Accurately set up on the center of the shaft.

- 13. Situational awareness
- 14. Maintain or adjust drilling procedures in response to changing conditions
 - a. Weather
 - b. Soil
 - c. Rock
 - d. Ingress water (groundwater)
 - e. Platform stability
 - f. Obstructions
 - g. The public
 - h. Vehicle traffic
 - i. Other trades
 - j. Spoil removal
 - k. Rebar cage
 - l. Inspectors
- 15. Identify emergency procedures for:
 - a. Electric power contact
 - b. Loss of stability
 - c. Control malfunction
 - d. Carrier travel malfunction
 - e. Overload
 - f. Fire
 - g. Flooding
 - h. Fall into shaft
 - i. Injury
 - j. Hazardous material spill/leak
- 16. Explain operator authority to stop operations.
- 17. Identify proper shutdown/secure procedures when leaving drill rig unattended.
 - a. During a break
 - b. End of day
- 18. Maintain or adjust drilling procedures in response to changing conditions.
- 19. Identify the use and function of safety devices.
 - a. Horn
 - b. Level indicator (if applicable)
 - c. Emergency stop (if applicable)
 - d. Other

DOMAIN 3: TECHNICAL KNOWLEDGE

- 1. Verify/determine equipment specifications/capacities based on operating manuals.
- 2. Interpret capacity/stability charts (if applicable) load charts (stability charts / lift capacity).
- 3. Identify the location of various manufacturer manuals (operator manual, other) and what information can be found in them.
- 4. Identify the components of rigging principles.
- 5. Compare basic rigging devices and procedures.
- 6. Explain the basic uses of hooks or swivels.

- 7. Explain the proper uses of wire rope and sheaves.
 - Explain types/designations of wire rope and sheaves.
 - b. Explain replacement criteria for wire rope and sheaves.
 - Explain maintenance procedures for wire rope and sheaves.
- 8. Explain the relationship between line pull and Working Load Limit (WLL) of running rope, slings and hardware.
- 9. Explain the relationship between line pull and safe working load of running ropes.
- 10. Perform inspections
 - a. Hydraulics
 - b. Structural
 - c. Wire rope
 - d. Controls
 - e. Operational aids
 - f. Fluid levels
 - g. Electrical
 - h. Mast
 - i. Rotary
 - j. Drilling equipment
 - k. Outriggers
 - l. Frequency
- 11. Perform basic maintenance/service
 - a. Snapshot of manufacturers manual with associated questions
 - b. Wire rope
- 12. Recognize organizations that have developed regional/national regulations or industry standards, including:
 - a. OSHA
 - b. ASME
 - c. ANSI
 - d. CSA
 - e. Other
- 13. Describe the purpose of standards.
- 14. Interpret capacity or stability charts.
 - a. Explain/identify conditions that effect capacity
- 15. Identify, compare, contrast, and distinguish functions and limitations of various types of drill rigs and tool attachments (as found in manufacturers manuals).
 - a. Verify required inspection documentation
 - b. Verify/determine when and who to notify of inspection deficiencies
- 16. Read gauges.
 - a. Level indicators
 - b. Hydraulics
 - c. Fuel
 - d. Other

- 17. Explain the requirements for access and egress of the drill rig.
 - a. Three points of contact
- 18. Verify that operational aids and safety devices are functioning properly (pre-op inspection).
- 19. Explain alternative measures if operational aids/safety devices fail if applicable (place out of service).

DOMAIN 4: TOOLING

- 1. Inspect the working condition of the tool (initial and ongoing).
- 2. Verify that tooling has been properly installed.
 - a. Rotary
 - b. Drifters
 - c. Kelly bar
 - d. Attachments

DOMAIN 5: COMMUNICATIONS

- 1. Identify industry specific hand signals.
 - a. Boom up
 - b. Boom down
 - c. Tilt
 - d. Rotary head up/down
 - e. Forward
 - f. Reverse
 - g. Extend radius, fluid, or air supply
- 2. Interpret Signage (pictograms) on equipment
 - a. Colors—red, yellow, green
 - b. Pinch points
 - c. Crush hazards
 - d. Electrical hazard
- 3. Identify/explain terms, such as:
 - a. Kelly bar
 - b. Winches
 - c. Auxline (Auxiliary line)
 - d. Swivel
 - e. Mast
 - f. Kelly stub
 - g. Kelly pin
 - h. Crowd
- 4. Communicate and coordinate with supervisors, project managers, or representatives regarding the job requirements and schedule.



The following are sample test questions typical of the style and content of the questions used in NCCCO Written Examinations.

- 1. What is the first thing a new operator should do before operating a drill rig?
 - a. Call the last operator.
 - b. Talk to the supervisor about the rig.
 - c. Tell the oiler they are ready to drill.
 - d. Review the operators manual.
- 2. According to OSHA, how many days prior to excavation does a utility location service have to be notified?
 - a. Same day
 - b. Within 24 hours
 - c. 2-3 days prior
 - d. 1 week prior
- 3. Your site is located near a 12.4 kV overhead power line. What is the MINIMUM distance required to stay clear of the line?
 - a. 10 ft.
 - b. 12 ft.
 - c. 15 ft.
 - d. 20 ft.
- 4. What should workers avoid to protect themselves from being pinned between equipment or other objects?
 - a. Painting swing radius lines on the ground with spray paint.
 - b. Placing themselves between moving equipment and an immovable structure.
 - c. Removing safety guard or railings in the way.
 - d. Using a trench box or shield in work area.

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

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

Occupational Safety and Health Administration (OSHA)

http://www.osha.gov/

- OSH ACT 5(a)(1) "General Duty Clause"
- OSHA Focus Four "Construction Focus Four Training"
- Part 1910 General Industry
- Part 1926 Construction
 - Subpart E Personal Protective and Life Saving Equipment
 - Subpart M Fall Protection
 - Subpart O Motor Vehicles, Mechanized Equipment and Marine Operations
 - Subpart P Excavations
 - Subpart AA Confined Spaces in Construction
 - Subpart CC Cranes and Derricks in Construction
 - §251 Rigging Equipment for Material Handling
 - §1153 Respirable Crystalline Silica

U.S. Army Corps of Engineers (USACE)

• Safety and Health Requirement Manual (EM385-1-1) https://www.publications.usace.army.mil/Portals/76/ Publications/EngineerManuals/EM_385-1-1.pdf

ANSI

 ANSI/ASSP A10.23 (2014): Safety Requirements for the Installation of Drilled Shafts https://webstore.ansi.org/Standards/ASSE/ ANSIASSEA10232014

U.S Department of Transportation Federal Highway Administration (FHWA)

• Drill Shaft Inspector Handbook https://www.fhwa.dot.gov/engineering/geotech/ foundations/nhi10016/nhi10016.pdf

ADSC Resource Materials

- Large Foundation Drill Rig https://www.adsc-iafd.com/certification-program/
- Anchor/Micropile Foundation Drill Rig https://www.adsc-iafd.com/certification-program/
- Drilling Operators Machine Safety Guide https://www.adsc-iafd.com/?s=Drilling+Operators+ Machine+Safety+Guide

NAIT Drill Rig Operator Program

• http://www.nait.ca/103190.htm



Practical Examination Process DRILL RIG OPERATOR

SKILLS TESTED

CCO Drill Rig Operator Practical Examinations are available on two types of drill rigs:

- Foundation Drill Rig (FDR)
- Anchor/Micropile Drill Rig (AMP)

Candidates may take the Practical Examination on either or both of the drill rig types, provided they have passed/will pass the Written Examination for the corresponding designation within the 12-month time frame.

The Practical Examinations comprise tasks designed to assess the specific operating skills necessary for each type of drill rig operations. Foundation Drill Rig Operator skills tested include: inspecting the equipment, site safety protocols, identifying operational controls, picking up and laying down pipe, tool positioning, drilling, and safe shutdown/securing. Anchor/Micropile Drill Rig Operator skills tested include: inspecting the equipment, forward and reverse travel, vertical drill steel joint, angled and vertical drill steel placement, and safe shutdown/securing.

SCHEDULING A TEST

Candidates for the Practical Examination should contact their Test Site Coordinator to determine the date of the next scheduled Practical Exam. Candidates may also visit the NCCCO website at www.nccco.org for a listing of upcoming open Test Sites.

TEST DAY

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

PRACTICAL SCORING

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

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

A candidate may lose points either through operational errors or exceeding established optimum time limits.

Candidates' performances are scored off site at NCCCO's facilities.

PRACTICAL SCORE REPORTING

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

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

Both the Practical Examination and the scoring system have been validated and verified by NCCCO's pilot testing program. A score of 75 represents the minimum passing score for the Foundation Drill Rig Practical Examination; a score of 72 represents the minimum passing score for the Anchor/Micropile Drill Rig Practical Examination.

PRACTICAL EXAM CANDIDATE FEES

The Drill Rig Operator practical examination fees are:

- Foundation Drill Rig: \$100
- Anchor/Micropile Drill Rig: \$100

The appropriate fees must be submitted with the practical exam application through the Test Site Coordinator. The same fees apply for retest exams.

PRACTICAL EXAM HAND SCORE REQUESTS

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

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

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

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

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 Foundation Drill Rig Operator 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 Foundation Drill Rig Operator Practical Exam tasks are:

- Task 1: Pre-Operational (Shift) Inspection
- Task 2: Site Safety Protocols
- Task 3: Operational Controls Identification
- Task 4: Pipe Pickup and Placement
- Task 5: Pipe Laydown
- Task 6A: Tool Positioning
- Task 6B: Drilling
- Task 7: Safe Shutdown/Securing

There is also a Pre-Test Briefing, a Drill Rig Walk Around, and a Pre-Operation Familiarization Period. 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 drill rig, 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 some tasks *optimum time limits* have been set. If the task is completed within this time period, you receive no time penalty. Other tasks are untimed, as noted below.

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

PRE-TEST BRIEFING

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

Note that:

- The drill rig has been set up and leveled. A spirit level is available to verify that the rig is level.
- None of the target points have been placed at a radius that exceeds the drill rig's rated capacity.
- All signals used throughout the test are in accordance with the Standard Method hand signals.

UNSAFE ACT

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

- Lowering mast without instruction to do so
- Traveling with tracks
- Uncontrolled or reckless operation sufficient to cause safety concern to personnel or equipment
- · Failure to respond to "stop" signal
- Contacting obstruction with test pipe

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

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

CANDIDATE ID AND SIGNATURE

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

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

WEATHER CONDITIONS AND EQUIPMENT PROBLEMS

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

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

- You will resume the test at the beginning of the task you were performing at the time of the interruption.
- You will be entitled to a Pre-Operation Familiarization Period before resuming the test.
- If testing resumes on a different machine, you must start the test over from the beginning. The first score sheet will be marked as "VOID" with an explanation and returned to NCCCO.
- If the testing is delayed to a different day, the test must be restarted from the beginning.

DRILL RIG WALK AROUND

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

TASK 1: PRE-OPERATIONAL (SHIFT) INSPECTION

Untimed

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

TASK 2: SITE SAFETY PROTOCOLS

Maximum time: 3 minutes

- At the Examiner's indication to start, at which point timing will begin, use the available materials to identify the exclusion zone around the equipment you will be using.
- · You will have three minutes to complete this task.
- Timing will end when you indicate to the Examiner that you are done.
- When you have finished setting up the exclusion zone, you will be asked to describe the safety measures you would implement around an exposed hole.
- Points will be deducted for the following:
 - a. Cones not placed beyond swing radius
 - b. Cones not placed completely around hazard area
 - Not correctly describing exposed hole safety measures

TASK 3: OPERATIONAL CONTROLS IDENTIFICATION

Untimed

- The Examiner will describe six functions of the drill rig. One at a time, you will be asked to identify which control performs that function.
- You will have approximately one minute per item.
- Points will be deducted for stating incorrect function and/or direction.

PRE-OPERATION FAMILIARIZATION PERIOD

- You will be allowed up to 15 minutes to get comfortable with operating the drill rig.
- You may run the rig through its functions, except for tracking or traveling the machine, or lowering the mast down to its storage position.
- You may not interfere with the test course.
- If you are ready before the 15-minute time limit is reached, please indicate this to the Examiner.
- The Examiner will let you know when you have five and one minute(s) remaining.
- If at any point you feel like you are not ready to test, 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 4: PIPE PICKUP AND PLACEMENT

Optimum time: 4:30 minutes

- You will be instructed to bring the hook over top of the pipe attachment point and lower the hook so that it can be attached. Then the Examiner will attach the pipe to the hoist line when you indicate you are ready to make the connection. You will then make the rigging taut.
- When the Examiner gives you a start signal, timing will begin. Raise the Pipe out of the Corridor and high enough to avoid obstructions. Swing the pipe over to Barrel #1 and lower the pipe until the line on the pipe is below the barrel rim.
- The Examiner will give you a stop signal, a hoist signal, and a swing signal indicating you may go to Barrel #2.
- Once the pipe has been lowered into Barrel #2 past the horizontal line, the Examiner will give you a stop signal, a hoist signal, and a stop signal.
- Avoid contacting the ground or any part of the course or rig with the pipe.
- Points will be deducted for the following:
 - a. Dragging pipe tip or touching ground outside of corridor
 - b. Tool contacting any part of the rig
 - c. Pipe contacting any part of the rig
 - d. Moving barrels two inches or more
 - e. Knocking over barrels
 - f. Knocking over poles
 - g. Moving pole bases off line
 - h. Knocking balls off poles

TASK 5: PIPE LAYDOWN

Optimum time: 2:45 minutes

- At the Examiner's indication to start, at which point timing will begin, raise the pipe above all obstructions, and then swing it back over to the Corridor.
- Set the tip of the pipe down inside the 4 ft. x 3 ft. box and then lay the pipe back down in between the pole barriers.
- Once the pipe has been set down fully inside the Corridor, the Examiner will give you a stop signal.
 If the pipe has not been set down fully inside the corridor, timing continues.

- · Points will be deducted for the following:
 - a. Dragging pipe tip or touching ground outside of corridor
 - b. Pipe not set inside target box
 - c. Pipe contacting any part of the rig
 - d. Moving barrels two inches or more
 - e. Knocking over barrels
 - f. Knocking over poles
 - g. Moving pole bases off line
 - h. Knocking balls off poles

TASK 6A: TOOL POSITIONING

Untimed

- You will be instructed to swing the tool in between the starting point and the drilling spot, and partially extend it.
- The Examiner will signal you to adjust the boom or tool position with a series of voice commands. This part is not timed.
- For each voice command the Examiner provides, you will adjust the position of the boom or tool accordingly.
- Points will be deducted for incorrect movements of tool.

TASK 6B: DRILLING

Optimum time: 2:30 minutes

- The Examiner will instruct you place the tool plumb on the ground at the start position.
- At the Examiner's indication to start, at which point timing will begin, swing the tool from the starting point to drilling location.
- Once centered over the casing, proceed with drilling a hole with two passes not to exceed 5 ft. total below grade.
- As necessary, you may dump the dirt in the dump-off area
- Once you've completed two passes and dumped off the dirt from the tool, swing the tool back to the starting point and place the tip of the auger on the ground.
- Once the tool is set on the ground in the starting position, the Examiner will give you a stop signal. If the tool is not set on the ground, timing continues.

- Points will be deducted for the following:
 - a. Dragging tool on the ground
 - b. Banging tool into the mast
 - c. Dropping tool on the ground
 - d. Tool hitting side of casing (while swinging)
 - e. Contacting rig with tool
 - f. Fouling hoist line
 - g. Overloading tool
 - h. Circumvention (clean tool)

TASK 7: SAFE SHUTDOWN AND SECURING PROCEDURES

Untimed

- Before leaving the operator station, you will be required to apply safe shutdown procedures to the drill rig in preparation for the next candidate.
- Once the drill rig is shut down, you will leave the operator station and describe to the Examiner the procedures you would follow to secure the machine at the end of the work day.
- Points will be deducted for improperly securing the equipment or improperly describing how to secure it.

POST-TEST PROCEDURES

Once you have completed the Practical Examination:

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

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 Anchor/Micropile Drill Rig Operator 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 Anchor/Micropile Drill Rig Operator Practical Exam tasks are:

- Task 1: Pre-Operational (Shift) Inspection
- Task 2: Forward Travel
- Task 3: Vertical Drill Steel Joint
- Task 4: Angled Drill Steel Placement
- Task 5: Vertical Drill Steel Placement
- Task 6: Reverse Travel
- Task 7: Safe Shutdown/Securing

There is also a Pre-Test Briefing, a Drill Rig Walk Around, and a Pre-Operation Familiarization Period. 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 drill rig, 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 some tasks *optimum time limits* have been set. If the task is completed within this time period, you receive no time penalty. Other tasks are untimed, as noted below.

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

PRE-TEST BRIEFING

While candidates are waiting to take their tests, they will have sufficient time to read this description of the tasks to be performed and review the operator's manual for the rig they will operate. In addition, they will be informed of the make and model of the anchor/micropile drill rig. They will also watch a short presentation showing all the tasks they will be required to perform during the examination.

Note that:

- The drill rig has been set up and leveled. A spirit level is available to verify that the rig is level.
- None of the target points have been placed at a radius that exceeds the drill rig's rated capacity.
- All signals used throughout the test are in accordance with the Standard Method hand signals.

UNSAFE ACT

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

- Uncontrolled or reckless operation sufficient to cause safety concern to personnel or equipment
- Failure to respond to "stop" signal
- Contacting obstructions outside of working or starting areas

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

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

CANDIDATE ID AND SIGNATURE

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

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

WEATHER CONDITIONS AND EQUIPMENT PROBLEMS

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

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

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

DRILL RIG WALK AROUND

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

TASK 1: PRE-OPERATIONAL (SHIFT) INSPECTION

Untimed

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

- You will also be asked to physically identify by pointing the quickest method for shutting off the machine in an emergency situation.
- Points will be deducted for each incorrectly identified inspection item.

PRE-OPERATION FAMILIARIZATION PERIOD

- You will be allowed up to 30 minutes to get comfortable with operating the drill rig.
- You may run the rig through its functions.
- You may not interfere with the test course.
- If you are ready before the 30-minute time limit is reached, please indicate this to the Examiner.
- The Examiner will let you know when you have five and one minute(s) remaining.
- If at any point you feel like you are not ready to test, you should notify the Examiner. You will have, in effect, disqualified yourself from taking the examination at this time, and you will be required to sign to that effect on the Candidate Score Sheet.

TASK 2: FORWARD TRAVEL

Optimum time: 2:30 minutes

- When the Examiner gives you a start signal, timing will begin. While keeping the mast in the travel position, travel the rig out of the starting area and bring it over to the drilling steel frame located at the end of the course.
- Except for the control panel, no part of the rig should leave the marked boundaries of the course.
- Avoid contacting any of the obstructions around the starting area or inside the course.
- Once the lowest part of the mast has crossed the marked line 4 ft. from the drilling steel frame, the Examiner will give you a stop signal. If the mast has not completely crossed the marked line, timing continues.
- Points will be deducted for the following:
 - a. Contacting barrel
 - b. Dragging mast on ground
 - c. Any part of rig traveling outside Working Area
 - d. Traveling with outriggers down
 - e. Knocking over poles
 - f. Moving pole bases off line
 - g. Knocking balls off poles

TASK 3: VERTICAL DRILL STEEL JOINT

Optimum time: 6:30 minutes

- When the Examiner gives you a start signal, timing will begin. Raise the mast to a vertical position, approach the vertically placed drilling steel, and "shoulder it up."
- Once fully connected, lift the drilling steel out of its holder.
- Avoid knocking or moving the drilling steel frame.
- Once the drilling steel has been completely lifted out of its holder, the Examiner will give you a stop signal. If the drilling steel is not completely outside of its holder, timing continues.
- Points will be deducted for the following:
 - a. Knocking tennis ball off pole
 - b. Dragging mast on ground
 - c. Not making full drill steel connection

TASK 4: ANGLED DRILL STEEL PLACEMENT

Optimum time: 10:30 minutes

- When the Examiner gives you a start signal, timing will begin. Position the drill steel in the holder angled at 30 degrees.
- Once placed inside the holder, unthread the rod.
- Avoid knocking or moving the drilling steel frame.
- Once the drilling steel has been completely unthreaded, the Examiner will give you a stop signal.
 If the drilling steel has not be completely unthreaded, timing continues.
- Points will be deducted for the following:
 - a. Knocking tennis ball off pole
 - b. Dragging mast on ground
 - c. Dropping steel on disconnect

TASK 5: VERTICAL DRILL STEEL PLACEMENT

Optimum time: 8:00 minutes

- When the Examiner gives you a start signal, timing will begin. Re-engage the rod in the holder angled at 30 degrees and "shoulder it up."
- Once fully connected, remove the drilling steel from the angled holder and set it back in the original vertical holder.
- Avoid knocking or moving the drilling steel frame.
- Once the drilling steel has been placed down fully inside the vertical holder, I will give you a stop signal.
 If the drilling steel is not placed fully down inside the vertical holder, timing continues.

- · Points will be deducted for the following:
 - a. Knocking tennis ball off pole
 - b. Dragging mast on ground
 - c. Not making full drill steel connection

MULTI-TASK DEDUCTIONS

- Points will be deducted for the following if the following occurs during Tasks 2–5:
 - a. Drilling steel frame moved 2 in. or more but less than 6 in.
 - b. Drilling steel frame moved 6 in. or more

TASK 6: REVERSE TRAVEL

Optimum time: 4:30 minutes

- Prior to the start of this task, you will be asked to unthread the drilling steel.
- When the Examiner gives you a start signal, timing will begin. Lower the mast to a horizontal position for traveling.
- Once the mast has been lowered, begin traveling backwards and place the rig back inside the starting area bordered by the pole barriers.
- Avoid contacting any of the obstructions around the starting area or inside the course.
- Once the rig's tracks are fully within the area, the Examiner will give you a stop signal. If the rig's tracks are not fully within the area, timing continues.
- Points will be deducted for the following:
 - a. Contacting barrel
 - b. Dragging mast on the ground
 - c. Mast not properly lowered before travel
 - d. Traveling with outriggers down
 - e. Any part of rig traveling outside the working area
 - f. Knocking over poles
 - g. Moving pole bases off line
 - h. Knocking balls off poles

TASK 7: SAFE SHUTDOWN AND SECURING PROCEDURES

Untimed

- Before leaving the operator station, you will be required to apply safe shutdown procedures to the drill rig in preparation for the next candidate.
- Once the drill rig is shut down, you will leave the operator station and describe to the Examiner the procedures you would follow to secure the machine at the end of the work day.
- Points will be deducted for improperly securing the equipment or improperly describing how to secure it.

POST-TEST PROCEDURES

Once you have completed the Practical Examination:

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



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

- Candidate Application—Written Examination
- Candidate Application—Practical Examination
- Change of Address Form





Candidate Application

WRITTEN EXAMINATION—DRILL RIG OPERATOR (PAPER/PENCIL TEST ONLY)

Please type or print neatly.

FULL LEGAL NAME	First	Middle		Last		Suffix (Jr., Sr., III)
(as shown on valid photo ID)						
CCO CERTIFICATION NUMBER (if previously certified)	DATE OF BIRTH		DIDATE ID: viously tested)		
MAILING ADDRESS						
CITY			STATE	ZIP	COUNTRY	
PHONE		CELL		EMAIL		
COMPANY/ORGANIZATION				PHONE		
COMPANY MAILING ADDRESS						
CITY			STATE	ZIP	COUNTRY	
-		TIONS IN COMPLIANCE WI modations policy, please			, ,	

WRITTEN EXAMINATION FOR WHICH YOU ARE APPLYING

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

WRITTEN EXAM/RETEST FEES

 Drill Rig Operator Core Written Exam (650300) Foundation Drill Rig Specialty Written Exam (650303) Anchor/Micropile Drill Rig Specialty Written Exam (650304) 	\$50
OTHER FEES	
○ Candidate Late Fee (if applicable)	\$50
O Incomplete Application Fee (if applicable)	\$30
○ Updated/Replacement Card	\$25
TOTAL AMOUNT DUE	. [\$

CANDIDATE APPLICATION (CONT'D) WRITTEN EXAMINATION—DRILL RIG OPERATOR

TEST SITE AT WHICH YOU INTEND TO TAKE THE WRITTEN EXAMINATION

TEST SITE NAME	TEST SITE COO	RDINATOR	
TEST SITE ADDRESS			
CITY	STATE	ZIP	COUNTRY
EST ADMINISTRATION NUMBER	DATE YOU INT	 END TO TAKE THE CCO EXAM	 MINATION
I declare that the foregoing statements and those understand and agree that my failure to provide and procedures, including the Code of Ethics, shoor revocation of my certification. I understand the application or in connection with my certification consistent with NCCCO's Information Release purple have read it, and agree to be bound by it. I agree be amended from time to time, including without substance abuse test conducted by a recognized abuse policy. I have passed a physical exam that and I will continue to comply with those require period I fail to meet any of the requirements out continue to fulfill certification requirements, I me	e accurate and complete all constitute grounds that NCCCO reserves the on. I expressly consent to be bound by all NC at limitation those post to be bound by all NC at limitation those post to complies with federal tements. I understand the lined above, or if matter that the NCCCO all complies with report it to NCCCO all constitutions.	te information or for the rejection of the rejection of the right to verify a to NCCCO's releaded to NCCCO policies and ted at nccco.org. It agree to comply to Department of The pat if at any point ters arise that can of the can of the total and the tota	abide by NCCCO's policies f my application, or denial my information in this se of any information CO Candidate Handbook, I procedures, as they may attest that I have passed a with NCCCO's substance transportation requirements during my certification affect my capability to
any subsequent investigation regarding such ma	atters.] [DATE
CAMBIDATE SIGNATURE			DAIL
Master Card AMERICAN EXPRESS	Personal check		Do not send cash. Money Order Please do not staple your check or money order.
If paying by credit card, complete the following in	nformation:	E	XPIRATION DATE
NAME (Print as it appears on card)	ATURE (on card)		SECURITY CODE*
Email credit card receipt to:			* Three- or four-digit code located on the card
Checks and money orders should be payable to: 1	NCCCO		
Please send application and payments to:			
NCCCO—Testing Services Depa 1960 Bayshore Blvd. Dunedin, Florida 34698	rtment		

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

Phone: 727-449-8525



Candidate Application PRACTICAL EXAMINATION—DRILL RIG OPERATOR

FULL LEGAL NAME First (as shown on valid photo ID)	Middle		Last	Suffix (Jr., Sr., II
CCO CERTIFICATION NUMBER (if previously certified)	DATE OF BIRTH		IDIDATE ID: reviously tested)	
MAILING ADDRESS		<u> </u>		
CITY		STATE	ZIP	COUNTRY
PHONE	CELL	11	EMAIL	11
COMPANY/ORGANIZATION			PHONE	
COMPANY MAILING ADDRESS			11	
СІТУ		STATE	ZIP	COUNTRY
☐ Foundation Drill Rig ☐ A TEST SITE AT WHICH YOU INTEND	nchor/Micropile TO TAKE THE PRAC	TICAL EXAM	INATION:	
TEST SITE COORDINATOR NAME			PE SITE #:	
PHONE	E-MAIL			
TEST SITE PHYSICAL ADDRESS				
CITY		STATE	ZIP	COUNTRY
I declare that the foregoing statements that my failure to provide accurate and of Ethics, shall constitute grounds for th NCCCO reserves the right to verify any to NCCCO's release of any information Candidate Handbook, have read it, an	l complete information of ne rejection of my applica information in this app a consistent with NCCCC	or abide by NCo ation, or denial lication or in co O's Information	CCO's policies and plant of monnection with my connection with my connection with my content of the content of	procedures, including the Code y certification. I understand that certification. I expressly consent we received a copy of the NCCCO

that if at any point during my certification period I fail to meet any of the requirements outlined above, or if matters arise that can affect my capability to continue to fulfill certification requirements, I must report it to NCCCO immediately and agree to cooperate with any subsequent investigation regarding such matters.

CANDIDATE SIGNATURE

DATE

they may be amended from time to time, including without limitation those posted at nccco.org. I attest that I have passed a substance abuse test conducted by a recognized laboratory service and agree to comply with NCCCO's substance abuse policy. I have passed a physical exam that complies with federal Department of Transportation standards and I will continue to comply with those requirements. I further attest that I am physically and mentally capable of safely operating equipment on the day of the Practical Examination. I understand and agree that any personal injury and/or property damage resulting from or caused in any way by my participation in the CCO Practical Examination is not and shall not be the responsibility of NCCCO. I understand

CANDIDATE APPLICATION (CONT'D) PRACTICAL EXAMINATION—DRILL RIG OPERATOR

CCO CERTIFICATION CARD

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

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

A 1%"× 1%" passport color photo may be substituted for a digital photo; if submitting a passport photo, please give it to your Test Site Coordinator.

PRACTICAL EXAMINATION FEES

Checks and money orders must be made payable to NCCCO. Credit cards (Visa, Master Card, or American Express) may be used by completing the credit card information below.
Check the box(es) next to the Practical Exam type(s) for which you are registering.
Practical Examination Fees:
☐ Foundation Drill Rig: \$100
☐ Anchor/Micropile Rig: \$100
☐ Updated/replacement card: \$25

METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

WISA MasterCard MasterCard		Employer check enclosed	Money order enclosed	Please do not staple your check or money order.
If paying by credit card, complete the follo	wing information:			
CREDIT CARD NUMBER			EXPIRATION DATE	
NAME (Print as it appears on card)	SIGNATURE (on card)		SECURITY CODE*	
Email credit card receipt to:			* Three- or four-digit	code located on the card.

Checks and money orders should be payable to: NCCCO

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



Change of Address Form

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

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

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

Please type or print new	atly.						
FULL LEGAL NAME (as shown on driver's license)	First	Middle		Last			Suffix (Jr., Sr., III)
CCO CERTIFICATION NUMBER		DATE OF BIRTH		CANDIDATE ID			
OLD ADDRESS							
MAILING ADDRESS							
CITY			STATE	ZIP		COUNTRY	
PHONE			EMAIL				
COMPANY / ORGANIZATION				PHONE			
COMPANY MAILING ADDRESS							
CITY			STATE	ZIP		COUNTRY	
NEW ADDRESS							
MAILING ADDRESS							
CITY				STATE		ZIP	
PHONE			EMAIL		<u> </u>		
COMPANY / ORGANIZATION				PHONE			
COMPANY MAILING ADDRESS							
CITY			STATE	ZIP		COUNTRY	
EFFECTIVE DATE OF CH.	ANGE						



NCCCO Information Release Policy

A. Definitions

- 1. "NCCCO" means and refers to the National Commission for the Certification of Crane Operators acting through its staff and authorized agents and representatives.
- 2. "Releasable Information" means and refers to the following information: name, certification status, examination dates, certification dates, certification number(s), and designations. In the case of accredited Practical Examiners, "Releasable Information" also means and refers to the following information: name, accreditation status, accreditation dates, accreditation number, and categories in which the Practical Examiner is authorized to administer exams.
- 3. "Third Party" means and refers to an employer, prospective employer, regulatory agency, or any other person or entity that makes an inquiry to NCCCO.

B. Policies

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

- requirements to work in the jurisdiction. Any such statement to a Third Party or jurisdiction may identify the applicant or certificant, the certifications affected, the actions taken, and the effective dates of any such actions.
- 5. If an accredited Practical Examiner, authorized Test Site Coordinator, listed Training Provider, or other authorized participant in NCCCO's programs ("Authorized Participant") is under formal sanction, suspension, or revocation by NCCCO, then NCCCO may release a statement to that effect to any persons and by any reasonable means, including by means of a list published on the NCCCO website. In addition, if an Authorized Participant is under formal investigation, sanction, suspension, or revocation by NCCCO, then NCCCO may release a statement concerning the status of the Authorized Participant to any persons and by any reasonable means, including by means of a list published on the NCCCO website. Any such statement may identify the Authorized Participant, the credentials or capacities affected, the actions taken, and the effective dates of any such actions.
- 6. If a Third Party seeks information other than the foregoing information, generally, absent a subpoena or similar legal process, such information will not be released. However, in the course of business, as circumstances reasonably warrant, NCCCO reserves the discretion to release information other than the foregoing information.
- 7. Certain situations may require or warrant the immediate verbal confirmation of an individual's certification status or other Releasable Information in response to a written or verbal request. Under such circumstances, NCCCO may provide such immediate verbal confirmation, at its discretion. When such a verbal confirmation is provided, it shall be NCCCO's policy to follow up with a written confirmation.
- 8. It shall be the policy of NCCCO to discuss score-related and test-specific matters only with a candidate or a candidate's authorized legal representative.
- 9. NCCCO will release Releasable Information about an individual upon receipt of a written request (including electronic correspondence) from that individual.

 NCCCO may release information other than Releasable Information about an individual, at its discretion, upon receipt of a signed, notarized, written request from that individual. In addition, NCCCO will release information other than Releasable Information about an individual when required by a legal authority of competent jurisdiction under a duly-issued subpoena, subject to any objection, or as otherwise required by law.

IMPORTANT CONTACT INFORMATION



NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS

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

Phone: 703-560-2391 Fax: 703-560-2392 Email: info@nccco.org



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