



CCO

CANDIDATE HANDBOOK

- **ARTICULATING CRANE OPERATOR**
 - Articulating Boom Cranes
 - Articulating Boom Cranes with Winch
 - Articulating Boom Loaders

®



This CCO certification program is accredited by the ANSI National Accreditation Board (ANAB) to ISO 17024 (General Requirements for Bodies Operating Certification Systems of Persons).



**ANSI National Accreditation Board
ACCREDITED
ISO/IEC 17024
PERSONNEL CERTIFICATION
BODY**

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

This handbook reflects CCO'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 CCO website. Please read this handbook carefully.

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

Dear CCO Certification Candidate:

Welcome to the CCO national crane operator certification program for articulating boom cranes and loaders.

CCO 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 CCO written and practical examinations, initially for mobile crane operators but now also for tower, overhead, and articulating crane operators, digger derrick operators, drill rig operators, concrete pump operators, telehandler operators, riggers, signalpersons, crane inspectors, and lift directors. These nationally recognized certification programs are the culmination of many years' hard work by experts from the varied industries and groups that use cranes and load handling equipment, including construction, steel erection, operating engineers, utilities, crane rental, petrochemicals, pulp and paper, and others.

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

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

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

CCO, 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. CCO 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 that you must pass to become certified. We recognize the commitment you are about to make, and we want your experience to be a positive and successful one. If, after reading this handbook, there is anything you do not fully understand or need clarified, please call 703-560-2391 or email candidate@nccco.org. CCO staff will guide you through any aspects of the CCO articulating crane operator certification program you would like explained in more detail.

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



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Introduction

PROGRAM DESCRIPTION

CCO is an independent, nonprofit organization formed to set standards for fairly measuring the knowledge and proficiency required for those in and around load handling equipment. CCO currently administers a nationwide program of certifications for 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, CCO 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 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. CCO'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. A practical (skills) examination is not required for recertification, providing the certificant meets experience requirements.

CCO EXAMINATION DEVELOPMENT

The first step in the development of an objective test to measure what is required for safe crane operations was a job analysis study. The study identified the knowledge and skills necessary for safe crane operations. Subject matter experts were consulted to generate test blueprints and content specifications.

Development of the *Articulating Crane Operator Written Examinations* involved a panel of crane operation content experts who worked with CCO staff to write and review all

questions used in the examination. Questions are selected for the examination on the basis of the content areas defined by the test blueprints.

The CCO *Articulating Crane Operator Practical Examinations* were developed as a fair and objective assessment of the essential skills a crane operator needs to operate articulating boom cranes safely. These exams were developed over a one-year period by an CCO task force made up of experts from all aspects of the crane industry—crane operators, training directors, managers, safety supervisors, manufacturers—who together represent many thousands of hours of crane-related experience.

CCO teamed its exam development expertise with the task force's knowledge and experience. CCO 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, CCO also helped design the Practical Exam Proctor Program whereby CCO trains and credentials CCO-certified crane operators to administer CCO practical examinations.



Articulating Crane Operator Certifications

The chart below shows the three different Articulating Crane Operator certifications offered by CCO. If you operate multiple categories of cranes, you may need certification in more than one category.

The crane categories identified below apply whether the crane is mounted to a truck or crawler chassis.

If you operate a:		The recommended certification is:
<p>Articulating Boom Crane</p> <p>A crane with two or more boom sections that pivot (articulate) via hydraulic cylinder(s), as defined in the <i>CCO Articulating Crane Reference Manual</i>; these are commonly known as a “knuckleboom” or “folding” crane.</p>		<p>Articulating Boom Crane (ABC)</p> <p>Exams:</p> <ul style="list-style-type: none"> • Written: Articulating Boom Cranes (ABC) • Practical: Articulating Boom Crane (ABC)
<p>Articulating Boom Crane with Winch</p> <p>A crane with two or more boom sections that pivot (articulate) via hydraulic cylinder(s) and used with a load hoist mechanism, as defined in the <i>CCO Articulating Crane Reference Manual</i>; these are commonly known as a “knuckleboom” or “folding” crane “with winch.”</p>		<p>Articulating Boom Crane w/Winch (ABW)</p> <p>Exams:</p> <ul style="list-style-type: none"> • Written: Articulating Boom Cranes w/Winch (ABW) • Practical: Articulating Boom Crane (ABC)
<p>Articulating Boom Loader or Material Handler</p> <p>A crane with two or more boom sections that pivot (articulate) via hydraulic cylinder(s) and used with an attached hydraulic rotating and folding fork assembly, as defined in the <i>CCO Articulating Crane Reference Manual</i>; these are commonly known as a “drywall” or “material-handling” crane.</p>		<p>Articulating Boom Loader (ABL)</p> <p>Exams:</p> <ul style="list-style-type: none"> • Written: Articulating Boom Loader (ABL) • Practical: Articulating Boom Loader (ABL)



Certification Policies

ARTICULATING CRANE OPERATOR

ELIGIBILITY

To be eligible for certification, candidates must:

- Be at least 18 years of age
- Comply with CCO’s Substance Abuse Policy
- Pass Written Examination
- Pass Practical Examination(s)
- Comply with the Code of Ethics

To be CCO-certified for a five-year period, candidates must pass the written exam of their choice and at least one corresponding practical exam.

MYCCO PORTAL

The myCCO Portal allows candidates to:

- Submit exam applications.
- Access a CCO demo exam
- See upcoming exam appointments
- Schedule EOT and OPT exams
- View exam results
- Update contact information
- Check current certification status and expiration dates

Go to my.ccocert.org to set up a free account in just minutes.

CERTIFICATION EXAM OPTIONS

If you are seeking certification for:	Take the corresponding exams:	
	Written	Practical
Articulating Boom Cranes (ABC)	Articulating Boom Crane	Articulating Boom Crane
Articulating Boom Cranes w/ Winch (ABC & ABW)	Articulating Boom Crane w/ Winch	Articulating Boom Crane
Articulating Boom Loaders (ABL)	Articulating Boom Loader	Articulating Boom Loader
Articulating Boom Cranes and Boom Loaders (ABC & ABL)	Articulating Boom Crane	Articulating Boom Crane & Articulating Boom Loader
Articulating Boom Cranes w/ Winch and Boom Loaders (ABC, ABW, & ABL)	Articulating Boom Crane w/ Winch	Articulating Boom Crane & Articulating Boom Loader

These crane categories apply whether the crane is mounted to a truck or a crawler chassis.

CCO WRITTEN EXAMINATIONS

The written examination program consists of three examinations. Candidates choose from these based on the certification designation(s) they seek.

Candidates are given 90 minutes to complete each of the written examinations:

- Articulating Boom Crane (ABC)—65 questions
- Articulating Boom Crane w/Winch (ABW)—75 questions
- Articulating Boom Loader (ABL)—50 questions

Length of Test Day

CCO policy permits candidates to take written exams totaling up to 5.5 hours of test time for written exams at a single test administration. Candidates needing to take written exams totaling over 5.5 hours will need to schedule multiple test administrations.

CCO PRACTICAL EXAMINATIONS

The CCO Articulating Crane Operator practical examinations demonstrate crane operator proficiency and are available for two crane types:

- Articulating Boom Cranes (ABC)
- Articulating Boom Loaders (ABL)

CCO CERTIFICATION TIME FRAMES

Candidates have 12 months from the time they pass the initial written or practical exam they take to pass the corresponding (written or practical) exam.

Any tests passed within a 12-month period count towards certification. For example, a candidate who fails the Articulating Boom Loader Written Exam in June 2023 but passes the Articulating Boom Loader Practical Exam in January 2024 has until the end of June 2024 to retake (and pass) the Articulating Boom Loader Written Exam.

If a certified Articulating Crane Operator subsequently becomes certified in an additional Articulating Crane designation by taking the appropriate written and practical exams, the certification period for the additional designation expires at the same time as his/her original certification (i.e., all Articulating Crane Operator designations expire on the same date, regardless of when in the five-year certification period the candidate passed them). If the new Articulating Crane 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 the certificant's Articulating Crane Operator designations maintain the same expiration date.

Candidates for certification or recertification may petition for an extension of CCO's standard timeline(s). CCO staff 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.

RECERTIFICATION REQUIREMENTS

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

- Passing the applicable written examination
- Compliance with CCO's Substance Abuse Policy
- Compliance with CCO's Code of Ethics

Recertification candidates may take their written exams up to one year prior to their certification's date of expiration. Regardless of the date of the exam 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 Exam Options

If you are seeking recertification for:	Take the corresponding written exam:
Articulating Boom Cranes (ABC)	Articulating Boom Crane
Articulating Boom Cranes w/ Winch (ABC & ABW)	Articulating Boom Crane w/ Winch
Articulating Boom Loaders (ABL)	Articulating Boom Loader
Articulating Boom Cranes and Boom Loaders (ABC & ABL)	Articulating Boom Crane
Articulating Boom Cranes w/ Winch and Boom Loaders (ABC, ABW, & ABL)	Articulating Boom Crane w/ Winch

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.

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 the date of expiration.** Candidates whose certification has lapsed must take both the regular written and practical examinations to be certified again.

CODE OF ETHICS FOR CERTIFIED CRANE OPERATORS

Certified crane operators must comply with the Code of Ethics for Certified Crane Operators during their certification, as defined below.

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

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

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

- vii. *Provide accurate and complete information and abide by CCO'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 CCO;*

- ix. *Cooperate fully and completely with any administrative inquiries or investigations by CCO; and,*
- x. *Not misrepresent or misuse any CCO card, or the NCCCO or CCO acronyms and logos, or any registered trademark or other intellectual property of CCO; and I understand that I must return the card to CCO 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

All participants in CCO's certification programs, including CCO certified personnel, are held to very high standards of conduct and are expected to conduct themselves in an ethical manner.

Find grounds for disciplinary action as well as the policies and procedures surrounding such action at www.nccco.org/discipline.

SUBSTANCE ABUSE POLICY

CCO policy is that certified personnel shall not perform duties related to their certification while under the influence of any substance that impairs or may reasonably be expected to impair their ability to work safely in the workplace.

See details of the CCO substance abuse policy at www.nccco.org/abuse.

CERTIFICATION CARDS

Certified operators receive a laminated photo ID card at no cost when they certify or recertify.

Replacement cards may be ordered online at: www.nccco.org/newcard.

Certification cards remain the property of CCO, are not transferable, and must be returned to CCO upon demand.

CHANGE OF ADDRESS

Certificants who change their address must notify CCO as soon as possible. The fastest and easiest way to update your contact information is using the myCCO portal at my.ccocert.org.



How to Apply for CCO Exams

WRITTEN AND PRACTICAL

START WITH MYCCO PORTAL

Applications are submitted through the myCCO portal:

1. Go to my.cccert.org and login or register for an account.
2. Once you are logged in, submit an online application and pay for the exam(s).
3. Application deadlines and processing times vary by type of testing. Please see specifics below.
4. Candidates have six months from the date of application to take their exam(s).

Examination Fees

For all exam and related fees, visit the Exam Fees page on CCO's website at www.nccco.org/fees.

WRITTEN EXAMINATION OPTIONS

The following exam administration options are available for CCO written exams:

Online Proctored Testing (OPT)

Take exam(s) online using your internet-connected computer. You will be monitored by a live online proctor for the full duration of the exam. You can test from almost anywhere, 24/7/365. Computers must meet minimum technical requirements as found at www.nccco.org/techreq. For more information, go to www.nccco.org/OPT.

Applications may be submitted at any time, but no less than two business days before your preferred exam date.

Once the application has been processed, candidates will receive a scheduling authorization email with specific instructions on how to schedule the date and time of their exam through the myCCO portal. Once scheduled, candidates will receive a CCO appointment confirmation email.

Candidates receive preliminary exam results immediately following testing.

Event Online Testing (EOT)

Take exam(s) online using a computer at an authorized CCO test site. For more information, go to www.nccco.org/EOT.

Applications may be submitted at any time, but no less than two business days before your preferred exam date.

Once the application has been processed, candidates will receive a scheduling authorization email with specific

instructions on how to find an available authorized CCO test site and schedule through a Test Site Coordinator. Once scheduled, candidates will receive a CCO appointment confirmation email.

Candidates receive preliminary exam results immediately following testing.

Computer-Based Testing (CBT)

Take exam(s) online using a computer at any of the 400+ PSI test centers across the country. For more information about CBT, go to www.nccco.org/cbt.

Applications may be submitted at any time, but no less than five business days before your preferred exam date.

Once the application has been processed, candidates will receive a scheduling authorization email with specific instructions on how to schedule the date, time, and location their exam through PSI. Once scheduled, candidates will receive a CCO appointment confirmation email with the date, time, and location of their appointment.

Candidates receive exam results immediately following testing.

Paper/Pencil Testing (PPT)

Take exam(s) via paper/pencil on a specific date, time, and location. If interested in paper/pencil testing, go to www.nccco.org/findwritten to find a PPT exam administration convenient to you; then contact the Test Site Coordinator to confirm availability.

All candidates receive paper/pencil exam results via email approximately 12 business days after the exam administration.

RESCHEDULING/CANCELLATION

The following policies apply should a candidate be unable to attend the scheduled exam appointment. Applications *cannot* be transferred to another candidate.

Online Proctored Testing (OPT)

- Candidates may reschedule or cancel their exam appointment at no cost through the myCCO portal at least 30 minutes prior to the exam start time.
- Candidates who are 59 minutes late for their appointment, miss their exam appointment entirely, decide not to take exams, or do not test within six

months of their application submission will forfeit their fees.

- Note that candidates who scheduled testing through OPT are able to cancel and reschedule through EOT if they so choose, at no additional cost.

Event Online Testing (EOT)

- Candidates may reschedule or cancel their exam appointment at no cost by contacting their Test Site Coordinator as long as the exam has not been started.
- Candidates who decide not to take exams, or do not test within six months of application submission will forfeit their fees.
- Note that candidates who scheduled testing through EOT are able to cancel and reschedule through OPT if they so choose, at no additional cost.

Computer-Based Testing (CBT)

- Candidates may reschedule their exam appointment at no cost through PSI as long as they do so at least 24 hours prior to the exam start time.
- To reschedule or unreschedule exams:
 - Log into PSI account, or
 - Call PSI at 833-333-4752
- Candidates who do not cancel their appointment by the deadline, miss their exam appointment, arrive late for their appointment, decide not to take exams, or do not test within six months of application submission will forfeit their fees.

Paper/Pencil Testing (PPT)

Standard Cancellation

- Candidates may cancel their application as long as they do so at least seven business days prior to the exam date.
- To cancel an application email candidate@nccco.org.
- Refunds, minus a cancellation fee, will be issued within 30 days of the cancellation.
- Candidates who miss their exam appointment, or miss the cancellation deadline will forfeit their fees.

Emergency Cancellation

Only the following are considered grounds for emergency cancellation:

- **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

To be considered for an emergency cancellation:

- Candidates must notify CCO within seven business days following the exam date.
- To cancel an application, email candidate@nccco.org along with required supporting documentation.
- Refunds, minus a cancellation fee, will be issued within 30 days of the cancellation.
- Candidates who miss their exam, decide not to take exams, or cancel after the deadline will forfeit their fees.

IDENTIFICATION AT THE TEST SITE

Candidates must bring valid (not expired) government-issued photo identification that includes date of birth to the test site on the day of the test administration.

Acceptable forms of photo identification may include a current:

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

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

SCORE REPORTING

Online Proctored Testing (OPT) and Event Online Testing (EOT)

- Candidates will receive preliminary exam results immediately following testing.
- Candidates results are also available in the myCCO portal and are emailed.

Computer-Based Testing (CBT)

- CBT candidates will receive their test results immediately following their exams and should retain these score reports for their records.
- Candidates results are also available in the myCCO portal and are emailed.

Paper/Pencil Testing (PPT)

- Paper/pencil CCO written examinations are electronically scored by CCO. For this reason, it is important to complete the answer sheet according to the instructions provided by the Written Exam Proctor 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.
- Exam results are available in the myCCO portal and are emailed within 12 business days following the exam administration.

PRACTICAL EXAMINATION

To find upcoming practical exam administrations for the program(s) you're interested in, contact your Test Site Coordinator to determine the date of the next scheduled practical exam, or visit www.nccco.org/practicalsites to find the nearest practical testing locations to you; then contact the Test Site Coordinator to confirm availability and to schedule.

APPLYING FOR PRACTICAL EXAM

Candidates must apply for practical exams online at my.ccocert.org. Upon submission of their application, candidates will receive a confirmation email within one hour with an authorization code for each practical exam they are approved to take. Candidates have up to six months to take their practical exam before their authorization expires.

Please note the following requirements:

- Candidates will **not** be permitted to take a practical exam without their authorization code.
- Candidates must take the authorized practical exam by the expiration date. No extensions permitted.
- Applications **cannot** be cancelled, refunded, or transferred to another candidate.
- **On test day candidates must bring a valid government-issued photo ID (passport, driver's license) with date of birth.**



Written Examination Process

ARTICULATING CRANE OPERATOR

CANDIDATES REQUESTING TESTING ACCOMMODATIONS

Arrangements for persons with disabilities will be provided upon request, in conformance with the Americans with Disabilities Act (ADA). Testing accommodations are only available at computer-based testing (CBT) facilities.

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

TEST SITE INFORMATION

Test Security

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

- The examination is the exclusive property of CCO.
- The 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 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 language or take actions that are vulgar, obscene, libelous, or that would denigrate the staff or other candidates.
- No form of communication among the candidates is permitted once they enter the examination area.
- No smoking, vaping, eating, or drinking is allowed at the examination site.
- No guests, visitors, or family members are allowed in the testing room or reception areas.
- Candidate participation in any irregularity during the examination, such as giving or obtaining unauthorized information or aid, as evidenced by an observation or subsequent statistical analysis, may be sufficient cause to terminate participation, invalidate the results of the examination, or other appropriate remedy.

- A candidate's signature on the answer sheet, roster, sign-in sheet, or on-screen agreement for the administration of the examination confirms that the candidate has read and understood the above statements.

Candidate Question Comment Forms

Computer-based testing candidates (including CBT, OPT, and EOT) may provide comments for any question by clicking on the "Comments" button to the left of the Time button. This opens a dialogue box where candidates may enter comments. For paper/pencil testing, candidates may use the Question Comment Form on the second page of their answer sheet to enter comments.

NOTE: Only comments completed on the Candidate Question Comment Form or provided during the computer-based examination 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 score represents an absolute standard and is determined by a panel of CCO content experts using a psychometrically accepted standard-setting methodology.

Candidate results are reported as a pass/fail status. For failed written exams, the score reports include a strength and weakness summary by content domain.

RETAKE THE EXAMINATION(S)

Candidates who fail an examination(s) may retake the examination(s); they must reapply and pay all corresponding retest fees. Written exam retest candidates are required to wait a minimum of four weeks before retesting on the same exam.

INFORMATION RELEASE POLICY

CCO releases information pertaining to individuals who have successfully passed one or more CCO examinations according to its Information Release Policy as detailed at www.nccco.org/inforelease.



Written Examination Outline

ARTICULATING CRANE OPERATOR

APPROXIMATE PERCENTAGE OF WRITTEN EXAM BY DOMAIN

DOMAIN	ARTICULATING BOOM CRANE	ARTICULATING BOOM CRANE w/WINCH	ARTICULATING BOOM LOADER
Domain 1: Site and Setup	17%	13%	20%
Domain 2: Operations	37%	35%	40%
Domain 3: Technical Knowledge	30%	35%	28%
Domain 4: Manufacturers' Load Charts	17%	17%	12%

DOMAIN 1: SITE AND SETUP

1. Know the ability of the supporting surface 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 blocking or cribbing.
3. Know electric power line hazards, corresponding regulations, and safety practices.
4. Know how to identify and evaluate hazards associated with:
 - a. Entering and leaving the job site
 - b. Site hazards such as above ground and underground utilities
 - c. Transportation clearances
 - d. Job site personnel
5. Know how to review lift requirements with site supervisor.
6. Know the responsibilities of various workplace personnel.
7. Know how to establish/re-establish a safety zone.
8. Know how to properly use stabilizers.
9. Know how to deploy and stow boom(s).
10. Know the proper use of wheel chocks.

DOMAIN 2: OPERATIONS

1. Know which federal regulations and industry standards affect safe operation of cranes.
2. Know how to conduct daily inspections and notify supervision of unsafe conditions.
3. Know proper operation of power take-off (PTO).
4. Know how to lift, rotate, and place the load smoothly and safely.
5. Know standard articulating boom crane hand signals.
6. Know how to secure the crane when leaving the controls:
 - a. In normal conditions
 - b. In emergency conditions
 - c. With load suspended
7. Know how to operate in:
 - a. Various weather conditions
 - b. Various environmental conditions
8. Know how to determine the radius.
9. Know how to operate a permanently attached material-handling fork, including:
 - a. Clamping
 - b. Load control
 - c. Centering the load
10. Understand the function of an overload protection (OLP) system.

11. Know the proper procedures for operating safely under the following conditions:
 - a. Operations when power lines are present
 - b. Handling loads out of the operator's vision (operating in the blind)
12. Know the proper procedures for load control.
13. Know the effects of dynamic loading from:
 - a. Wind
 - b. Stopping and starting
 - c. Impact loading
 - d. Moving the load
14. Know the effect of side loading.
15. Know proper procedures for securing the crane for transit.
16. Know how to verify the weight of:
 - a. Load
 - b. Attachments

The following knowledge areas apply to Articulating Boom Crane (ABC) and/or Winch (ABW) ONLY.

17. Know basic rigging procedures.

The following knowledge areas apply to Winch (ABW) ONLY.

18. Know proper procedures of reeving wire ropes and selecting the proper downhaul weight.
19. Understand two block-damage prevention feature.

DOMAIN 3: TECHNICAL KNOWLEDGE

1. Know basic crane terminology and definitions.
2. Know the functions and limitations of attachments.
3. Know the significance, use, and limitations of operator warning, safety, and/or limiting devices.
4. Know the requirements of pre-operational inspections and maintenance.
5. Know how to use manufacturer-approved attachments and their effect on the crane's operation.

The following knowledge areas apply to Articulating Boom Crane (ABC) and/or Winch (ABW) ONLY.

6. Know rigging devices and their use, such as:
 - a. Slings
 - b. Wire rope fittings (e.g., clips, shackles)
 - c. Saddles (softeners)

The following knowledge areas apply to Winch (ABW) ONLY.

7. 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

DOMAIN 4: 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 configuration.
3. Know how to verify weight of load.
4. Know how to use load rating charts, including:
 - a. The operational limitations of load charts and footnotes
 - b. How to apply various load rating charts for the crane's working areas
 - c. What is included in load rating charts

The following knowledge areas apply to Articulating Boom Crane (ABC) and/or Winch (ABW) ONLY.

5. Know how to make deductions for rigging, attachments, and manual boom extensions.

The following knowledge areas apply to Winch (ABW) ONLY.

6. Know where to find and how to use:
 - a. The *parts of line* information
 - b. The safe working load of hoist line



Reference List

ARTICULATING CRANE OPERATOR

The most recent versions of the following reference materials are used by CCO's Articulating Crane Management Committee to verify the accuracy of CCO test questions. Candidates are strongly advised to become familiar with manufacturer's load charts in preparing for the CCO certification examinations.

ANSI/ASME, B30.22 Articulating Boom Cranes

www.asme.org

CCO Articulating Crane Reference Manual

Download a free PDF from:

www.nccco.org/ACOstudymaterials

Occupational Safety and Health Administration, U.S. Department of Labor Code of Federal Regulations, 29 CFR 1926 Subpart CC—Cranes and Derricks in Construction

[www.osha.gov/laws-regs/regulations/
standardnumber/1926](http://www.osha.gov/laws-regs/regulations/standardnumber/1926)



Practical Examination Process

ARTICULATING CRANE OPERATOR

ELIGIBILITY

Candidates must pass both a Written Exam and a Practical Exam in the category(s) they want to be certified in. Candidates may take their Written and Practical Exams in either order. 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. For example, a candidate passing the Articulating Boom Loader Written Exam has 12 months from his/her exam date to pass the Articulating Boom Loader Practical Exam.

SKILLS TESTED

CCO Articulating Crane Operator Practical Examinations are available on two crane types:

- Articulating Boom Crane
- Articulating Boom Loader

Candidates may take the Practical Examination on one or both of the crane types. The Practical Examinations are comprised of four main tasks that increase progressively in the skill level tested. Skills tested include booming, swinging, articulating, telescoping, and combination (multifunction) operations.

So as to standardize testing conditions for all candidates wherever and whenever they may test, CCO has developed a standard Test Site Layout (CAD) for each of the crane types.

All electronic operator control assistance software and systems will be turned off for the duration of the 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 CCO website at www.nccco.org/practicalsites for a listing of upcoming open test sites.

TEST DAY

Candidates must report to the test site at the scheduled time. Candidates must present their Practical Exam Authorization code either as a printed document or electronically.

All candidates shall comply with test site requirements concerning personal protective equipment (PPE), which at a minimum shall meet OSHA requirements. Candidates must bring valid (not expired) government issued photo

identification that includes date of birth to the test site on the day of the test administration.

Candidates are required to submit a digital passport size head-and-shoulders color photo (without hat or sunglasses). Please coordinate with your Test Site Coordinator to either provide one in advance or have the photo taken the day of the exam.

PRACTICAL SCORING

Candidate performance on the practical examination is recorded by Practical Exam Proctors credentialed by CCO. Proctor requirements include meeting CCO requirements for operator certification, passing the written and practical exams, and successfully completing a credentialing workshop.

The testing procedure has been developed to provide the highest degree of standardization and reliability. The Proctor'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. The scoring of candidates' performance is done off site at CCO facilities.

PRACTICAL SCORE REPORTING

Candidate results are reported as a pass/fail status. All candidates receive score reports of their performance via email. Practical exam results are emailed to candidates approximately 12 business days after the receipt of practical examination score sheets by CCO.

Please note that while Practical Exam Proctors 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 candidates may receive their score reports from CCO more than three weeks after their test administration.

Both the practical examination and the scoring system have been validated and verified by CCO's pilot testing program.

PRACTICAL EXAM CANDIDATE FEES

For all exam and related fees, visit the Exam Fees page on CCO's website at www.nccco.org/fees.



Practical Examination Outline

ARTICULATING 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 Practical Exam Proctor.

TASKS

The Articulating Boom Crane Practical Exam tasks are:

- **Task: Pre-Operational (Shift) Inspection**
- **Task 1: Place Test Weight in Zigzag Start Circle**
- **Task 2: Negotiate Zigzag Corridor (Forward)**
- **Task 3: Negotiate Zigzag Corridor (Reverse)**
- **Task 4: Place Test Weight in Pole Circle**
- **Task 5: Safe Shutdown and Securing Procedures**

The Articulating Boom Loader Practical Exam tasks are:

- **Task: Pre-Operational (Shift) Inspection**
- **Task 1: Place Test Weight in Corral**
- **Task 2: Blind Pick**
- **Task 3: Negotiate Zigzag Corridor**
- **Task 4: Place Test Weight on Truck Bed**
- **Task 5: Safe Shutdown and Securing Procedures**

There are also Pre-Test Briefing and Pre-Test Familiarization periods. Candidates are 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, which at a minimum shall meet 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 Proctor and must follow the Proctor'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. The optimum time for each task is stated as part of the task descriptions. At one-and-a-half times the optimum time the Proctor 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 a 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 and the weight of the test weight. You will also watch a short presentation showing all the tasks you will be required to perform during the examination.

Note that:

- The crane has been set up and leveled; a spirit level is available if you wish to verify levelness.
- No part of the course has been placed at a radius that exceeds the crane's rated capacity.
- All hand signals used throughout the test will be in accordance with the *CCO Articulating Crane Reference Manual*.

CIRCUMVENTING THE COURSE

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

1. Chain leaves the corridor while on or off the ground and passes more than one pole left still standing on the original string line before re-entering the corridor; you **must** enter the circles from inside the corridor to avoid this being marked as a deficiency
2. Chain leapfrogs from one leg of corridor to another with the chain off the ground, outside the corridor
3. Chain passes four or more poles consecutively with the chain off the ground, inside the corridor

4. Test weight and chain enters or exits the corridor without vertically clearing the hurdle (i.e., by going around the hurdle)

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. An “unsafe act” is defined as an action by a candidate that is uncontrolled or reckless, and is sufficient to cause safety concern for persons or property damage.

The Proctor has the authority to stop the test at any time for reasons of safety. Please ask the Proctor if you have any questions. If you are disqualified due to an unsafe act, you will not be permitted to take any additional practical exams that day.

CANDIDATE ID AND SIGNATURE

Prior to beginning the examination, the Proctor will ask you for a valid (not expired) government-issued photo identification that includes date of birth, such as a driver’s license.

The Proctor 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 Proctor’s assessment of the weather conditions.

WEATHER CONDITIONS AND EQUIPMENT PROBLEMS

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

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



Practical Examination

ARTICULATING BOOM CRANE

CRANE WALK AROUND

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

TASK: PRE-OPERATIONAL (SHIFT) INSPECTION

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

PRE-TEST FAMILIARIZATION PERIOD

- You will be allowed 10 minutes to familiarize yourself with the crane and to examine anything on the crane that you feel is necessary to operate it comfortably.
- You are allowed to get the feel of the controls and are permitted to run the crane through its functions.
- You may not interfere with the test course, lift the test weight, or shadow the Zigzag Corridor.
- You must finish the Pre-Test Familiarization Period with the boom tip centered over the test weight within the 10-minute period.
- You will be notified when there are five and one minute(s) remaining.
- If you are ready in less than 10 minutes, you may indicate this to the Proctor.
- If, at the end of the Pre-Test Familiarization Period, you feel you are not ready to take the examination, you should notify the Proctor. 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*.

Remote Operators: At no time during the Familiarization Period or test should you walk into any part of the course, nor should you walk or stand underneath the test weight or boom.

TASK 1: PLACE TEST WEIGHT IN ZIGZAG START CIRCLE

Optimum time: 1:30

- At the Proctor's indication to start, at which point timing will begin, lift the test weight from Designated

Area 1 and bring it to Designated Area 2. Avoid touching the ground, truck, or Zigzag Corridor with the test weight or chain.

- Place the test weight and chain inside Designated Area 2.
- Timing will stop when the test weight and chain have been placed within Designated Area 2 and the Proctor has given you a *stop* signal. If you do not receive a *stop* signal, this indicates that the test weight or chain is not within the outside perimeter of the Designated Area, and the task continues to be timed.
- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking balls off poles surrounding Designated Area 1
 - b. Knocking poles over surrounding Designated Area 1
 - c. Test weight or chain touching ground, truck, or Zigzag Corridor
 - d. Exceeding the optimum time

TASK 2: NEGOTIATE ZIGZAG CORRIDOR (FORWARD)

Optimum time: 4:00

- At the Proctor's indication to start, at which point timing will begin, lift the test weight from Designated Area 2 and guide it through the Zigzag Corridor. Avoid touching the ground or truck with the test weight, and avoid touching or knocking over any part of the PVC pole barriers.
- Keep the chain on the ground until any part of the chain has touched or crossed the denotation line located 4 ft. before the hurdle.
- Raise the test weight and chain over the hurdle without touching or knocking it over.
- Place the test weight and chain inside Designated Area 3.
- Timing stops when the test weight has been placed within Designated Area 3 and the Proctor has given you a *stop* signal. If you do not receive a *stop* signal, this indicates the test weight or chain is not within the

outside perimeter of the Designated Area, and the task continues to be timed.

- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking balls off poles
 - b. Moving pole bases off line
 - c. Knocking poles over
 - d. Knocking down hurdle
 - e. Chain leaving ground before denotation line
 - f. Passing poles with chain off ground
 - g. Test weight touching ground or truck
 - h. Chain touching ground outside Designated Area 3
 - i. Exceeding optimum time

TASK 3: NEGOTIATE ZIGZAG CORRIDOR (REVERSE)

Optimum time: 4:00

- At Proctor's indication to start, at which point timing will begin, lift the test weight from Designated Area 3 and over the hurdle.
- Once the hurdle is cleared, lower the test weight so that the chain touches the ground before reaching the denotation line. Guide it through the Zigzag Corridor in reverse, keeping the chain on the ground. Avoid touching the ground or truck with the test weight, and avoid touching or knocking over any part of the PVC pole barriers.
- Place the test weight inside of Designated Area 2.
- Timing stops when the test weight has been placed within Designated Area 2 and the Proctor has given you a *stop* signal. If you do not receive a *stop* signal, this indicates that the test weight is not within the outside perimeter of the Designated Area, and the task continues to be timed.
- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Chain initially contacting ground after denotation line
 - a. Knocking balls off poles
 - b. Moving pole bases off line
 - c. Knocking poles over
 - d. Knocking down hurdle
 - e. Chain leaving ground after denotation line
 - f. Passing poles with chain off ground
 - g. Test weight touching ground or truck
 - h. Exceeding optimum time

TASK 4: PLACE TEST WEIGHT IN POLE CIRCLE

Optimum time: 1:30

- At the Proctor's indication to start, at which point timing will begin, lift the test weight from Designated Area 2 and place it inside Designated Area 1. Avoid touching the ground, truck, or Zigzag Corridor with the test weight or chain, and avoid touching or knocking over any part of the PVC pole barriers surrounding Designated Area 1.
- Timing stops when the test weight has been placed within Designated Area 1 and the Proctor has given you a *stop* signal. If you do not receive a *stop* signal, this indicates that the test weight or chain is not within the outside perimeter of the Designated Area, and the task continues to be timed.
- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking ball off pole
 - b. Knocking pole over
 - c. Test weight or chain touching ground, truck, or Zigzag Corridor
 - d. Exceeding optimum time

Make sure to deactivate the remote control (if using one) and ensure all controls are in neutral before leaving the test area.

TASK 5: SAFE SHUTDOWN AND SECURING PROCEDURES

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

POST-TEST PROCEDURES

Once you have completed the Practical Examination:

- The Proctor will record your performance.
- The Proctor is not permitted to review your score sheet or discuss your performance on the test.
- Exam results will be emailed to you within approximately 12 business days of CCO's receipt of the score sheet.
- If you have made formal application to test on other crane types, return to the candidate briefing area.
- If you have completed all of your tests, you must leave the test site.



Practical Examination

ARTICULATING BOOM LOADER

CRANE WALK AROUND

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

TASK: PRE-OPERATIONAL (SHIFT) INSPECTION

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

PRE-TEST FAMILIARIZATION PERIOD

- You will be allowed 15 minutes to familiarize yourself with the crane and to examine anything on the crane that you feel is necessary to operate it comfortably.
- You are allowed to get the feel of the controls and are permitted to run the crane through its functions.
- You may not interfere with the test course, lift the test weight, or shadow the zigzag corridor.
- You must finish the Pre-Test Familiarization Period with the forks fully closed with the forks facing the truck and the chain touching the ground inside Designated Area 5 within the 15-minute period.
- You will be notified 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 Proctor.
- If, at the end of the Pre-Test Familiarization Period, you feel you are not ready to take the examination, you should notify the Proctor. 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.

Remote Operators: *At no time during the Familiarization Period or Test should you walk into any part of the course or walk underneath the test weight or boom.*

TASK 1: PLACE TEST WEIGHT IN CORRAL

Optimum time: 4:50

- At the Proctor's indication to start, at which point timing begins, raise the forks out of Designated Area

4. Lift the test weight from Designated Area 1 and fully close the fork assembly.

- Guide the test weight and place it inside Designated Area 2 with the fork body on the side marked "A," and remove the forks. All four corners of the test weight must be placed within the designated area.
- Whether or not you are able to place all four corners within the designated area, timing will continue until you place at least 3 out of 4 corners of the test weight within the designated area. The Proctor will give you a *stop* signal once the forks are completely clear of the test weight and the weight is within the designated area.
- Avoid touching anything but the designated area.
- If you exceed one-and-a-half times the optimum time (7:15 total), the test will end and you will not be permitted to continue.
- Points will be deducted for the following:
 - a. Knocking balls off poles
 - b. Moving pole bases off line
 - c. Knocking poles over
 - d. Test weight touching the ground or truck outside of the Designated Areas
 - e. Test weight left outside of Designated Area 2 at end of task
 - f. Fork assembly not properly closed
 - g. Exceeding optimum time

TASK 2: BLIND PICK

Optimum time: 3:20

- At the Proctor's indication to start, at which point timing begins, raise the test weight from the blind side (marked "B"), and fully close the fork assembly.
- Guide the test weight to Designated Area 3, and lower it until the chain is touching the ground inside Designated Area 3.
- Timing stops when the chain is touching the ground within Designated Area 3 and you have been given the *stop* signal. If you do not receive a *stop* signal, that means that the chain is not within the outside perimeter of the designated area, and the task continues to be timed.

- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.

Points will be deducted for the following:

- a. Test weight or fork assembly touching ground, truck, or zigzag corridor after chain has left the ground
- b. Chain touching ground outside of the designated area
- c. Fork assembly not properly closed
- d. Exceeding optimum time

TASK 3: NEGOTIATE ZIGZAG CORRIDOR

Optimum time: 4:30

- At the Proctor's indication to start, at which point timing will begin, guide the test weight from Designated Area 3 through the zigzag corridor. Keep the chain on the ground until the chain has touched or crossed the denotation line located 6 ft. before the hurdle.
- Raise the test weight over the hurdle. Once the hurdle is cleared, lower the load until chain touches ground inside the designated area.
- Timing stops when the chain is touching the ground within Designated Area 4 and you have been given the *stop* signal. If you do not receive a *stop* signal, this indicates that the test weight chain is not within the outside perimeter of the Designated Area, and the task continues to be timed.
- If your time exceeds one-and-a-half times the optimum time, the Proctor may stop you and move on to the next task.
- Points will be deducted for the following:
 - a. Knocking balls off poles
 - b. Moving pole bases off line
 - c. Knocking poles over
 - d. Knocking down hurdle
 - e. Chain leaving ground before denotation line
 - f. Passing poles with chain off ground
 - g. Test weight or fork assembly touching ground or truck
 - h. Chain touching ground outside of Designated Area 4
 - i. Exceeding optimum time

TASK 4: PLACE TEST WEIGHT IN DESIGNATED AREA 1

Optimum time: 3:40

- At the Proctor's indication to start, at which point timing begins, lift the test weight from Designated Area 4 and bring it over to Designated Area 1. Avoid touching the ground, truck, or any part of the zigzag corridor.
- Place the test weight inside Designated Area 1. All four corners of the test weight must be placed within the designated area.
- Once the weight has been placed inside Designated Area 1 and the forks have been removed, I will give you a signal to proceed back to Designated Area 4.
- Timing will end when the forks are fully closed with the forks facing the truck and the chain is touching the ground inside Designated Area 4 and I have given you a stop signal. If you do not receive a stop signal, this indicates that the fork assembly has not been properly stowed, and the task continues to be timed.
- If your time exceeds one and half times the optimum time, I may stop you and move on to the next task.
- Do you understand these instructions?
- Points will be deducted for the following:
 - a. Any part of the test weight or fork assembly touching the ground or zigzag corridor
 - b. Test weight left outside of Designated Area 1 at end of task
 - c. Exceeding optimum time

Make sure to deactivate the remote control (if using one) and ensure all controls are in neutral before leaving the test area.

TASK 5: SAFE SHUTDOWN AND SECURING PROCEDURES

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

POST-TEST PROCEDURES

Once you have completed the practical examination:

- The Proctor will record your performance.
- The Proctor is not permitted to review your score sheet or discuss your performance on the test.
- Exam results will be emailed to you within approximately 12 business days of CCO's receipt of the score sheet.
- If you have made formal application to test on any other cranes, return to the candidate briefing area.
- If you have completed all of your tests, you must leave the test site.



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