



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

**CANDIDATE
HANDBOOK**
(Signalperson)



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This Handbook and Application Packet for the Written and Practical Examinations contains a Candidate Written and Practical Examination Application form. Please read this handbook carefully and retain it for reference throughout the certification process.

Do not discard this document.

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



Dear NCCCO Candidate:

Welcome to the NCCCO national signalperson certification program.

The National Commission for the Certification of Crane Operators (NCCCO), a nonprofit organization, was founded in January 1995 to establish a fair and independent evaluation of crane operator knowledge and skills. Key to this industry-led effort was the development of the NCCCO Written and Practical Examinations.

As personnel responsibilities in the lifting industry have become better defined, NCCCO has developed additional certification programs for other occupations involved in the lifting industry. This program is the culmination of many years' hard work by experts from the varied industries and groups that use cranes, including construction, steel erection, ironworkers, operating engineers, utilities, crane rental, etc. NCCCO Task Forces were staffed by experts from all aspects of the crane industry—crane operators, ASME B30 members, signalpersons, training directors, managers, supervisors, insurance representatives—representing many thousands of hours of crane operating and signaling experience. These volunteers gave freely of their time and expertise with the single goal of improving the safety of all whose work brings them into contact with cranes and lifting equipment.

In order to ensure NCCCO examinations are, and remain, a valid measurement of the proficiency of personnel in the lifting industry, NCCCO has teamed this group's knowledge and experience with the exam development expertise of International Assessment Institute. Based in Clearwater, Florida, International Assessment Institute continually analyzes the performance of NCCCO exams and reports to NCCCO's Exam Management Committees, which also guides in the development of new examinations. Additionally, International Assessment Institute assists NCCCO in the administration of its Written and Practical Examinations.

This Candidate Handbook has been developed to provide you with comprehensive information about the NCCCO Written and Practical Examinations. NCCCO recognizes 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 NCCCO at 703-560-2391, or e-mail us at info@nccco.org. NCCCO staff will be happy to guide you through any aspect of the NCCCO National Signalperson Certification Program.

Thank you for your interest—and good luck!

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Introduction

PROGRAM DESCRIPTION

The National Commission for the Certification of Crane Operators (NCCCO) is an independent, non-profit organization formed to establish and administer a nationwide program of certification for crane operators and associated personnel. The purpose of NCCCO is to set standards for measuring the knowledge and proficiency required for the safe operation of cranes including signaling of mobile and tower cranes. Based on extensive discussions with representatives from all segments of business and industry who recognize the impact of construction safety issues, NCCCO has identified the following potential benefits of signalperson certification:

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

All candidates are required to pass both the written and practical examination(s) in order to be certified. The initial certification period is for five (5) years, after which a signalperson is required to recertify. Periodic practical examination is necessary to ensure that certificants' knowledge of industry standards, equipment and safety practices keep 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, it is believed, would accrue by more frequent testing. A written examination is not required for recertification.

DEVELOPMENT OF THE NCCCO EXAMINATIONS

The first step in the development of an objective test is to identify the knowledge necessary for safe signaling of crane operations. A survey was given to a representative number of crane operators and signalpersons who validated that the knowledge recommended by the experts was vital to safe operations. The test blueprints or content specifications were generated from the validation study.

Development of the Signalperson **Written Examination** involved a panel of crane operation content experts who worked with the staff of International Assessment Institute to write and review all questions used in the examination. Each examination contains a unique combination of questions from the question bank. These questions are selected for the examination on the basis of the content areas as defined by the test blueprints.

The NCCCO Signalperson **Practical Examination** was developed as a fair and objective assessment of the essential skills a signalperson needs in order to safely signal mobile and tower crane operations. They were developed over a one-year period by a NCCCO Task Force staffed by experts from all aspects of the crane industry—crane operators, signalpersons, training directors, managers, supervisors, manufacturers and ASME B30 members — representing many thousands of hours of crane operating experience.

NCCCO teamed their knowledge and experience with the exam development expertise of International Assessment Institute who guided the NCCCO Task Force in establishing key elements of the program, including: identifying essential skills, selecting tasks, standardizing test conditions, developing the scoring process, establishing reliability between tests, and creating flexible application and scheduling procedures.

In concert with the NCCCO Task Force, International Assessment Institute also designed the Practical Examiner Accreditation Program whereby NCCCO trains and accredits NCCCO-certified signalpersons to administer NCCCO Practical Examinations.

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Certification Policies

This information is specific to the Signaller program. Information regarding other NCCCO certification programs is covered in their respective candidate handbooks.

ELIGIBILITY

Requirements for certification include the following:

- Be at least 18 years of age.
- Comply with NCCCO Substance Abuse Policy.
- Pass Written Examination.
- Pass Practical Examination.
- Comply with the NCCCO Code of Ethics.

EXPERIENCE

NCCCO certification examinations are designed for signallers who are trained and who will use hand and voice signals in crane operations.

NCCCO CERTIFICATION TIME FRAMES

A candidate must pass the Written and Practical examination in order to be certified. Signaller certification is valid for five (5) years.

Candidates have 12 months from the time they pass their first exam (Written or Practical) in which to become certified.

Candidates who do not take and pass both the Written and Practical Exam within the 12 month time frame will be required to start the certification process again from the beginning.

NCCCO WRITTEN EXAMINATIONS

The Signaller Written Examination consists of 60 multiple-choice questions. Candidates are allowed 60 minutes to complete the examination.

NCCCO PRACTICAL EXAMINATIONS

The Signaller Practical Examination requires the candidate to demonstrate proficiency in giving both hand signals and voice commands.

RECERTIFICATION

NCCCO certification is valid for five (5) years. Candidates must complete their recertification requirements during the 12 months prior to their expiration date.

This includes:

- Passing the Practical Recertification Examination.
- Compliance with the NCCCO substance abuse policy.
- Compliance with the NCCCO Code of Ethics.

Recertification candidates are allowed two (2) attempts to pass the Signaller Recertification Practical Exam before their certification expires. Candidates who are unsuccessful after two (2) attempts must take and pass the regular Signaller Practical Exams.

Certified candidates may take their Practical Recertification Examination up to one (1) year prior to their date of expiration. Regardless of the date of the recertification examination within that one (1) year period, the new five-year certification period begins from the date of expiration of the candidate's initial certification.

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

Recertification exams are available at regularly scheduled test administrations. Candidates wishing to recertify should contact the Test Site Coordinator who set up the initial certification exams. Candidates whose employment circumstances have changed should ask their new employer to schedule a practical test administration.

For more information about recertification, please contact NCCCO's recertification department at (703) 560-2391 or via e-mail at info@nccco.org.

CODE OF ETHICS FOR SIGNALPERSONS

NCCCO Signalpersons must comply with the NCCCO's Code of Ethics during their certification period as illustrated below:

As a NCCCO-Certified Signalperson, I will perform my work in a manner:

- (i) free of bias with regard to religion, ethnicity, gender, age, national origin and disability.
- (ii) so as to place the safety and welfare of workers associated with the lifting operation above all other considerations.
- (iii) so as to protect nearby general public property and the environment.

In addition, I will:

- (iv) make my management aware if I have safety concerns relating to the lifting operations which I am engaged in.
- (v) not knowingly violate safety related regulations, warnings or instructions set forth by OSHA, recognized safety standards, or the crane manufacturer.
- (vi) not misrepresent or knowingly deceive others concerning my experience.
- (vii) not misrepresent or misuse my certification card or the NCCCO logo, which are the property of NCCCO, and I understand that I must return the card to NCCCO immediately if required to do so.

DISCIPLINARY POLICY

NCCCO's Ethics and Discipline Committee is responsible for establishing and implementing standards of conduct, such as ethical standards, 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 the Code of Ethics.

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

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

NCCCO has established policies and procedures to fairly and consistently address alleged violations of the Code of Ethics. The complaints procedures have been designed to ensure that only valid and actionable complaints are investigated and considered, and 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 signalpersons are fairly and reasonably investigated and determined, and that the public is protected against unprofessional and unethical conduct by certificants. Complaints against certificants are initially investigated by NCCCO's Manager of Test Integrity who reports to NCCCO's Ethics and Discipline Committee. If the complaint is considered actionable, the Ethics and Discipline Committee informs both the certificant and the complainant of the official opening of the investigation. Following the investigation of the complaint, the Ethics and Discipline Committee informs the certificant and the complainant of its decision. If a sanction is imposed, the certificant may request an appeal of the decision to the NCCCO Board of Directors. The decision of the NCCCO Board of Directors is final.

SUBSTANCE ABUSE POLICY

It is the policy of NCCCO that signalpersons shall not use a prescribed or over-the-counter substance which would impair the ability to signal cranes safely.

This includes illegal drugs, controlled substances (including trace amounts), look-alike drugs, designer drugs, or any other substance which may have an effect on the human body of being a narcotic, depressant, stimulant or hallucinogen.

An exception to this rule is that a signalperson may use such a substance or drug if it is prescribed by a licensed medical practitioner who is familiar with

the signalperson's medical history and all assigned duties, and who has advised the signalperson that the prescribed substance or drug will not adversely affect the signalperson's ability to safely signal a Mobile or Tower crane.

NCCCO-Certified Signalpersons shall comply with the substance abuse testing provisions of ASME B30.5.

It is a condition of certification that signalpersons 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 signalpersons receive a laminated photo ID card at no cost when they certify for the first time and when they complete the requirements for recertification.

A certified signalperson may only hold one certification card at one time. If a candidate has previously certified in any NCCCO program and subsequently becomes certified as a signalperson, (s)he may request an updated certification card.

Updated or replacement cards may be obtained from International Assessment Institute at a cost of \$25.

CHANGE OF ADDRESS

Certificants who change their address must notify NCCCO as soon as possible. Failure to do so may cause the certificant to miss important updates on the NCCCO program that could affect their certification.

Changes of address should be sent to International Assessment Institute (IAI). They must be in writing, but can be sent via letter or fax. A form is provided for this purpose in this Handbook.

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Written and Practical Examination Process

APPLICATION PROCESS TO TAKE THE SIGNALPERSON EXAMINATIONS

Candidates wishing to sit for the NCCCO Signalperson Examinations may request an application form or obtain further information from either the National Commission for the Certification of Crane Operators (NCCCO) or International Assessment Institute. Candidate applications must be submitted with the appropriate documentation to International Assessment Institute. Applications are due two (2) weeks prior to the scheduled examination date.

Information about the specific locations of the test sites will be available approximately four (4) weeks prior to the examination. Candidates eligible to sit for the examinations will receive an admission letter approximately one (1) week before the scheduled test administration date.

Candidates Requesting Special 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 accommodations must be submitted to NCCCO no later than four (4) weeks prior to your scheduled test date. You may contact NCCCO for further information.

SUBMISSION OF APPLICATION

The Candidate Application is located at the back of this Handbook. This form can be easily photocopied for your use.

The Candidate Application with the appropriate fees, as well as any correspondence and request for information concerning the administration of the NCCCO Certification Examinations, should be directed to:

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

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

Follow the directions carefully when filling in the information required. Incomplete applications, incorrect payment, and/or inaccurate documentation will delay the processing and incur additional fees. It could result in your NOT being able to sit for the examination.

Therefore, please be sure your application is complete and the payment is correct.

Deadlines

Please note that all deadlines are UPON RECEIPT deadlines and that candidates and Test Site Coordinator are solely responsible for making sure that completed and accurate applications reach International Assessment Institute by the stated deadline.

APPLICATION FEES

The appropriate fee must be enclosed with your application. Checks and money orders payable to International Assessment Institute are preferred.

You may also pay by credit card – VISA, MasterCard or AMEX. Do not send cash. Please do not staple your check or money order to your application form, but do include your payment in the envelope with all the other application materials. **All returned checks will be subject to a \$25 fee.**

The Fees for the Signalperson Examinations are:

Signalperson Written and Practical Exam	\$190
<i>(Signalperson candidates only - certification card INCLUDED)</i>	

Signalperson Written and Practical Exam	\$100
<i>(Current NCCCO Certified card holder)</i>	

Retest Fees

RETEST Signalperson Written Exam	\$95
<i>(Signalperson candidate only)</i>	

RETEST Signalperson Practical Exam	\$95
<i>(Signalperson candidate only)</i>	

RETEST Signalperson Written Exam	\$50
<i>(Current NCCCO Certified card holder)</i>	

RETEST Signalperson Practical Exam	\$50
<i>(Current NCCCO Certified card holder)</i>	

Other Fees:

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

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

- you wish to reschedule without a valid reason; (see Emergency Cancellations or Withdrawals)
- you need a replacement certification card.

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

- your application form is incomplete;
- you do not send in full payment;
- your credit card cannot be processed for any reason.

Your application materials must be received at International Assessment Institute Assessment’s office according to the sample test schedule outline in this Candidate Handbook.

Applications received after the main application deadline, but at least four (4) business days prior to the exam administration deadline, can be accepted for an additional \$50 late fee. For example, for a test administration on a Saturday, late applications that arrive at IAI’s testing office by 5pm (ET) on the Monday evening prior to the test can be accepted.

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

RESCHEDULING, CANCELLATIONS, AND WITHDRAWALS

Should you be unable to sit for the examination, International Assessment Institute must receive notification in writing no later than seven (7) business days prior to the examination date. Your fees will be held until you reschedule. When you reschedule you will need to pay an additional \$25 rescheduling fee. Candidates who wish to reschedule their NCCCO signalperson examinations MUST notify International Assessment Institute and submit the necessary documentation and fees to International Assessment Institute by the deadline for the rescheduled test date.

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

Emergency Cancellations or Withdrawals

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

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

Requests for medical and personal emergency withdrawals are handled by International Assessment Institute. Please write a letter to International Assessment Institute describing your situation. Be sure to include your full name, address and social security number along with the scheduled test date, site number, and supporting documentation indicated above.

International Assessment Institute MUST receive your written notification within seven (7) business days after the scheduled examination date or you will forfeit ALL application fees. You will be allowed to reschedule for a future examination administration.

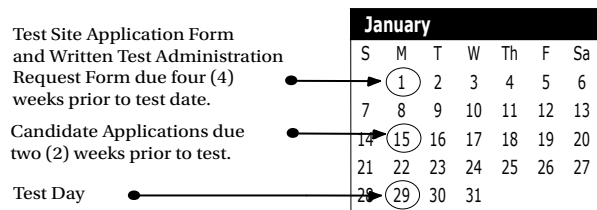
You will NOT receive a refund if you decide you no longer wish to take the test.

TEST ADMINISTRATION SCHEDULE FOR THE NCCCO EXAMINATIONS

The NCCCO signalperson examinations are available for administration on demand with at least four (4) weeks notice.

APPLICATION DEADLINES

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



ADMISSION LETTERS

Approximately one week before the scheduled test date, registered and eligible candidates approved to take the NCCCO Signalperson Certification Examinations will receive an admission letter by mail. The admission letter will contain information regarding the test center address, the reporting time, the examination(s) the candidate registered for and the materials candidates will need to bring with them on the day of the test administration. This admission letter must be presented at the test site to gain admittance to the examination(s).

TEST SITE INFORMATION

Identification at the Test Site

In addition to an admission letter valid for the specific test date, candidates must bring government issued photo identification to the test site on the day of the administration. Candidates will be required to sign the test site roster upon entry to the testing area. Acceptable forms of photo identification are:

- passport
- government issued driver's license
- work identification

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

Materials to Bring to the Test Site

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

- Government issued photo ID
- The admission letter for the specific test date
- Two (2) sharpened #2 pencils (to complete the examination answer sheet)
- A good eraser

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

Test Security

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

- This examination is the exclusive property of NCCCO.
- This examination and the questions contained therein are protected by federal copyright law. No part of the examination(s) may be copied, reproduced in part or whole by any means whatsoever, including memorization.
- Theft or attempted theft of an examination booklet or any of its pages is punishable as a felony.
- Candidate participation in any irregularity occurring during the examination, such as giving or obtaining unauthorized information or aid, as evidenced by an 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 are eligible to take this examination. If at any time it is confirmed a candidate has not met all the requirements, candidates 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 the comments on the Candidate Question Comment Form. These comments should be accompanied by the candidate's name (which is optional), the specific examination and question referred to, the site code and test date. Examination comments are reviewed by NCCCO content experts on a regular basis.

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

TEST SCORING INFORMATION

Test Scoring - Written

The NCCCO Written Certification 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 the “passing score” to pass the test. The passing scores represent absolute standards and are determined by panels of NCCCO content experts using psychometrically accepted standard-setting methodology.

Test Scoring - Practical

Candidate performance on the Practical Examination 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 Practical Examiner’s task is primarily to record the performance of the candidate.

The scoring of candidates’ performance is done off-site at the facilities of International Assessment Institute.

Score Reporting - Written

The Written Examinations are electronically scored by International Assessment Institute. For this reason, it is important to complete the answer sheet according to the instructions provided by the Chief Examiner on the day of the exam. Candidates will receive credit only for answers recorded on the scannable answer sheet.

Answers marked in the test booklet(s) will NOT be counted toward a candidate’s score.

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

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

Candidate results will be reported as a scaled score, with a score of 70 representing the “minimum passing” score. Candidate scores cannot be given over the telephone.

Score Reporting - Practical

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

Candidate results will be reported as a percentage score, with a score of 75 representing the “minimum passing” score.

Candidate scores cannot be given over the telephone.

Both the Practical Examination and the scoring system have been validated by NCCCO’s pilot testing program and verified by International Assessment Institute.

Retest Policy for Practical Examination

If a candidate thinks they may have failed the practical exam, they may attempt one (1) additional practical exam after all candidates have tested, if time allows. No more than one (1) additional attempt will be allowed.

Hand Score Requests

Candidates not passing the examination(s) may request from International Assessment Institute a hand scoring of the answer sheet, provided the request is made in writing within three (3) months of the test date, and the request is accompanied by a processing fee of \$25 for one (1) test score. Requests should be mailed to:

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

In the event that the hand scoring of a failing candidate’s answer sheet results in a passing score, the fee 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 fees.

Information Release Policy

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

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

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Written Exam Outline

The Signalperson Written Examination for the NCCCO Certification Program tests the following knowledge areas:

Domain 1: Hand Signals

(Approximately 33% of the test)

Domain 2: Voice Communication

(Approximately 13% of the test)

Domain 3: Basic Knowledge of Crane Operations

(Approximately 27% of the test)

Domain 4: Situational Awareness (Site Specific Considerations)

(Approximately 13% of the test)

Domain 5: Safety Standards and Regulations

(Approximately 13% of the test)

Domain 1: Hand Signals

(Approximately 33% of the test)

1. Know the ASME B30.5 standard hand signals for mobile cranes.
2. Know the ASME B30.3 standard hand signals for tower cranes.
3. Know the necessity of moving with the load while remaining visible to operator.
4. Know the importance of providing clear and visible hand signals.
5. Know the importance of keeping constant communication & understanding with the operator.

Domain 2: Voice Communication

(Approximately 13% of the test)

1. Know the proper use of the equipment being used as well as the benefits and limitations.
2. Be aware of communication barriers, i.e. wind, language, interference.
3. Know the importance of ensuring fully charged batteries are used and communication device is in acceptable working order.
4. Know the importance of keeping constant communications and understanding with the operator.
5. Know the standard as per ASME B30.5 pertaining to function/direction, speed and/or distance and function/stop.

6. Understand the importance of operator perspective while swinging.
7. Know what action to take if the operator is not following signals correctly.

Domain 3: Basic Knowledge of Crane Operations

(Approximately 27% of the test)

1. Know the basic crane terminology and definitions.
2. Understand the effect of size, shape, weight and center of gravity of load being lifted.
3. Understand boom deflection and how to compensate for it.
4. Know the effect a moving load has on a crane.
5. Understand that boom length, angle and load weight may effect boom deflection.
6. Know the importance of keeping hoist line vertical when load is applied.
7. Understand what causes drift and how to compensate for it.
8. Know the effects of side loading.
9. Know the causes and consequences of two blocking.
10. Know the importance of keeping personnel from path of load.
11. Understand when applying load to crane that center of gravity needs to be below the boom tip.

Domain 4: Situational Awareness (Site Specific Considerations)

(Approximately 13% of the test)

1. Know the importance of reviewing lift requirements with site supervision/operator/crew.
2. Know how to identify and avoid hazards and obstacles.
3. Understand the effects of weather conditions.
4. Know how and when to use voice or hand signals.
5. Know the emergency procedures.

Domain 5: Safety Standards and Regulations

(Approximately 13% of the test)

1. Know the applicable OSHA and ASME standards including, but not limited to:
 - a) people under loads;
 - b) suspended personnel platforms;
 - c) hand signal posting requirements.
2. Know the electric power line hazards and applicable regulations and safety practices.



Sample Questions

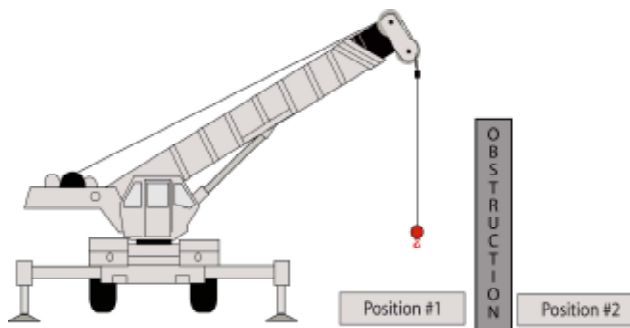
The following are sample test questions typical of the style and content of the questions used in the NCCCO Signalperson Written Certification Examinations. Additional sample questions can be found at the NCCCO's website, www.nccco.org.

1. What is the purpose of an anti-two-block device?
 - (a) Prevent contact between the load block and the boom point.
 - (b) Shut down all crane functions.
 - (c) Prevent contact between the load block and the auxiliary ball.
 - (d) Prevent boom hoist-up function.

2. With the boom fully retracted, which series of standard ASME B30.5 (2007) hand signals would be required to move the hook from Position #1 to Position #2?
 - (a) Hoist, stop, extend the boom, stop, lower the hook, stop
 - (b) Swing right, stop, lower the boom, stop, lower the hook, stop
 - (c) Extend the boom, stop, lower the boom, stop, lower the hook, stop
 - (d) Hoist, stop, lower the boom, stop, lower the hook, stop

4. According to 29 CFR 1926.550, which hand signals must be used to signal operators?
 - (a) Signals promulgated by OSHA.
 - (b) Signals described on a signal card.
 - (c) Signals prescribed by the applicable ANSI standard.
 - (d) Signals taught in an applicable training class.

5. What is the signalperson directing the crane operator to do?
 - (a) Travel
 - (b) Lower the boom and raise the load
 - (c) Lower the load
 - (d) Lower the boom



3. When signaling a tower crane which of the following is most reliable?
 - (a) 2-way radio
 - (b) Hard wire intercom
 - (c) Standard hand signals
 - (d) Hands-free cell phone

6. Which of the following describes the standard ASME B30.5 (2007) hand signal to lower the hook?
 - (a) With arm extended downward, forefinger pointing down, move hand in small horizontal circle.
 - (b) Arm extended, fingers closed, thumb pointing downward.
 - (c) With arm extended, thumb pointing down, flex fingers in and out as long as load movement is desired.
 - (d) One fist in front of chest, thumb pointing outward and heel of fist tapping chest.

V	6
D	5
C	4
B	3
A	2
A	1
Question #	Answer



Reference List

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

ASME B30.5-2007

Mobile and Locomotive Cranes

Order by Mail:

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

Order by Internet:

<http://catalog.asme.org/codes>

*Check, VISA, MasterCard, American Express,
Discover, Diner's Club*

\$85.00

NCCCO SIGNALPERSON REFERENCE MANUAL

Order by Internet:

\$25.00

<http://www.nccco.org/store/index.html>

The manual was created to assist candidates preparing to take the NCCCO Signalperson Certification Examinations.

The information contained in this manual has been compiled from a number of different sources. These sources and the relevant material selected for inclusion in the Reference Manual are as follows:

- ASME B30.5-2007 Mobile & Locomotive Cranes, Section 5-3.3: Signals
- ASME B30.3-2004 Construction Tower Cranes, Section 3-3.3: Signals
- OSHA 1926.550 - Cranes and Derricks
- Voice and Signal Communication

Please note that candidates should be familiar with all sections of ASME B30.5-2007 standards relevant to crane operations and signaling operations.

ASME B30.23-2005

Personnel Lifting Systems

Order by Mail:

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

Order by Internet:

<http://catalog.asme.org/codes>

*Check, VISA, MasterCard, American Express,
Discover, Diner's Club*

\$52.00



Practical Exam Outline

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

CANDIDATE INFORMATION AND INSTRUCTIONS

The Signalperson practical examination consists of 20 scenarios. There is no time limit for this examination. Candidates will typically complete the exam in approximately 15 minutes.

The Test Site Coordinator is responsible for setting the testing schedule. During the Practical Examination, you are under the direction of the Practical Examiner and must follow the Practical Examiner's directions at all times.

Chief Examiners will also be present during practical examinations. Their primary role is one of security and administration. They will not be able to provide you with information about the practical exam.

Only the candidate, Practical Examiner, and Chief Examiner are allowed in the testing area.

Prior to testing, you will watch a short video showing you a typical practical examination as well as the following instructions:

1. There are two types of scenarios for which the candidate will be asked to demonstrate proper hand or voice signals:

MATCH SCENARIO: In these scenarios the candidate will observe the crane performing certain functions and the candidate will give the necessary hand or voice signal(s) that match or matches the function.

CANDIDATE INITIATED SCENARIO: In these scenarios, the candidate will give the necessary hand or voice signals to initiate and direct crane movement.

2. All signals must be given in accordance with current ASME B30 standard signals (i.e., the 'SWING' signal is: Arm extended, point with FINGER in direction of swing of boom).
3. Make sure to give only one signal at a time.
4. All signals must be given in a clear and precise manner.
5. Maintain the hand signal as long as the function is being performed. For voice signals, remember to maintain "constant communication."
6. Remember to give stop signals whenever necessary.

NOTE: A proper "STOP" hand signal is moving arm back and forth at least one time.

7. At no point in time will a signal be required that would result in an unsafe act. If at any time an unsafe act is being performed, immediately give an appropriate signal to stop the lift operation.
8. In scenarios where multiple signals are required, you must give all signals correctly to receive any points for that scenario (no partial credit).
9. During candidate initiated scenarios, you will have up to five seconds to give the hand or voice signal.
10. During candidate initiated scenarios, you will have ONLY one attempt to reach the appropriate stopping area before giving the next function. You will not be allowed to "stop short and go further" or "go long and bring it back."
11. At the start of each scenario, the instructions will be shown on the screen and given to you verbally. You will be asked if you understand the instructions. Take time to make sure you understand the instructions before proceeding.
12. FOLLOW THE INSTRUCTIONS! If there are any questions ask the examiner before beginning each scenario.

CANDIDATE ID AND SIGNATURE

Prior to beginning the examination, the Practical Examiner will ask you for a government issued photo identification that you must provide in order to test.

The Practical Examiner will ask if you have read the Candidate Information and Instructions and will answer any questions you may have. You will be asked to sign your application indicating you understand the instructions for the test.

POST TEST PROCEDURES

Once you have completed the Practical Examination:

- The Practical Examiner will record your performance
- The Practical Examiner is not permitted to review your score sheet or discuss your performance on the test
- Exam results will be mailed to you within approximately 12 business days of International Assessment Institute's receipt of the score sheet
- Once you have completed your test, you must leave the test site

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CANDIDATE APPLICATION FORMS

Please photocopy all sides of the following forms for your use in applying for the NCCCO Written and Practical Examinations.

**Candidate Application - Written and Practical Examination
Change of Address Form**

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CANDIDATE APPLICATION

WRITTEN AND PRACTICAL EXAMINATION - SIGNALPERSON

Please type or print neatly.

NAME <i>First</i>			<i>Middle</i>			<i>Last</i>		
CCO CERTIFICATION NUMBER (IF PREVIOUSLY CERTIFIED)				SOCIAL SECURITY #				
MAILING ADDRESS						DATE OF BIRTH (mm/dd/yyyy)		
CITY				STATE		ZIP		
PHONE		CELL		FAX		E-MAIL		
COMPANY ORGANIZATION						PHONE		
COMPANY MAILING ADDRESS								
CITY				STATE		ZIP		
ARE YOU A RETEST CANDIDATE?			NO		YES		Date last tested: / /	
TEST SITE # (contact Test Site Coordinator)				DATE YOU INTEND TO TEST (mm/dd/yyyy)			TEST SITE COORDINATOR	

Note: Applications received without a Test Site Number will be marked incomplete and cannot be processed.

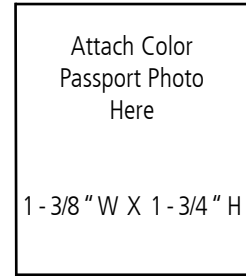
BUBBLE IN next to the Exam category for which you are applying.

EXAM DESCRIPTION	EXAM FEES
<input type="radio"/> Signalperson Written and Practical Exam <i>(Signalperson candidates only - certification card INCLUDED)</i>	652701 \$190
<input type="radio"/> Signalperson Written and Practical Exam <i>(Current NCCCO Certified card holder)</i>	652701 \$100
<input type="radio"/> RETEST Signalperson Written Exam <i>(Signalperson candidate only)</i>	652701 \$95
<input type="radio"/> RETEST Signalperson Practical Exam <i>(Signalperson candidate only)</i>	652701 \$95
<input type="radio"/> RETEST Signalperson Written Exam <i>(Current NCCCO Certified card holder)</i>	652701 \$50
<input type="radio"/> RETEST Signalperson Practical Exam <i>(Current NCCCO Certified card holder)</i>	652701 \$50
ADDITIONAL FEES	
<input type="radio"/> Updated Certification Card <i>(*for current NCCCO Certified card holder ONLY)</i>	\$25
<input type="radio"/> Candidate Late Fee	\$50
<input type="radio"/> Incomplete Application Fee <i>(See Candidate handbook for details)</i>	\$30
TOTAL AMOUNT ENCLOSED	\$

CANDIDATE APPLICATION (CONT'D)
Signalperson

NCCCO CERTIFICATION CARDS

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



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



Under penalties of perjury, I declare that the foregoing statements and those in any required accompanying documentation are true. I understand and agree that my failure to provide accurate and complete information or abide by NCCCO's policies and procedures, including the Code of Ethics, shall constitute grounds for the rejection of my application, or denial or revocation of my certification. I understand that NCCCO reserves the right to verify any information in this application or in connection with my certification. I consent to NCCCO's release of any information regarding this application and my examination administration to third parties. I have received a copy of the NCCCO Candidate Handbook and have read, and do understand and agree to be bound by all prevailing NCCCO policies and procedures.

CANDIDATE SIGNATURE

DATE

METHOD OF PAYMENT FOR CANDIDATE EXAMINATION FEES

Do not send cash.

- 
 
 
 Personal Check
 Employer Check
 Money Order
 Do not staple your check.

If paying by credit card – complete the following information

SECURITY CODE

CREDIT CARD NUMBER

EXPIRATION DATE

NAME (Print as it appears on card)

SIGNATURE (on card)

Checks and money orders should be payable to:

International Assessment Institute - Attention: CCO testing
 600 Cleveland Street, Suite 900
 Clearwater, Florida 33755

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

CANDIDATE APPLICATION CHECKLIST

- I have completed and signed the Candidate Application.
 I have provided credit card information or a check or money order for the correct amount.



CHANGE OF ADDRESS FORM

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

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

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

Please type or print neatly.

NAME			<i>First</i>	<i>Middle</i>	<i>Last</i>
NCCCO CERTIFICATION NUMBER (IF PREVIOUSLY CERTIFIED)			SOCIAL SECURITY #		

OLD ADDRESS

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

NEW ADDRESS

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

EFFECTIVE DATE OF CHANGE

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IMPORTANT CONTACT INFORMATION



NATIONAL COMMISSION FOR THE CERTIFICATION OF CRANE OPERATORS

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

Phone: 703-560-2391

Fax: 703-560-2392

E-Mail: info@nccco.org



INTERNATIONAL ASSESSMENT INSTITUTE

Attention: NCCCO Testing
600 Cleveland Street, Suite 900
Clearwater, Florida 33755

Phone: 727-449-8525

Fax: 727-461-2746



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