

**Forest Service Handbook  
National Headquarters – Washington Office  
Washington, DC**

**Forest Service Handbook 7109.17 – National Construction Certification Handbook  
Chapter 20 – Certification Examinations**

**Amendment:** 7109.17-2004-1

**Effective date:** December 23, 2004

**Duration:** This amendment is effective until superseded or removed.

**Superseded Directive:** 7109.17\_contents (Amendment 7109.17-2003-1, 05/07/2003); 7109.17\_zero\_code (Amendment 7109.17-2003-1, 05/07/2003); 7109.17\_10 (Amendment 7109.17-2003-1, 05/07/2003); 7109.17\_20 (Amendment 7109.17-2003-1, 05/07/2003); 7109.17\_30 (Amendment 7109.17-2003-1, 05/07/2003)

**Approved by:** Frederick L. Norbury, Associate Deputy Chief, NFS

**Date approved:** December 14, 2004

**Responsible Staff:**

**Explanation of changes:** Following is an explanation of the changes throughout the directive by section.

**7109.17:** This amendment changes the title of FSH 7109.17 to National Construction Certification Handbook (formerly, Construction Certification Handbook).

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**Zero Code:** Reformats and makes minor technical and editorial changes. Changes “Regional Engineering Certifying Officer” to “Regional Construction Certification Officer” in the introductory paragraph.

**10:** Reformats and reorganizes this chapter. Changes Regional Engineering Certifying Officer to Regional Construction Certification Officer and makes other minor technical and editorial changes throughout. Specific changes are as follows:

**10.40 - 10.42:** Changes cross- reference from exhibit 01, section 10.6, to exhibit 01, section 10.7 (sec. 10.4). Removes responsibilities of Forest Staff Officer for Engineering Activities and Region 8 Engineering Certifying Officer (formerly section 41.1). Recodes

responsibilities of Engineering Representative and Contracting Officers Representative to section 41.1. Adds responsibilities of certified employee (section 10.42).

**10.6:** Changes the caption from “Certification Process” to “Construction Work Requiring Certification” and adds cross-reference to FSM 7115.1, FSM 7313.03, and FSM 7721.34 for direction.

**10.7:** Establishes this code to provide direction on the certification program schedule. Adds exhibit 01 (formerly 10.06, exhibit 01) and updates schedule to reflect changes from written to electronic exams.

**11:** Changes the caption from “Construction Certification Program Inventory” to “Program Records” and recodes direction on Regional Certification records to section 11.04b.

**11.04 - 11.04b:** Establishes these codes to provide responsibility for national database management (sec. 11.04a) and regional records maintenance (sec. 11.04b).

**12:** Clarifies that the Forest Service staff Officer for Engineering activities develops and monitors necessary training for construction projects.

**13.12:** Changes the caption to Inspector, recodes direction formerly coded at section 13.13 to this section, and relocates direction on Construction Contracting officer’s Representative to section 13.14.

**13.11:** Changes caption and provides direction for the inspector-in-training. Recodes the direction on the Engineering Representative to section 13.13.

**13.13:** Changes the caption to Engineering Representative and relocates to this section, the direction formerly coded at section 13.11.

**13.14:** Changes the caption to Construction Contracting Officer Representative, recodes to this section, the direction formerly coded to section 13.12; and relocates direction on inspector-in-training to section 13.11.

**13.4:** Establishes this code to provide direction on other construction activities that the Forest Officer for Engineering Activities is responsible for.

**14:** Establishes code to provide direction on the Forest Service Acquisition Regulation System.

**20:** Reorganizes and revises code and direction to implement electronic examinations, and makes other minor technical and editorial changes throughout this chapter. Changes “Regional Engineering Certifying Officer (RECO)” to “Regional Construction Certification Officer (RCCO). Specific changes are as follows:

**21.3:** Adds the term “candidates” to the caption.

**22.04a:** Changes the caption from “Washington Office, Certification Coordinator” to “Director of Engineering, Washington Office” and updates the direction accordingly.

**22.04b:** Changes the caption from “Regional Engineering Certifying Officer” to “National Construction Certification Program Coordination” and adds direction accordingly.

**22.04c:** Establishes code, recodes the direction formerly at 22.04b to this section, and adds responsibility of Regional Construction Certification Officer to develop, review, maintain, and update exam materials.

**22.04d:** Establishes code to provide direction to employees regarding responsibly for certification exams.

**22.2:** Changes caption to Development of Electronic Exams and revises the direction accordingly. Removes exhibit 01, Sample Construction Certification Program Written Examination Schedule.

**22.3:** Changes caption from “Post-Examination Requirements” to “Procedures for electronic examinations” and revises the direction accordingly.

**22.4:** Revises direction for administrative requirements.

**22.5:** Establishes this code to provide direction on the procedure for waiving electronic exams.

**22.6:** Establishes this code to provide direction on the external technical certification exams.

**23.2:** Relocates direction on document preparation to this section (formerly sec. 22.21). Revises direction for preparation of form FS-7100-21, Examiner’s Rating and Comments.

**29:** Establishes code and relocates all exhibits to this section.

**30:** Changes caption of chapter 30 from “Recertification” to “Post Certification.”

**31:** Revises direction regarding when the Regional Construction Certification Officer can revoke an employee’s certification.

**32:** Clarifies expiration of certification.

**33:** Adds minimum requirements for experience and training.

**33.1:** Establishes code to provide direction on recommendation for recertification.

**33.2:** Establishes code to provide direction on waiver of recertification requirements.

**34:** Establishes code to provide direction on maintenance training.

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## **21 - Performance Tests**

Use performance tests given at the unit level to verify a candidate's ability to perform tasks, and as a basis for recommending that the employee is ready to take the electronic and oral examinations.

The Forest Staff Officer for Engineering Activities must attest on form FS-7100-18, Request for Certification and Recertification, that the candidate has the appropriate project experience under the direct supervision of a certified Inspector, Engineering Representative (ER), or Contracting Officer's Representative (COR) (sec. 13.1).

### **21.1 - Inspector Candidates**

Inspector candidates should have accomplished the following (sec. 13.12):

1. Initiated and prepared forms for at least one change order, design change, or physical change.
2. Assisted in preparing at least two variations in quantity change orders.
3. Prepared progress payments including estimate of quantities to be paid.
4. Prepared complete daily diaries for the periods as Inspector-in-Training.
5. Prepared at least one notice of noncompliance, or demonstrated full knowledge of when and how it should be issued.

### **21.2 - Engineering Representative Candidates**

An Engineering Representative candidate should have performed as an Inspector on at least four contracts, one of which must have been an active timber sale contract; and have a minimum of 12-month's experience as an Inspector (two construction seasons) relating to roads and any other technical categories for which certification is desired. The skill the candidate must possess and the desired experience level to be certified are as follows (sec. 13.13):

1. Coordinating and processing design changes or physical changes in a timely manner (desired experience: 4 changes).
2. Coordinating and processing variations in quantity adjustments (desired experience: 8 variations).
3. Processing progress payments (desired experience: 12 payments).
4. Maintaining all contract records including daily diaries for the contracts to which the candidate was assigned as Inspector. (Desired experience: 4 contracts).
5. Issuing and coordinating valid notices of noncompliance (desired experience: 4 notices).

6. Checking contract compliance for subgrade/bedding approval and final inspection on contracts and recommending acceptance to ER (desired experience: 4 instances).

7. Determining that funding is available for contract modifications (desired experience: 4 determinations).

### **21.3 - Contracting Officer Representative Candidates**

A Contracting Officer Representative (COR) candidate should have performed as an Inspector on at least four construction contracts; and have at least 12 months experience (two construction seasons) relating to the category(ies) in which certification is desired. The skill the candidate must possess and the desired experience level to be certified are as follows (sec. 13.14):

1. Coordinating and processing change orders, differing site conditions, and other contract modifications in a timely manner (desired experience: 4 changes).

2. Coordinating and processing variations in quantity adjustments (desired experience: 8 variations).

3. Processing progress payments (desired experience: 12 payments).

4. Maintaining all contract records including daily diaries for the contracts to which the candidate was assigned as Inspector (desired experience: 4 contracts).

5. Issuing and coordinating valid notices of noncompliance (desired experience: 4 notices).

6. Checking contract compliance for specifications required for technical approval and final inspection on contracts, and recommending acceptance to the COR (desired experience: 4 instances).

7. Determining that funding is available for contract modifications (desired experience: 4 determinations).

## **22 - Electronic Examinations**

Electronic examinations have been developed for technical and administrative categories of Forest Service construction activities, including methods, policies, and procedures. These examinations are given to qualified candidates on the recommendation of the Forest Staff Officer for Engineering Activities and the concurrence of the Regional Construction Certification Officer.

### **22.04 - Responsibility**

(See FSM 7115.1.)

**22.04a - Director of Engineering, Washington Office**

It is the responsibility of the Washington Office, Director of Engineering to decide if an external exam meets the objectives of the NCCP.

**22.04b - National Construction Certification Program Coordinator (NCCPC)**

It is the responsibility of the NCCPC to ensure availability of exams and to provide and disseminate implementation details.

**22.04c - Regional Construction Certification Officer (RCCO)**

It is the responsibility of the RCCO to:

1. Develop, review, maintain, and update exam materials for categories assigned (FSM 7115.1, ex. 01). Exam materials consist of the exam, handouts, drawings, notification letters, references, and self-study training courses.
2. Validate the examinations for which the Region is responsible and ensure the accuracy of the examination so that the questions focus on the context of the technical knowledge and skills required. Obtain Regional and Forest engineering staff assistance for this as necessary.
3. Issue an examination notification letter that:
  - a. Notifies the examinees of the date, time, and location of the examination.
  - b. Describes the necessary preparation and reference materials needed to take the examination.

This responsibility may be delegated to the Forest Staff Officer for Engineering Activities.

4. Identify opportunities and recommend formal review of external exams.
5. Act as liaison to the external organization or agency.
6. Coordinate continuing review of applicability of exam to Forest Service work.
7. Compile information on preparation for the exam and training.
8. Coordinate challenges from the field regarding applicability of the exam.

**22.04d - Employee**

It is the responsibility of the employee to provide proof of passing of external exams and meeting other established requirements to their unit NCCP Coordinator.

**22.1 - Purpose of Electronic Examinations**

Each electronic examination measures a candidate's knowledge of relevant technical job requirements and serves as a basis for receiving an oral examination.

## **22.2 - Development of Electronic Examinations**

1. Use job performance requirements found in Engineering Management EM-7115 self-study training courses (FSM 7115.1, ex. 01) as a basis for developing test questions.
2. Use question formats available in the software used for presenting electronic exams. Exams are no longer limited to multiple-choice questions. Essay questions, true/false, and yes/no shall not be used.
3. Design each question with a one-line description consisting of the learning point and a reference. For example, a question requiring computation of a complete sieve analysis could be summarized as “Computing Sieve Analysis, AASHTO T-27”.
4. Use subject matter experts to write and review exam questions.
5. Validated questions through:
  - a. Review by subject matter experts.
  - b. Analysis of exam results.
  - c. Challenge of exam questions by exam candidates who provide a written justification challenging a specific question.

## **22.3 - Procedures for Electronic Examinations**

1. Electronic examinations should be offered service-wide twice a year, during March and October. Exams may be scheduled for other times of the year at the request of the Forest Staff Officer for Engineering Activities, with approval of the Regional Construction Certification Officer, and at the discretion of the National Construction Certification Program Coordinator. This option may be considered for extenuating circumstances, but should not be requested for personal convenience.
2. All electronic examinations are open book.
3. Integrate sampling and testing questions with the other test questions and do not place them in a separate section of the examination.
4. All questions shall be presented in a format available in the exam software, with the exception of the essay type.
5. An unofficial score can be issued immediately following electronic submittal of the exam. Questions that are determined invalid by challenge may result in unofficial scores being adjusted.
6. Exam questions may be challenged by submitting specific information to the National Construction Certification Program Coordinator about the question(s) that justifies the challenge. Regional Construction Certification Officers shall review and respond to the challenge during the



exam period. Questions determined to be invalid shall be discarded and scores for exams with borderline no-pass scores shall be recalculated.

7. A hardcopy exam shall be provided for individual employees upon the request of the Forest Staff Officer for Engineering Activities, with the approval of the Regional Construction Certification Officer. Requests for this option should be used for extenuating circumstances and include a justification for the request.

8. Electronic exams must be proctored (FSM 7115.1). The National Construction Certification Program Coordinator shall issue instructions for proctoring exams.

#### **22.4 - Administrative Requirements**

1. Forest Staff Officers for Engineering Activities shall submit a list of exam candidates as scheduled in section 10.7, exhibit 01.

2. Regional Construction Certification Officers shall verify qualifications of exam candidates and submit the approved list as scheduled in sec. 10.7, exhibit 01.

3. The National Construction Certification Program Coordinator shall electronically schedule requested exams and generate userids and passwords for exam candidates.

4. Forest Construction Certification Coordinators shall arrange for appropriate facilities, equipment, and reference materials for conducting examinations.

#### **22.5 - Procedure for Waiving Electronic Exams**

Electronic exams may be waived (sec. 33.2) at the approval of the Regional Construction Certification Officer based upon documentation of current training and experience with other Federal or State agencies, private industry, or previous participation in the National Construction Certification Program. Waivers must be requested in writing by the Forest Staff Officer for Engineering Activities.

#### **22.6 - External Technical Certification Exams**

Certification exams for technical categories that are developed, managed, and administered by external organizations or agencies may be used when it has been determined to meet the needs of the NCCP.

#### **23 - Oral Examinations**

Oral examinations may be conducted at Regional, Forest, or zone levels. Oral examinations may be given to all candidates who have passed:

1. An electronic exam in at least one prerequisite technical category.
2. An electronic exam in one of the following administrative categories:
  - a. 02 Basic Administration - Timber Sale Contract Construction Inspector

- b. 03 Basic Administration - Public Works Inspector
- c. 13 Advanced Administration - Timber Sale Contract Engineering Representative
- d. 14 Advanced Administration - Public Works Contracting Officer's Representative

Each administrative category requires a separate oral examination. Basic oral exams may be combined and advanced oral exams may be combined. A basic oral should not be combined with an advanced oral; however, a basic oral may immediately precede an advanced oral.

Oral exams should not be waived. The oral examination normally required for subsequent qualification in a second administrative category may be waived if both the Forest Staff Officer for Engineering Activities and the Regional Construction Certification Officer concur. For those seeking certification in construction categories not described in this Handbook (sec. 13.4), conduct oral examinations only on adherence to contract compliance.

When in-person oral examination is impractical, the Regional Construction Certification Officer may determine that a teleconference is acceptable.

The nature and intensity of the oral examinations should be commensurate with the certification level.

### **23.04 - Responsibility**

The Regional Construction Certification Officer (RCCO) is responsible for:

- 1. Selecting the oral panel and designating the chairperson;
- 2. Orienting the panel members;
- 3. Ensuring that the facility is adequate;
- 4. Ensuring that the chairperson has a copy of the Examiner's Rating and Comments (Form FS-7100-21) that has been completely documented and signed by the candidate.

### **23.1 - Purpose of Oral Examinations**

The purpose of oral examinations is:

- 1. To evaluate the candidate's self-confidence and ability to communicate, reason, and respond to questions regarding construction and contract administration.
- 2. To view the candidate's approach to solving problems that may be encountered in the field.
- 3. To observe the candidate's ability to negotiate and deal with others in a technical and administrative capacity. Evaluate all of these in a field situation context.

## **23.2 - Document Preparation**

Form FS-7100-21, Examiner's Rating and Comments, should be completed when a candidate has successfully passed the prerequisite performance and electronic exams and has been nominated for an oral examination.

1. The candidate should complete Form FS-7100-21, Examiner's Rating and Comments, and sign attesting that it is accurate and complete.
2. The candidate should obtain the review and approval of the Forest Staff Officer for Engineering Activities and send the form to the RCCO.
3. The RCCO should provide Form FS-7100-21 to the chairperson of the oral panel before the candidate's examination.

## **23.3 - Oral Examination Panel**

### **23.31 - Chairperson's Responsibility**

It is the responsibility of the chairperson to:

1. Assemble the panel for orientation (sec. 23.4).
2. Introduce panel members to the candidate and lead the interview.
3. Lead post-exam review and evaluation of the candidate.
4. Complete and submit to the RCCO, the panel's consensus evaluation on Form FS-7100-21, Examiner's Rating and Comments.

### **23.32 - Qualifications of Panel Members**

The degree and type of certification under consideration dictates the required level of expertise of panel members. A panel shall consist of either a Contracting Officer responsible for construction projects or a timber staff officer, depending on the category of oral examination, and two to four members selected from the following:

1. Regional staff engineer.
2. Forest Staff Officer for Engineering Activities with recent engineering construction experience.
3. Certified Contracting Officer's Representative or an Engineering Representative, depending on the category of oral examination.
4. Journey level engineering construction technician with varied construction expertise.

5. Other technical specialist approved by the Regional Construction Certification Officer.

### **23.33 - Function of Examining Panel**

Oral examination panels evaluate the ability to perform based on a candidate's oral presentation (sec. 24). The panel assigns pass-or-fail grades appropriate to the required level of knowledge of contract administration under consideration and may offer appropriate commendations or recommendations for improvement. See section 29, exhibit 01, for interviewing suggestions.

The panel should follow a reasonably similar pattern of questioning for each candidate. See section 29, exhibit 02 for sample questions.

### **23.34 - Orientation of Panel Members**

Examination panel members must receive an orientation before the oral exams begin. The orientation should provide the panel the opportunity to:

1. Review and discuss pertinent Forest Service Manual direction.
2. Develop an understanding of the panel's critical duties and responsibilities, and of the rating factors.
3. Plan oral examination procedures.
4. Review the list of candidates and time schedules (sec. 29, ex. 01).
5. Discuss details of the session with the Regional Construction Certification Officer or a designated representative.

### **23.35 - Administrative Requirements**

#### **23.35a - Nondiscrimination**

Panel members may not ask questions or make oral or written statements relating to the following protected classes (FSM 1701 or FSH 1709.11. sec. 01) in such a way that discrimination might be inferred, nor may any of the following factors be considered in rating a candidate:

1. Race, color, national origin, or ancestry.
2. Gender or marital status.
3. Political or religious affiliation.
4. Age.
5. Disability or pregnancy.

6. Sexual orientation.
7. Success or failure in previous examinations.
8. Personal beliefs, attitudes, or relationships unrelated to skill and knowledge areas being examined.

#### **23.35b - Restriction or Exclusion of Panel Members**

A panel member related to a candidate by blood or marriage must not participate in the interview or during discussion and rating of the candidate.

A candidate's immediate supervisor should never be a member of the panel.

#### **23.35c - Withdrawal of Panel Member**

A panel member should withdraw from any interview in which the member feels unable to rate a candidate objectively. The panel members should not solicit the candidate's feelings about their participation. However, if a candidate volunteers the opinion that a panel member is biased, the candidate may ask that the member be excluded from the interview and from the discussion and rating. If the candidate appears to have a reasonable basis for the belief, for instance, if there has been a personal or professional dispute between the candidate and a panel member, the member should withdraw.

#### **23.35d - Information Known to Panel Member**

A panel member having knowledge of a candidate's activities outside of the examination situation must not use that knowledge as a basis for rating.

### **23.4 Procedures for Oral Examination**

One or more panel members may request that the candidate clarify specific answers. This request should be based on one of two reasons:

1. To use this opportunity to allow the candidate to correct possible misunderstandings and supply additional information.
2. To provide clues to areas in which the candidate may need additional training or experience.

Before the end of the interview, the chairperson shall give the candidate an opportunity to present any comments or views that may not have been covered earlier in the interview.

Panel members shall base their ratings on the overall assessment of the candidate's knowledge.

## **24 - Suggestions to Candidates**

Candidates should become thoroughly familiar with appropriate job performance requirements (found in EM-7115 self-study courses), and be sure they can perform every key component and task specified within the category in which they are being tested. Reference material that candidates should study is listed in the appropriate EM-7115 self-study training course (sec. 06). The list of materials that should be brought to the electronic examination(s) shall be specified in the examination notification letter sent to each candidate.

## **25 - Scheduling Examinations**

Schedule both oral and electronic examinations to allow the full assigned time to the candidate. A typical oral examination schedule, which may be modified to meet local conditions and requirements (length of oral exams, coffee breaks, flextime, and so forth), is shown in section 29, exhibit 03.

## **26 - Rating System for Examinations**

1. Electronic Examinations. Passing scores and time limits of exams are established on accepted methods for exam development and are identified in the notification letters and instructions for each exam.

2. Oral Examinations. After the candidate's oral examination is concluded, panel members shall review and evaluate the answers. Following that discussion, members should come to a consensus on the candidate's performance, assign a pass or fail rating for each category considered, and record those ratings on Form FS-7100-21, Examiner's Rating and Comments.

3. Reexamination. If the candidate does not pass the oral or electronic examination the candidate should be given additional training and experience before the Forest Staff Officer for Engineering Activities recommends reexamination. One year should elapse between electronic exams of the same category.

## **27 - Certification Examination Requirements**

Section 29, exhibit 04 displays:

1. Category numbers/titles.
2. Examinations, which must be passed before certification in each category can occur.
3. Each category's appropriate symbol.

All requirements must be met before certification is granted in that category.

To be certified at any administrative level the candidate must pass an oral examination within 4 years of passing the prerequisite electronic examination (see sec. 23 for waiver requirements), or retake the electronic examination.

The effective certification date is the month and year requirements for certification are met.

## **28 - Examination Results and Certificates**

1. The National Construction Certification Program Coordinator shall generate a letter with the official score and feedbacks (known as one-liners) from questions answered incorrectly and send to the Regional Construction Certification Officers for distribution.

2. The Regional Construction Certification Officer shall send a copy of the oral panel's consensus rating for each employee to the Forest Staff Officer for Engineering Activities.

3. If an employee fails an electronic or oral examination, the Forest Staff Officer for Engineering Activities shall ensure review of exam results with the employee and their immediate supervisor to develop a training plan that addresses the employee's deficient knowledge and skill areas. The Forest Staff Officer for Engineering Activities must specify which certified employee(s) is responsible for furnishing the necessary guidance and on-the-job training.

4. The National Construction Certification Program Coordinator or Regional Construction Certification Officer (RCCO) shall create certificates with appropriate construction certification symbols indicating the category(ies) of certification, date of expiration, and signatures of both the Regional Staff Director for Engineering Activities and RCCO (sec. 29, ex. 05). New certificates shall be issued to all participants who have a change in certification during the exam cycle.

5. The Forest Supervisor or Forest Staff Officer for Engineering Activities shall issue Construction Certification Certificates.

## **29 - Exhibits**

1. Exhibit 01. This exhibit is a list of suggested interviewing techniques.

2. Exhibit 02. This exhibit is a list of sample questions that can be used in an interview.

3. Exhibit 03. This exhibit is a sample of a typical oral examination schedule.

4. Exhibit 04. This exhibit is a summary of the exam requirements for various certification categories.

5. Exhibit 05. This exhibit is an illustration of a Construction Certification Program certificate.

## **29 - Exhibit 01**

### **Interviewing Techniques**

1. Initially, the chairperson should express appreciation for the candidate's participation and then ask about the candidate's present duty assignment. This provides information on recent employment changes, promotion, training, and so forth.
2. Because interview time is limited, the panel members should next ask questions designed to reveal the extent of the candidate's training and experience.
3. Invite candidates to describe any steps taken to increase their ability to perform their present duties, or to prepare for greater responsibility.
4. Try to phrase questions in such a way that candidates should indicate something of their ability to work and interact with others.
5. Before the end of the oral examination, ask candidates if there is anything they would like to add.
6. Develop in advance a list of typical technical, as well as administrative, questions to provide a core of material to be discussed with each candidate.
7. Critique the panel's own performance after each interview.



## 29 - Exhibit 02

### Sample Questions

**Direct Questions** - Use to verify or elaborate on information.

1. Why did you become a Construction Inspector?
2. What are the most important duties in your present position?
3. What were your duties on your last construction job?

**Open-Ended Questions** - Use to determine candidate's ability to successfully handle interpersonal relationships and to determine motivation.

1. Tell us about your experience with . . .
2. How did you feel about . . .?

**Leading Comments** - Use to verify or elaborate on interpersonal relationships and motivations.

1. You seem rather concerned about . . .
2. Apparently your major interest is . . .
3. You appear to have been an acting supervisor at the time . . .

**Situational Questions** - Use to evaluate judgment or reactions.

1. If you were a \_\_\_\_\_ assigned to \_\_\_\_\_ what would you do?
2. What would be your approach if you found \_\_\_\_\_?
3. How would you react to \_\_\_\_\_?

**29 - Exhibit 03**





**Typical Oral Examination Schedule**

Thursday, March 6, 1992

|                 |   |   |
|-----------------|---|---|
| Meeting Room:   | <b><u>Room 3C</u></b>   | <b><u>Room 3G</u></b>   |
| Panel Members:  | Director of Engineering, Chair<br>Contracting Officer<br>RO COR<br>Forest COR/ER  | Forest Engineering Staff Officer, Chair<br>Timber Sale Officer<br>Forest ER/COR |
| <b>Time</b>     | <b>COR Candidate</b>  | <b>ER Candidate</b>   |
| 0745 - 0815     | C. Barton   | E. Tomm   |
| 0830 - 0900     | D. Soluson  | C. Barton   |
| 0915 - 0945     | D. Kelley   | J. Jennings   |
| Break 0945-1015 |   |   |
| 1015 - 1045     | P. Stoltenburg  | F. Watkins  |
| 1100 - 1130     | A. Heilmeyer  | T. E. Ching   |
| 1145 - 1215     | L. Smith  | J. Hill   |
| Lunch 1215-1330 |   |   |
| Panel Members:  | Forest Engineering Staff Officer, Chair<br>Contracting Officer<br>Timber Sale Officer<br>Forest ER/COR<br>Forest COR/ER |   |
|                 | <b>COR/ER Candidate</b>   |   |
| 1330 - 1400     | P. Brown  |   |
| 1415 - 1445     | L. Richardson   |   |
| Break 1445-1515 |   |   |
| 1515 - 1545     | E. Mote   |   |
| 1600-1630       | I. Olson  |   |

**29 - Exhibit 04**

**Certification Examination Requirements**





| <b>Certification Category</b>                                   | <b>Requirements</b>  | <b>Certification Symbol</b>   |
|---|--|---|
| 01<br>Roads <sup>1/</sup>                                       | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 01, Roads.</li> <li>2. Pass electronic and oral examinations in:<br/>Category 02, Administration--Timber Sale Contract Inspector,<br/><br/>or<br/>Category 03, Administration--Public Works Inspector.</li> </ol>  |    |
| 02<br>Administration--<br>Timber Sale<br>Contract,<br>Inspector | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 02, Administration--Timber Sale Contract, Inspector.</li> <li>2. Pass electronic examination in Roads.</li> <li>3. Pass basic oral examination, Timber Sale Contract Inspector.</li> </ol>   |    |
| 03<br>Administration--<br>Public Works--<br>Inspector           | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 03, Administration--Public Work Inspector.</li> <li>2. Pass electronic examination in at least one technical category for which certification in Category 03 is a prerequisite.</li> <li>3. Pass basic oral examination, Public Works Contract Inspector.</li> </ol> |   |
| 04<br>Aggregate Base<br>and Surfacing <sup>1/</sup>             | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 04, Aggregate Base and Surfacing.</li> <li>2. Pass electronic and oral examinations in:<br/>Category 02, Administration--Timber Sale Contract Inspector,<br/><br/>or<br/>Category 03, Administration--Public Works Contract Inspector.</li> </ol>                    |  |

## **Certification Examination Requirements**

USDA Forest Service  
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## 29 - Exhibit 04--Continued

### Certification Examination Requirements

| Certification Category  | Requirements  | Certification Symbol  |
|---|---|---|
| 10<br>Asphalt Surface Treatment <sup>1/</sup>                                       | <p>Qualification in Category 07 precludes the need for qualification in this Category.</p> <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 10 Asphalt Surface Treatment.</li> <li>2. Pass electronic and oral examinations in:<br/>Category 02, Administration--Timber Sale Contract Inspector,<br/><br/>or<br/>Category 03, Administration--Public Works Contract Inspector.</li> </ol>                        |    |
| 11<br>Water and Wastewater <sup>1/</sup>  | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 11 Water and Wastewater.</li> <li>2. Pass electronic and oral examinations in:<br/>Category 03, Administration--Public Works Contract Inspector.</li> </ol>   |   |
| 12<br>Buildings <sup>1/</sup>   | <ol style="list-style-type: none"> <li>1. Pass electronic examination, Category 12, Buildings.</li> <li>2. Pass electronic and oral examinations in:<br/>Category 03, Administration--Public Works Contract Inspector.</li> </ol>   |  |
| 13<br>Advanced Administration--Timber Sale Contract Engineering Representative (ER) | <ol style="list-style-type: none"> <li>1. Pass electronic and oral examinations in:<br/>Category 02, Administration--Timber Sale Contract Inspector.</li> <li>2. Pass electronic examinations in Roads.</li> <li>3. Pass electronic examination, Category 13, Advanced Administration--Timber Sale Contract Engineering Representative.</li> <li>4. Pass advanced oral examination, Timber Sale Contract Engineering Representative.</li> </ol> |  |

**29 - Exhibit 04--Continued**

**Certification Examination Requirements**

| <b>Certification Category</b>   | <b>Requirements</b>  | <b>Certification Symbol</b>   |
|---|--|---|
| <p>14<br/>Advanced<br/>Administration--<br/>Public Works<br/>Contracting<br/>Officer's<br/>Representative<br/>(COR)</p> | <ol style="list-style-type: none"> <li>1. Pass electronic and oral examinations in:<br/>Category 03, Administration--Public Works<br/>Contract Inspector.</li> <li>2. Pass electronic examinations in technical categories<br/>for which the COR will be responsible.</li> <li>3. Pass electronic examination, Category 014,<br/>Advanced Administration--Public Works<br/>Contracting Officer's Representative.</li> <li>4. Pass advanced oral examination, Public Works<br/>Contracting Officer's Representative.</li> </ol> |  |
| <p><sup>1/</sup> Written examination includes sampling and testing questions in these categories.</p>                   |  |   |

Certification Program Certificate With Symbols Affixed

# Construction Certification Program

This certifies that

**Smokey Bear**

0601

has been examined and found qualified to perform the  
engineering activities in the categories shown.



*Cheryl L. Clark*

Regional Engineering Certification Officer

*Richard W. Sawa*

Regional Engineer



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005



5/1/2005

Category certifications expire on the given dates.