



BLM NM/OK/TX/KS

HEAVY EQUIPMENT OPERATOR TRAINING & QUALIFICATION PROGRAM

NM-950, Branch of Support Services & NM-930, Engineering
12/16/2013

The purpose of this document is to identify training and qualification requirements for BLM NM heavy equipment operators. This document is intended to supplement to the BLM Manual Handbook, 1112-2, Safety and Health for Field Operations and address regulatory requirements of 29 CFR 1910 & 1926. This document will be reviewed and updated annually.

TABLE OF CONTENTS

- [Purpose](#)
- [Training and Qualifications](#)
 - New Operator Orientation
 - Operator-in-Training Qualifications
 - Current Operators
- [Responsibilities](#)
- [Operation of Rental Heavy Equipment](#)
- [Recordkeeping and Documentation](#)

- **Appendicies**
 - Equipment Specific Knowledge Exam Links & Certification Requirements*
 - * [Crawler Tractor with Attachments](#)
 - * [Motor Grader](#)
 - * [Front-End Loader](#) (including Skid Steer Type, Wheeled, or Tracked)
 - * [Backhoe/Loader](#)
 - * [Roller/Compactor](#)
 - * [Brush Cutter](#)
 - * [Excavator](#)
 - * [Heavy Truck and Trailer](#)
 - * [Scraper Pan](#)

Purpose:

The Bureau of Land Management (BLM) utilizes various pieces of heavy equipment for the accomplishment of resource management related work, including but not limited to dam and road maintenance, and various construction and maintenance related activities throughout the BLM New Mexico area of responsibility.

The application of safe operating procedures is required in all heavy equipment operations. All employees who operate heavy equipment must demonstrate the required knowledge and specific skills for each type of equipment being operated and must have written authorization from their supervisor prior to operating. Authorization will be documented using [BLM form 1112-11, Motor Vehicle/Special Equipment Authorization](#).

Heavy Equipment Operator Training and Qualifications:*A. New Operator Orientation*

New operators must complete an orientation program which includes:

- A general overview of the safety program to include management and employee responsibilities, hazard reporting, accident reporting, and review of training requirements regarding equipment operation
- Review of completed Risk Assessments (RAs) associated with assigned duties.
- Use and care of Personal Protective Equipment (PPE) as required [e.g., boots, gloves, hard hats, hearing protection, eye and face protection]
- Review of hazardous working conditions [e.g., weather, terrain challenges, traffic issues, communication requirements, etc., for each work site location]

B. Operator-in-Training Qualifications

Operators-in-Training must successfully complete the New Operator Orientation and complete an equipment operator course commensurate with the equipment to be operated. Course work provided by either of the following will be considered acceptable minimum training:

- Federal Highway Administration, Local Technical Assistance Program (LTAP) Heavy Equipment Operators training provided by a State Highway Department or other State agency.
- US Fish and Wildlife Service or other Federal Agency Heavy Equipment Operator training program.
- Vendor provided or other supervisor approved training.

Operators-in-Training are required to:

- Successfully demonstrate competency specific to equipment being used.
- Become familiar with the manufacturers operating instructions specific to each equipment type.
- Be at least 21 years old.
- Be authorized in writing by the supervisor to operate each specific type of equipment. Authorization will be documented using [BLM form 1112-11, Motor Vehicle/Special Equipment Authorization](#).
- Possess a valid Commercial Driver License (CDL) if required by the State of New Mexico or Texas for equipment type.
- Successfully complete a “knowledge test” (reviewed by the supervisor) for the type of equipment to be operated.

- Develop/review an approved completed risk assessment(s) for equipment to be operated.

The knowledge test (see appendix) for Operators-in-Training will determine if the employee has reviewed the Operators Manual for the equipment and understands the general hazards associated with the operation and maintenance of the equipment.

C. Current Operators

Employees who are currently authorized to operate various types of heavy equipment (journeyman level) are required to meet the following standards:

- Complete the appropriate knowledge test (appendix) for the equipment being operated.
- Operate all equipment in a safe manner in accordance training provisions and the manufacturer recommendations.
- Perform equipment inspections consistent with the manufacturer's recommendations.
- Report, to the supervisor, any recognized defects that may affect the safe operation of the equipment.
- Must be authorized in writing on [BLM form 1112-11, Motor Vehicle/Special Equipment Authorization](#).

Responsibilities

Supervisors must ensure that each employee is specifically trained and authorized to operate the type of equipment used in work assignments. Training procedures include pre-work assignments, a general knowledge test(s), and satisfactory demonstration of operational skills and proficiency. Supervisors are required to review knowledge test results with the employee and sign a written authorization for each employee for the type of heavy equipment used in performing work.

Employees must only operate equipment for which they have been specifically trained and authorized, and in a manner consistent with the manufacturer's recommendations for safe operating procedures.

Operation of Rental Equipment (Heavy Equipment)

On occasion, the Bureau must rent various types of heavy equipment to accomplish work. The use of rental equipment presents additional risks and thus requires close supervisory oversight. To minimize these risks, it is important that supervisors comply with the following:

- Do not accept any piece of rental heavy equipment unless the provider certifies in writing that the equipment meets all applicable OSHA standards and is safe to operate. Any piece of rental equipment must come with an operator's manual.
- Ensure that the equipment will be operated only by trained and qualified operators and that these operators will consistently wear PPE and utilize safety equipment (including seat belt) when provided during operation.
- Complete a Risk Assessment for all work involving heavy equipment.

Record Keeping and Documentation

All documents related to the training and qualification and authorization of employees for operation of heavy equipment must be completed and maintained in a permanent file.

Each knowledge test will produce a certificate upon successful completion of the test. The links to the knowledge tests for each piece of equipment are included in the appendices of this program. Links to the knowledge tests are also available on the BLM NM SharePoint Portal, Safety Page <https://blmspace.blm.doi.net/nm/sites/DivisionSupportServices/Safety/default.aspx>

In addition to the knowledge test completion certificate, the supervisor is responsible for completing and maintaining an *Engineering Equipment Operator Certification Requirements* form for each employee and each piece of equipment that employee is authorized to operate. The *Remarks* section may be used to denote training progress, ability level, and/or skills needs. All records must be maintained throughout the operator's employment.

Following completion of all training requirements, form [BLM Form 1112-11 Motor Vehicle/Specialized Equipment Authorization](#) is completed and signed by the supervisor. Copies are retained by the supervisor and the employee. The official (original) form is filed in the employee's personnel file, or as directed by Human Resources.

HEAVY EQUIPMENT – CRAWLER TRACTOR

Instructions

Operators shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment (RMA)
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=k4r52b20adb74740>

VERBAL QUESTIONS & ANSWER - Training Aid

1. What is a dozer attachment?
2. What is meant by down pressure?
3. In freezing weather why should machine be parked on planks rather than in the mud?
4. What damage will result from allowing a blade edge to wear excessively?
5. Why should winch cables be inspected frequently?
6. Why should a pole or sharp ridge be crossed diagonally?
7. What type of dozer assembly should be used for side casting?
8. For what operations would a dozer blade be used in a floating position?
9. What is the purpose of back-blading?
10. For what type of work would a tilt blade be used?
11. What is the danger in running a dozer parallel to a foundation wall in back filling?
12. What gear range should be used when traveling among closely spaced objects?
13. How should the blade be positioned when the operator leaves the machine?
14. Is it permissible to have a passenger on the ripper while the machine is in motion?
15. What precaution should be taken before changing a blade cutting edge?
16. What danger must be guarded against while working on a steep slide slope?

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Crawler Tractor w/ Attachments**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Operate to acceptable standards		
Skid logs		
Push materials as required		
Prepare equipment for transport (load - tie down - unload)		
Operate tractor and attachments		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.

HEAVY EQUIPMENT – MOTOR GRADER

Instructions

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=ayn52b2273c917f6>

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Motor Grader**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Operate to acceptable standards		
Road equipment (from job to job)		
Grade surface		
Clean ditches and shoulders		
Plow snow		
Prepare equipment for transport (load - tie down - unload)		
Process crushed aggregate		
Lay hot mix		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (*Signature if appropriate*)

**Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.*

HEAVY EQUIPMENT – FRONT-END LOADER

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=6dd52b22c7ad07c4>

VERBAL QUESTIONS AND ANSWERS – Training Aid

1. Why is it important to repair or replace the bucket cutting edge when excessive wear is noted?
2. Why should a loaded bucket be carried in a low position while traveling over rough terrain?
3. Why is it dangerous to use a front-end loader near the top edge of a bank or ditch?
4. Aside from over-turning the machine, why is it dangerous to travel with a high bucket?
5. What precaution must be taken before working on a raised bucket?
6. Why is tipping sideways more dangerous than tipping forward?
7. Is it safe practice to swing a loaded bucket over a truck cab?
8. How should an operator dismount from their machine?

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Front-End Loader**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Road equipment (from job to job)		
Operate to acceptable standards		
Load trucks at stockpile		
Load slide material		
Clean ditches		
Clean culverts		
Remove brush and trees		
Prepare equipment for transport (load - tie down - unload)		
Load equipment and material		
Clean and install structures		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if appropriate)

**Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.*

HEAVY EQUIPMENT – BACKHOE/LOADER

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Driver's (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=b7b52b338f2591ce>

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Backhoe/Loader**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Road equipment (from job to job)		
Operate to acceptable standards		
Load trucks at stockpile		
Load slide material		
Clean ditches		
Clean culverts		
Remove brush and trees		
Prepare equipment for transport (load - tie down - unload)		
Load equipment and material		
Clean and install structures		
Written and oral tests complete		

Supervisor Signature

Operator Trainer Signature if Appropriate

**Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.*

HEAVY EQUIPMENT – ROLLER/COMPACTOR

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=cpr52b33c2d13fdd>

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Roller/Compactor**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Road equipment (from job to job)		
Operate to acceptable standards		
Hook-up for towing		
Prepare equipment for transport (load - tie down - unload)		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.

HEAVY EQUIPMENT – BRUSH CUTTER

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=xjv52b33e935088e>

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Brush Cutter**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Road equipment (from job to job)		
Operate on steep, narrow roads		
Operate to acceptable standards		
Prepare equipment for transport (load - tie down - unload)		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.

HEAVY EQUIPMENT - EXCAVATOR

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=fdm52b3434668b4b>

UNITED STATES

**DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Excavator**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Operate on steep, narrow roads		
Road equipment (from job to job)		
Operate to acceptable standards		
Load trucks at stockpile		
Load slide material		
Clean ditches		
Clean culverts		
Remove brush and trees		
Slope banks		
Prepare equipment for transport (load - tie down - unload)		
Clean and install structures		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.

HEAVY EQUIPMENT – HEAVY TRUCK & TRAILER

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=qfe52b34907287eb>

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Heavy Truck and Trailer**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Road equipment (from job to job)		
Operate to acceptable standards		
Prepare equipment for transport (load - tie down - unload)		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.

HEAVY EQUIPMENT – SCRAPER PAN

Instructions:

Applicant shall have in their possession a valid Commercial Driver's License (CDL) if applicable. Employee shall study the following material prior to taking the test.

- A. Safety and Health for Field Operations (H-1112-2, Topics 4 – 5)
- B. Risk Management Assessment
- C. Operator's Manual
- D. State Commercial Driver's License (CDL) Manual

Knowledge Test Link:

<http://www.classmarker.com/online-test/start/?quiz=pyg52b35a62d65c3>

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Engineering Equipment Operator Certification Requirements

Operator Name: _____ Operator Signature: _____

Equipment Type: **Scraper Pan**

REQUIRED TASK	DATE QUALIFIED	REMARKS AND INITIAL OF PERSON THAT APPROVES QUALIFICATIONS
Review RMA, Operator's Manuals and safety procedures		
Daily inspection before/during/after operating		
Perform equipment service lube - oil change, etc.		
Minor adjustment & repairs		
Maintain required records		
Road equipment (from job to job)		
Operate to acceptable standards		
Prepare equipment for transport (load - tie down - unload)		
Written and oral tests complete		

Supervisor Signature

Operator Trainer (Signature if Appropriate)

*Note to Supervisor: When the operator is qualified on this equipment. This form shall be maintained with the knowledge test completion certificate and BLM Form 1112-11, in the employees personnel file.