



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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MANUAL TRANSMITTAL SHEET

Subject

1112-1 Chapter 27 Off-Highway Vehicles

1. Explanation of Material Transmitted: This manual section sets forth the Bureau of Land Management (BLM's) policy and procedural guidance for the selection and safe use of off-highway vehicles (OHV's), including All-Terrain Vehicles, Utility Terrain Vehicles, and Snowmobiles.
2. Reports Required: None. Annual Reports are described in Chapter 4 of the BLM Manual Handbook 1112-1. There are no additional reporting requirements as a result of this chapter on OHV use.
3. Material Superseded: This release supersedes the 1-1716 version of chapter 27, Off-Highway Vehicles, dated March 11, 2008
4. Filing Instructions: File as directed below.

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All of chapter 27 (Rel.1-1716)

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(Total 28 sheets)

/s/ Linda Y. Behlin  
Assistant Director, Human Capital Management

# Chapter 27

## Off-Highway Vehicles

### 27.1 Scope and Requirements

A. Scope. This chapter addresses the use of off-highway vehicles (OHVs), including all terrain vehicles (ATV), Utility Terrain Vehicles (UTV), and Snowmobiles. It does not apply to construction or excavating equipment such as graders, bulldozers, or skid steer loaders, or to specialized off road equipment such as sand rails or amphibious vehicles.

B. Requirements. The use of BLM OHVs shall be carefully supervised to reduce personal injuries and keep property damage to a minimum. All OHV operations must conform to the requirements of this chapter. OHVs are categorized as specialized equipment. Authority for the purchase and use of specialized equipment is found in Title 49 of the Code of Federal Regulations (49 CFR), Parts 172, 383-397.

### 27.2 Definitions

A. OHV. Off-highway vehicle. In BLM off-highway vehicles include all terrain vehicles, utility terrain vehicles, and snowmobiles.

B. ATV. All terrain vehicle. A motorized off-highway vehicle 50 inches (1 1/4 m) or less in width, traveling on four or more low-pressure tires, having a single seat to be straddled by the operator and a handlebar for steering control.

C. UTV. Utility terrain vehicle. A motorized vehicle designed for off-highway use and capable of maneuvering over uneven terrain, designed with side by side seats, seatbelts, steering wheel, four or more low pressure tires, and a Rollover Protection System (ROPS).

D. Administrative Use UTV Operation. UTV operation solely for the purpose of short distance localized transportation within a defined, developed facility such as a wareyard, campground, or field office complex, at speeds not exceeding 15 miles per hour on flat or nearly flat surfaces of smooth asphalt, concrete, or compacted dirt or gravel, such as road or parking lot surfaces.

E. ATV trainer. An individual who has completed ASI ATV Rider Course Instructor Certification training and BLM instructor training for BLM Basic Operator, Advanced Operator, and Technical Modules.

F. ATV Chief Instructor (CI). An individual who oversees their state ATV/UTV training program and qualifies trainers to teach the BLM Basic, Advanced, and Technical Field Modules.

G. Industrial Use. A process which uses an ATV or UTV as an integral part of that process, including but not limited to, the following: pesticide or fuel firing device application or transportation of greater than 15 gallons of liquid cargo. Industrial use does not include the following:

1. Transporting the operator plus solid cargo
2. Transporting the operator plus liquid cargo up to 15 gallons. [Note: Cargo weight may not exceed the maximum manufacturer's cargo rack weight limitations.]
3. The use of a utility trailer to transport cargo

H. Maximum Manufacturer's Cargo Rack Weight Limitation. Specified by the manufacturer in the ATV or UTV operator's manual for front and rear cargo racks. Listed weight limitations shall not be exceeded.

I. Maximum Manufacturer's Towing Capacity. Specified by the manufacturer in the ATV or UTV operator's manual. This weight limitation shall not be exceeded.

J. PPE. Personal Protective Equipment. Equipment such as helmets, goggles, gloves, etc. worn on the body to protect it from injury.

K. Risk Assessment (RA). A formal process for systematically examining the risk associated with an activity to develop effective strategies to reduce the level of risk. RA shall be completed and approved in accordance with BLM Manual Handbook H-1112-1, Safety and Health Management, Chapter 2, Risk Management. The BLM Risk Management Worksheet, BLM Form 1112-5, is used to facilitate the completion of RA.

L. ROPS. Roll-Over Protective Structure. An open steel framework enclosing a UTV that is strength rated to Society of Automotive Engineers (SAE) J2194-97 standards or better to resist collapse during a vehicle rollover. [Note: Cab enclosures or brush cages are not always rated as ROPS.]

### **27.3 OHV Supervisory Responsibilities**

A. Each operator must be authorized in writing by their supervisor to operate an OHV. The Motor Vehicle Operator's Identification Card, OF-346 or equivalent may be used for this purpose.

B. Supervisors shall ensure that only qualified and authorized employees operate OHVs. In addition to the training requirements, qualifications include being familiar with the BLM Safety and Health Management Manual Handbook H-1112-1, Chapter 27 and the OHV operating manual specific to the model, available from the dealer or manufacturer.

C. The supervisor shall ensure that a RA is prepared for all projects or activities using OHVs and for each type of OHV being utilized. The RA will address the following areas:

1. Appropriateness of the OHV for the work project or activity
2. Operator tasks

3. Personal protective equipment
4. Operator experience/training level
5. Vehicle cargo rack weight limitations
6. OHV capabilities/limitations
7. Loading, unloading, and transportation of the vehicle
8. Terrain: obstacles, trail smoothness and composition, slope angle
9. Weather and work environment
10. Maintaining reliable communications
11. Check-Out/Check-In (COCI) procedure

12. Evacuation Plan which includes: location of work, nearest medical evacuation site, and routes to the work-site for responding ground SAR (Search and Rescue)/EMS (Emergency Medical Service). Plans should reference locations in terms of latitude and longitude whenever possible.

D. The supervisor shall ensure that the hazards identified in the RA for the project or trip shall be reviewed by all participants prior to commencing operations, and that changes in operating conditions shall result in the reevaluation of the RA and a review of any new hazards.

#### **27.4 OHV Maintenance**

A. Manufacturer's Recommended Maintenance Schedule. BLM-owned motor vehicle/equipment units must have inspections and service, including tune-ups, performed in accordance with the manufacturer's recommended schedules, or more frequently if operating conditions require.

B. Annual Maintenance/Safety Inspection. BLM vehicles must receive a thorough mechanical and safety inspection at least annually using BLM Form 1520-35. For units on a manufacturer's regular maintenance schedule, the annual inspection should be accomplished at the same time that regular scheduled maintenance is performed. For units not on a manufacturer's maintenance schedule, the annual inspection must be accomplished before the beginning of the field season. These maintenance/safety inspections must be performed by a qualified mechanic. Copies of the completed inspection forms must be retained in the appropriate vehicle/equipment file.

#### **27.5 ATV/UTV Training**

A. ATV trainers must complete ASI ATV Rider Course Instructor Certification and BLM instructor training for BLM Basic Operator, Advanced Operator, and Technical Modules. Trainers have primary responsibility to coordinate training and to provide supervisors and safety personnel with training documentation indicating who is qualified to operate an ATV or UTV.

B. Each state shall designate one or more ATV Chief Instructors (CI) to oversee their state ATV/UTV training program. CIs will maintain a current roster of their state's ATV/UTV trainers and disseminate important information to them, train ASI accredited trainers to teach the BLM ATV/UTV modules; and represent their state on the BLM National ATV Training Committee. To become an ATV CI, the candidate must be:

1. Certified as an ATV Instructor by the ATV Safety Institute (ASI).
2. Trained in the use of BLM ATV training materials by a BLM CI.

The qualifying CI will notify the State Safety Manager and the BLM National ATV CI Committee of the appointment of a new CI in their state.

C. ATV operators are to be qualified at either the Basic or Advanced Level, depending on their work requirements.

D. ATV operators at the basic level may not operate ATVs in back country locations or on steep or otherwise hazardous terrain (back country, for the purpose of this directive, is defined as a two or more hour walk/hike away from the transport vehicle). ATV trainers will provide guidance in making the determination of the necessary level of training. ATV operators at the Basic Level must successfully complete the following:

1. Introduction to Basic ATV Operation – Online course that is a prerequisite to all ATV field training
2. ATV Safety Institute (ASI) ATV Rider Course training taught by ASI certified instructor.
3. BLM Basic ATV Operator Field Training

E. ATV operators at the Advanced Level must first successfully complete the Basic Level operator training described in 27.5.D.1-3, then complete the following training:

1. BLM Advanced Operator Field Training
2. Technical modules as appropriate for their job (e.g., pesticide application or fuel firing device operation). Technical modules will be taught either by qualified ATV trainers who have expertise in the technical specialty, or jointly by an ATV trainer and a subject matter expert (e.g., pesticide application and fuel firing device operation) for the specialty. If necessary, an experienced UTV operator may also assist, as described in Section 27.5.F2.

F. Off-highway and back-country UTV operators must successfully complete the following:

1. BLM Introduction to Utility Terrain Vehicle Operation
2. BLM UTV Field Module, to be instructed by a qualified trainer. UTV training may be delivered by an ATV trainer having knowledge and experience of UTV operation or by an ATV trainer in conjunction with an experienced UTV operator.

G. Administrative use UTV operators must be licensed to drive in their state, authorized to operate a motor vehicle on government duty, and briefed on the safe operation of the specific vehicle they will be operating.

H. All operators shall be re-evaluated by an ATV trainer every three years. The re-evaluation shall be documented on Appendix A of this chapter (ATV/UTV Operator Accountability/Certification Tracking Record). Re-evaluation consists of demonstrating to a ATV trainer the operator's knowledge and abilities in controls, service, handling, loading/tie-down, unloading, and operating over terrain typically encountered, and utilizing the equipment the operator will use on the job. This may be accomplished during a check ride conducted during normal work activities.

I. Infrequent users (less than 16 hours of riding a year) including volunteers and Special Program enrollees shall have a check ride before the scheduled use of the ATV/UTV for project work, or as determined by the ATV trainer. Operators are responsible for tracking their actual ATV/UTV ride time, informing their supervisor(s) that they need a check ride, and contacting their local ATV trainer to schedule it. Field Offices are responsible for maintaining and tracking certifications and re-evaluation requirements for their employees. [Note: A check ride is required if in the past year the ATV/UTV operator has not ridden for 16 or more hours regardless of whether of the ATV/UTV operator is due for their three year re-evaluation.]

J. Operators must hold a valid Motor Vehicle Operator's Identification Card, OF-346 or equivalent. It will document supervisor authorization and operator qualifications for ATVs, UTVs, trailer towing limits, specialized equipment, and basic and advanced levels of operation, as applicable.

## 27.6 ATV/UTV Equipment Requirements

A. Transition Period for ATVs in Industrial Use. Stability testing has clearly demonstrated that UTVs are 10% more stable than ATVs when crossing slopes and 50% more stable traveling up slopes. Within 5 years of the issuance of this policy the field shall stop using ATVs for all "industrial use" activities. During the transition period, the use of ATVs for spraying and/or hauling liquid cargo shall conform to the following requirements:

1. A project RA will be performed as described in 27.3.C, and it must determine that the risk of a rollover does not exceed a low risk level.

2. Tanks must have baffles installed.

3. No tank may be mounted on a front cargo rack.

4. The liquid contents of the tank must not exceed 15 gallons, and the combined weight of the tank and its contents may not exceed the rated weight capacity of the cargo rack on which it is mounted.

5. Because they interfere with emergency dismount during a rollover, ATVs with rear mount cylindrical tanks may not be used on slopes exceeding a moderate angle.

6. Industrial use ATVs must have an engine size in the middle range of 400-500 cc. [Note: When selecting an ATV for industrial use, also consider that ATVs with lower overall vehicle (seat) height are generally more stable than taller models.]

7. Within 6 months of the issuance of this policy, the BLM Integrated Pest Management (IPM) Program will define the best tank configuration for ATVs and UTVs, the best method of attachment between the tank and the cargo rack for ATVs, and the best method of attachment between the tank and the utility bed/box for UTVs. All pesticide application operators shall then adhere to these standard configurations.

8. The IPM Program will track all ATV accidents during the five year transition period. If there is a demonstrated reduction in the rate of accidents during that period, the waivers and stipulations in this part, 27.6.A.1, shall remain in effect permanently.

B. UTVs purchased after the release of this policy must be equipped with a ROPS prior to use.

1. UTVs purchased without a ROPS prior to the release of this policy must be retrofitted with a ROPS within 1 year of the issuance of this policy, if a retrofit is readily available.

2. UTVs purchased without a ROPS prior to the release of this policy for which ROPS are not available must have a ROPS fabricated and installed per this chapter 27.2 definitions, or be retired from service within 3 years of the issuance of this policy. In the interim period the RA process must be used and prudent judgment must be exercised to ensure that UTVs not equipped with a ROPS are not exposed to the risk of a rollover.

C. Modifications to any ATV/UTV that include changes to the manufacturer's design of the vehicle's frame, electrical system, mechanical configuration are not permitted, with the following exceptions:

1. Installation of off-the-shelf aftermarket equipment designed for specific ATV/UTV applications, such as ROPS, carry-all boxes, equipment bags, approved extended range fuel tanks, suspension upgrade components, equipment racks or other attachments, such as agricultural spray equipment or law enforcement light bars.

2. Fuel firing device operations using a UTV and the fuel firing device itself shall comply with the requirements in Appendix D of this chapter.

D. Field Equipment.

1. The following equipment shall be carried when operating an ATV or UTV in the field:

a. First aid kit, as required in Chapter 14 of BLM Manual Handbook 1112-1, Safety and Health Management. In addition to the standard first aid kit, eye protection is also recommended. It is recommended to enclose the first aid kit in a zipper-type plastic bag or other dust-proof container.

- b. Personal communications device, defined as a two-way radio, cellular phone, or satellite phone.
  - c. Manufacturer's tool kit, including manual and low pressure tire gauge.
2. The following equipment is strongly recommended for back country travel:
- a. Map and compass.
  - b. Water for 1 to 3 days or 1-micron water filter with disinfection.
  - c. Food for 1 to 3 days.
  - d. Flashlight with extra batteries and bulb.
  - e. Eye protection and sunscreen.
  - f. Lightweight shelter and appropriate clothing for climatic conditions.
  - g. Global Positioning System receiver.
  - h. Multi-purpose belt tool.
  - i. PPE for pesticide application:
  - j. Matches or fire starter in weatherproof container.
  - k. Fire extinguisher
  - l. Whistle and signal mirror.

E. At a minimum, the following personal protective equipment and field equipment shall be provided by the BLM and used by all ATV/UTV operators and UTV passengers:

1. Head Protection.
  - a. ATV operators shall wear a full or three-quarter face motorcycle helmet with chin strap properly secured.
  - b. Motorcycle helmets shall meet requirements of the Department of Transportation (DOT), ANSI Z90.1 standard, or Snell Memorial Foundation (SMF) standards.
  - c. In order to mitigate exposures to hot temperatures, half shell "racing pit crew" helmets may be worn by wildland firefighters while operating ATVs on fireline duty, provided they meet the following requirements:
    - i. The helmets are lined with fire resistant Nomex<sup>®</sup>/aramid fiber material
    - ii. The ATV will only be operated within ¼ mile of fireline



- iii. Speed will be limited to 10 miles per hour or less
  - iv. Terrain does not constitute a “high” or “extremely high” rollover hazard.
- e. Helmets shall be replaced every 5 years or as recommended by their manufacturer, or sooner if involved in an impact related accident or if showing damage or significant wear.
- f. In order to facilitate facial communication and full situational awareness, law enforcement rangers and special agents are not required to wear head protection when performing high density crowd control operations on smooth, level terrain at speeds comparable to walking.
- g. UTV operators shall wear a motorcycle helmet as described in 27.6.E.1.a-c, above. If the UTV is equipped with a ROPS and a comprehensive and properly prepared RA of the specific conditions demonstrates no more than a medium residual risk level, the following exceptions are permitted:
- i. Hard hats meeting the requirements of NFPA 1977 for wildland fire use or ANSI Z89.1 Type II Hardhat standards for all other use may be worn when the UTV is operated on moderate terrain and at moderate speeds. Hard hats must be worn with chin strap securely in place under the chin. They shall be replaced as recommended by their manufacturer, or sooner if involved in an impact related accident or if showing damage or significant wear.
  - ii. Half-shell helmets meeting the requirements described in 27.6.E.1.a-c, above, may be worn when current temperatures of 90 degrees or higher create a hazard of heat exhaustion or heat stroke, and the RA documents that terrain does not constitute a “high” or “extremely high” rollover hazard.
  - iii. Determination of the type of head protection required will be based on the highest hazard that may be reasonably encountered. In areas not familiar to the operator, high and extreme hazard levels shall be assumed to exist and helmets meeting the requirements described in 27.6.E.1.a-c, above, shall be worn.
  - iv. Because of the low speeds and smooth travel surfaces, administrative use UTV operators are not required to wear hard hats or helmets.
2. Gloves as determined by the RA based on the work environment (e.g., brushy environment may warrant padded riding gloves as opposed to canvas gloves used for trash pickup).
3. Long pants and long-sleeved shirt, jersey or jacket.
4. Footwear will comply with Bureau field footwear guidelines, and shall have heels when operating ATVs with foot pegs.

5. Eye Protection.

a. ATVs. Helmet face shield, safety glasses, goggles, or sunglasses that meet the ANSI 87.1 standard as determined by the RA based on the work environment (e.g., a brushy environment would warrant full goggles or a face shield instead of safety glasses).

b. UTVs. Safety glasses, goggles, or sunglasses that meet the ANSI 87.1 standard as determined by the RA and based on the work environment. Eye protection is not required for a UTV with an original equipment manufacturer or equivalent windshield to protect the face from branches, flying debris, etc., unless otherwise required by an associated industrial use activity or the RA..

6. Additional rider protection gear identified in the RA, such as rider pants or knee/shin/elbow guards, or law enforcement protective wear such as a kidney belt or chest protector.

7. PPE for Pesticide Application

a. Chemical resistant gloves are to be worn during spray operations, replacing riding gloves.

b. To protect the applicator from chemical exposure and for safe operation of the UTV (or ATV during the five-year transition), impervious boots with fiberglass shank in the sole will be worn or impervious boots may be worn over leather riding boots.

c. Helmets shall be equipped with removable, washable liners and meet the following additional requirements:

i. ATV pesticide application - Operators shall wear a helmet as described in 27.6.E.1.a-b, with chin strap properly secured while in transit to and from the pesticide application area. While applying pesticide the applicator may wear a half-shell style DOT approved motorcycle helmet. Helmets shall be replaced as recommended by their manufacturer, or sooner if a helmet is involved in an impact-related accident

ii. UTV pesticide applicators - Applicators shall wear a helmet as described in 27.6.E.1.a-b, or may wear a hard hat provided a cab/brush cage is permanently installed on the vehicle and the UTV is being operated only in terrain that does not merit a “high” or “extremely high” RA rating of the rollover hazard. Hard hats shall meet requirements of NFPA 1977 for wildland fire use or ANSI Z89.1 Type II Hardhat standards for all other uses. Hard hats shall be replaced as recommended by their manufacturer or sooner if the helmet is involved in an impact related accident

d. Follow pesticide label instructions for other personal protective equipment, as specified.

## 27.7 ATV/UTV Loading and Transport

Detailed procedures for loading and unloading ATVs/UTVs are described in Appendix C of this chapter.

A. Operators shall wear all of the personal protective equipment described in 27.6.E.1-5 while loading/unloading ATV/UTV. Helmets meeting the requirements of 27.6.E.1 will be worn for all ATV/UTV loading/unloading operations.

B. An ATV/UTV being transported must be well secured to the transport vehicle, as detailed in Section 27.7.G.7, with the transmission in gear or “park,” as applicable, and the parking brake set.

C. The transport vehicle shall be of adequately rated capacity and capability. Operators will not exceed the transport vehicle’s gross vehicle weight requirements or stated maximum cargo capacity when hauling the ATV/UTV.

D. When transporting an ATV/UTV on a trailer, the trailer shall be appropriately rated, ensuring that the load does not exceed trailer load weight and the combined weight of the trailer and ATV/UTV trailer doesn’t exceed the towing vehicle’s rated towing capacity.

E. Trailers are the recommended method for transporting ATVs.

F. Trailers shall be used to transport UTVs.

G. All loading ramps will meet the following criteria:

1. Fabricated of aluminum or steel and of welded construction. Driving surface must have closely spaced crossed members or mesh construction with high traction surface. Wooden ramps may not be used.

2. May be of one or two piece design, rigid or folding. Hinges must be factory installed.

3. Adequately rated to support the combined weight of the ATV/UTV, the rider, and any cargo that can’t be removed from the machine for loading.

a. Minimum ramp loading capacity for ATVs shall be a minimum of 1200 pounds for a single full width ramp, 600 pounds each for two-piece ramps.

b. Minimum ramp loading capacity for UTVs shall be a minimum of 1500 pounds for a single full width ramp, 750 pounds each for two-piece ramps.

c. Regardless of the minimum ramp capacities stated above, it is the operator’s responsibility to ensure that the ramp being used is adequately rated to support the combined weight of the vehicle, rider, fuel, and cargo.

4. Loading ramps must be secured to the transport vehicle with two tie-down straps, chains, steel cables, or mechanical fasteners, and capable of supporting the ATV/UTV and associated equipment.

5. Loading ramps for pick-up beds or trailers shall meet the detailed requirements listed in Appendix C.

6. Trucks and trailers shall not be positioned across side slopes for loading or unloading operations.

H. The following criteria will be met to secure an ATV or UTV for transport.

1. ATVs and UTVs will be secured for transport using four tie-down straps, two in front, two in back, to prevent forward, backward, and sideways movement. If a commercially manufactured restraining device is used, two tie-down straps may be used in lieu of four, provided the use of the device is addressed in the RA. Tie-down straps shall be in good condition, free of frays or splices, and be of the following minimum rated working load limit (WLL):

- a. ATV – 400 pounds. Only tie-down straps with cam action or ratchet action buckles may be used to secure ATVs; knotted straps or rope may not be used.
- b. UTV – 800 pounds. Only tie-down straps with ratchet action buckles may be used to secure a UTV.

ATVs weighing more than 800 pounds and UTVs weighing more than 1600 pounds will require tie-down straps with higher working load limits than those stated above.

2. When transporting an ATV in a pickup truck it is strongly recommended that the tailgate be completely closed at all times. If the tailgate cannot be closed all four tires of the ATV must rest on the pick-up bed during transport.

3. Any materials, equipment or gear in the bed of a pickup truck being used to transport an ATV shall also be secured from movement.

4. Portable or detachable containers containing hazardous materials, such as pesticide, flammable solids or flammable liquids:

- a. Shall be secured separately from the ATV/UTV inside the bed of the truck to prevent movement. [Note: Tanks that are specifically manufactured to be solidly attached to an ATV/UTV for the purpose of repeated use are not portable containers and do not have to be removed prior to transport. Such tanks may only contain small quantities of residual contents prior to loading or transport.]
- b. Shall be in good physical condition, free of leaks and residue on their exteriors, properly labeled, and meet D.O.T. specifications for over the road transportation requirements.
- c. Shall not exceed D.O.T. minimum transportation regulation for over the road transportation, unless placarding or licensing requirements are met; and
- d. Shall be accompanied by a Material Safety Data Sheet (MSDS) for the contents.

## 27.8 ATV/UTV Miscellaneous Operational Requirements

### A. Passengers.

1. Do not carry passengers on ATVs. ATVs designed to carry a rider and passenger/s will not be purchased or used.
2. Carry no more passengers in a UTV than the number of seats installed by the manufacturer. The operator and each passenger must have their own fully functional seat belt and it must be fastened and properly adjusted at all times when the vehicle is in motion.

### B. Cargo.

1. When carrying equipment, equalize the load to maintain balance, stability and center of gravity. Never exceed the manufacturer's maximum carrying capacity for axles or cargo racks as specified in the ATV/UTV owner's manual. Follow manufacturer loading instructions.
2. All tools or equipment transported on ATVs/UTVs shall be securely attached to the vehicle to prevent loose cargo from falling under the wheels or striking the rider or vehicle, as well as to prevent a sudden shift in the center of gravity (CG).
3. Secure equipment on an ATV as close to the center of the machine as possible to help keep the center of gravity of the combined weight of the machine, rider and cargo centered within the machine's footprint, but do not attach equipment in a manner that would interfere with an emergency dismount from the ATV.
4. When hazardous materials or pesticides are being transported, ensure that the RA reflects the necessary actions to activate emergency procedures in the event of an accidental discharge as appropriate for the region and state. RA shall include chemical name, classification, quantity and precautions to be taken in the event of an accident.
5. All containers used for externally transporting fuel must meet specification requirements stipulated in the Interagency Transportation Guide for Gasoline, Mixed Gas, Drip-Fuel firing device Fuel, and Diesel prepared by the Missoula Technology and Development Center.
6. When transporting external fuel containers, it is required that each UTV has a secured 2.5 pound ABC fire extinguisher, at a minimum.

C. Pre-ride Inspection. Operators shall perform and document a pre-ride safety and mechanical inspection prior to the start of each shift. Appendix B to this chapter provides a guide to using the "TCLOC" inspection method.

D. When using an ATV/UTV to tow a trailer and/or equipment the maximum manufacturer's towing capacity specified in the vehicle owner's manual shall not be exceeded. [Note: Manufacturer's specified towing capacity varies depending on grade or slope of the terrain to be traveled.] In addition, the trailer's weight rating shall not be exceeded.

- E. Do not drive recklessly or at excessive speed, or engage in horseplay.
- F. Water Crossings. Do not enter deep or swift moving water. Hazards exist when:
  - 1. Stream bottom is unstable due to mud, sand, boulders.
  - 2. Water depth is not consistent through the entire route of travel.
  - 3. Stream width or water turbidity prevents a complete view of the bottom or submerged obstacles across the route of travel.
  - 4. Water depth and current may overflow air intake and stall the engine.
  - 5. Current is forceful enough to require you to counteract it to maintain balance or direction of travel.
- G. A check-out/check-in procedure (CO/CI), planned route and communications plan must be developed and followed, and a copy provided to the supervisor.
- H. All ATV/UTV accidents shall be reported in SMIS (Safety Management Information System) at [www.smis.doi.gov](http://www.smis.doi.gov), as required by BLM Manual H-1112-1, Chapter 8.
- I. Riding alone is prohibited, unless authorized by the supervisor and addressed in the RA.
- J. When parking an ATV/UTV:
  - 1. Engage brake.
  - 2. Shift transmission into low range/low gear or “park,” as applicable.
  - 3. Block tires when parking on an incline/decline.
  - 4. Turn off and remove keys if appropriate.
  - 5. If parking for longer than a day or two, turn fuel supply line valve to “Off.”

### 27.9 Snowmobiles [Reserved]



## Chapter 27 - Appendix B

### **ATV/UTV Operator's Pre-Ride Inspection Checklist**

**Warning:** If a proper inspection is not done before each use, severe injury or death could result. Always inspect the ATV/UTV before each use to ensure the equipment is in proper operating condition.

#### **T = TIRES & WHEELS:**

- Tires** - Air pressure, tire condition. Remember that more firmly inflated tires perform better on steeper side slopes.
- Wheels** - Rim bolts (lug nuts) and axle nuts and wheel bearings.

#### **C = CONTROLS & CABLES:**

- Controls and Throttle** – Check location and workability.
- Brakes** – Check for proper adjustment and brake fluid level.
- Recoil start and shifter** – Check that they are operational

#### **L = LIGHTS & ELECTRICS:**

- Ignition switch, engine stop switch, lights** - Check that all are working

#### **O = OIL, FUEL, FLUIDS & AIR FILTER:**

- Oil** - Check level and for leaks. Fuel – Check for full tank.
- Air filter** – Check that it is clean and not torn or blocked.
- Coolant** – Check that it is full that there are no leaks

#### **C = CHAIN/DRIVESHAFT, CHASSIS, SUSPENSION & EXTERNAL EQUIPMENT:**

- Chain** - Check chain slack for free-play and lubrication.
- Drive shaft** - Check for oil leaks and missing nuts and bolts - Shake handlebars, footrests, racks, etc. to be sure nothing is loose. Check fasteners for tightness and racks for cracks.
- Winches** – Check for proper operation, damaged cables, fairlead, hook and controls.
- Tool boxes and other external equipment and loaded items** - secured and in good repair.
- Trailer** - Tires, wheels, axle, bed and box in good serviceable condition.
- Trailer hitches** - Secured and properly sized to match ATV connection.



## Chapter 27 - Appendix C

# ATV/UTV Loading and Transport Procedures

[Note: In this Appendix, “ATV/UTV” is used for procedures that apply to both types of vehicles; the use of “ATV” or “UTV” alone means the procedure being addressed applies solely to that specific type of vehicle.]

The objective of Appendix C is to establish detailed standard operating procedures to ensure safe loading, unloading, and transport of ATVs in pickup trucks or ATVs/UTVs on trailers. Only qualified operators are permitted to load or unload ATVs/UTVs. Great care must be taken to avoid a wide variety of hazards associated with this operation. A Risk Assessment (RA) will be completed prior to any ATV/UTV operation, and loading and unloading will be addressed in the RA.

### **Personal Protective Equipment:**

Loading/unloading injuries are common and likely to be severe. For this reason all required ATV/UTV Personal Protective Equipment (PPE) prescribed in BLM Manual H-1112-1, Chapter 27, must be worn while loading and unloading ATVs/UTVs to/from vehicles. This also applies to winching operations, even though the rider is dismounted. Standard PPE includes helmet, long sleeves and pants, field boots, gloves, and eye protection.

### **Transport Vehicles:**

The recommended method of transporting ATVs is via trailer. Trailers are usually closer to the ground than pickup beds, significantly decreasing the loading angle.

UTVs must be transported on an appropriately rated trailer.

If operational reasons make it necessary to transport an ATV via pick-up, the ATV may be loaded/unloaded either by driving it up/down a ramp onto the pickup bed or by winching it up the ramp with a winch mounted on either the ATV or the truck.

It is recommended that a winch be used for loading/unloading a damaged ATV/UTV or an ATV/UTV that is heavily or unevenly loaded with equipment which cannot be removed due to an urgent or unavoidable reason.

### Loading Ramps Requirements:

- Loading ramps for ATVs may be plastic, aluminum or steel. If aluminum or steel they must be of welded construction. Plastic ramps may be used if commercially designed and manufactured specifically for ATV loading. Ramps may be one or two piece, rigid or folding. Hinges must be factory installed; i.e., no shop built ramps may be of a folding type. Ramp surface (driving surface) should have closely spaced cross members or mesh construction with high traction surface. Plastic ramps must have traction blocks molded into drive surface. Under no circumstances will wooden ramps be used.
- Over time, ATV loading ramps are subject to being used by multiple operators and for a variety of machines, so they must be rated to safely support the full range of ATV sizes, including the heaviest models. For this reason, ATV ramps must have a minimum rated capacity of 1,200 pounds (600 pounds each for two-piece ramps).
- Trailer ramps for UTVs must have a minimum rated capacity of 1,500 pounds (750 pounds each for two-piece ramps) and be of sufficient length to reduce the ramp angle to a slope that is safe for the model of UTV. Refer to the owner's manual for slope angle guidance specific to the UTV model being loaded.
- Some ATVs and UTVs may be heavier than these recommended ratings. It is imperative that you know the unladen weight of your ATV/UTV (refer to owner's manual or contact manufacturer or dealer). Regardless of the minimum ramp capacities stated above, it is the operator's responsibility to ensure that the ramp they are using is adequately rated to support the combined weight of the ATV/UTV, the rider, and any cargo that can't be removed from the machine for loading.
- One piece, bi- or tri-fold ATV ramps must be a minimum of 46 inches wide when extended for loading. One piece ramps must be wider than the distance between the ATV's tires as measured from the outside of the left tire to the outside of the right tire.
- For two-piece ATV ramps, each ramp must be a minimum of 10 inches wide. Ramp length must be a minimum of 71 inches long when extended for loading; however, because reducing ramp angle increases the level of safety while loading, 84 inches (7 feet) is the strongly recommended length. 84 inch or longer ramps should always be used to load onto trucks with high beds.
- All ramps must have chains, cables, or straps to reliably secure the ramps to the vehicle tailgate. Use of ramp chains or straps during loading is mandatory. These chains or straps prevent the ramps from falling during loading.

### Positioning and Securing the Loading Ramp:

- The ramp angle from the vehicle or trailer to the ground has the largest influence on risk when loading or unloading an ATV/UTV. If the ramp angle is reduced, and all other conditions remain the same, risk is reduced. The truck or trailer should be positioned to take advantage of any terrain features that will help reduce the ramp angle.
- Loading ramps should be positioned so the ends in contact with the ground are level or at the same height. Uneven ramps may cause the ATV/UTV to tip over sideways during loading/unloading.
- Operators should consider the following methods to reduce the ramp angle for loading ATVs onto pickup trucks:
  - The use of a loading wall, if available, or positioning the rear of the truck near an earthen berm or ridge will reduce the ramp angle from truck bed to ground. If the loading wall is the correct height, it may eliminate the need for ramps and allow roll-on/roll-off loading.
  - The truck may be positioned with the rear wheels in a depression (for example, a ditch) to reduce the ramp angle. This lowers the bed of the truck and allows the ramps to be located on higher ground on the far side of the depression. Conversely, the bottom of the ramp should not be set into a depression, because this increases the ramp angle.
- ATV loading ramps for pickups must be secured to the truck bed with chains, cables, or straps designed for that purpose. When in position for loading, the chains or straps must be taut with no slack or sag.
- Two-piece ATV loading ramps must be positioned parallel and spaced so the ATV tires are centered on the ramps. One-piece ramps must be centered on the truck bed and the ATV driven up the center of the ramp.

### Requirements for Carrying ATVs in Pickup Trucks:

- Only pickup trucks or larger vehicles that have room for all four wheels of the ATV to rest on the bed of the truck will be used to transport ATVs. Gross Vehicle Weight Rating (GVWR), suspension weight capacity and tire load ratings may not be exceeded.
- Pickup trucks may transport only one ATV loaded in the bed and all four ATV wheels/tires must be in contact with the bed surface.
- Transport vehicles should be equipped with rear window protectors (“headache racks”) if possible.

- All pickups must have a flat bed surface, wide enough between wheel wells that the ATV may be rolled on the bed without riding over the wheel wells. Under no circumstances will an ATV be loaded into a vehicle when the ATV must be driven over the wheel wells.
- Four tie-down straps shall be used. Welded or bolted tie-down connection points are recommended. (See “Secure Loads,” in the last section of this appendix.)
- Stake pocket tie-down connection points rated at 1000 pounds or more (available at auto or trailer retail stores) are acceptable if a sturdy header board is installed.
- Padding should be placed at the front of the pickup bed to protect both vehicles and help absorb any accidental impact during loading. A used tire, minus the rim, works well for this purpose.

### **UTV/ATV Loading Procedures and Techniques:**

- When preparing to drive an ATV into the bed of a vehicle or onto a trailer, the operator should be leaning well forward and low with feet positioned on the ATV’s footrests.
- ATV racks or UTV utility beds should be unloaded before transporting. Any heavy cargo must be removed and/or spray tanks emptied. If heavy cargo or tanks cannot be removed, sandbags or other heavy objects should be secured to the front to balance the ATV/UTV. The only safe method of loading an ATV that has a loaded spray tank or other heavy load on the back is to winch the riderless ATV into the bed of the pick-up. Winch operators should be trained and fully aware that there are serious hazards associated with winching operations.
- The ATV/UTV should be loaded with the front of the ATV/UTV toward the front of the transport vehicle/trailer whenever possible. In cases where the ATV/UTV must be loaded with a tank or other load on the ATV/UTV rear, it may be safer to use a winch (see above) to load the ATV/UTV with the rear facing the front of the transport vehicle/trailer, placing the center of gravity further forward and reducing the probability of the ATV/UTV tipping backward off the ramp.
- The operator should apply throttle smoothly and climb the ramp at low speed. Too much or sudden increases in throttle will cause the ATV/UTV to be harder to control and may cause it to over-turn or strike the front of the vehicle bed/ trailer.
- On an ATV, as the operator starts up the ramp they should lean toward the uphill direction, i.e. toward the ramps, to help keep the ATV balanced.

**Securing ATV/UTV for Transport:**

- Only tie-down straps shall be used for securing an ATV/UTV for transport; ropes, chains, cables, or bungee cords are not acceptable. Tie-down straps shall be in good condition and free of frays or splices, and shall be manufacturer rated with a minimum working load limit (WLL) of:
  - ATV – 400 pounds. Only straps with ratchet action (preferred) or cam action buckles may be used to secure ATVs; knotted straps will not be used.
  - UTV – 800 pounds. Only tie-down straps with ratchet action buckles may be used to secure UTVs.

ATVs weighing more than 800 pounds or UTVs weighing more than 1600 pounds will require tie-down straps with higher working load limits than those stated above. Operators must have an accurate knowledge of the weight of their vehicle in order to determine if tie-down straps with higher WLL ratings are required.

- A minimum of four tie-down straps will be used to secure the ATV/UTV to the vehicle or trailer; two tie-down straps to secure the front of the ATV/UTV to the vehicle and two tie-down straps to secure the rear of the ATV/UTV to the vehicle. Hooks on the ATV/UTV end of the tie down straps must generally be attached to the ATV/UTV frame, not the cargo racks, unless otherwise stated by the owner's manual. Hooks on the other end must be attached to vehicle/trailer cargo anchors.
- For transport, ATVs/UTVs with manual transmissions should be left in first gear; those with automatic transmissions should be in the "Park" position. The ignition key should be turned off and removed, the parking brake set, the run/stop switch in the stop (or off) position and the fuel lever turned to the off position.

**Unloading ATV/UTV from Transport Vehicle:**

- The safest method of unloading an ATV is to push it down the ramps in neutral and allow it to roll down on its own. This should only be done after carefully assessing the ground slope and potential obstacles that the ATV will encounter when it exits the end of the ramp. If riding down, the operator should lean forward, apply only enough throttle to start the ATV down the ramps, and then allow the ATV to roll backwards using light pressure on all the brakes to control speed; never suddenly apply hard braking when descending a ramp.
- UTV operators remain seated with seat belt fastened and properly adjusted when loading and unloading UTVs on a trailer. Injuries are more likely to be serious in an overturned UTV if the operator is thrown from the machine. Operators should not attempt to bail out of an overturning UTV, because of the high risk of being crushed or struck by the UTV or its ROPS/brush frame.

## Chapter 27 - Appendix D

# Fuel Firing Device Requirements

All purchases of vehicle mounted fuel firing devices must be reviewed by the NIFC Fire Equipment Shop to ensure compliance with the most current technical standards and requirements.

## Operational Requirements

### Prior to Burn

- UTV fuel firing device operator should recon burn area prior to ignition
- Perform inspection of UTV, fuel firing device, fire extinguisher, etc. (use check lists)
- Include discussion of UTV fuel firing device operations in pre-burn briefing
- Document UTV fuel firing device use in the RA.

### Firing Operations

- LCES guidelines will be followed during operation. [Lookouts, Communications, Escapes Routes, and Safety Zones]
- The firing boss/ignition specialist will not be a fuel firing device operator
- Change operators as needed to avoid fatigue
- Fueling fuel firing device
- Close the fuel firing device fuel valve and extinguish the wick/igniter when not actively firing
- Watch out for fire burning under a lit wick/igniter when the UTV is stopped
- Always use safe firing practices
  - Turn off UTV and allow to cool
  - Ensure the wick/igniter is completely extinguished and cooled
  - No smoking or open flame within 50 feet
  - Use correct fuel mixture for conditions
  - Do not completely fill tank, fill to about 90% of tank capacity
  - Wipe up any fuel spilled on the tank or the UTV
- Maintain a safe distance between UTVs when igniting
- Maintain continuous communication or visual contact with other operators
- Maintain position and speed during ignition
- Never ignite when another UTV is directly downwind of you

- Never allow ignitions to trap other operators in areas with access problems operator should ride in and ignite on the way out.
- When the operator dismounts the machine in an active fire area:
  - Park UTV in the black or other safe area
  - Turn off the fuel firing device, extinguish wick/igniter

## **Emergency Procedures**

**Always provide for personal safety first.**

### **Stuck, Stalled, or Rolled UTV**

- Halt further ignition
- Extinguish wick/igniter
- Notify others of your situation and request help
- Extinguish fire near machine

### **Fuel Firing Device Catches Fire**

- Try to extinguish fire
- If practical, jettison fuel firing device and drive UTV away
- If fuel firing device cannot be jettisoned abandon UTV/fuel firing device and leave area immediately
- Notify others of your situation

### **Fuel Firing Device Inspection Checklist (Pre-operation)**

- Valves
- Filters
- Check all connections, including condition (fuel lines)
- Switches
- Fuel firing device is securely fastened to UTV
- Fill tank
- Pump check
- Nozzle
- Igniter system
- Tank (cap tight, etc.)
- Fasteners
- Snuffer
- Spare fuses
- Wiring and connections

## Safety and Auxiliary Equipment Checklist

- Fire Extinguisher
  - Minimum 10 lbs., Type B-C
  - Attached to ATV, not mounted on fuel firing device
  - Mounted so as to be accessible in event of a rollover

Name \_\_\_\_\_ Date \_\_\_\_\_