

SECTION 6

Work Procedures

6.1 Turf Mowing and trimming

Turf mowing is performed with a combination of riding mowers and push mowers. Operators shall read the Owner's manual for the specific piece of equipment before they use the mower for the first time. Equipment should be thoroughly checked out before each use. Preventative maintenance should be performed as detailed in the manufacturer's recommendations found in the Owner's Manual. At a minimum, at the end of the work shift, the operators should clean off the mower, clean the air filter and check the tire pressure where applicable, check blade sharpness and sharpen if necessary, grease when needed and clean the radiator screen. Any other operating instructions found in the Owner's Manual must be followed. For any more substantial mechanical maintenance, the operator will communicate the problem to the mechanic or a supervisor so that the appropriate repairs can be made. Safety systems shall never be bypassed and if any safety features are not functioning properly, a supervisor or the mechanic must be notified and the machine must be removed from service until repairs are made. Operators should never try to dislodge stuck material from areas around cutting blades while the machine is running. They must be sure that the machine is turned off before attempting to work near deck area or near PTO shafts. The PPE required for mowing is eye protection, hearing protection and steel toed shoes. When operating mowers with ROPS, operators must wear seat belts. As a rule, if a piece of equipment has a seat belt the operator is required to wear it. Operators shall not mow slopes of 3:1 or greater. If an operator has a question as to the degree of slope, he/she should contact a Supervisor so that the area can be evaluated (also see section 6.20). Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. Downed branches or litter should be disposed of prior to mowing. When

pedestrians come close to mowing operations, the operator will come to a stop until the pedestrians have passed by.

Trimming requires the use of a powered weed whip. Operators shall read the Owner's manual prior to using the weed whip for the first time. The weed whip should be thoroughly checked out prior to each use. Some of the things to look for are loose screws and parts, missing muffler guard and fuel leaks. For any maintenance required other than routine fueling and cutting line replacement, the mechanic or a supervisor must be contacted. Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. Downed branches, litter, or any loose debris that might be thrown by the weed whip should be disposed of prior to mowing. When pedestrians come close to trimming operations the operator will let the cutting head come to a stop until the pedestrians have passed by.

6.2 Loader and Heavy Equipment Operations

These activities refer to use of any of the articulating end loaders, skid steer loaders or Fecon, back-hoe and excavator operations, and road grader use. Before any employees operate these pieces of equipment they must have read the Owner's Manual, viewed any available safety training videos or DVDs and had a "hands on" training session with an experienced operator designated by a supervisor or a training session with a supervisor. A thorough check-out of the piece of equipment to be used is required. The Tractor and Heavy Equipment check out form should be used prior to the first time that piece of equipment is used each shift. Grease records should be reviewed and the equipment should be greased if there has been 10 hours or more of use since the last greasing. Any more significant repairs needed should be communicated to the mechanic or a supervisor. Safety systems shall never be bypassed and if any safety features are not functioning properly, a supervisor or the mechanic must be notified and the machine must be removed from service until repairs are made. Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. When operating these pieces of equipment, job site visibility is critical. Operators must be sure that they can see the area well and that others can see them. The use of cones, barricades, flagging, signage and traffic control should all be considered before work begins. Seat belts are required for the end loaders, the back hoe and the excavator. The cabs of the loaders, back-hoe, excavator and grader are designed with noise level reduction engineering. When the operator's compartments are sealed in these machines hearing protection is optional but recommended. Before a loader operator leaves a work site, he or she should check the area for uneven surfaces, rocks or other trip hazards that could be eliminated with a few minutes of leveling

work by the loader. This is especially important at sites like the NuMi stone stockpile near Site 12 and the stone products stockpiles at Site 37.

6.3 Tractor Operations

Tractor operations refer to the use of a wide variety of tractors at Roads and Grounds. The activities involved include road shoulder mowing, field mowing, landscape and turf repairs, towing watering wagons, plowing, disking, dragging, towing a broadcast seeder, a seed drill and towing a bison feed wagon. Before any employees operate these pieces of equipment they must have read the Owner's Manual or a similar tractors Owner's Manual, viewed any related available tractor safety training videos or DVDs and had a "hands on" training session on that tractor or a similar tractor with an experienced operator designated by a supervisor or a training session with a supervisor. A thorough check-out of the piece of equipment to be used is required. The Tractor and Heavy Equipment check out form should be used prior to the first time that piece of equipment is used each shift. Grease records should be reviewed and the equipment should be greased if there has been 10 hours or more of use since the last greasing. Any more significant repairs needed should be communicated to the mechanic or a supervisor. Safety systems shall never be bypassed and if any safety features are not functioning properly, a supervisor or the mechanic must be notified and the machine must be removed from service until repairs are made. Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. When cabs are closed and sealed hearing protection is not required but encouraged, except for the Oliver and the Case tractors which require hearing protection at all times. On all open tractors or when operating tractors with cabs and open windows, hearing protection is required. Eye protection is required when mowing with open tractors.

When field mowing, operators must be able to recognize obstacles in tall grass/weeds. This can be accomplished by continuously looking over the next mowing pass area. If steep slopes are to be mowed a supervisor should be contacted to review the job site with the operator.

Also see Procedures for Communicating Equipment Damage in Section [7.2.9](#).

6.4 Driving Vehicles Including CDL

The fleet of licensed vehicles at Roads and Grounds includes pick-up trucks, flat-bed trucks, a bucket truck, and dump trucks. A thorough check-out of the piece of equipment to be used is required. The vehicle check-out form should be used prior to the first time that the truck is used each shift. Also see Procedures for Communicating Equipment Damage

in Section 7.2. When greasing dump trucks the elevated bed must be physically blocked with the manufacturers supplied bracing arm before operator can grease under the bed of the truck. The bucket truck and the dump trucks that are over 26,000 pounds GVW require a Commercial Drivers License. All vehicles require the operator to wear a seat belt and follow the Illinois Department of Transportation's Rules of the Road. The risk of an accident is elevated during backing operations. Whenever possible, spotters will be used to assist the driver while backing or the operator should check behind the vehicle prior to backing. Whenever operating dump trucks and especially during snow removal activities, the operator must keep the truck bed in the down position except for momentary salt load adjustments. Drivers must be aware of overhead hazards such as tree limbs, wires and entrance arches.

All CDL operators are included in the Federal Motor Carrier Safety Administration required random drug and alcohol testing program. Information about CDL drug and alcohol testing can be found at: [U.S. Department of Transportation / Office of the Secretary of Transportation](http://www.transportation.gov/officeofthesecretaryoftransportation)

For basic DOT rules and consequences see [attachment 8.22](#).
For the Roads and Grounds Policy on CDL licenses see [7.2.14](#)

Seventeen year old Summer Students may only drive vehicles that weigh less than 6,000 pounds gross weight as required by the Fair Labor Standards Act.

For addition rules for Government vehicle operation see [attachment 8.22](#).

6.5 Ornamental Plant Care

Planting, watering, weeding, herbiciding and maintaining ornamental plants in ornamental perennial beds is a Roads and Grounds activity done throughout the growing season. The design and plant choices in these areas will reflect a "low maintenance" policy. This requires careful plant selection that considers draught tolerance, pest resistance and other maintenance factors. Replacement of existing plants with a shovel does not require an Excavation Permit. New installation areas must have an Excavation Permit completed before work begins. During mulching operations eye protection is required. When employees applying mulch notice high winds that could cause mulch particles to get past safety glasses, they are encouraged to stop mulching operations and report to a supervisor for a different assignment. Herbicide applications will follow all of the requirements mentioned in Section 6.6.

6.6 Pest Control

Only State of Illinois, Department of Agriculture licensed Applicators and Operators may apply pesticides at Fermilab. The licensed applicators and operators at Roads and Grounds apply the following pesticides; total vegetative control herbicides, selective control herbicides, algicides and aquatic herbicides, selective insecticides, mosquito larvicide, mosquito adulticides and fungicides. Applicators and Operators must follow all guidelines and procedures covered in the Pesticide Applicator Training/Testing program provided by the University of Illinois Extension Service. These formal requirements along with the specific product label instructions combine to provide all the rates, proper application procedures and PPE required for mixing and for each specific application. This training addresses all hazards associated with this activity. The minimum requirements for PPE during application are a hat, safety eyewear, a sleeved shirt, long pants or coveralls, socks and steel toed boots. If working with a spray rig pump, powered by a gasoline engine hearing protection is required. If it becomes windy enough to cause drifting problems, Operators should stop spraying activities and report to a supervisor for another assignment.

Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. A history of application techniques, procedures and daily applications are maintained by operators and applicators (see [attachment 8.17](#)). When applications are to be made around sensitive structures, Building Managers are contacted in advance and the planned pesticide activities are communicated. The annual daily log spreadsheet is forwarded to Fermilab's Environment, Safety and Health Department at the end of each year. Information on Pesticide Use for Invasive Plant Species Management can be found in [attachment 8.17](#).

6.7 Fertilizer Applications

The Roads and Grounds Department does apply a limited amount of fertilizer to turf and ornamental areas each year. Only organic fertilizers are used. Applications are made around high-visibility and high-use areas, these are; the softball and soccer fields, the model airplane field and areas immediate to Wilson Hall. Applications should be done with broadcast spreaders set at the specified product rate. Applications should only be made when winds are less than 10 MPH. Eye protection and a particle mask are required while loading and spreading fertilizer.

6.8 Bison Care and Handling

Extreme care is required when working with the bison herd. During sorting operations prior to the fall sale, all precautions as detailed in the Bison Hazard Analysis (see [attachment 8.9](#)) shall be followed. This Hazard Analysis will be reviewed before each fall sale related handling.

The Sr. Groundskeeper responsible for bison care or his/her substitute will check the health of the animals daily. He/she will also feed and water daily and routinely check fences, gates and electric fence systems to maintain their integrity. A double fence system is maintained to provide back-up safety and security for employees and the public while they view the bison herd. During fence or gate repairs or replacement operations workers are required to wear safety shoes, gloves and eye protection.

When emergency bison health situations arise, management and the sub-contracted veterinarian will consult as to the best option for further action considering the animal's health and the safety of the handlers.

6.9 Pruning, Mulching and Watering

Tree care refers to a broad range of tree and shrub care activities including mulching, watering, pruning and trimming. Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. Equipment and tools typically used in these operations are tractors, water tank and pump combinations, small dump trucks, wheel barrows, shovels, rakes, hand pruners, loppers, hand saws and small chainsaws. All equipment should be visually inspected before each use. When filling wheel barrows from, or dumping wood mulch from small dump trucks, pinch points should be identified before work involving swinging tailgates is started. When cutting branches with a hand saw or loppers that are above head height and are greater than 1" in diameter a hard hat is required. Typical light pruning using hand pruners, loppers or hedge trimmers does not require a hard hat unless there other overhead hazards. When pruning and/or hauling branches, eye protection is required. When mulching with wood chips under trees, eye protection is required. When employees applying mulch notice high winds that could cause mulch particles to get past safety glasses, they are encouraged to stop mulching operations and report to a supervisor for a different assignment. For tractor use precautions see Section 6.3. For chain saw use precautions see Section 6.10. For rules regulating ash tree/EAB disposal, see Policy [7.2.17](#).

6.10 Tree Removal with Chain Saw, Bucket Truck, Chipper, Stump Grinder, Forestry Cutter or Tree Shear

The Roads and Grounds Department uses chain saws frequently. These saws range in size from 16" to 36". The principles of chain saw operation and safety are communicated to the crewmembers by a combination of; a Hazard Assessment reviewed annually, a chain saw operating, techniques and safety DVD which is shown periodically at the weekly Tool-Box Meetings held at site 37. Valuable safety and operating information is

also found in the Owner's Manual on file at site 37. ANSI Standards for Arboriculture Operations (ANSI Z133-1-2006) are available for reference and review.

In general, the key components of safe chain saw use require an operator to properly maintain the equipment, keep the saw's chain at the proper tension, avoid kick-back by not letting the tip of the saw contact any tree parts, keep work area clear of other hazards, follow safe start-up procedures, know where co-workers are at all times, and what they are doing at all times, use only industry accepted techniques for notching trees during felling operations, use a two-cut undercut method to eliminate saw bar pinching as described in training materials, use safe lifting techniques and ask for help when lifting heavy pieces. PPE required for chain saw use includes eye and head protection in the form of a mesh face guard, hard hat, ear protection, steel toed shoes and Kevlar leg chaps. In most cases chain saws are used as part of a group or multi-person activity. Chain saws may be used by a single employee if a two-way radio is immediately available.

The primary use by Roads and Grounds of the FESS bucket truck is for tree care and removal. All Roads and Grounds Department personnel who are to operate this truck must annually review the HAs for Man Lift Operation and for Tree Removal. In addition, they must have taken the Fermilab Fall Protection Orientation Training. In these trainings, personnel receive instruction regarding truck set-up and positioning, emergency controls, proximity to electrical transmission line restrictions, weight limits, components of a fall protection system and maintenance/inspections required. For first time operators a "hands-on" training session is also required. A bucket truck crew must consist of at least two workers, a ground person and the bucket operator. Both must have had the annual bucket truck training. PPE required for bucket truck use with a chain saw includes hard hat (both employees) full eye and face protection and hearing protection. When working near pedestrians or vehicle traffic, cones or barricades should be used to identify the work area.

The technical complexity of tree removal jobs including bucket truck tree removal work must be considered before a supervisor assigns the workers. The worker's skill level and experience must be commensurate with the technical complexity of the job. If a worker finds that, at any time during tree removal operations, he or she does not feel confident or is uneasy about a particular aspect of the work, he or she, should stop work and speak to a supervisor. Rigging limbs for lowering and removal in a bucket truck operation shall only be done by trained personnel. Roads and Grounds has a tree removal expert on staff who plans and directs complex removal or trimming operations.

Roads and Grounds Department personnel use a wood chipper to grind trees, branches and limbs. This chipper must be thoroughly checked out prior to each use. Lubrication should be done if necessary. The hazards associated with this piece of equipment are communicated to operators in a manufacturer produced safety video shown periodically at Tuesday Tool-Box Meetings and in the Owner's Manual on file at site 37. In general, operators should follow these guidelines, position chipper off the road as much as possible, make the work area visible with cones or signs when working in traffic, wear high visibility clothing when near traffic, never place hands near moving intake rollers while machine is running and keep the work area free of trip hazards. Chipper use requires a minimum of two employees. PPE requirements are hard hats, mesh face shields, safety glasses, hearing protection, and gloves. Operators must not wear loose fitting cloths while using chipper.

These tree removal related activities as well as pole saw use, forestry cutter use, tree shear use and stump grinder use are addressed in an Annual Hazard Assessment review. In all of these activities, safety systems shall never be bypassed and if any safety features are not functioning properly, a supervisor or the mechanic must be notified and the machine must be removed from service until repairs are made.

6.11 Sign and Post Installation

The Roads and Grounds Department operates a sign shop inside the main building at Site 37. This shop is responsible for maintaining the traffic and directional signs along the roadways and for producing customer requested custom signs. In the sign shop employees fabricate signs using a computer generated automatic vinyl cutting system. The Operators Manual should be read before operating the vinyl cutting unit. Occasionally, a cut-off saw, an electric drill and a drill press are used. The cut-off saw requires eye protection and hearing protection. The electric drill and the press require eye protection. Adhesive backed vinyl is applied to aluminum or plastic sign blanks to produce the finished sign. During this process the edges of the vinyl often need to be trimmed with a razor knife and sharp edges of metal may have to be filed smooth. Caution must be used when working with these sharp objects. When employees are repairing or replacing road signs they must wear high visibility clothes and they must use the truck's flashers to alert motorist of their presence. Depending on traffic volume in the location of the work, employees should evaluate the hazards and consider the need for additional traffic control such as signs, cones or flaggers. When mounting posts are driven into the ground an Excavation Permit or a Waiver must be completed prior to installation (also see Rules for Excavations in FESHM 7030). When

the pneumatic driver is used eye protection and ear protection is required. A Hazard Assessment is reviewed and updated annually in a Roads and Grounds Department Tool-Box Meeting.

6.12 Mechanical Equipment Repair

Most major repair activity associated with Roads and Grounds equipment is performed by the department's mechanic either at site 37 or in the field. The primary tools and repair equipment used in these functions are a welder, grinders, powered saws, presses, acetylene cutting torch, several compressed air driven tools including a tire repair machine, a hydraulic equipment lift and various hydraulic jacks. Before using any of these tools the mechanic must have read the owners manual and have had adequate experience with mechanical repair tools and equipment as determined by his/her supervisor. Tools shall be inspected prior to each use. Potential pinch points should be recognized. Safety systems shall never be bypassed. The mechanic will routinely check these safety systems during service and repair activities. The mechanic should survey the work area prior to beginning his/her work. Hazards should be identified and controlled. If the equipment has guards they must be positioned properly and fastened securely. Safety shoes must be worn in the shop area at all to times. Grinders and chop saws require hearing protection and eye protection. For welding and acetylene torch use, the appropriate shaded and impact resistant eye protection is required. For welding, a full face shield, a leather apron and leather gloves are also required. When using torches or welders a spotter is required and a fire extinguisher must be kept on hand. Cutting torches must be broken down and purged at the end of each shift. The risk of the release of stored energy must be eliminated prior to working under equipment suspended by hydraulic systems. This is accomplished by the locking mechanism on the hydraulic equipment lift, by the hydraulic cylinder locking device for front end loaders or by blocking other equipment using blocking material such as cribbing (see Section 7.2). Some repair service is purchased from off-site vendors. Typical of these purchased repairs are large tire repairs or replacements, transmission repairs or replacements, advanced engine or hydraulic systems diagnostics and repairs and major repainting activities.

6.13 Prescribed Burning

Prescribed fire is a land management tool that is effective for the control of aggressive and non-native vegetation. The Roads and Grounds Group burns as much as 700 acres annually. The Burn Boss in charge of this activity must have had training and experience commensurate with the scope and complexity of managing the controlled burn operation (see Attachment 8.16 Burn Boss Program). This would include the United States Forest Service S-130-S190 firefighting training or the Mid-West

Controlled Burn training and it would include multiple years of burn crew experience and on-the-job training from an experienced burn manager. Burn crew members may serve as an Assistant Burn Boss when selected by the Burn Boss. After serving as an assistant multiple times and after demonstrating the planning and leadership skills required, Roads and Grounds management may designate that individual as a Burn Boss. Burn crew members will be scheduled for a formal prescribed burn class as soon as practical after their employment begins. Before they have the training they may work with a burn crew in a limited or non-critical function. The Fermilab's FESS, in conjunction with the Department of Energy applies for an annual Prescribed Burn Permit through the Illinois Environmental Protection Agency. A more detailed procedures and hazard assessment document is reviewed by the burn crew prior to each burn season (see [Fermilab Prescribed Burn Procedures and Hazard Assessment in attachment 8.16](#)). Before burns are conducted the possible burn sites are evaluated considering fuel and weather conditions. No burns are conducted on "Ozone Action Days". An email list is maintained by Roads and Grounds and Directorate Admin staff and sent out on the day of the burn to assure that all appropriate organizations are notified of the burn activity. A burn precautions list is maintained and reviewed to better plan operations based on the local hazards associated with a burn area (see [attachment 8.16](#)). A pre-burn crewmember meeting is held to discuss responsibilities, weather conditions, any local hazards and to review the burn plan. A Captain from the Fermilab Fire Department attends these meetings. Prior to ignition, Fermilab's Security Department is notified and they alert local municipalities of the burn activities. After the controlled burn is over the Security Dispatcher and the Fire Department are contacted again. Burn activities are reviewed at Tuesday Tool-Box Meetings.

6.14 Snow Removal

The Roads and Grounds Department along with local Building Managers and their organizations, remove snow from roads, walks, entryways and paths. The equipment used by the Roads and Grounds Department are wheel loaders equipped with snow pushers, dump trucks equipped with snow plows and salt spreaders, pick-up trucks equipped with snow plows, four-wheeled snow blowers, walk-behind snow blowers, squeegees and snow shovels. Materials used are salt, a liquid magnesium chloride, pelletized chloride blends and sand. Employees are directed to carefully consider the impacts of rock salt on the environment before applications. In an attempt to reduce the amount of salt used on site, sand is mixed with the salt and liquid magnesium chloride is then mixed with the salt/sand blend. This liquid product is much less corrosive and much less toxic to roadside vegetation.

Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. This includes walking at a slower pace on slippery surfaces. Other procedures for removing snow and ice from walks and entryways include, do not lift more than 20 pounds at a time, use safe lifting techniques and push snow to the edge of walks instead of lifting snow whenever possible. When using snow blowers employees must turn the engine off when placing hands near moving parts. Blower operators should be aware of the position of the discharge chute at all times to prevent material from striking persons, windows, etc. When using loaders or trucks, operators must use seat belts, use emergency flashers, use caution while backing, do not use cell phones while operating and operators should know where pedestrians and other vehicles are in the area. PPE required for cold weather include insulated winter wear, gloves, and hearing protection while operating snow blowers. Operators must never place hands near augers or spinners on salt spreaders unless the engine is turned off.

A Hazard Assessment is reviewed and updated annually in a Roads and Grounds Department Tool-Box Meeting.

6.15 Asphalt Repairs and Striping

Asphalt repairs include cutting layers of asphalt and removing, laying in hot asphalt and compacting, filling potholes with cold patch and adjusting catch basin and manhole lids. The machinery involved includes a powered concrete saw, a self propelled roller, powered walk-behind tampers, a jack-hammer and a dump truck for hauling asphalt. Owner's Manuals for each of the pieces of equipment should be read before using them for the first time. Safe lifting techniques should be used when lifting tampers, jack-hammers or any other heavy items or materials. Gloves must be worn if exposed skin could come in contact with hot asphalt. Hearing protection is required for roller, compactor, jack-hammer and sawing operations. Eye protection is required for jack-hammer and sawing operations. High-visibility clothing is required for all phases of these jobs. For striping operations eye protection is required. If a leak in a high pressure line should happen while operating the striping machine, employees should shut the machine off first and not expose hands or bare skin to the leaking fluid. Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled. Traffic exposes workers to a significant hazard. Depending on traffic volume, control measures may include temporary signs, cones, detours or flaggers. A Hazard Assessment for asphalt repairs is reviewed and updated annually.

6.16 Excavations

Typical Roads and Grounds involvement with excavations consists of field tile installation and repairs, culvert installations and catch basin repair or replacement. All soils will be considered Class C. All excavations must use a minimum of 1.5 to 1 slope plan. Supervisors must have had OSHA Excavations Competent Person Training. Supervisors must be involved with the excavation plan for every excavation job. A Hazard Assessment is reviewed and updated annually in a Roads and Grounds Department Tool-Box Meeting. The Excavation Permit requirements must be completed before digging can begin.

6.17 Native Seed Processing

To enhance and enrich the native ecosystems on site, Roads and Grounds personnel and volunteers harvest native seeds each fall to be drilled into prairies and broadcast into wetlands and woodlands the following spring. In the winter season the seeds are cleaned and processed. The equipment involved is a hammer mill and a fanning mill. Operators must turn off and unplug each unit if they need to put their hands anywhere near the moving parts. Eye protection should be used when operating the hammer mill and when operating the fanning function of the fanning mill. When processing the dustier seed species with the hammer mill, the activity should be done outside and the workers involved must use a particle mask.

6.18 Wildlife Control

Nuisance animals are frequently reported to the Roads and Grounds Department ([attachment 8.21](#)). In most cases animals are released on site. If they are injured and require rehabilitation, they are taken to the Willowbrook Wildlife Center in Glen Ellyn Illinois. When handling small animals employees must protect themselves from being bitten by wearing leather gloves. For the details of the Wildlife Policy see section 7.2.

6.19 General Housekeeping

Many accidents can be prevented by good housekeeping. Roads and Grounds Employees should routinely clean-up their tools and equipment, their vehicle and their work area when they end their job or end their shift. The most common hazards that can be easily eliminated by good housekeeping are trip hazards. A simple survey of the work area is required at the beginning and at the end of each job.

6.20 Working on Berms

Any Roads and Grounds activity requiring work on accelerator berms requires contacting and communicating work plan to AD/Main Control

room staff. Roads and Grounds employees who perform any work activity on accelerator berms are restricted as to what types of machinery can be used. Most of these berm slopes are built at a 3:1 or steeper pitch and are hazardous to work on. The use of powered hand held tools and equipment such as chain saws or other bladed, cutting equipment is prohibited unless a specific pre-job review and/or Hazard Assessment has been completed for that specific job. Hand spray cans, weed whips, loppers and pruners may be used if good footing is available.

Employees should survey the work area prior to beginning their work. Hazards should be identified and controlled.

In general, no equipment should be driven on a slope that is greater than 3:1. When operating a boom mower with extended reach, the manufacturer's recommended maximum slope information should be used as a guide. If steep slopes are to be mowed and the operator is uncertain as to the severity of the slope, a supervisor should be contacted to review the job site with the operator before work begins.

Prior to starting any berm work on the Main Ring berm, the Main Injector berm, the 8GEV berm, the Booster berm, the AP berms and the Meson berm from switchyard north to the Meson Detector building, the Main Control room must be contacted and advised of the intended work activity and the duration of that work activity (see 7.2.15). The result of these new berm restrictions will be that work on berms will be conducted during shutdown periods.

6.21 Safe Lifting Procedures

Occasionally, it is necessary for Roads and Grounds employees to lift heavy objects. Prior to lifting these objects employees should analyze the potential hazards associated with the work. Anytime lifting is to be done the following questions should be considered:

Can I accurately judge how much the load weighs?
Can I easily lift the load with my legs and carry it close to my body?
Should I ask for help from a co-worker or co-workers?
Is there a piece of equipment that can lift the object?

For any significant lift, a Hazard Analysis, either written or verbal shall be done. For multi-person lifts, the roles of each person involved should be determined and communicated. For example, where will the individuals be positioned? When will we start the lift? How high will we lift? How far will we carry the load and where will we set the load down?

6.22 Working On or Near Roadways

Several options exist to manage hazards associated with roadwork or work on or adjacent to roadways and parking lots. Workers should carefully evaluate the hazards before work begins. When workers will be on or alongside roadways, high visibility clothing is required. If working on or adjacent to roadways for an extended period of time, warning signs are required. When traffic is stopped in either lane for an extended period of time, flaggers are required to control traffic. Workers must use vehicle flashers/strobes whenever working on or near roadways and parking lots. When major roadways are affected for long periods of time, supervisors will assist to develop a traffic control plan. When working in areas with poor visibility (curves, vegetation etc), additional cones and/or warning signs may be required to alert motorists. Any Hazard Assessment for asphalt repair and maintenance will include requirements for working on or near roadways.

6.23 Fence Installation and Repair

Roads and Grounds installs, repairs or removes snow fence, bison pasture fence and old fence sections. Organizations requesting cyclone fence or large fencing installations or repairs are referred to an off-site vendor.

Roads and Grounds employees must wear gloves and eye protection when installing, repairing or removing fences. When using the pneumatic post pounder from the pick-up bed, good communication between the driver and the operator is critical. Hearing protection is required when using or when near the pneumatic driver. Verify that the safety clips are attached to all compressor hose connections. When using the power auger attached to the skid loader, keep all tools and body parts away from the auger. The machine must be turned off whenever the auger is handled.

6.24 Operating Utility Vehicles

Thoroughly check out vehicle before using and fill out daily check-out sheet. This should include; oil levels, fuel level, visual inspection, clear grass and debris from frame and exhaust, make sure SMV symbol is visible and make sure any CAUTION, WARNING, DANGER labels have been read.

Safety systems shall never be bypassed and if any safety features are not functioning properly, a supervisor or the mechanic must be notified and the machine must be removed from service until repairs are made. While driving operators must; wear seat belts, follow Rules of the Road, be aware of hydrostatic transmission's affect on braking, be aware of traffic behind you and move to the shoulder when possible to let faster vehicles

pass, use lights and signals, on bike paths look far ahead periodically to know what is coming around blind corners.

While driving off-road; whenever you are unsure of terrain, get out and walk through area before driving through, avoid steep slopes, on mild slopes travel directly up or directly down.

After each use; refuel if necessary, clear grass and debris from frame and exhaust, clean up as necessary, clean the air filter periodically, report any mechanical problems to the mechanic or a supervisor.

SECTION 7

Policies

7.1 Fermilab Policies

For all Fermilab employees, lab personnel policies are maintained and accessible at:

<http://wdrs.fnal.gov/policies/index.html>

other policies include:

- [**Director's Policies**](#)
- [**ES&H Policies**](#)

7.2 Group Policies (see policies documents 7.2.1 through 7.2.16)

- 7.2.1 Code of Conduct
- 7.2.2 Vacation Policy
- 7.2.3 Overtime Policy
- 7.2.4 Sick Leave Policy
- 7.2.5 Restricted Duty and Overtime
- 7.2.6 Dress Code
- 7.2.7 Snow Removal Policy
- 7.2.8 Payroll Memo/Normal Shift Overtime
- 7.2.9 Communicating Equipment Damage
- 7.2.10 Stored Energy Hazards
- 7.2.11 Wildlife Policy
- 7.2.12 Ozone Action Days
- 7.2.13 Signs Policy and Standards
- 7.2.14 Rules for Government Vehicle Operators
- 7.2.15 Berm Work Memo
- 7.2.16 Memorial Tree Planting
- 7.2.17 Ash Trees – EAB
- 7.2.18 Summer Employee Minimum Age

SECTION 8

Attachments

- 8.1 Department Structure
- 8.2 Supervisory Responsibilities
- 8.3 Job Descriptions
- 8.4 ITNA
- 8.5 WAAF
- 8.6 TRAIN Database
- 8.7 Safety Audit
- 8.8 Excavation Permit
- 8.9 Hazard Assessment
- 8.10 Tuesday Tool-Box Meetings
- 8.11 Off-Site training and Certifications
- 8.12 Responsibilities and Service
- 8.13 Other Service/Effort Reporting
- 8.14 Grounds Operations, Planning and Reporting
- 8.15 Snow Removal Priorities
- 8.16 ELM Map
- 8.17 Pesticide Program
- 8.18 Bison Inventory
- 8.19 Agricultural Lease Agreement
- 8.20 Equipment Lists
- 8.21 Wildlife Response Records
- 8.22 DOT Rules and Consequences
- 8.23 New Employee Training Checklist
- 8.24 Site 37 Emergency Plan

Revision History

Revision No.	Revision Date	Revision Title	Approved
1	4/20/2009	Add Document control Header, RW	RW
2	5/22/2009	Add FIMS Procedures 5.4 and 5.4	KC
3	5/28/2009	Changes to 6.3 - MB	MB
4	7/28/2009	Attachment added 8.24 - MB	MB
5	11/18/2009	6.22 and 6.23 added, 6.9, 6.10 and 7.2.14 modified, links verified - MB	MB
6	12/30/09	6.10 modified - MB	MB
7	1/21/10	4.11 modified, Section 7 Policies modified, Section 1 Structure modified - MB	MB
8	1/28/10	Added references to Hazard Assessments to; 6.11, 6.22 - MB	MB

9	3/10/10	Modified 6.10 - MB	MB
10	3/31/10	Moved Condition Assessment Program to SSV Procedures, E. Real Property, 3.5 Condition Assessment Program, JM	JM
11	3/31/10	Moved Actual Maintenance Allocation Process & Costs Reporting to SSV Procedures, E. Real Property, 3.2 Actual Maintenance Allocation Process & Costs Reporting, JM	JM
12	4/6/10	Added 7.2.18 MB	MB
13	7/18/10	Addition to 8.17 (Invasive Species Management) MB	MB
14	9/14/10	Added utility vehicle use 6.24 MB	MB
15	11/22/10	Added lift gate policy in 7.2.10 MB	MB
16	1/18/11	Procedure update for 6.10 MB	MB
17	6/14/11	Procedure update for 6.5, 6.6 and 6.9 regarding eye hazards MB	MB
18	9/16/11	Procedure update and addition for 6.2 MB	MB
19	11/3/11	Addition to 6.10 MB	MB
20	11/22/11	Update to 6.7 MB	MB
21	12/7/11	Modified 6.8 MB	MB
22	1/5/12	Updated Section 4 MB	MB
23	6/20/12	Added safety systems bypass info in 6.1, 6.2, 6.3, 6.10, 6.12, 6.24 MB	MB
24	3/29/13	Burn Boss Program additions 6.13	MB
25	5/16/13	PPE addition fertilizing	MB
26	6/6/13	Addition to 2.1	MB
27	5/1/2015 6/1/2015	7.2.1 thru 7.2.18 2015 8.1 thru 8.24 2015	DS
28	7/1/2015	Sections 1 thru 6 2015	DS

29	1/20/2016	Section 3	DS