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| Form 1112-5  (May 2001) | UNITED STATES  DEPARTMENT OF THE INTERIOR  BUREAU OF LAND MANAGEMENT  **RISK MANAGEMENT WORKSHEET** |  |

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| 1. Organization and Location   Albuquerque District | | | | | | | | | | | | | 2. Page \_\_\_\_1\_\_\_\_of\_\_\_\_\_7\_\_\_\_\_\_\_\_ | |
| 3. Operation / Task  Masticator Operations | | | | | | 4. Beginning Date:  Review by project and as needed | | | 5. Ending Date:  Ongoing | | | | 6. Date Prepared  January 2012 | |
| 7. Prepared by *(Name / Duty Position) Jonathan Smith DAFMO* | | | | | | | | | | | | | | |
| 8. Identified Hazards | 9. Assess the Hazards: Initial Risk | | | | 10. Control Measures Developed for Identified Hazards*: (Specific measures taken to reduce the probability of a hazard)* | | 11. Assess the Hazard’s Residual Risk: | | | | | 12. How to Implement the Controls: (May Be Filled in By Hand) | | 13. Supervisors and Evaluation by: (Continuous Leader Checks, Buddy System, etc.) |
| (Be Specific) | **L** | **M** | **H** | **E** | (Be Specific) | | **L** | **M** | | **H** | **E** | (Be Specific) | | (Be Specific) |
| **Pre-operation:**   1. **Driving to and from worksite**   b. Steep narrow roads  c. Transporting tools and equipment. |  | X  X | X |  | Practice attentive and defensive driving techniques. Drive with lights on. Cell phone use is prohibited while driving.  Reduce speed to ensure adequate stopping capability.  Secure loads using tie-downs, mounts or boxes to avoid hazards to passengers and other vehicles. | |  | X  X  X | |  |  | Driver training, BLM Directives on driving.  Driver training, Use experienced operators.  Double check load by crew member. | | Supervisor, Operator, Passenger, crew.  Supervisory checks.  Supervisory checks or project lead inspections. |
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| 14. Remaining Risk Level After Control Measures Are Implemented: (CIRCLE HIGHEST REMAINING RISK LEVEL) | **LOW**  (Line Supervisor) | **MEDIUM**  (Branch Chief) | **HIGH**  (DSD, District or Field Manager) Manager) | **EXTREMELY HIGH**  (Must be State Director/Associate) |
| 15. RISK DECISION AUTHORITY: **(Approval/Authority Signature Block)** (If Initial Risk Level is Medium, High or Extremely High, Brief Risk Decision Authority at that level on Controls and Control Measures used to reduce risks) (**Note**: if the person preparing the form signs this block, the signature indicates only that the appropriate risk decision authority was notified of the intial risk level, control measures taken and appropriate resources requested; and that the risk was accepted by the decision authority.)  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (Signature) | | | | |

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| 8. Identified Hazards | 9. Assess the Hazards: Initial Risk | | | | 10. Control Measures Developed for Identified Hazards*: (Specific measures taken to reduce the probability of a hazard)* | 11. Assess the Hazard’s Residual Risk: | | | | 12. How to Implement the Controls: (May Be Filled in By Hand) | 13. Supervisors and Evaluation by: (Continuous Leader Checks, Buddy System, etc.) |
| (Be Specific) | **L** | **M** | **H** | **E** | (Be Specific) | **L** | **M** | **H** | **E** | (Be Specific) | (Be Specific) |
| d. Hauling flammable substances.    e. Loading vehicles.  f. Backing or turning around in small  areas.  g. Winter driving.  i. Vehicle condition    j. Driver fatigue.  k. Parking    2. **Heavy Equipment Transport**  a. Equipment loading and  unloading.  b. Hauling  c. Oversize loads    d. Steep, narrow roads, bridges |  | X  X  X  X  X  X | X  X  X  X  X |  | Used approved and labeled containers secured outside the passenger compartment.  Use proper lifting techniques. Get assistance when needed.  Use spotters. Face the hazard while turning around. Avoid tight turnaround if possible.  Check weather forecast. Know vehicle limitations. Use proper tires. Anticipate by carrying tire chains, tow chain and shovel.  Perform scheduled vehicle maintenance and periodic safety checks. Keep windshield clean, wipers in good condition, driver’s area clean of debris.  Employees will not exceed 8 hours of driving time (behind the wheel) in a 16 hour period. Breaks of 15 minutes are recommended every 2 hours.  Park vehicle only in areas free from traffic, overhead and other hazards. Secure parking brakes and/or block tires.  Load and unload equipment in safe areas. Use traffic controls where needed. Ensure equipment is properly situated and secured on the trailer.  Ensure tractor and trailer are adequate for equipment weight.  Use flagging and /or chase vehicle as required by law. Scout roads and be familiar with your route.  Pre-scout roads and bridges to verify they will accommodate tractor/trailer. Reduce speed to ensure adequate stopping capability. Lights on. | X  X  X  X  X  X | X  X  X  X  X |  |  | Check BLM directives and be familiar with DOT transportation regulations.  Tailgate safety training and experience.  Tailgate safety training and experience.  Tailgate safety training and experience.  Tailgate safety training and experience.  Daily, weekly, monthly vehicle checks.  BLM directives, driver training and self-evaluation.  Tailgate safety training and experience.  CDL operator with experience and training.  CDL operator with experience and training.  CDL operator with experience and training.  CDL operator with experience and training. | Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor monitors drivers and conditions.  Operator and crew.  Supervisor with periodic checks.  Supervisor with periodic checks.  Supervisor with periodic checks.  Supervisor, operator and crew. |
| **Operation:**  1. **Pre-operations inspection**  a. Slipping/falling while mounting or  dismounting equipment.    b. Know your equipment before  operation.  c. Inspect your work area.  d. Public notification and safety.  2. **Masticator operation**  a. Dust and noise.  b. Passengers.  c. Ending operation , parking or  leaving machine.  d. Fueling  e. Operator Fatigue    f. Personnel injury during operation. |  | X | X  X  X  X  X  X  X  X  X |  | Operator should keep firm grip on handrails and footholds getting on/off masticator. Operator should always face the machine when mounting and or dismounting. Never jump off of masticator.  Equipment to be operated by trained authorized individuals only.. Read and be familiar with manuals, checklists and safety summaries and operating procedures.  Be familiar with work area and inspect site hazards such as power lines, fences, steep slopes, wet areas and inoperable areas on a daily basis.  Post signs and/or use roadblocks if needed to ensure public safety. Any public in the vicinity of operating equipment should be monitored and kept at a safe distance. **No one should be within 300 feet of masticator while it is operating.**  Maintain seals on equipment cab. Use dust masks and hearing protection (PPE). Avoid operating in excessively dusty conditions. Do not operate if visibility is impaired by dust.  Cab is designed for one person only. Do not allow anyone to ride on the machine there is always the threat of being thrown or hit by foreign objects.  Before leaving masticator machine must be shut down with cutting head lowered to the ground. Parking brake must be applied.  Only fuel in safe area. Shut down equipment before fueling. Avoid open flame within 50ft. Avoid spilling fuel on equipment, vehicles, soil or watercourses. If a spill occurs immediately cleanup. Use proper clothing and gloves to avoid exposure to fuels.  Under normal circumstances work shifts, including travel time will not exceed 12 hours a day or 6 days a week.  Operators should be trained in first aid /CPR. Maintain first aid kits in service vehicles. Have cell phones and/or radios available to contact agency and emergency response personnel in event of serious accident. | X  X  X  X | X  X  X  X  X  X |  |  | Conduct pre-operation tailgate session / crew briefing. Review risk assessment.  Read and review manuals, develop checklists for daily use. Ensure operators are properly trained and authorized.  Know the work plan, know your work unit and evaluate and plan daily assignment.  Be aware of your work environment. Utilize crew member to monitor work area and maintain distance from equipment to ensure public safety.  Clean windows and cab area to maintain visibility and integrity of cab. Utilize PPE. Review operational safety checklists often.  Review of safety summaries at tailgate safety meetings.  Operator and crew experience and review of safety summaries.  Training. Operator and crew experience and review of safety summaries.  Monitor work load and be aware of BLM, DOI and DOT policy.  Training and written work plan for specific project. Discuss response during tailgate safety sessions. | Supervisor with periodic checks.  Supervisor review.  Supervisor with periodic checks.  Supervisor.  Supervisor  Supervisor with periodic checks.  Supervisor with periodic checks.  Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor, operator and crew. |
| **Equipment Maintenance:**  1**. Equipment maintenance.**  a. Operating pumps, welders and  other equipment.  b. Fluids and materials.  c. Lifting tools, parts and  materials.  d. Stabilizing or raising  equipment.  e. Site hazards.  f. Safety marking and decals. |  | X  X  X | X  X  X |  | Use appropriate hearing and eye protection, gloves, boots and clothing to avoid injury. Avoid loose clothing and rings that may be caught in machinery. Confine welding to well-ventilated areas. Use respirator when welding brass or painted metals containing lead or zinc. Observe necessary fire precautions particularly when welding in the field.  Do not tamper with any hydraulic line while it is pressurized. Escaping fluid under pressure can penetrate the skin, causing serious injury. Relieve pressure before unhooking hydraulic lines or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under pressure. Use a piece of cardboard to search for leaks.  Use proper lifting techniques, get help if needed.  Do not allow personnel under raised lift arms or masticator head for any reason unless lift arms are supported so they cannot fall in any way.  Whenever available select accessible, level secure sites for field maintenance and repairs. Avoid sites with traffic, overhead power lines or other hazards.  Replace and safety decals that are faded, torn, missing, illegible or otherwise damaged. See equipment parts manual for replacement decal kits. | X  X  X  X | X  X |  |  | Training. Operator and crew experience and review of safety summaries.  Follow specific safety guidelines for hydraulic system maintenance. Use proper PPE for task. Experienced operator should direct maintenance procedures.  Experience and recurrent training.  Training. Operator and crew experience and review of safety summaries.  Training. Operator and crew experience and review of safety summaries.  Operator and crew experience and review of safety summaries. | Supervisor, operator and crew.  Operator and crew.  Supervisor, operator and crew.  Operator and crew.  Supervisor, operator and crew.  Operator and crew. |
| **Communications**  1.Communications |  |  | X |  | Have access to cell phones and/or radios for hazard notification and emergency communications. Develop and have available a communications plan for each project to identify routine and emergency contact numbers. | X |  |  |  | Experience and written work plan for specific project. Review communications procedures at tailgate safety session. | Project coordinator.  Supervisor, operator and crew. |
| **Weather:**  1. Lightning  2. Operating machinery in windy  conditions.  3. Flooding and wet conditions |  |  | X  X  X |  | Avoid electric lines, fences or metal structures. Avoid ridge tops, streams or lakes and areas beneath tall trees. Seek shelter in motor vehicles, avoiding contact with metal surfaces.  Void areas near trees (particularly snags and leaning trees) power lines. Even in moderate winds wear hardhat when working between trees.  Avoid low areas during potential flash floods even though it may not be raining in the vicinity.  Be aware of slope and traction when ground is slick with rain or snow. Conduct site inspection after rain or snow to ensure safe conditions. If operating in flood area get weather forecast and monitor. |  |  | X  X  X |  | Training and experience.  Training and experience.  Training and experience.  Wx forecast, spot forecast | Supervisor, operator and crew.  Supervisor, operator and crew.  Supervisor, operator and crew. |
| **Potentially Violent Personal encounters:**  1. Crossing or working around private land or personal use areas.  2. Potential illegal activities. |  | X  X |  |  | Plan ahead, request permission or provide notification to potentially affected residents  Be aware of potential criminal activity (illegal dumping, vandalism, drug labs) and watch for warning signs during personal encounters. | X | X |  |  | Review job plan and maps, Walk the unit and flag boundaries.  Know the area of work stay aware of people in the area. Training and use of BLM Law Enforcement. | Project coordinator.  Supervisor.  Project coordinator.  Supervisor. BLM Law Enforcement. |
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| **Hazardous Materials:**  1. Hazardous material use (including  Flammable and combustible liquids).  2. Exposure to hazardous materials.  3. Hazardous materials disposal. |  |  | X  X  X |  | Hazardous material (such as gasoline, diesel, hydraulic fluid, acetylene, batteries) storage, transportation and use will strictly conform with product labels and Material Data Sheets (MSDS) which will be available to all potentially affected employees.  Use proper personal protective equipment (including hats, goggles, long sleeve shirts, trousers, boots and gloves when working around hazardous materials.  Fully utilize hazardous materials to minimize waste. Disposal of hazardous materials and wastes will conform to products labels, MSDS sheets and applicable laws. |  | X  X  X |  |  | Training, experience, safety checklists. Review MSDS Data sheets.  Training, experience, safety checklists. Review MSDS Data sheets. Tailgate safety session.  Training, experience, safety checklists. Review MSDS Data sheets. Tailgate safety session. | Project coordinator.  Supervisor.  Project coordinator.  Supervisor, operator and crew.  Project coordinator.  Supervisor, operator and crew. |
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