**{Company Name}**

**JOB HAZARD ANALYSIS – SITE CLEARING ACTIVITIES**

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| **Title of Job/Operation:** |
| **Subcontractor:** |
| **Job Number:** |
| **Date:** |
| **Author:** |
| **Project Description:** |

General Notes:

Prior to starting any job, a tool box meeting will be held to discuss the work phases and review the entire job. This includes identifying any hazards and discussing the safest way to complete the job while keeping the BNL population safe and out of harm’s way. Specific tools for the job are selected, sound house-keeping practices are discussed, review SDS specific for this task. Review and sign the work permit, review, and sign the JHA/SWP. Operator’s manual for any powered equipment is available and will be reviewed for proper use and safety. Check tools and GFCI daily before each use.

General Safety Rules to be applied as follows:

1. Effective safety supervision shall be present on the project whenever work is to be performed.
2. All workers must wear high visibility clothing, safety shoes and safety glasses with side shields at all times.
3. The HASP must be available onsite.
4. All employees shall be aware of the procedures in this JHA/SWP and Brookhaven National Lab rules.
5. All employees shall be aware and trained in the chemical hazards communication program (SDS, Right to Know).
6. All SDSs for proposed and used chemicals shall be on file and approved with the BNL supervisor prior to the start of work as per OSHA requirements. Provide training as required by specific SDS.
7. All PPE shall be used in accordance with applicable ANSI standards.
8. Eyewash/Shower stations will comply with current ANSI standards located within 10 seconds but no further than 100 feet from hazardous chemical use areas.
9. All employees shall be effectively trained for the tasks, which they are required to perform.
10. Any injury is to be reported to the supervisor immediately.
11. Maintain proper housekeeping throughout the project.
12. No daisy chaining of extension cords.
13. Protection of BNL population.
14. All personnel involved in this work are required to acknowledge the JHA for this project and sign off on the document.
15. Use approved fuel dispenser can. Post no smoking sign in the area if doing refueling of powered equipment.
16. Operator manual must be present for all equipment on job site.
17. All equipment used such as: ladders, drills, saws, hand tools, extension cords will be inspected daily at a minimum.
18. All work with chemicals shall be performed in accordance with IH report/recommendations prepared by contractor’s IH firm including PPE, monitoring, and reporting. Reporting shall meet BSA requirements.

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| **Job Steps or Task** | **Hazards** | **Control Measures/Mitigation** |
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| Area Preparation | BNL population protection  Slips, trips, falls  Uneven surfaces | Physically inspect work areas prior to start of work.  Follow good housekeeping practices: create walkways.  Assure materials & debris do not block traffic.  Keep work areas clean & neat, free from rubbish & debris.  Watch where you walk.  Be cognizant of your own safe work practices as well as those of your co-workers.  Be careful on slopes or wet/muddy areas.  Flagmen will be utilized as required for roadway traffic.  Appropriate warning signs will be posted.  BNL to be notified prior to road & sidewalk closing. |
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| General Site Security | Unauthorized access by BNL population | Guard against unauthorized access to excavation by erecting fencing around the work area. Protect BNL population. |
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| Working Outdoors | * Heat Stress * Sunburn * Dehydration * Chiggers & Ticks | Drink plenty of water, and electrolyte drinks as needed.  Wear light-colored, cotton clothing.  Slow down work rate and increase breaks in hot weather.  Use sunscreen.  Use Bug Repellant. |
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| General Material Lifting/Handling | Ergonomic Injury  Impact Injury  Back injury  Muscle pulls, sprains & strains, lacerations | Use proper lifting methods, including team lifting when necessary. (Less than 80 lb.)  Use mechanical equipment whenever possible.  Lift with legs, keep loads close to body, don’t twist while picking up loads.  Wear cut-resistant work gloves whenever materials are being handled. |
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| Use of Hand and Power Tools, General | Eye injury  Lacerations and hand injuries | Wear eye protection when using hand/power tools which cause flying debris.  Eye wash to be immediately available.  Tools must be in good condition and used for their intended purpose.  Familiarize workers with tool operation.  De-energize power equipment prior to changing bits or blades.  Wear appropriate hand protection; observe good work practices in ensuring that work gloves are in good condition. |
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| Use of hand and power tools, Electric  Cutting/Grinding | Electrical hazards  Metal in eyes & cuts  Improper Grounding  Improper Operation  Improper Maintenance | Wear safety goggles/glasses at all times & proper protective gloves.  Face shields over safety glasses.  Use properly grounded or double-insulated tools with ground-fault circuit interrupters (GFCI).  Inspect the electrical cords for fraying, cracks, and other damage before use; remove damaged cords from service.  Never daisy-chain electrical cords |
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| Use of Chain Saws | Eye injury  Lacerations and hand injuries  Kick-back  Noise | Proper PPE. Face shield, leather chaps and hearing protection are required when using chain saws.  No loose-fitting clothes or jewelry.  Inspect equipment before each use.  Keep saw clean, chain sharp & motor running smoothly.  Fuel saw at least 10 ft from sources of ignition.  Start chain saw from ground with chain’s brake engaged.  Never drop start.  Never lift saw above shoulder height or overreach.  Keep hands on the saw handles & maintain secure footing while operating saw.  Do not saw with the tip.  Hearing protection required. |
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| Use of Chipper | Flying debris  Contact with moving parts  Noise | Wear proper PPE.  Be sure everyone is clear of the machine.  Be sure shields and guards are in place and in good condition.  Horn will be sounded 2 or 3 times to alert all personnel when ready to start up the power unit.  While in operation pay loader will be used to feed trees into machine. Absolutely no personnel will be near machine while in operation.  Hearing protection required |
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| General Tool Safety | Multiple hazards | Choose the right tool for the task. Inspect tools before & remove defective tool from service |
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| Mobile Equipment | Traffic hazards | Coordination of moving equipment by Supervisor, follow the Manual of Uniform Traffic Control Device requirements (MUTCD) as incorporated by reference OSHA 1926.  Only designated personnel allowed in work areas.  Set up traffic control devices and signage.  Warning signs shall be placed to provide adequate warning of hazards to workers & public. |
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| Tree Clearing |  | All heavy equipment used for tree falling and handling are equipped with R.O.P.S cabs factory installed.  All mobile equipment used to handle trees will be equipped with safety glass or a protective cage.  A first aid kit and fire extinguisher can be found in all equipment being used.  All tree clearing & safety regulations shall be followed.  All personnel will be familiar with the proper hand signals and communication techniques.  All ground personnel must stay outside two-tree- length radius of the area while trees are being pushed over by heavy equipment.  Mobile equipment and saws will be inspected daily for leaks and tested to ensure it is in safe operating condition. |
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I have attended the safety orientation tool box meeting where we discussed the phases of the job and any potential hazards, housekeeping, and keeping the BNL population out of harm’s way. We also reviewed the JHA & BNL Work Permit.

I have read and understand the aforementioned JHA recommended job safe procedures and the BNL Work Permit and will follow them throughout this job:

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| **Name** | **Life Number** | **Signature** | **Date** |
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A signed copy of the JHA must be posted while the applicable subcontractor is working on-site and be available to any BNL employee upon request.