Environmental Health & Safety Policy Manual		
Issue Date: 9/4/2009	*Updated: 10/29/2024*	Policy # EHS-400.04
Job Safety Analysis Policy		

1.0 PURPOSE:

A Job Safety Analysis (JSA) is a systematic method of identifying hazards and control measures to safely perform a specific task. Their use helps prevent incidents, accidents, and workplace illnesses by improving employee skills and awareness through an organized process.

2.0 SCOPE:

This policy provides guidance to all LSUHSC faculty, staff, and students on how to perform and implement a JSA for specific jobs/tasks. JSAs must be performed on all jobs that:

- Have resulted in an incident/accident trend or death.
- Have a potential for severe injury or property damage.

The JSA must be re-evaluated when any changes in job procedures or equipment occur.

3.0 RESPONSIBILITIES:

3.1 Environmental Health and Safety Department shall:

- Review all applicable JSAs in post-incident/accident situations, including any near miss event that could result in personal injury or property damage.
- When requested, administer technical resources and assistance to Supervisors/Principal Investigators (PI) on JSAs.

3.2 Supervisors/ PIs shall:

- Conduct a JSA on all applicable jobs/tasks using the State of Louisiana Form JSA-1-00, Appendix A.
- Review the *Job Safety Analysis* booklet (OSHA 3071) for JSA guidance: https://www.osha.gov/sites/default/files/publications/osha3071.pdf
- Ensure that all employees have copies of and are trained on JSAs related to their jobs.
- Perform employee training on existing JSAs at least annually and keep a record of the training for three years.
- Post a copy of all JSAs and keep in an area accessible to all employees.
- When an incident or accident occurs, perform an analysis to determine if

proper procedures were followed or if procedures should be revised.

- Update JSAs when there is a change in job procedures or equipment and provide updated training.
- Post a copy of all JSAs and keep in an area accessible to all employees.

3.3 Staff, Students, and Volunteers shall:

- Adhere to JSA instruction as well all safety rules and regulations.
- Assist in the development of JSAs for all jobs and tasks as needed.
- Notify supervisor/PI if there is a change in job procedures or equipment.
- Complete all necessary training before performing any work/tasks.
- Immediately report unsafe or unhealthy work conditions and any incidents or accidents.

4.0 IMPLEMENTATION REQUIREMENTS:

4.1 General

The JSA is a systematic method of identifying hazards and associated control measures to safely perform a specific job or task. The process involves breaking down a particular job/task into a series of simple steps. In each of these steps, hazards are identified and documented using Appendix A. Appendices B and C are examples of JSAs for reference. After these hazards are identified, then solutions and recommendations for the prevention of accidents shall also be documented in the analysis. The results of this analysis are then to be shared with potentially impacted personnel.

The JSA provides a learning opportunity for the supervisor and employee. Copies of the JSA should be distributed to all employees who perform that job. The supervisor should explain the analysis to the employees and, if necessary, provide additional training.

New employees or employees asked to perform new tasks must be trained to use the safe and efficient procedures developed in the JSA. The new employee(s) should be taught the correct method to perform a task before unsafe habits develop, to recognize the hazards associated with each job step, and to use the necessary precautions to avoid injury or accidents.

4.2 Job Safety Analysis Procedures

Step 1: Select the Job

In selecting jobs to be analyzed and in establishing the order of analysis, the following factors should be considered (listed in order of importance):

- Occurrence of injuries: Jobs that have produced an incident or accident trend, or death, during the past three years shall be analyzed.

- Frequency of Accidents: Jobs that repeatedly produce accidents are candidates for a JSA. The greater the number of accidents associated with the job, the greater its priority for a JSA. Subsequent injuries indicate that preventive action taken prior to their occurrence was not successful.
- Potential Severity: Some jobs may not have a history of accidents but may have the potential for severe injury or property damage. The greater the potential severity, the greater its priority for a JSA.
- New Jobs or a Change in a Job: New operations created by changes in equipment or processes obviously have no history of accidents, but their accident potential should be fully appreciated. A JSA shall be made on every new job with potential hazards. Analysis should not be delayed until an accident or incident occurs.

Step 2: Perform the Analysis

The supervisor/PI responsible for the job/task should perform the JSA using the JSA Worksheet (Form JSA-1-00, Appendix A). The supervisor/PI shall conduct the JSA with the help of employees who regularly perform the task, as their understanding of the job is useful in finding hazards present. The job/task being analyzed should be broken down into a sequence of steps that describe the process in detail. Instruct all participating personnel on the purpose of the JSA, with emphasis on facilitating discussion and observation of the hazard(s) associated with each step.

Avoid two common errors:

- Making the breakdown too detailed so that an unnecessarily large number of steps result; or
- Making the job breakdown so general that the basic steps are not distinguishable.

As a rule, the JSA should contain less than 12 steps. If more steps are needed, the job should be broken into separate tasks, with those tasks analyzed separately.

JSAs involve the following steps:

- Selecting a qualified person to perform the analysis.
- Briefing the employee demonstrating the task on the purpose of the analysis.
- Observing the performance of the job and breaking it into basic steps.
- Recording and describing each step in the breakdown.
- Reviewing the breakdown and description with the personnel who performed the task.

Select an experienced, capable, and cooperative person who is willing to share ideas. They should be familiar with the purpose and method of a JSA. Sometimes it is difficult for someone who is intimately familiar with a job to

describe it in detail. Reviewing a completed JSA before conducting one will help illustrate the terminology and procedure to be followed.

Review the breakdown and analysis with the person who performed the job to ensure agreement of the sequence and description of the steps. Variations of routine procedure should also be analyzed. Each step should be described using action words such as "remove," "open," or "lift."

Step 3: Identify Hazards

Once the job/task has been observed and the sequence of steps documented, answer the following questions about each step of the operation to identify existing or potential associated hazards:

- Is there a danger of striking against, being struck by, or otherwise making injurious contact with an object?
- Can the employee be caught in, by, or between the objects?
- Is there a potential for a slip, trip, or fall?
- Can employees hurt themselves by pushing, pulling, lifting, bending, or twisting?
- Are there environmental conditions that could be hazardous to one's health (toxic gas, vapor, mist, fumes, dust, heat, or radiation)?
- Is the equipment or tools the employee uses appropriate for the task and in safe working condition?
- Does the employee know how to safely operate equipment?
- Are proper safeguards, warning labels, and/or barriers in place?
- Is personal protective equipment appropriate for the job and available?

Using Form JSA-1-00, document hazards associated with each step. Review all the identified hazards with the employee who performed the steps and any other personnel who are experienced in performing the job/task for additional ideas, to minimize oversights and help ensure a quality analysis. A reliable list may be developed through observation and discussion.

Step 4: Develop Solutions

After a job/task is analyzed and the hazards are identified, the next step is to develop safe, efficient job procedures to prevent accidents. After reviewing your list of hazards, consider what control methods will eliminate or reduce them.

The most effective controls are engineering controls that physically change a machine or work environment to prevent employee exposure to the hazard. The more reliable or less likely a hazard control can be circumvented, the better. If this is not feasible, administrative controls may be appropriate. This may involve changing how employees do their jobs. Contact EH&S for assistance with developing and implementing hazard control measures.

The principal solutions for minimizing hazards identified in analysis are as follows:

- Find a new way to do the job. To find an entirely new way to perform a task, determine the goal of the operation and analyze the various ways of reaching this goal. Select the safest method. Consider work-saving tools and equipment to make the job/task more efficient and safer.
- Change the physical conditions that create the hazard. If a new way to perform the job cannot be developed, change the physical conditions (such as tools, materials, equipment, layout, location) to eliminate or control the hazard.
- Change the work procedure to eliminate the hazard. Investigate changes in the job procedure that would enable employees to perform the task without being exposed to the hazard.
- Reduce the frequency of its performance. Often a repair or service job must be repeated frequently because of another condition that needs correction. This is particularly true in maintenance and material handling. To reduce the frequency of a repetitive job, eliminate the condition or practice that result in excessive repairs or service. If the condition cannot be eliminated, attempt to minimize the effect of the condition.

Reducing the number of times a job is performed contributes to safer operations only because the frequency of exposure to the hazard is reduced. It is, of course, preferable to eliminate hazards and prevent exposure by changing physical conditions or revising the job procedure, or both.

Jobs that are performed infrequently require additional effect to minimize accident potential. Pre-job instruction addressing points listed on the JSA will serve as a refresher to employees who may have forgotten some of the hazards in performing the task and proper procedures to be used to avoid these hazards.

In developing solutions, general precautions such as "be alert," "use caution," or "be careful" are inadequate. Solutions shall be clear and actionable, stating precisely what to do and how to do it. For example, "make certain the wrench does not slip or cause loss of balance" does not state *how* to prevent the wrench from slipping. A good recommendation explains both "what" and "how". For example, "set wrench jaws securely on the bolt. Test its grip by exerting slight pressure on it. Brace yourself against something immovable, or take a solid stance with feet wide apart, before exerting slow steady pressure." This recommendation reduces the possibility of a loss of balance if the wrench slips.

Once the analysis is completed, the results must be communicated to all workers who are or will be performing that job. If a job or process is changed dramatically, it should be discussed with all personnel involved to determine the possible consequences of the changes. Such discussions check the accuracy of the JSA and involve personnel in an effort to reduce job hazards. Discuss recommendations with all employees performing the job, and if new or modified procedures are introduced, ensure they understand what they are required to do

and the reasons for the changes.

Step 5: Conduct a Follow Up Analysis and JSA Implementation

The final steps in conducting a JSA is to evaluate the effectiveness of your control measures, make any necessary adjustments to improve them or address any new hazards that may arise, and implement the JSA. Once final determinations are made to effectively mitigate the hazard(s) and effectiveness measured, these changes should be implemented and communicated to personnel by the supervisor/PI.

Each supervisor/PI should observe employees as they perform jobs/tasks for which a JSA has been developed. The purpose of these observations is to ensure adherence to the safety procedures developed. The supervisor/PI should review the JSA before doing the follow-up review to reinforce the proper procedures that are to be followed.

Finally, the JSA is an incident/accident investigation tool. Periodically or when incidents/accidents occur involving a job for which a JSA has been performed, the analysis should be reviewed to determine if proper procedures were followed or if the procedures should be revised.

5.0 EMPLOYEE TRAINING AND EDUCATION:

5.1 Initial Training

- All new employees will be trained on existing JSAs.
- New employees or employees who are asked to perform new jobs/tasks shall be trained to use the procedures developed in the JSA.

5.2 Refresher Training

- Supervisors/PIs will perform and document employee training on completed/existing JSAs at least annually.
- Jobs that are performed infrequently require additional effort to minimize accident potential. Pre-job instruction will serve as a refresher so that employees may remember and avoid any hazards.

6.0 RECORDKEEPING:

Documentation is an important part of JSA development. Records must be uniform and consistent so that many people can understand and use this information. JSA forms should be maintained in the department creating the documents and should be kept readily accessible. An index identifying the job/task, the date the JSA was completed, and the date the analysis was revised should be maintained. Supervisors shall maintain a copy of employee

training records for a minimum of three years.

7.0 REFERENCES:

OSHA Regulation 29 CFR 1910.132; Job Hazard Assessment
OSHA Publications Handbook 3071; Job Hazard Analysis
Office of Risk Management General Safety Program Guidance

8.0 APPENDICES:

- Appendix A – State of Louisiana Form JSA 1-00 ***(web link)***
- Appendix B – JSA Example
- Appendix C – JSA Example

LSU Health NEW ORLEANS

JSA FORM
JSA WORKSHEET (FORM JSA-1-00)

STATE OF LOUISIANA JOB SAFETY ANALYSIS TRAINING GUIDE	JOB:	DATE:	
	TITLE OF PERSON WHO DOES JOB:	SUPERVISOR:	ANALYSIS BY:
DEPARTMENT:	LOCATION:		REVIEWED BY:
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT:			APPROVED BY:

SEQUENCE OF BASIC JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED-SAFE-JOB-PROCEDURES.

JSA 1-00 STATE OF LOUISIANA

APPENDIX A

LSU Health NEW ORLEANS

EXAMPLE JSA

JOB SAFETY ANALYSIS EXAMPLE	JOB: **Sharpening & Replacing a Rotary Mower Blade**		DATE: **1/1/2000**
	TITLE OF PERSON WHO DOES JOB: **Yard Worker**	SUPERVISOR: **John Jones**	INDIVIDUAL PREPARING JSA: **John Jones**
DEPARTMENT: **Maintenance Group**	LOCATION: **Outdoor Beautification**		
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT: **Gloves & Safety Glasses**			

SEQUENCE OF BASIC JOB STEPS	POTENTIAL ACCIDENTS OR HAZARDS	RECOMMENDED SAFE JOB PROCEDURE
1. Disconnect spark plug wire.	1. Striking against housing Burn hand	1. Do not use excessive force. Allow mower to cool.
2. Remove gasoline.	2. Spillage – Fire –Inhalation.	2. Ventilation. No smoking, proper container. Flush away with water (if necessary).
3. Invert mower.	3. Caught between (CB) Spilling gasoline Overexertion	3. Tip properly. (Grass catcher chute up). Be sure cap is tight. Lift properly, use leg muscles.
4. Remove dull blade.	4. Knuckles striking against blade.	4. Secure block blade – wooden block. Use gloves. Use proper size socket wrench with extender.
5. Check for bent blade.	5. None.	5. None.
6. Sharpen & balance dull blade.	6. Cutting hand; striking against vice.	6. Wear gloves. Avoid contact with sharp blade.
7. Reassemble blade to mower.	7. Striking against blade or housing.	7. Block blade. Wear gloves. Avoid contact with sharp blade.
8. Return mower to cutting position.	8. Overexertion.	8. Use leg muscles, not back.
9. Reconnect spark plug wire.	9. None.	9. None.
10. Add gasoline.	10. Fire.	10. Ventilate. No smoking. Proper container.
11. Operate mower.	11. Normal operating hazards.	11. Check for excessive vibration or unusual noise.

EMPLOYEES ASSISTING IN DEVELOPMENT OF JSA	IS THERE DANGER OF:
_____	**A. STRIKING AGAINST OR BEING STRUCK BY**
_____	**B. CAUGHT IN, BY, OR BETWEEN**
_____	**C. SLIP, TRIP, OR FALL**
_____	**D. PUSHING, PULLING, LIFTING, OR TWISTING**
_____	**E. TOXIC GAS, VAPOR, FUMES, EXCESSIVE HEAT OR COLD**

LSU Health NEW ORLEANS

JSA WORKSHEET (FORM JSA-1-00)

STATE OF LOUISIANA JOB SAFETY ANALYSIS TRAINING GUIDE	**JOB:** Centrifuge Operation	**DATE**: 3/24/08	
	TITLE OF PERSON WHO DOES JOB: Soil Technician	**SUPERVISOR:** Karl Umiker	**ANALYSIS BY:**
DEPARTMENT: PSES	**LOCATION:** Laboratory Soil Management	**REVIEWED BY:**	
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT: Safety Glasses and other PPE depending on the material being centrifuged.			

SEQUENCE OF BASIC STEPS:	POTENTIAL ACCIDENTS OR HAZARDS:	RECOMMENDED SAFE JOB PROCEDURES:
Step 1: Consult instruction manual for specific centrifuge setup, operation guidelines, and maintenance.	Centrifuge has not been maintained. Chemicals used are incompatible with type of centrifuge.	Use procedures outlined in centrifuge manual that are specific to the centrifuge to be used. Only use centrifuge that is appropriate for specific chemical hazards of samples. Make sure centrifuge to be used has been maintained properly.
Step 2: Identify centrifugal force needed for material based on revolutions per minute (RPM) and radius of centrifuge.	Centrifugal force or RPM needed is out of the range of the centrifuge.	Use appropriate centrifuge for centrifugal force needed and weight/volume of samples. Use minimum centrifugal force and time needed to accomplish task.
Step 3: Put material to be centrifuged in appropriate containers.	Container may break causing the spillage of chemicals. Centrifuge may become unbalanced causing damage to centrifuge.	Make sure centrifugation container does not show signs of stress, is chemically compatible, and is suitable for centrifugal forces/RPM.
Step 4: Secure appropriate Rotor in centrifuge.	Wrong rotor or rotor is not secured properly resulting in personal injury or damage to the centrifuge.	Consult owner's manual for instruction on securing rotor properly. Type of rotor should be compatible with expected centrifugal force or RPM.
Step 5: Place containers in centrifuge cups.	Unbalancing of centrifuge, personal injury, and damage to centrifuge and other equipment.	Ensure sample containers are made to fit in centrifuge cups. Ensure cups are identical and rubber inserts are placed in the bottom of the cups.

JSA WORKSHEET (FORM JSA-1-00)

STATE OF LOUISIANA JOB SAFETY ANALYSIS TRAINING GUIDE	**JOB:** Centrifuge Operation	**DATE**: 3/24/08	
	TITLE OF PERSON WHO DOES JOB: Soil Technician	**SUPERVISOR:** Karl Umiker	**ANALYSIS BY:**
DEPARTMENT: PSES	**LOCATION:** Laboratory Soil Management	**REVIEWED BY:**	
REQUIRED AND/OR RECOMMENDED PERSONAL PROTECTIVE EQUIPMENT: Safety Glasses and other PPE depending on the materials being centrifuged.			

SEQUENCE OF BASIC STEPS:	POTENTIAL ACCIDENTS OR HAZARDS:	RECOMMENDED SAFE JOB PROCEDURES:
Step 6: Balance centrifuge cups with containers using a two-pan balance. Place balanced containers in opposite rotor positions.	Unbalancing of centrifuge, personal injury, and damage to centrifuge and other equipment.	Ensure balanced containers are in opposite positions. Water may be added to centrifuge cups to fine tune balance of samples.
Step 7. Close and latch centrifuge lid.	Personal injury and damage to centrifuge.	Ensure lid is closed and securely latched before starting centrifuge.
Step 8. Turn centrifuge on and select desired speed (RPM).	RPM is too high for sample containers or centrifuge resulting in damage to centrifuge or personal injury.	Ensure desired centrifugal force matches speed (RPM) selected.
Step 9: Once desired time has elapsed, turn centrifuge off. Let centrifuge come to a complete stop or use brake to stop centrifuge.	Lid is opened before centrifuge has come to a complete stop. Personal injury from rotating rotor and exposure to leaking chemicals.	Ensure centrifuge has come to a complete stop before unlatching lid.
Step 10: Open lid and remove sample.	Exposure to leaking/broken samples.	Ensure samples and sample containers are intact and no liquid has spilled before removing containers.