Preamble:

I write this with concern that the SLAM sheets utilized within the Safe Production program Vale has implemented in the past year or so has a potential to be counter productive to the goal of Safe Production. I hope to bring the realization that the worker as an individual or as a group of workers may not be able to or qualified to effectively utilize a SLAM Sheet. If I am correct then all workers are at risk and corporate liability is at question.

The acronym SLAM itself implies a greater level of skill than is to be reasonably expected from an average worker. Stop, Look, Assess, Manage. What does that really encompass and what are the defined expectations? I hope to reveal that the implications of relying upon the average worker to Assess and Manage risk at the scope the SLAM sheet implies is a risk in itself and detrimental to the safety and protection of the worker.
What is Risk Assessment?

From the Canadian Centre for Occupational Health and Safety risk assessment is defined as this.

*Risk assessment is the process where you:*

- Identify hazards.
- Analyze or evaluate the risk associated with that hazard.
- Determine appropriate ways to eliminate or control the hazard.

*In practical terms, a risk assessment is a thorough look at your workplace to identify those things, situations, processes, etc that may cause harm, particularly to people. After identification is made, you evaluate how likely and severe the risk is, and then decide what measures should be in place to effectively prevent or control the harm from happening.*

That definition seems to align completely with the SLAM sheets layout. So the question then is how does a worker as an individual or as a group of workers perform that assessment and can the worker come to a reasonable assessment of that risk?

As many in a management position know risk assessment is a complex and difficult process. Many factors must be included in such an assessment and typically a varied group of individuals are utilized in the risk assessment. A typical PHR is a good example of an effective system to assess and manage risk. As you may be aware a PHR does indeed have a varied cross section of qualified individuals and that cross section is what makes a PHR successful. The SLAM sheet has the same purpose, perhaps at a different scale but the expectation is that, at times, the very minimum a single individual will be the only resource in the assessment and management of the risk. Only if that individuals assessment determines additional resources will they be brought in for a team management of the risk. Is this a system which has the foundation of effective risk management?

Along with expectations that a worker is able to assess the risk the SLAM sheet itself only seems able to provide for a small sample of a task. There does not seem to be provisions to allow for multiple assessments which result from the breakdown of a task and managing the multiple risks associated with that breakdown. Is a worker to utilize several SLAM sheets in their assessment of a task?

The Canadian Centre for Occupational Health and Safety suggests a risk assessment is done like this.

*Assessments should be done by a competent team of individuals who have a good working knowledge of the workplace. Staff should be involved always include supervisors and workers who work with the process under review as they are the most familiar with the operation.*

Does a SLAM sheet fit in with this recommendation? It clearly strengthens my belief that what the SLAM sheet requires a worker to do as an individual or even as a group of workers is contrary to the normal expectations of risk assessment.
What is Risk Management?

In order to manage risk there must be an accurate assessment of the risk. Quantifying the potentials of likelihood and consequences as outlined on the SLAM sheets is the most complex and important part of risk management. A worker as an individual or as a group of workers once again must rely on a single point source for that determination and once again seems contrary to the standards for risk management. That standard being a varied cross section of experienced qualified people form different levels of the organization.

A worker on their own may draw very different assessments and management strategies dependant on their own experience and knowledge for a particular task. To rely on a single worker or narrow qualification ‘tool box’ to minimize or control the hazard has implications which lead one to presume there is risk in that in itself.

The Canadian Centre for Occupational Health and Safety expresses this in relation to determining risk levels.

*There is no one simple or single way to determine the level of risk. Ranking hazards requires the knowledge of the workplace activities, urgency of situations, and most importantly, objective judgment.*

I think one can agree with this statement.

**Risk management** is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate event or to maximize the realization of opportunities.

Can a worker really achieve this using a SLAM sheet by themself or with a group of like minded workers? Is a SLAM sheet “one simple or single way” to determine the level of risk? I believe answering these questions shows that the SLAM sheets as inferior to the standards of risk assessment and management and has the potential to endanger a worker or group of workers.
Is the Principle of the SLAM Sheet Sound?

In principle the SLAM sheet is sound in the fact that it attempts to make the worker aware of the hazards of the task and reduce or eliminate hazards associated with that task. To have workers apply such a principle in every task they perform certainly has great benefits and would most certainly reduce workplace injury and illness.

Principle in itself however is not effective if the application of that principle requires a skill set above and beyond that of the worker or group of workers. With SLAM evolving from the SUPA safety strategy and the inherent complexities of that evolution I believe a step backwards would be vital to preserve the principle the SLAM sheets try to encompass.

SUPA which began as a simple See, Understand, Plan, Act has really taken hold in all the workers method of operation. As SUPA evolved matrices were added and complexities were introduced but at the worker level the idea to just look, understand and plan what you do was almost a genius concept. In it’s simplicity it succeeded in improving worker awareness. Slam needs to encompass that simplicity and direct the complexity of SLAM towards the employer. The employer has the varied cross section of individuals which can assess and manage risk before the tasks are given to the worker so that the worker can then See, Understand, Plan, Act.

So yes the principle is sound but I hope one can see the application is flawed. As a worker or group of workers a qualified assessment and management of risk that the SLAM sheet demands is impossible. The level of experience, knowledge and judgment is not met and drastically falls short of a standard for effective risk assessment, analysis and management which would provide for the protection of the health and safety of the worker.
Conclusion

As a worker and a long time advocate for continuous improvements in relation to safety and health I feel the SLAM sheets are an expectation that I cannot meet. My opinion is that many if not all workers given such an expectation implied by the SLAM sheets is detrimental to providing for a Safe Production workplace.

For a worker to be expected to assess and manage risk at the level the Slam sheet demands is in my opinion impossible. Industry standard and Government direction shows risk assessment and management is to be done by a varied group of employees with a varied qualified background contributing knowledge, experience and judgment. A single worker or group of workers cannot in any way meet that standard even if given extensive training since the standard demands not a group of like minded employees but a group of employees with different disciplines.

A return to the SUPA principle and the simplicities it encapsulated is what needs to be done with the SLAM directive. A continued effort to promote worker awareness and competency is the path SUPA had taken. The SLAM sheet principles should be on the management desk and the risk assessment and management done for the worker, to protect the worker before the task assignment.

With a collaborative effort then the workplace becomes safer and healthier. Complex systems which place a burden on the worker will in no way be effective at reducing risk in the long term. As a worker I cannot accept such a burden and will not allow a system which I know I cannot utilize effectively be my guide to Safe Production.

I meet my duty as a worker everyday. Does SLAM in it’s current form help me do that? Does SLAM help my employer meet their duty? My answer to the first question is “No!” It certainly can help my employer meet their duty if utilized correctly!!

Sincerely yours,
Robert Kohut
STOP – What are the tasks you are about to perform?

1. What are the hazards (to safety, health, environment, workplace, production, community)?
2. What is the uncontrolled risk?
3. What controls will reduce risk to ALARA?
4. What is the residual risk?
5. How will work continue to be accomplished at ALARA?

LOOK – What are the safety, health, environment and production hazards you will interact with?

Consider:
- Struck by
- Struck against
- Chemical
- Falls
- Caught in
- Noise
- Gases
- Electrical
- Dust
- Strains

ASSESS – What is your assessment of the risk from the hazard(s)?

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<thead>
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<th>CONSEQUENCES</th>
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<tbody>
<tr>
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<tr>
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<td>Moderate</td>
</tr>
<tr>
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<tr>
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MANAGE – How did you manage the risk from the hazard? What controls have you put in place?

Hierarchy of Controls

What is the risk level for the hazard(s) after the controls are in place?

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Residual Risk may be at Low, Moderate or High. Can you maintain risk at ALARA to prevent injury or production loss? Yes / No

If you answer no to injury or to production, contact your supervisor.
Consequences – Most likely outcome if exposed to the event.

- **Severe**: Fatality, permanent disability or irreversible health effect of concern, some long term environmental impact, community suffers irreparable adverse impact, $>10m in financial loss
- **Major**: Extensive injury (lost time) or severe reversible health effect of concern, significant reversible environmental impact, community suffers significant adverse impact, $1m to $10m in financial loss
- **Moderate**: Medical treatment or reversible health effect of concern, short term environmental impact, community suffers adverse impact, $100k to $1m financial loss
- **Minor**: First aid treatment or reversible health effect of little concern, minimal environmental impact, community suffers minor adverse impact, $10k to $100k in financial loss
- **Low**: No injury or health effect, normal operation variances impacting environment, community suffers no adverse impact, $<10k financial loss

Likelihood – How often the event is expected to occur with resulting consequences.

- **Certain**: Expected to occur in most circumstances > once per month
- **Likely**: Will probably occur in most circumstances, every 1-2 years
- **Possible**: Might occur at some time, every 2-10 years
- **Unlikely**: Could occur at some time, every 10-30 years
- **Rare**: May occur only once in the lifetime of the facility

Does this SLAM identify a NEAR MISS? Should the information be shared with others?  **Yes** / **No**

Notes

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