

Activity Hazard Analysis

Guidelines to Acceptance

Operational Risk Management

The AHA is a form of Operational Risk Management:

Identify Hazards

Assess Hazards – make risk decisions

Implement Controls

Train

Supervise

Operational Risk Management

The intent of ORM is to reduce the overall risk in a phase of work. By requiring the contractor to commit to analyzing an activity - identifying the principal steps and the hazards associated with each; establishing hazard controls and training his/her workers; and, providing oversight to ensure AHA compliance - RISK will be significantly reduced.

ACTIVITY HAZARD ANALYSIS

ACTIVITY _____ ANALYZED BY/DATE _____

PRINCIPAL STEPS	POTENTIAL SAFETY/HEALTH HAZARDS	RECOMMENDED CONTROLS
<i>Identify the principal steps involved and the sequence of work activities</i>	<i>Analyze each principal step for potential hazards</i>	<i>Develop specific controls for potential hazard</i>
EQUIPMENT TO BE USED	INSPECTION REQUIREMENTS	TRAINING REQUIREMENTS
<i>List equipment to be used in the work activity</i>	<i>List inspection requirements for the work activity</i>	<i>List training requirements, including hazard communication</i>

Ten Guidelines To An Acceptable AHA

- ◆ **The AHA shall be in the proper format.**
- ◆ **Each principal step of an activity shall be listed.**
- ◆ **The AHA must be activity specific.**
- ◆ **Competent/Qualified person is identified in the AHA.**
- ◆ **Quoting regulations as a step or hazard or hazard control is unacceptable.**
- ◆ **If hazardous material is used in activity the MSDS for that material must be listed.**
- ◆ **All hazard controls shall be adequate.**
- ◆ **Crane AHAs must have set-up/set-down hazards controlled.**
- ◆ **Training/Qualification/Competency training for the activity must be included in the AHA.**
- ◆ **Will this AHA reduce the overall Safety risk associated with this phase of work/DFOW?**

The AHA Shall be in proper format

- φ EM-385-1-1 (Nov 2003) figure 1-6 is the acceptable format for new contracts. It is the same AHA format required by the previous EM-385 edition.
- φ Each format requires the very minimum acceptable information...adding more information and fields to the AHA is acceptable.
- φ The analyst's name shall be on the AHA
- φ Any competent/qualified persons associated with the work (scaffolding, excavation, electrical...and so on) in the phase of work/DFOW shall be identified in the AHA.
- φ All sections must be complete and the AHA shall reduce the overall hazard severity and risk of injury and property damage.

Principal Steps

- Principal steps are just that...the principal steps in the phase of work/DFOW.
- Principal steps does not include such things as: breaker bar, sawsall, hammer, forklift, excavator...and so on this is equipment not principal steps.
- Principal steps can include: locate utilities, lockout circuit 1-B-3C, Excavate trench, erect scaffold, breakdown scaffold, Demo top floor...and so on. Each step has its concomitant hazards that need mitigating/abatement. Remember the effect of the AHA is reduce risk.
- Each hazard must be addressed with a corresponding control

Hazard

The following statements should aid identifying hazards:

- ✓ Danger of striking against, being struck by, or otherwise making injurious contact with an object;
- ✓ slip or trip;
- ✓ caught in, on, or between objects;
- ✓ fall on the same level or to another;
- ✓ strain by pushing, pulling or lifting;
- ✓ possibility of electrical, health or fire hazards;
- ✓ possibility of employee coming in contact with a hazardous chemical or substance;
- ✓ Past experiences.

Hazard Categories

- Struck By(SB)
- Struck Against(SA)
- Caught Between(CB)
- Contact With(CW)
- Caught On(CO)
- Contacted By(CBy)
- Caught In(CI)
- Falls on Same level(FS)
- Falls Below(FB)
- Overexertion(O)
- Exposure to Chemicals/Hazmat,
noise, radiation(E)

Each hazard associated with a Principle Step should fit into one of these Hazard Categories.

Recommended Controls

/// Every hazard shall have a control...design out the hazard; institute engineering controls (interlocks, alarms/strobes, shutdown mechanisms); substitution of alternate energy forms (pneumatic to electrical or vice versa) or less harmful hazardous materials; reduce the amount of energy used or released; place barricades/barriers/guards between the source of energy and the worker or property; modify contact surfaces (higher/lower friction); strengthen the surface or structure.

Equipment to be used

- ψ Drill motor
- ψ Gasoline power generator
- ψ Air compressor
- ψ Construction handtools
- ψ Pneumatic nailer
- ψ Powder actuated nailer
- ψ backhoe
- ψ Circular saw
- ψ Reciprocating saw
- ψ Carpeting handtools
- ψ Forklift
- ψ Frontloader
- ψ Personal fall arrest system
- ψ Trench shields

Some are hand-tools some are not, but all can cause injury.

Inspection Requirements

Personal fall arrest systems

Cranes

Forklifts

Trenches/Excavations

LOTO

Project-Site

Scaffolding

Powered hand-tools

All of these require a form of inspection. All at least require a daily inspection, prior to use. The inspections are conducted by a competent/authorized person. Are inspections documented? Does site supervision ensure inspections are conducted?

Training Requirements

Personal fall arrest systems

Cranes

Forklifts

Trenches/Excavations

LOTO

Project-Site

Scaffolding

Powered hand-tools

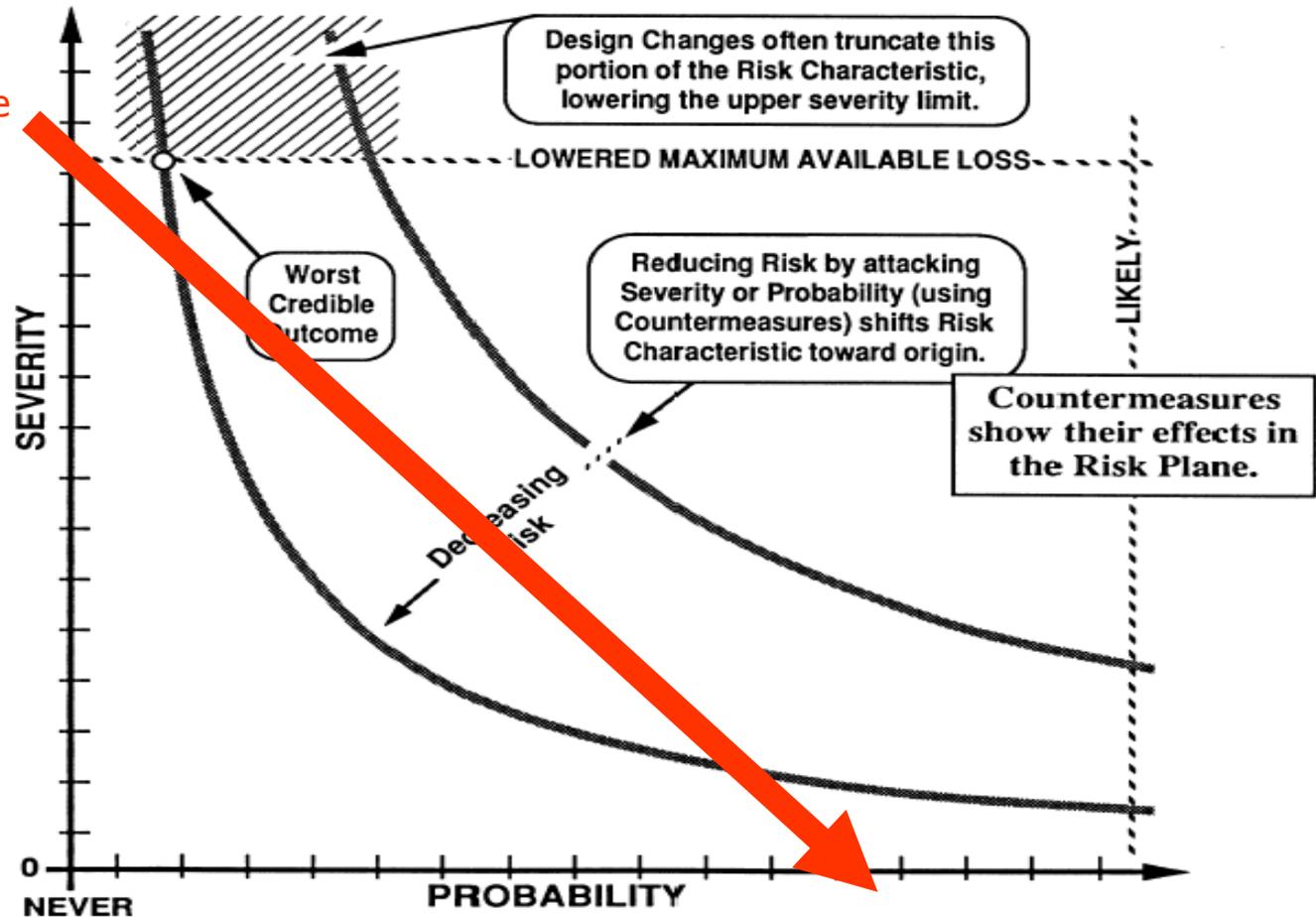
APP/AHA

All of these these require training of the worker. Cranes, Forklifts require training and certification. The other items require specific training associated with the unique characteristics of the work activity. Is training documented?

When looking at the AHA, do you sense in your gut that the overall RISK has been reduced, or, do you feel the AHA was submitted to just fulfill a contract requirement.

REDUCING RISK . . .

The AHA should drive the overall RISK down!



Summary

- ❖ The AHA is a form of ORM
- ❖ The contractor must submit an AHA that is complete and detailed to the extent of the complexity of the phase of work.
- ❖ It is not acceptable to quote regulations in the AHA – regulations are in the APP and in the code books – the AHA is very site and activity specific...it is customized.

Summary (cont'd.)

- ❖ principal steps, identified hazards, hazard controls, equipment used, inspections required, training provided are all components that will overall reduce the RISK of each phase of work analyzed.
- ❖ Accept only complete AHAs that address the hazards and reduce the overall risk of the phase of work.

Conclusion

- ❖ **Over the next few months I will posting AHAs with the minimum required information that should be included in them for particular activities (e.g., Excavation/trenching: locates, soil type, competent person/qualified person, depth of ex/tr, length of ex/tr, how long will the ex/tr be open, what protection measures to protect the workers will be used if entry is required...) on the Safety website.**

Conclusion (Cont'd.)

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