THE UNIVERSITY OF THE WEST INDIES
ST. AUGUSTINE, TRINIDAD & TOBAGO, WEST INDIES
OCCUPATIONAL HEALTH, SAFETY AND THE ENVIRONMENT UNIT

The UWI Risk Management Procedure

CONTENTS

1.0 PURPOSE

The management of risks associated with UWI operations is the responsibility of the Campus OHSE Committee as well as each employee. Understanding risk management should assist in deciding on the course of actions to be pursued and the appropriateness of the policies and procedures in place.

The term "risk" in this document is intended to encompass all OHSE risks involved in The UWI Operations.

The intent of this procedure is to provide Guidance to UWI Personnel with respect to the risk management framework and the actions to be taken. Detailed roles and responsibilities are defined within and should be communicated to ALL UWI employees.

The proper implementation of this procedure is intended to provide the conditions where hazards are readily identified and managed thereby assisting in meeting the legal requirement of providing a safe working environment.

2.0 SCOPE

This procedure forms part of The UWI OHSE Management System and is relevant to ALL activities carried out at ALL UWI locations.

3.0 DEFINITIONS

Term	Definition
Critical Activity	A process which if conducted outside expected parameters has the potential to result in a major accident event
Critical Injury	means an injury that— *(a)* places life in jeopardy; *(b)* produces unconsciousness; *(c)* results in substantial loss of blood; *(d)* involves the fracture of a leg or arm, but not a finger or toe; *(e)* involves the amputation of a leg, arm, hand or foot, but not a finger or toe; *(f)* consists of burns to a major portion of the body; or *(g)* causes the loss of sight in an eye;
Hazard	Anything with the potential to cause harm, including ill health and injury, damage to property, products or the environment, production losses, increased liabilities or a

Term	Definition
	combination of these.
Likelihood	Number of occurrences of an event or outcome per defined period of time.
Mitigation Measures	Measures implemented or actions taken with the specific intent of minimising the effects of a hazard event.
Residual Risk	Risk remaining after risk treatment/controls. Residual risk may contain unidentified risk.
Risk	A function of likelihood of occurrence of harm and the severity of that harm. Risk= Likelihood x Severity
Risk Acceptance	The informed decision to accept risk. Risks accepted should be subject to monitoring and review.
Risk Analysis	The estimation of risk associated with the identified hazards.
Risk Assessment	A systematic process of organizing information to support a risk decision to be made within a risk management process. It consists of the identification of hazards and the analysis and evaluation of risks associated with exposure to those hazards.
Risk Communication	The sharing of information about risk and risk management between the decision maker and other stakeholders.
Risk Control	Actions implementing risk management decisions.
Risk Evaluation	Process of comparing the results of the risk analysis against risk criteria to determine the level of risk and whether it is tolerable or not.
Risk Management	The systematic application of HSE management policies, procedures and practices to the tasks of assessing, controlling, communicating and reviewing risks.
Risk Monitoring	Monitoring of risk management procedures, particularly risk treatment/control processes, to assess whether they are effectively implemented and achieving their planned aims.
Severity	Extent of a loss, harm or damage.

4.0 RESPONSIBILITIES

The risk management framework will only be successful if it is driven by senior management. This must be done in a manner of engagement and cooperation. Responsibilities are defined below:

4.1 Campus Principal and Senior Management Team

- Ensure that an effective risk management system exists within UWI;
- Ensure that adequate resources (human, physical and financial) are available for the implementation and maintenance of this system;
- Holds managers accountable for risk management;
- Reviews and approves Annual Facility risk assessment.

4.2 Dean, Heads of Departments, Managers, Directors

- Ensure all staff within their department are aware of the risk management framework;
- Works with the OHSE Unit and employees to continuously identify hazards and evaluate and manage the risks;
- Make personnel available to participate in risk assessment process;
- Participate in the relevant risk assessment.

4.3 The OHSE Unit

- Ensure that the risk management framework is implemented within the organisation;
- Provide technical support to various departments with respect to HSE standards and facilitating risk assessments;
- Act as technical experts and facilitators for the risk assessment process;
- Maintain a risk register;
- Ensure relevant personnel are trained in Hazard identification and risk assessment techniques.

4.4 Employees

- Comply with the requirements of this procedure and any instructions given in associated training;

- Participate in operational and strategic risk assessments where required;
- Conducts Task Risk Assessments where required and ensure that identified risks are controlled;
- Complies with identified risk treatments and controls;
- Report any unsafe condition to the supervisor and the OHSE Unit immediately.

5.0 RISK MANAGEMENT FRAMEWORK

5.1 Levels of Risk Assessment

Risk Management at UWI is done at varying levels based on the legal and other OHSE requirements.

Annual Risk Assessment (Required by Section 25 G of The OSH Act, 2004 (as amended))

Operations Risk Assessment

Critical Activity Risk assessment

Task Based Risk Assessment (TBRA) / Job Safety Analysis (JSA)

5.2 Facility Risk Assessment

A Facility Risk Assessment is done annually and this risk assessment takes into consideration the range of services that UWI offers. The result of this will be the generation of a list of **critical activities** that will be conducted during the upcoming year.

This will also assist in developing SMART OHSE objectives and targets for the year ahead.

5.3 Operational Risk Assessments

An Operational Risk Assessment should be conducted to identify the critical activities associated with the various units. i.e. an operations risk assessment will be done for the fire station and a separate one will be done for marine operations as the scope of works for these units are significantly different.

5.4 Critical Activity Risk Assessment

For each Critical Activity identified, a risk assessment is conducted to look at the specific hazards associated with these tasks. The result of this assessment includes development of

Standards Operating Procedures (SOP's), training plans and Risk management plans. Within these plans, UWI will adopt applicable standards governing these activities.

5.5 Routine and Non Routine Operations Risk Assessment

Arising out of the Annual Facility and Operations Risk Assessment, routine tasks will be identified.

For Routine operations, SOP's are developed which include the risk mitigation measure identified in the risk assessments. This may be accompanied by a Job Risk Analysis (JRA) and will be reviewed prior to the activity in the Toolbox talk.

Non Routine activities will be subject to a more structured risk assessment process and requires the development of a method statement. This will allow more time for planning and ensuring that all personnel involved are familiar with the scope of work, what part they play in the overall process and the mitigation measures in place.

6.0 RISK ASSESSMENT PROCEDURE

6.1 Step 1 Define the Scope of Work and establish a risk assessment team

The quality of the team assembled will impact on the hazard identification exercise. The risk assessment team should ideally be comprised of persons knowledgeable in the activity and or the risk assessment process. The team should be as follows:

- HSE Officer (risk assessment facilitator)
- Technical Specialist (for high risk tasks)
- Supervisor
- Technician

The scope of work helps maintain boundaries for the risk assessment team. It is important for them to know what they are assessing and what are within their control and what is not.

6.2 Step 2 Hazard Identification

Hazard Identification is a very important aspect of risk management, the quality and effectiveness of the risk assessment depends on the priority placed in identifying the hazards present.

It is critical that hazards be identified in order that appropriate risk management strategies are implemented. These can be identified in many ways, at UWI these include:

1. Site inspections / observations;
2. Audit reports;
3. Accident / incident reports;
4. Complaints;
5. Employee surveys;
6. External inspections (OSH Authority etc);
7. Safety alerts or lessons learned at other companies;
8. Knowledge of the work activities;
9. Brainstorming sessions;
10. What if analysis.

Regardless of the level within the risk management framework that the assessment takes place, once the hazards are identified, the risk is then assessed. At UWI the risk matrix illustrated in

Table 1 is applied. This is a 5X5 semi quantitative method that is used to assess risk in terms of Health, Safety, Environment and OSH Compliance.

6.3 Step 3 Risk Evaluation and Mitigation

Risk Evaluation is a semi quantitative process involving the collective agreement of the risk assessment team and the use of Tables 1, 2 and 3.

Once the hazards are identified and documented, the hazard scenario is then described. Risk evaluation can then be done for each hazard scenario.

Table 1 below details the Risk Matrix, this is a semi quantitative matrix that assigns risk ranking based on the likelihood of the event occurring and the anticipated severity of the consequence.

Using this system, a traffic light system was developed for ranking of risks which specifies the level of action required for the assessed risk.

When evaluating the risks, consideration should be given to the following:

1. Who might be hurt
2. The extent of the injury
3. Legal requirements
4. Reputation impacts
5. Whether or not the organisation has control over the hazard
6. Risk management Hierarchy (eliminate, substitute, isolate, and administrate, personal protective equipment (PPE)).

Once this has been done, the appropriate Mitigation measure can be proposed and the residual risk determined. At the end of this activity ALL hazard scenarios must be classified as yellow or green. Activities classified as red must be stopped until measures are in place to reduce the risk.

6.4 Step 4 Communication

- The results of the risk assessment should be made available to employees. With respect to task risk assessments, the results must be discussed with the employees directly involved in conducting the task.
- Risk and risk mitigation can also be communicated by the rolling out of policies and procedures developed as part of the risk management plan. For example, if driving is identified as a critical activity, in addition to the provision of defensive driving training, a driving safety standard may be developed and communicated to employees.
- A Risk Register will be developed and maintained which details the following:
    - The Risk Assessment Reference Number
    - The Activity being assessed
    - The Assessment team members

- The Assessment date
- The Validity period

Training:

Employees SHALL receive training with respect to the following

1. UWIRisk Management Framework (ALL employees)
2. Hazard Identification (ALL supervisors, manager and selected employees)
3. Risk Assessment (ALL supervisors, manager and selected employees)

6.5 Step 5 Monitor and Evaluate

The Task owner or the manager responsible for the facility shall monitor the work done to ensure that site conditions or job scope do not change during the execution of the task, should changes occur, the work MUST be stopped and the risk assessment revised and approved before work can proceed.

APPENDIX 1 – RISK ASSESSMENT FORMS

Table 1: Risk Matrix

		Hazard Severity				
		1 Negligible	2 Slight	3 Moderate	4 High	5 Very High
Likelihood of occurrence	1 Very Unlikely	1	2	3	4	5
	2 Unlikely	2	4	6	8	10
	3 Possible	3	6	9	12	15
	4 Likely	4	8	12	16	20
	5 Very Likely	5	10	15	20	25

1 - 6	No new action required. Continual Monitoring of existing controls
7 - 14	Implement control measures and conduct monitoring to ensure effectiveness
15 - 25	Activity should not be started or continued until risk reduction measures implemented. **Immediate action required**

Table 2: Likelihood Ratings

Likelihood ratings		
Likelihood of occurrence	***Description of rating***	***Rating***
Very Unlikely	Event expected to occur once every 10 – 15 years	1
Unlikely	Event expected to occur once every 5 - 10 years	2
Possible	Event expected to occur once in every 1 – 5 years	3
Likely	Event expected to occur once per quarter	4
Very Likely	Event expect to occur at least once per week	5

Table 3: Severity Ratings

Severity Definitions					
Severity	***OSH Compliance***	***Health***	***Safety***	***Environment***	***rating***
Negligible	Auditable systems in place that eliminates or mitigates the risk such that several layers of protection exist. Considered as Industry Best Practice	First aid treatment only	First aid treatment only	Contained onsite within established controls	1
Slight	Process / Procedures are in place that fully satisfies the requirements of the OSH Act. People are aware of their roles and responsibilities	Minor cuts / bruises / health impact. Fewer than three lost time days	Impact restricted to fewer than three Lost time days	Event escapes secondary containment however impact reversible in a matter of days	2
Moderate	Requirements of the OSH Act have been identified / defined and a plan is in place to develop procedures to manage risk	Health impact with no foreseeable long term impact	Minor Fracture - permanent injury/ disability	Violation of EMA Rules and required dedicated resources for clean up or remediation	3
High	Informal systems in place not documented and recorded. Not well communicated but evidence of risk being managed.	Long term health impacts, cancers of one person	Single Fatality	Violation of EMA rules / cleanup activities exceeds three months	4
Very high	Nothing in place, non compliance / violation of OSH Act, no understanding and awareness of OSH Act requirements, Probability of legal action, Potential to result in permanent injury, significant damage or fatality	Terminal illness of multiple persons	Multiple fatalities	Irreversible impact / Violation of EMA rules / Damage to sensitive environments	5

Table 4: Risk Assessment Template

HSE Risk Assessment													
Reference #: **Assessment Team Members**					**Task Assessed**								**Assessment Date:** **Valid until:**
	Cause	Outcome		Control	Influence	Unmanaged Risk Ranking				Residual Risk Ranking			
Activity/Operation /Aspect	N - Normal, A - Abnormal, E - Emergency	Reputation	Regulatory	Yes or No	Yes or No	Severity	Probability of Occurrence	Risk Factor	mitigation measures	residual severity	probability	residual ranking	Comments

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