# HAZARD IDENTIFICATION RISK ASSESSMENT & CONTROL

**1.0 Purpose and Scope**
To define, document and communicate BMS processes for hazard identification, hazard/risk assessment and the identification and application of a preferred order of controls from risk elimination to risk minimisation. This applies to all activities across Winslow's operations.

**2. Definitions**
**Hazard**: A source or a situation with a potential for harm in terms of human injury or illness or disease, damage to property, or a combination of these hazards.
**Hazard Identification:** The process of recognising that a hazard exists and defining its characteristics
**Hazard/Risk Assessment**: The process of estimating the magnitude of risk.
**Risk**: The likelihood and consequence of potential injury or harm occurring

**3.0 Procedure Details**
**3.1 Hazard Identification**
• The identification of specific hazards at project level by the project team, assessment of associated risks and agreed control methods in accordance with the Hierarchy of Controls is determined through Safe Work Method Statements or a project risk management workshop specific to critical infrastructure projects.
• Identification of potential health hazards which may include Biological, Physical and Chemical, Atmospheric contaminants shall be determined by a minimum Cert IV in OHS/WHS qualified person.
• Health and Safety hazards and risks are identified through the generic OHS Risk Register **(WINBMS-SP-06-A)** and amended to specific requirements of a project. This Register is a fluid document continually reviewing hazards and risks associated with Winslow operations including legal requirements, standards, and codes of practice as they are identified & updated.
• The project risk register also reflects any health & safety hazards identified at design stage and appropriate controls applied against the same. (D&C Projects) and forms part of the health & Safety Management plan. The register is also reviewed upon request by site personnel which may include HSR's if any.
• The ongoing identification of hazards is facilitated by the HSE Manager/Coordinator and all other project personnel through SWMS reviews, safety Inspections, audits, consultation, discussions, comment and contribution from employees, HSR's and stakeholders (e.g. clients, sub-contractors and regulatory bodies and industry organisation etc.) and consideration of the health and safety risks knowledge generated by the implementation and maintenance of the BMS (e.g. training, monitoring, incident reporting, audits and management review).

**3.2 Risk Determination**
Task based Safe Work Method Statements (SWMS) shall be completed and signed by all personnel specific to any project and the relevant site supervisor shall inspect and approve the SWMS prior to works starting. The SWMS should take into account all potential hazards that arise from day to day tasks.
• When a risk is identified as LOW it shall be reported to the site supervisor for review and monitoring
• When a risk is identified as MEDIUM, it shall be reported to the Project Manager to ensure preventative measures are identified to ALERT level.
• When a risk is identified as HIGH, the activity shall be stopped until preventative measures can reduce the level of risk to a Hazard rating of MEDIUM.
• Any activity that cannot be reduced below a HIGH rating can only proceed with approval of the Construction Manager.
• Priority 1 to 3 for implementation of controls is provided in the Risk Register against risks identified as HIGH/MEDIUM & LOW with escalation levels outlined in the Risk Matrix table below. All such SWMS's shall be finally reviewed and signed off by the supervisor. Site review of SWMS for compliance and effectiveness of the risk control measures and to verify they address hazards identified is undertaken by the Site Supervisor or other responsible personnel or employee's representative and agreed onsite in practice by the responsible personnel as above who are competent in HIRAC methodology – HIRAC training is listed on Winslow Skills Matrix Database. All SWMS must be signed off at the Site SWMS review meeting by all employees involved.
Where it is known that activities relating to separate SWMS are in close proximity, the following actions are to be taken,
1. Both SWMS are to be reviewed onsite in practice by the site supervisor and representatives of both parties to ensure any additional risks thus identified are addressed immediately and signed/dated off as reviewed for compliance and effectiveness of the risk control measures and to verify, they address hazards thus identified.
2. New SWMS are to be developed when required in consultation with site personnel.

All safe work method statements shall be maintained in a digital master file for access by all employees and the same communicated to them at Induction. No employee shall be permitted to commence work on site unless they are signed on to the SWMS.

### 3.2.1 Site Review of SWMS and the effectiveness of Risk Control Measures in SWMS.

• All relevant SWMS shall be reviewed for compliance and effectiveness of the risk control measures and to verify they address hazards identified on site in practice by the Site Supervisor and representatives to ensure compliance and risk controls are effective and risk ratings are appropriate. Such reviews on site shall be signed off and dated by the Site Supervisor/Site Engineer and other relevant personnel involved in the process. All site reviews as and when they happen must be signed off on the SWMS itself and follow up actions for high risks if identified must be addressed by the Site Supervisor or other responsible personnel.

### 3.3 HIRAC & Other Training

• Training is delivered to Senior Management, Project Managers, Site Supervisors, Employees regularly in OH&S/EMS Regulations, Legislations through internal Learning Seat and external Seminars held by various Industry and Regulatory bodies from time to time. Training provided to Senior Management is clearly identified and set out on WINSLOW Skills Matrix, training will cover Legal requirements OHS, HIRAC Methodology, Incident Investigation, Issue Resolution and understanding of WINSLOW BMS Management System requirements.
All training completed by the relevant personnel as above will be subject to Training Survey Evaluation form 8.3 of the HR Manual to ensure training received was effective and appropriate to their position. The nominated HR/ER person will review all surveys and if required discuss the effectiveness of the training with the person and if appropriate retrain where necessary to ensure effective competency is attained.

### 3.4 Hazard Risk Assessment

Hazards and associated risks are assessed by the HSE Manager, Coordinators and the project manager & his team considering both the "likelihood" and "consequence" of occurrence as shown in Tables 1 & 2.
Consideration of likelihood and consequence includes:
• Legal and Other requirements of the activity associated with the identified hazards.
• Existing Winslow procedures, instruction, and plans for the activity and designed to eliminate or minimise risks, and competencies of personnel undertaking the activity.
The Health & Safety Register then calculates Risk Levels (Low, Medium & High) and Risk Scores (1-25) according to the Risk Matrix shown in Table 3.

### 3.5 Control of Hazards, Risks

Controls for health and safety hazards at the work place are applied by the Project team together with the HSE Coordinators to all levels of identified risk. Any new or additional hazard information is available; the control measures must adequately address the risks in the register specific to the project. Controls applied are commensurate with the level of risk and are developed according to priorities established by the Health & Safety Risk Register. **(WINBMS-SP-06-A Risk Register)**
Attention is first given to those scoring "high" risk levels, (i.e. those scoring 15-25), then "Medium" risk levels (6-14) and finally to those scoring "low" risk levels (1-5).
Controls are developed considering the following Hierarchy of Controls:
1. Elimination
2. Substitution
3. Isolation
4. Engineering controls
5. Administration / Training
6. Personal Protective Equipment,
7. Any combination of 2-5 options.

### 3.6 Project Planning

During the course of project planning the health and safety register is **(WINBMS-SP-06-A Risk Register)** used by the project team together with the HSE Coordinators to calculate project specific health and safety risk levels that consider the same, and in addition, client/contract requirements, and the nature and location of project operations.
Wherever Interface happens between Winslow and another contractor in close proximity, an interface management plan must be in place in accordance with the HIRAC process to address hazards/risks involved in such interfaces.

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Emergency response planning must ensure such risks/hazards arising out of such interfaces are considered together with any impact it may have on the construction project.

**Table 1 Likelihood**

| LIKELIHOOD | | |
|---|---|---|
| **SCORE** | **DESCRIPTOR** | **LIKELIHOOD OF EVENT** |
| 5 | Almost Certain | Is expected to occur in most circumstances |
| 4 | Likely | Will probably occur in most circumstances |
| 3 | Possible | May occur in limited circumstances |
| 2 | Unlikely | Could occur at some time |
| 1 | Rare | May occur only in exceptional circumstances |

**Table 2 Consequence**

| CONSEQUENCE | | |
|---|---|---|
| **SCORE** | **DESCRIPTOR** | **EXAMPLE CONSEQUENCE** |
| 1 | Insignificant | Activities do not cause any personal risk and will not result in injury |
| 2 | Minor | Activities may cause injuries or personal health problems requiring local first aid and no rehabilitation period |
| 3 | Moderate | Activities may cause injuries or health problems requiring medical attention and where short rehabilitation period is required. |
| 4 | Major | Activities may cause serious injuries or health problems requiring hospitalisation and a significant period of rehabilitation before being able to recommence work. |
| 5 | Catastrophic | Activities that could cause death or permanent disability prevent any return to work. |

**Table 3 Risk Assessment Matrix**

| **Likelihood** | **Consequence** | | | | |
|---|---|---|---|---|---|
| | **Insignificant (1)** | **Minor (2)** | **Moderate (3)** | **Major (4)** | **Catastrophic (5)** |
| **Almost Certain (5)** | Low (5) | Medium (10) | High (15) | High (20) | High (25) |
| **Likely (4)** | Low (4) | Medium (8) | Medium (12) | High (16) | High (20) |
| **Possible (3)** | Low (3) | Medium (6) | Medium (9) | Medium (12) | High (15) |
| **Unlikely (2)** | Low (2) | Low (4) | Medium (6) | Medium (8) | Medium (10) |
| **Rare (1)** | Low (1) | Low (2) | Low (3) | Low (4) | Low (5) |

| | | | |
|---|---|---|---|
| Scores: | 1 - 5 = Low | | |
| | 6 - 14 = Medium | | |
| | 15 - 25 = High | | |

Risk Score = Likelihood x Consequence

| Score | Priority | Accountability |
|---|---|---|
| Low | 3 | Project Supervisor/Foreman |
| Medium | 2 | Project Manager/Project Engineer |
| High | 1 | Construction Manager |