



TUANKU SYED SIRAJUDDIN

KEMENTERIAN PENDIDIKAN MALAYSIA

PTSS-L2-PR01

RISK MANAGEMENT PROCEDURE

Prepared By	Reviewed By	Approved By
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 POLITEKNIK MALAYSIA <small>TUAN KU SYED SIRAJUDDIN</small>	PTSS-L2-PR01 RISK MANAGEMENT	First Issue	01.01.2016
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Name:	Name:	Name:
Date:	Date:	Date:

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HISTORICAL CHANGES

REV. NO.	DOCUMENT APPROVAL REQUEST (DAR)	EFFECTIVE DATE	DESCRIPTION OF CHANGES	PREPARED BY	REVIEWED BY	APPROVED BY
00	-	01.01.2016	New documents			
			SALINAN TERKAWAL			

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1.0 PURPOSE(S)

This procedure defined the following requirements:

- Method to identify and assess the occupational safety and health hazards and risks.
- Method to control the significant impacts and risks in order to reduce accidents and injuries.
- Method to update the assessment for OSH.
- Method to communicate significant OSH risks to our staff, student and other relevant parties.

2.0 REFERENCE(S)

- OHSAS 18001:2007 Clause 4.3.1 Identification of hazards, risks assessment and determining controls
- PTSS-L2-PR03 Clause 4.4.2 Competence, training and awareness
- PTSS-L2-PR10 Clause 4.5.3 Incident investigation, nonconformity, corrective action and preventive action
- PTSS-L1-M01 Clause 4.3.1 Identification of hazards, risks assessment and determining controls

3.0 DEFINITION(S)

NO	TERMS	DESCRIPTIONS
1	Hazards	Source or situation with a potential for harm in terms of human injury or ill health or a combination of these.
2	Risks	Combination of the likelihood of an occurrence of a hazardous event or exposures and the severity of injury or ill health that can be caused by the event or exposures.
3	Risk assessment	Process of evaluating the risks arising from a hazards, taking into account the adequacy of any existing controls, and deciding whether or not the risks is acceptable.
4	Significant Risk	The results of assessment show that they are below acceptable limit and required to control, monitor and/or improve.
5	OSH MR	OSH Management Representative
6	OSH Committee	Occupational Safety and Health Management Committee
7	HOD	Head of Department
8	PIC	Person In Charge

4.0 RESPONSIBILITY AND AUTHORITY

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NO	PERSON-IN CHARGE	RESPONSIBILITY AND AUTHORITY
1	OSH MR	<ul style="list-style-type: none"> Approved new and re-approved all revised aspect and impacts and identification of hazards, risks assessment and risks control.
2	HOD	<ul style="list-style-type: none"> Review all new or revised aspect and impacts and identification of hazards, risks assessment and risks control.
3	Dept. PIC / OSH Committee	<ul style="list-style-type: none"> Identify all aspect and impacts and identification of hazards, risks assessment and risks control. Ensure assessment is carried out when new activity, products, materials, process or legal changes Maintained and update the list of aspect and impacts and hazards and risk

5.0 RECORDS

All records identified within the procedure shall be maintained by the SH MR as according to the retention time specified in the **Master List of Records**.

6.0 PROCEDURES

6.1 Identification of All Applicable Hazards

6.1.1 The OSH Committee and Department PIC shall identify all actual and potential hazards that can be occurred during routine and non-routine activity with consideration of normal (N), abnormal (AB) and potential emergency from our activity, product and services at all departments and sections and identify in the Risk Management Form.

6.1.2 During identification of hazards, the process considers the sequence from start to end and clearly identify for Routine(R) & Non-routine (NR) activities (Column B).

6.1.3 The detail identification are shown in the Table 1 and following issues were considered (Column C) and Normal, Abnormal & Potential Emergency refer to Column C1.

6.2 Evaluation and Assessment All Potential Risks

6.2.1 The above identified all actual and potential aspects and hazards shall be assessed to identify the actual and potential impacts and risks that can be occurred from our activities, products and services that we can control and influence for planned or new development, new or modified activities, products and services.

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6.2.2 During assessment of occupational safety and health risks, the applicable area consider the sequence from start to end and clearly identify and the detail identification are shown in the Table 1 and following issues were considered (Column D).

6.2.3 The relevant information shall be considered during the identification e.g.:

- Safety Data Sheet (SDS)
- Chemical Health Risk Assessment (CHRA) assessment reports
- Previous accident reports and statistic
- Machine manual

**Table 1:
Identification and Assessment of Occupational Safety and Health Hazard and Risks**

NO.	Source or Situation of Hazards	Actual and Potential Hazards from routine and non-routine activities involve internal staff or external subcontractors	Actual and Potential consequences from routine and non-routine activities involve internal staff or external subcontractors
1	Physical	Slipping/tripping hazards (e.g. poor maintained floor or stairs, etc)	Injury
2	Fire and explosion	Improper handling of flammable materials and gases	Burn / scald and fatal
3	Chemical	Exposure or improper handling of hazardous chemical e.g. mercury, detergent, acid, glue. solvent, etc.)	Skin Irritation Eye injury/ irritation Cancer Dermatitis
4	Mechanical	Moving part of machinery (e.g. Sockets and chains, transfer, gears, etc)	Injury Bone Fracture Eye injury
5	Pressure systems	Explode of pressurized equipment (e.g. Compressor system, etc)	Injury or fatality
6	Vehicles	Improper handling of vehicle (e.g. forklift trucks,)	Injury Bone Fracture
7	Electrical	<ul style="list-style-type: none"> - Poor wiring - Exposed wire - Damaged electrical panel. - Excess/ Over load 	Fatal injury
8	Dust or vapour	Exposure to dust and scrap (e.g. grinding etc)	Respiratory problem Skin / eye irritation
9	Fumes	Exposure to fumes (e.g. Soldering, welding, gas, etc)	Respiratory problem Skin / eye irritation
10	Machinery or Equipment	Improper handling or manual handling of machine, tools, materials (Hand jack, trolley, lifting, etc)	Injury Back pain

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11	Noise	Exposure to high noise (vibration, motorized machine, etc)	Hearing impairment @ loss
12	Unsafe Condition	Poor / over lighting e.g. building maintenance, inspection etc)	Eye fatigue
13	Physical	Extremely high / low temperature works (e.g. Inspection, process, etc.)	Over heating/ cooled Dehydration Skin irritation
14	Radiation	Exposure or improper handling of radiation equipment (e.g. X-Ray machines)	Cancer
15	Unsafe Condition	Improper condition (e.g. Inadequate space, slip and fall, etc)	Injury Muscular Disorder
16	Physical	Falling from work at height	Injury or fatality
17	Ergonomic	Improper handling or positioning (e.g. Typing. Sitting & standing operation)	Muscular Disorder Back pain Neck, finger, leg fatigue
18	Physical	Exposure or improper handling of Construction (e.g. Drop of pipe, debris, etc)	Injury Inhalation

6.2.4 Existing control measures shall be considered and documented in the Column E e.g.:

- Safety Guarding or interlock system
- Engineering control such as ventilation
- Competence/trained staff that handle the job or activities
- Hazard communications e.g. warning signs
- Availability of work instruction or procedures or OSH Manual
- Personal Protective Equipment such as dust mask, safety glass, safety boot etc.

6.2.5 The risks generally can be divided into three (3) categories:

- Level of injuries
- Effect to health – carcinogenic, silicosis etc.
- Damage to properties such as building, equipment etc.

6.3 The Evaluation of Significant Level of Risks

6.3.1 The evaluation process shall be carried out according to Table 2 by OSH Committee and Department In Charge and shall be reviewed by the HOD before approval by the OSH MR.

6.3.2 The following criteria were established for the assessment:

- Likelihood (Column F)
- Severity (Column G)
- Legal (Column H)

6.3.3 Anything fall under legal and under requirements shall be consider as significant to

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ensure the activities are properly managed and controlled.

6.3.4 The legal requirements column (H) should be referring to activities stated in the column B (Activity), C (Actual & Potential Hazards) or D (Actual & Potential Risks) whichever is applicable.


6.3.5 The significant level (Column I) was evaluated with consider current control measures established. The risks and impacts are significant if:

- The result fall under Medium or High (Risks matrix – table 3)
- Fall under legal and other requirements even the current results is below action level.

It's to ensure the control is effective and maintained. The linkages with applicable legal and other requirements shall be identified (Column L).

6.3.6 Column I show the total points from the calculation and Column J show the significant level:

- High (H) 15 - 25 – Highly significant
- Medium (M) 5 - 14 – Medium significant
- Low (L) 1 - 4 – Continue Monitoring

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**Table 2
Likelihood and Consequences**

	5	4	3	2	1
CONSEQUENCE AND SEVERITY OF HARM / LOSS OR IMPACT	Body Injury - Fatality / Permanent Disability (3 phase electrical supply)	Injury - more than 4 day Medical Leave (Single phase electrical supply)	Injury - not more 4 day Medical Leave	Minor Injury / Health effect including outpatient treatment	No Lost Time Injury (LTI) or no health effect including first aider treatment
	Property damage more than RM15,000	Property damage not more than RM15,000 and less than RM5,000	Property damage not more than RM5,000 and not less than RM1,000	Property damage not more than RM1,000	Un-noticeable damage
	Spillage > 100 liter > 100 kg	Spillage > 25 liter < 100 liter > 25 kg < 100 kg	Spillage > 5 liter < 25 liter > 5 kg < 25 kg	Spillage < 5 liter < 5kg	No spillage
LIKELIHOOD	> once < 1 year	< once < 1 year	once < 2 years	> 2 years < 5 years	> 5 years

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Table 3
Determination of Significant Level of Risks and Impacts

LIKELIHOOD / SEVERITY	5	4	3	2	1	Level
5 (Very high)	25	20	15	10	5	20 – 25
4 (High)	20	16	12	8	4	15 - 19
3 (Medium)	15	12	9	6	3	5 – 14
2 (Low)	10	8	6	4	2	3 – 4
1 (Very Low)	5	4	3	2	1	1 – 2

Table 4
Significant Risks Level

Significant Risks Level	Criteria	Linkages
HIGH	<ul style="list-style-type: none"> Legal Requirement and Other Requirement Applicable Significant Risks Level Point (≥ 15) 	<ul style="list-style-type: none"> May established OTP to reduce risk and impacts (improvements) Established Safe Operating Procedure (SOP) / Work Instruction (WI) to control activity and potential emergency Training, communicate and monitor activity Measure activity if Legal Requirement and Other Requirement related Evaluation of compliances for Legal Requirement and Other Requirement
MEDIUM	<ul style="list-style-type: none"> Legal Requirement and Other Requirement Not Applicable Significant Risks Level Point (5 – 14) 	<ul style="list-style-type: none"> May established OTP to reduce risk Established Safe Operating Procedure (SOP) / Work Instruction (WI) to control activity and potential emergency Training, communicate and monitor activity - OCP
LOW	<ul style="list-style-type: none"> Legal Requirement and Other Requirement Not Applicable Significant Risks Level Point (<5) 	<ul style="list-style-type: none"> Continue monitoring Revise yearly

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6.4 The Control on Significant Risks

6.4.1 If the results are significant, the control of risks shall be identified. The control may be:

- Elimination - No Longer used. Objective, Target and Program (OTP) may be established
- Substitution - Change to less hazardous. OTP may be need to established
- Isolation - Put control on the highly impact activity
- Engineering control – Improve ventilation, OTP may be established
- Administration control - Establishment of work instruction
- Personal protective equipment (PPE)

6.4.2 If the impact was Medium or High significant, the linkages with other clause shall be established if additional control required and shall be refer to the applicable procedures, work instruction etc. (Column K):

- Establishment of Objective, Target and Program for Improvement
- The structure, responsibility and authority are identified in the manual, procedures, Work Instruction or Job description.
- The staff and relevant parties shall be adequately trained and recorded – refer to applicable procedure, work instructions.
- The staff shall be communicated and recorded – refer to applicable procedure, work instructions
- The activity shall be adequately controlled and managed.
- The potential emergencies shall be adequately controlled and managed.
- The activity shall be adequately monitored and if applicable, measures

6.4.3 The applicable records related to existing control measures (Column E) and additional control measures (Column k) shall be recorded in Column I.

6.5 Communication of Significant Risks

6.5.1 All significant impacts and risks shall be communicated to the employees and other interested parties such as visitor, contractor, suppliers. The results of communication is according to Communication and Consultation procedure.

6.6 The Review On Hazards and Risks

6.6.1 The assessment shall also carried out when any changes or events occurred:

- Changes to products, materials, process
- New activity
- Legal changes
- Accident and incident occurred in the premises
- Incident from any sources e.g. neighbor, media, TV, radio, internet and etc.

7.0 APPLICABLE FORM(S)

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NO	FORM NUMBER	FORM NAME
1	PTSS-L4-PR01-F01	Risk Management Register
2	PTSS-L4-PR01-F02	HIRADC