



CS ENERGY PROCEDURE FOR A
CONDUCTING 2X2 TASK RISK ANALYSIS
CS-OHS-46

Responsible Officer: Group Manager Health and Safety

Approved: GM – Corporate

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Version History

| 3 | Residual risk as moderate to escalate to a JSEA | B Johnson | 29.07.11 |
|----------|---|------------|----------|
| 2 | Modified flow chart | B Johnson | 14.03.11 |
| 1 | Modified flow chart, sign off and record keeping requirements | B Johnson | 14.02.11 |
| 0 | Issued for implementation | B Johnson | 31.01.11 |
| Revision | Description | Originator | Date |

1 PURPOSE

The purpose of this procedure is to provide the minimum requirements for personnel to conduct a 2X2 Task Risk Analysis (**TRA**) effectively across CS Energy sites.

The aim of a TRA is to provide an efficient and accessible method to assess the risk of any task to be performed so appropriate control measures can be implemented to eliminate or reduce risk to as low as reasonably practicable.

2 CONTEXT

A TRA is an essential part of a safe system of work as it provides a process for hazard identification, risk assessment and implementing suitable control measures. It also allows on-going monitoring of the conditions impacting the job while the work is in progress.

It is a risk assessment tool where the person steps back 2 metres and takes 2 minutes (relating to the term 2X2) to assess the job, tools, documentation and conditions for any hazards that may expose that person to unacceptable risk of injury, illness, near miss, property damage, environmental impact and process loss in the performance of work.

It is primarily used for all minor work performed and monitoring of conditions throughout a job however, where work is to be performed under a permit, such as access to work permit and permit to work, a higher level risk assessment tool is used. This tool is the Job Safety Environment Analysis (JSEA).

The TRA is provided in pads as inserts to the Health and Safety Pocket Guide.

3 SCOPE

This procedure applies to all personnel across all CS Energy sites and associated operations.

Contractors may use the risk analysis tool specific to their organisation only if it does not compromise the integrity of the CS Energy TRA process.

4 RESPONSIBILITIES

4.1 Managers

Managers are responsible for:

- implementation of this procedure;
- ensuring sufficient resources are provided to effectively conduct TRAs;
- conducting a TRA where required;
- provision of appropriate training; and
- ensuring quality and effective TRAs are carried out.

4.2 Superintendents and Supervisors

Superintendents and Supervisors are responsible for:

- ensuring compliance with this procedure by all employees and contractors;
- conducting a TRA where required;
- conducting periodic review of process and report on effectiveness and application;
- maintained for record keeping and available for monitoring and review purposes; and
- provision of appropriate training and support to all personnel in application of this procedure.

4.3 Health and Safety Specialists/Advisors

The Health and Safety Specialists/Advisors are responsible for:

- providing support and advice to personnel;
- conducting a TRA where required; and
- monitoring and review of completed forms; and
- ensuring availability of forms (pocket guide pads) for site use.

4.4 Employees and Contractors

Employees and contractors shall:

- comply with the requirements of this procedure;
- conduct a TRA as required; and
- attend appropriate training and awareness sessions as directed by their supervisor or manager.

5 APPLICATION

To effectively conduct a TRA, the following criteria are to be applied:

- (i) Prior to commencing work the person or work party shall conduct a TRA and complete the Task Risk Analysis 2X2 located in your personnel Health and Safety Pocket Guide. The form is detailed in **Appendix 1**.
(Note: A TRA is not always required for work that is inherent in the job, e.g. driving a forklift, using non-specialist tools or plant requiring minimum PPE, office type work.)
- (ii) Identify any hazards impacting the scope of work and assess the risk by determining the likelihood and consequence. Use the Risk Matrix also provided in your personnel Health and Safety Pocket Guide.
- (iii) Where the overall assessed residual risk is:
 - **Low** – continue completing the TRA and determine suitable control measures.
 - **Moderate, Significant or High** – change from using the TRA to completing a Job Safety Environment Analysis (JSEA). Refer to the procedure for conducting a Job Safety Environment Analysis, CS-OHS-11. In many cases the work will require an access work permit or permit to work.
- (iv) All work party members must sign onto the TRA to acknowledge their understanding of the hazards and control measures implemented specific to the scope of work.
- (v) The appropriate person (the individual who primarily performs the work) must approve the TRA by signing the TRA prior to the work commencing.
- (vi) All completed TRA forms are to be maintained by the supervisor in charge of the work. These must be made available for monitoring and review purposes by the health and safety section.
- (vii) The TRA is also an efficient tool to monitor the conditions during the course of the work to ensure the conditions impacting the scope of work are still controlled. Monitoring shall occur and include work under a permit.

Refer to **Appendix 2** detailing the process for conducting a TRA.

6 RECORDING

Completed forms shall be maintained by the relevant supervisor and be available for review and monitoring purposes.

7 MONITORING AND REVIEW

Periodic monitoring and review of TRAs shall be conducted to determine and maintain the quality and effectiveness of TRAs.

Monitoring and review shall be conducted at each site:

- at a frequency nominated by the site manager; and
- by senior staff nominated by the site manager.

This will also be supplemented with periodic monitoring and review by CS Energy health and safety.

A checklist to qualify monitoring and review performed on TRAs is detailed in Appendix 2.

8 REFERENCE DOCUMENTATION

- CS Energy Health and Safety Manual, CS-OHS-M-01
- CS Energy Risk Management Framework
- CS Energy Procedure for a Job Safety and Environmental Analysis, CS-OHS-11
- CS Energy Job Safety Environmental Analysis Form, S1878
- Task Risk Analysis 2X2 Form (insert in Health and Safety Pocket Guide)
- Risk Matrix (insert in Health and Safety Pocket Guide)

9 DEFINITIONS

| | |
|------------------------|--|
| Hazard | A source of potential harm to personnel, plant or the environment |
| Residual Risk | Remaining potential for harm to personnel, plant or the environment following efforts to reduce predictable hazards |
| Risk | Effect of uncertainty on objectives |
| Risk Assessment | Overall process of risk identification, risk analysis and risk evaluation. |
| Risk Matrix | A table to analyse risk resulting in the magnitude of risk expressed in terms of the combination of consequences and their likelihood. |
| Work Party | All persons who perform specific work activities as coordinated by an Officer In Charge under a Permit To Work. |

APPENDIX 1 - TRA FORM

STAY ON TOP OF YOUR GAME

TASK RISK ANALYSIS 2X2

NAME/S: _____ DATE: _____

LOCATION: _____

TASK DESCRIPTION: _____

IDENTIFY THE HAZARDS:

HEALTH & SAFETY

Muscular Noise Pressurised energy
 Ergonomic/postural Vibration Fatigue
 Gravitational Kinetic Psychological
 Electrical energy Mechanical Mental/social hazards
 Thermal/explosive energy Hazardous atmosphere Security
 Chemicals/hazardous substances Biological hazards Location hazards
 Radiation energy Other (specify) _____

ENVIRONMENTAL

Chemicals – spills, storage, waste Fly ash & bottom ash Noxious weeds spread
 Oils or fuels – spills, storage, waste Waste disposal Odours
 Coal/ash and other fugitive dusts Excessive noise Waste water
 Stormwater contamination Sediment run-off Other (specify): _____

ASSESS THE RISK – use Risk Matrix

Likelihood: _____ Consequence: _____

Risk Rating (circle): High (H) Significant (S) Moderate (M) Low (L)

If the task is M, S or H, involves a PTW → complete a JSEA
 JSEA required? Yes No

Front Page
Pocket Guide Pad

Reverse Page
Pocket Guide Pad

IMPLEMENT CONTROL MEASURES:

MONITOR THE CONDITIONS ON THE JOB:

(Before and during task)

| | Yes | No |
|---|--------------------------|--------------------------|
| 1. Have all the steps for the task been planned ahead? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Is the job done according to procedure or plan? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Is the plant being worked on as identified in the PTW? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are the resources (PPE, tools, procedures) available? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Can the job be done without injury to anyone else? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Can the job be done without taking short cuts? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Have other jobs in this area been checked? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Are the emergency procedures for the area clear? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Are all hazards (gas, heat, height) identified? | <input type="checkbox"/> | <input type="checkbox"/> |

Is the job safe to perform/continue? Yes No

WORK PARTY SIGN ON:

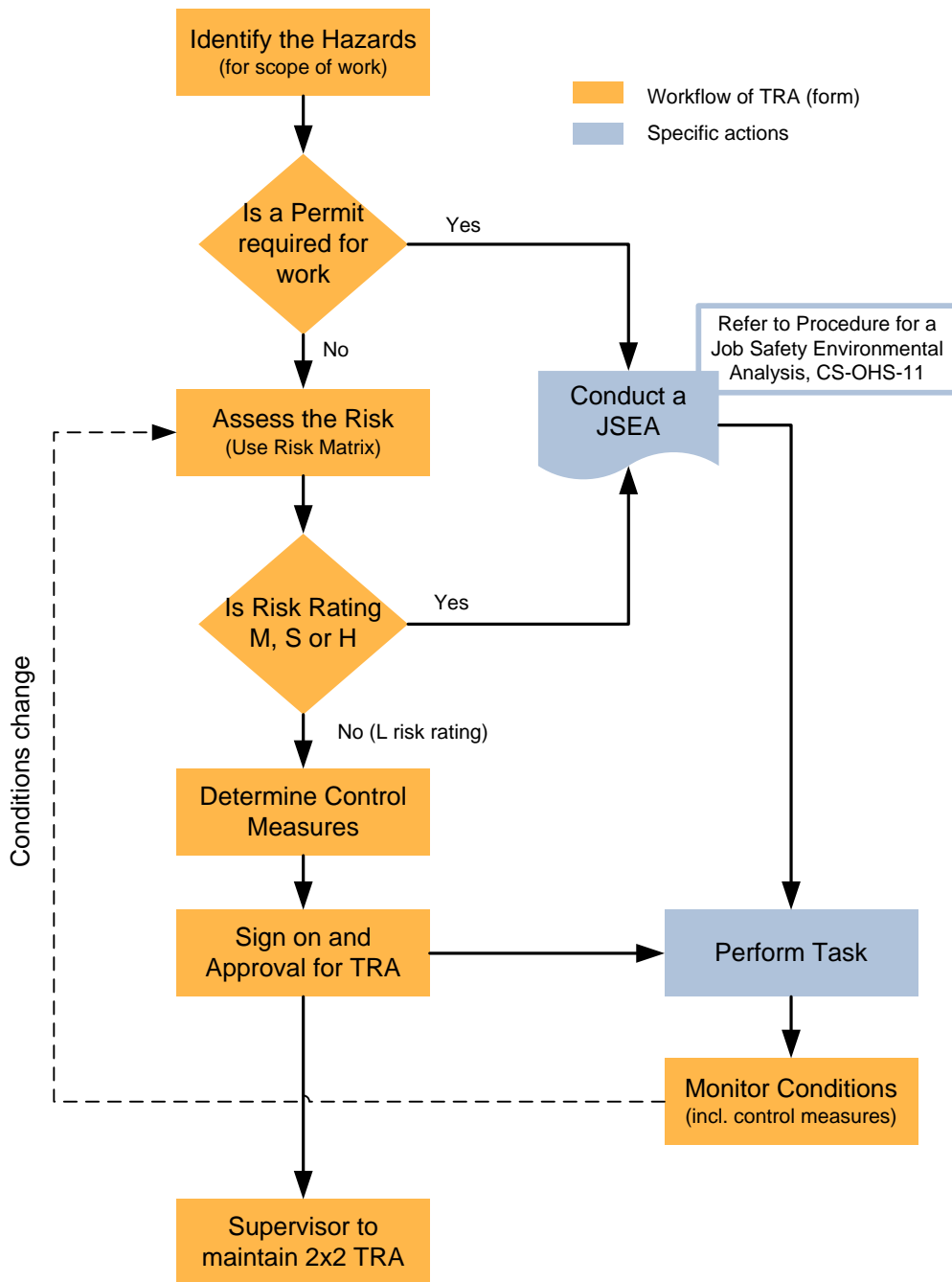
| | |
|-------------|------------------|
| Name: _____ | Signature: _____ |
| _____ | _____ |
| _____ | _____ |

CONTROL ACTIONS REVIEWED

Name : _____

Signature: _____ Date: _____

APPENDIX 2 - PROCESS FOR CONDUCTING A 2X2 TASK RISK ANALYSIS



Process for conducting a 2X2 Task Risk Analysis

APPENDIX 3 - TRA QUALITY CHECKLIST AND SCORE

Checklist against CS Energy Procedure for Conducting 2x2 Task Risk Analysis, CS-OHS-46

Effectiveness Measure: 1 = Not established, not effective → 5 = Fully established, fully effective

| Task Risk Analysis Quality Elements | Effectiveness (1 to 5) | Comments |
|---|------------------------|----------|
| 1. Hazards identified align with the scope of work. | | |
| 2. The risk has been assessed and rated? | | |
| 3. Where applicable, escalation from using a TRA to a JSEA has been in line with the risk score and/or permit requirements. | | |
| 4. Suitable control measures have been identified. | | |
| 5. All relevant people have signed onto the Task Risk Analysis. | | |
| 6. Conditions of the job have been monitored throughout the work and completed on the form. | | |

Total Score : _____

% Effectiveness : _____ (100 x Score / 30)