

1 SCOPE

This procedure applies to Sydney Water staff and managers and contractors to Sydney Water. Contractors must apply a risk-based approach to addressing safety risks.

The outcome of this procedure is documented controls to be applied to control risk.

2 MANDATORY REQUIREMENTS

MR 1 Risk assessment will be conducted for all tasks by some process involving representatives from affected parties

MR 2 The following contexts should be considered when conducting HIDRA

- Is it safe to build?
- Is it safe to put into service?
- Is it safe to use and maintain?

This may be done on one occasion, or by a number of iterations of the HIDRA process, for the different contexts. Each HIDRA may use the HIDRA tool as described in this procedure, or other tools as indicated in Section 3.

MR 3 In particular, hazard identification shall consider, but not be limited to:

- work premises, layout and condition of a place of work (including lighting conditions and workstation design)
- work practices, work systems and shift working arrangements (including hazardous processes, psychological hazards and fatigue related hazards)
- plant (including the transport, installation, erection, commissioning, use, repair, maintenance, dismantling, storage or disposal of plant)
- dangerous goods (including the transport, use, storage or handling or disposal of dangerous goods)
- hazardous substances (including the production, handling, use, storage, transport or disposal of hazardous substances), and the presence of asbestos installed in a place of work, or biological organisms, products or substances
- manual handling (including the potential for occupational overuse injuries)
- physical working environment (including the potential for the risk of any of the following:
 - electrocution
 - drowning
 - fire or explosion
 - people slipping, tripping or falling
 - contact with moving or stationary objects
 - exposure to noise, heat, cold, vibration, radiation, static electricity or a contaminated atmosphere
 - the presence of a confined space
 - the potential for workplace violence

MR 4 Hazards that cannot be eliminated shall be assessed with the appropriate tool.

MR 5 Hazards will be controlled using the control hierarchy. The control hierarchy consists of:

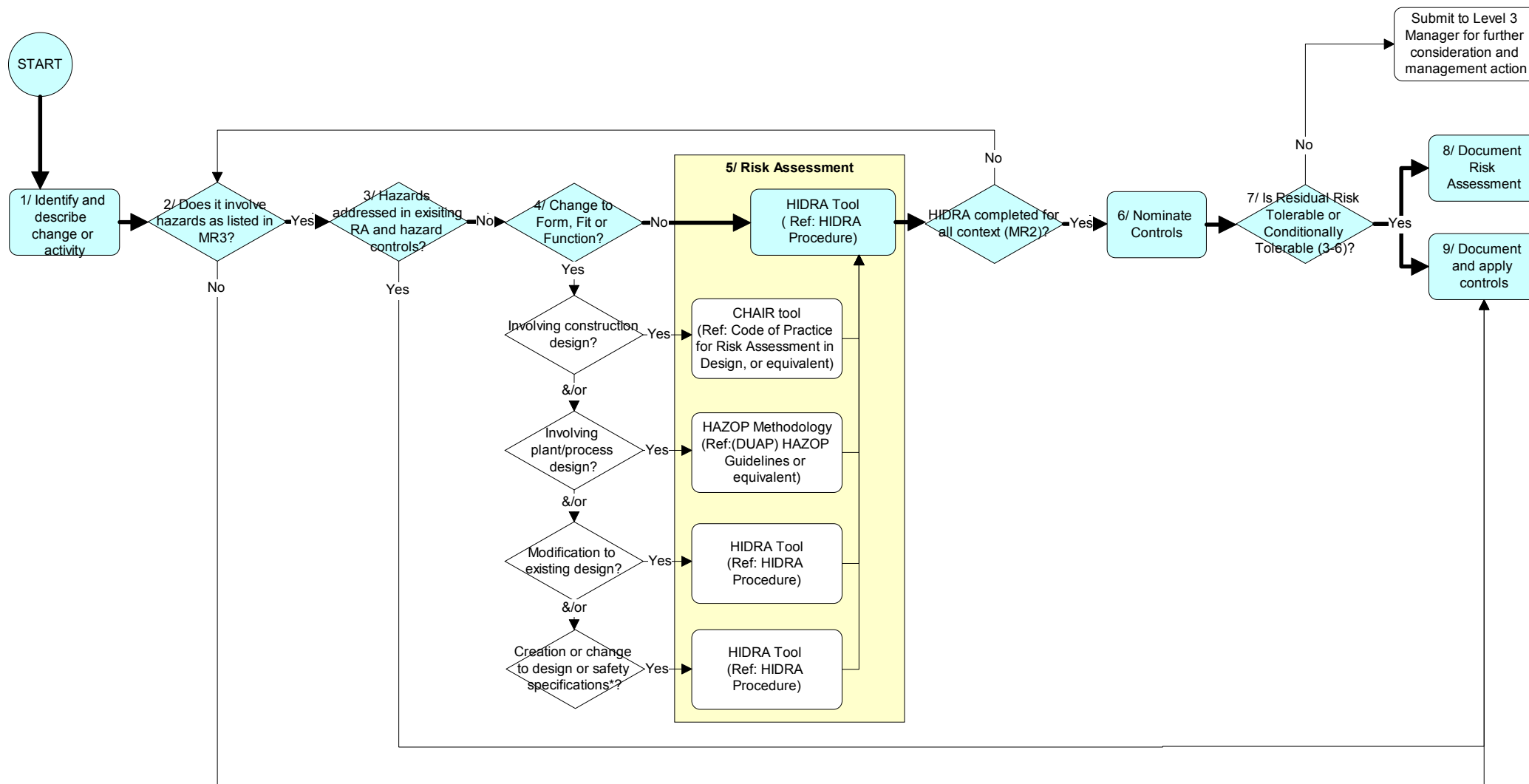
- Elimination
- Substitution
- Engineering
- Administrative controls
- Awareness training
- Personal Protective Equipment

For each hazard, consideration shall be given to each type of control in order starting with elimination. Multiple controls may be applied to address the risk of any given hazard.

MR 6 Controls will be documented in the appropriate record. Where controls are documented in risk control procedures, the procedures will include the fields in the safework method statement proforma in [*Hazard Identification and Risk Assessment for Builders*](#) (WorkCover, 1997).

MR 7 The HIDRA will be recorded

3 PROCEDURE



* WSAA Standards, Sydney Water Standards, Health and Safety Standards for Critical Safety Tools & Equipment

ACTIONS**STEP 1. Hazard Identification – How do you decide what is a hazard?**

Identify the task, activity, equipment, process that you are about to assess and any conditions or relevant information. This will allow risk assessment team to focus on agreed conditions that are being assessed.

Risk assessment must be conducted in consultation with all agreed parties, or their representative(s)

- If risk assessment is being conducted at commencement of work (on the job), ensure all person doing or likely to be affected by the work are consulted or involved in the risk assessment
- If risk assessment is being conducted for a set of routine tasks (off the job), ensure staff are consulted via Health & Safety Representatives or by Other agreed rearrangements (eg team meetings etc)

Collect and review information to assist you in identifying hazards. Review available information. This may include, but not be limited to:

- Legislation and relevant Codes of Practice
- Australian Standards
- Manufacturer (of plant, tools & equipment) information
- MSDS and Chemical information database: Chemwatch
- Maintenance Databases: Maximo, Facility MAXIMO (FMX), PALMS,
- Incident information & statistics
- Audit information
- Audits

Review the following information to identify hazards (i.e. what can harm you)

- Environment / location where the activity is to be conducted, including overhead hazards and concealed services,
- tasks and their hazards, and/or
- any site hazard register eg unmanned assets, and/or
- any equipment and chemicals used or dusts created, and/or
- how the work is done and look at any personal harm eg noise, awkward positions, heavy lifting or repeated activities

STEP 2. Hazard Identification – Are there any hazards present?

Are there any hazards present?

If Yes, Continue to Step 3

If No, document changes in operating procedures

STEP 3. Hazard Identification – hazards addressed by existing Risk Assessment and Hazard Controls?

Are hazards covered by existing Risk assessment and Hazard Controls?

If Yes, apply controls

If No, Supervisor to conduct risk assessment in consultation with affected parties (go to Step 4)

STEP 4. Risk Assessment – Select Risk Assessment tool

Select the type, number and interval of risk assessment to be performed

Select to appropriate tool – see Figure 1

ACTIONS**STEP 5. Risk Assessment – How do you determine what harm they can cause?**

For each hazard, identify the range of impacts: “what could go wrong?” and “how could it happen?”

Determine the most likely consequence (for more information refer to [Risk Guide](#)).

Use the risk assessment table to assess the risk rating for each hazard impact

- To determine the consequence, look on the left hand column of the risk table and identify the most likely injury/outcome.
- To determine the likelihood look across the top row and identify the likelihood of the “Consequence” occurring,
- Where the Likelihood and Consequence meet on the table, this is the “Risk Rating”

Record the risk for each hazard on the HIDRA template or equivalent (see Appendix 1)

Complete risk assessment for all relevant contexts

RISK TABLE	Likelihood	Very Likely	Likely	Unlikely	Very Unlikely
CONSEQUENCE	The event could happen.....	at any time	sometime	but very rarely	but probably never will
CATASTROPHIC	Fatality, amputation of limb, person on life support, other immediately life threatening incidents	1	1	2	3
SEVERE	Lost time injury	1	2	3	4
MODERATE	Injury, incident (or near miss) or work-related illness requiring medical attention Violence at workplace	2	3	4	5
MINOR	Minor injury requiring first aid e.g. minor burns, abrasions, sprains	3	4	5	6
INSIGNIFICANT	Incident with no discernable injury Motor vehicle accident - no injury	4	5	6	6

Risk Category		Short Term Action		Long Term Timeframe	Report to
1	Very High	Intolerable	Immediate action to eliminate risk or reduce to high, medium or low risk before commencement of task	Immediate	Senior management
2	High				
3	Medium	Conditionally tolerable	Temporary controls to reduce risk to medium or low	Within 6 months	Manager
4				Within 12 months	
5		Conditionally tolerable	Ensure controls are applied	Put into an annual improvement program	Manager
6	Low	Tolerable	Ensure hazards are identified and communicated	Nil	Immediate Supervisor

STEP 6. Risk Elimination and Control – How do you decide the best way to remove or reduce the risk?

Where a hazard cannot be eliminated (see 4.1), assess the risk of harm arising from the identified hazard and look for means to control or manage the exposure to the hazard (i.e. reduce the risk).

Can the hazard be eliminated? If yes, then

- Eliminate the hazard or task
- Record the elimination activity in risk assessment record

Can the hazard be substituted with a non- or less hazardous product, process etc? If yes, then

- Substitute if practical to do so.
- Conduct a risk assessment of the substituted product, process etc (repeat steps 1 and 2).

Can a barrier or engineering control be put in place to separate the person from the hazard? If yes, then

- Arrange and install the barrier or engineering control
- Conduct a risk assessment of the substituted product, process etc (repeat steps 1 and 2).

Can administrative controls be used to reduce impact or exposure? If yes, then

- Consult, develop and implement administrative controls
- Detail process or procedure to be followed, including any communication requirements and PPE

Can training / communication assist in raising awareness of the hazard and its impact? If yes, then communicate presence and potential impact(s) to affected persons. Can PPE be used to reduce impact or exposure? If yes use appropriate PPE when exposed to the hazard.

Decide how often controls should be checked for their ongoing effectiveness and by whom

Record Control(s) to be applied to each hazard on the HIDRA template or equivalent, see Appendix 1. On completion of the HIDRA template, this becomes the HIDRA Record and forms the risk register.

STEP 7. Assess residual risk

Reassess risk rating after controls have been identified and record on HIDRA record or equivalent, see Appendix 1.

Is the residual risk rating 1 or 2? If yes, do not commence work, advise Level 3 manager within your Division.

STEP 8. Document Risk Controls

Document controls in one or a combination of the following.

- Plans
- Schedules
- Risk control procedures
- Permits
- Induction

Where controls are documented in local procedures, the procedures will include the fields in the safework method statement proforma in [Hazard Identification and Risk Assessment for Builders](#) (WorkCover, 1997).

STEP 9. Record Risk Assessment

MR 8 As a minimum, the HIDRA Record shall consist of:

- Name of person(s) participating in the risk assessment
- Task/activity/hazard being assessed
- Context of the assessment
- Date of assessment
- List of hazards
- For each hazard:
 - Likelihood, consequence and risk rating prior to controls being applied
 - Controls to be applied (may be listed as short term or long term)
 - Likelihood, consequence and risk rating after to controls are applied

In addition, the HIDRA Record may contain:

- Physical inspection and testing interval
- Monitoring and management supervision interval
- Audit interval
- Inspection, testing or monitoring activities
- Other information useful to the business for managing risks

4 COMPETENCIES

All Sydney Water personnel shall be trained and competent in hazard identification.

All Sydney Water personnel conducting risk assessments shall be trained and competent

5 RESPONSIBILITIES

Managers who supervise staff or contractors are responsible for:

- Conducting risk assessment
- Controls being identified and applied
- Risk assessments being reviewed whenever there is a change to plant, process or equipment

All staff are responsible for:

- Contributing to risk assessment process
- Identifying hazards
- Communicating and/or controlling hazards where identified by themselves or others
- Applying and monitoring effectiveness of identified controls

6 DEFINITIONS

CHAIR	Construction Hazard Assessment Implication Review
Consequence	The outcome of an event or situation, being loss, injury, disadvantage or gain
Control Hierarchy	If Elimination of the hazard is not possible then In order of effectiveness 'Substitution – Engineering Controls – Procedural or Administrative – Personal Protective Equipment'
Hazard(s)	An energy source with the potential to cause harm
HAZOP	Hazard and Operability Study
Risk	The chance of something happening that will have an impact on Health and/or safety. It is assessed in terms of consequence and likelihood.
Likelihood	How often people, property or the environment are exposed to the hazard under assessment and how likely it is that these circumstances can and will lead to an accident. It is used as a qualitative description of probability and frequency.
HIDRA	Hazard Identification and Risk Assessment
HIRDA Record	Any means by which a HIDRA is recorded. This may be in the format as presented in Appendix 1 or other format that complies with Mandatory Requirement 5
Risk Register	Any document/process/database that records risk assessment(s)
Risk Control Procedures	A documented process for controlling risk from hazards. Risk control procedures may take various forms including standard operating procedures, safe operating procedures, work procedures, safe work method statements etc

7 REFERENCES AND RESOURCES

WorkCover Documents	OHS Act 2000 and Regulations 2001 Code of Practice: Risk Assessment 2001 Guide: Risk Management at Work 2001 Hazpak: making your workplace safer Guide: Workplace Violence 2002 Code of Practice: Control of Workplace Hazardous Substances 2006 Tool: Chair: Safety in Design Tool 2001 Hazard Identification and Risk Assessment for Builders, 1997
WorkSafe (now known as Aust Safety & Compensation Council) Documents	National Code of Practice for Manual Handling National Code of Practice for Control of Workplace Hazardous Substances

Australian Standards (& associated documents)	AS 4360 Risk Management HB 436 Risk Management Guidelines AS 4801 OHS Management Systems AS 14001 Environmental Management Systems AS 9001 Quality Management Systems
Sydney Water documents	Risk Assessment in Design procedure OHS Risk Management procedure (not yet published) Confined Space Hazard Identification & Risk Assessment Guide Risk Guide

8 DOCUMENT CONTROL

Document Number	HSP-014
Issue	A
Revision	0
Issue Date	21 Feb 2007
Document Controller:	Health & Safety Document Controller ph (02) 9350 5389
Computer Filename:	\\ICS3B\\VOL2\\COMMON\\CORPOHS\\New Safety Drive\\OHS Management System\\11 OHS Risk Management\\HIDRA\\Master Copy\\HSP-014 HIDRA_Feb07with updated logo_20100226.doc
Approved by:	Health & Safety Manager
Date of approval:	14 Feb 2007

9 HISTORY

This is a major revision of CP-KP-014 HIDRA issue A revision 0 issued 6 Jan 2003, which is now cancelled.

10 APPENDICES

Appendix 1: HIDRA Template

	Very Likely	Likely	Unlikely	Very Unlikely
CAT.	1	1	2	3
SEVERE	1	2	3	4
MODERATE	2	3	4	5
MINOR	3	4	5	6
INSIGNIF.	4	5	6	6

Page 10 of 10