

Contents

+ + Contents	1
+ Objective.....	2
Scope.....	2
+ Definitions	2
+ Managing Construction Work	4
Site Safety System and Consultation	5
<i>Total Safety Culture</i>	5
<i>Consultation and Communication</i>	5
Risks and Controls	6
<i>Hierarchy of Control Options</i>	6
<i>Measure of Likelihood</i>	7
<i>Measure of Impact</i>	7
<i>Work Task Risk Analysis Table</i>	7
<i>Approval</i>	8
<i>Site Hazard, Risk and Control Table</i>	9
Monitoring Site and Public Health and Safety.....	18
Common Plant and Equipment	18
Site Rules	19
Site Access	19
1. Site Inductions	19
2. Sign On/Off	19
3. Authority To Work	19
4. Hours of Work	19
Site Alarms, Evacuation and Rescue plans.....	19
Security.....	19
Boundaries and Barricades	19
Danger Signs and Tags.....	19
Delivery of Goods and Services.....	20
Work Instructions	20
Drugs and Alcohol.....	20
Prescribed Activities, Occupations and Certificates.....	20
Personal Protective Equipment.....	20
Smoking.....	20
Mobile Plant and Overhead Cranes.....	20
Speed Limit and Parking.....	20
Confined Spaces.....	20
Hot Work.....	20
Working at Heights and Depths	20
Hazardous Substances and Dangerous Goods	20
Emergency Response	21
Emergency Management Flowchart.....	21
Emergency Management Team Responses	21
Credible Emergencies	22
Responsibilities.....	22
Stanwell Corporations Responsibilities as Principal Contractor at Barron Gorge Power Station.....	22
Workers (employees and contractors) involved in construction work.....	22
Review	23
Links and References.....	23

Amd Date 04/01/08

Objective

- + This document details the safety systems and process in place at Barron Gorge Power Station consistent with the requirements of a construction safety plan as prescribed by the Queensland Workplace Health and Safety legislation.

Scope

This Site Construction Safety Plan is applicable to all aspects of the operation and maintenance activities that can be defined as construction work for the site. Stanwell Corporation will be the assigned Principal Contractor for construction work associated with these activities and will determine the need to assign others as Principal Contractor as an exception on a project by project basis. This plan covers breakdowns and plant failures that by definition are now classified as construction work.

Definitions

ATW: Authority To Work the safety system used to plan and coordinate work.

Client: The Client for Construction Work is the person who commissions the Construction Work and engages a Designer, Project Manager or appoints a Principal Contractor.

Common Plant: As per WH&S Regulation 1997 S155 - plant provided by the Principal Contractor for use by any person at the workplace.

Construction Safety Plan: Prepared by the Principal Contractor in accordance with Section 160 WH&S Act 1995 containing details on the Principal Contractor; type of work to be undertaken and the associated risks and controls; site rules; dealing with emergencies; and details on Common Plant, etc.

Construction Work: Defined by the WH&S Act 1995 S14 as:

Work is construction work if it is—

- work to erect, construct, extend, alter, convert, fit-out, commission, renovate, repair, refurbish, disassemble or decommission a structure, or part of a structure; or
- work connected with site preparation, excavation and landscaping for work mentioned in paragraph (a); or
- the assembly or installation of prefabricated components to form a structure, or part of a structure, for work mentioned in paragraph (a); or
- the disassembly of prefabricated components for work mentioned in paragraph (a) that, immediately before the disassembly, formed a structure or part of a structure; or
- an activity that is a prescribed activity.

Please note that “maintenance” is not included in this definition but it does include “repair” work. These are defined as follows:

Repair is work to bring an existing structure back into service following:

- A failure of the structure or part of the structure; or
- The structure reaching a state in which it is no longer fit for its intended purpose.

Maintenance is work to prevent a structure reaching a point where “repair” is required. Maintenance may involve disassembly or decommissioning of the structure or part of the structure.

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

- + + **Demolition Work:** Defined by the WH&S Act 1995 Schedule 3 as:
 - + Demolition Work means work to demolish or dismantle systematically a structure, or part of a structure, but does not include the systemic dismantling of –
 - a. a part of a structure for alteration, maintenance, remodelling or repair; or
 - b. formwork, falsework, scaffold or other construction designed or used to provide support, access or containment during construction work
- + **High Risk Construction Activity:** Includes an activity involving exposure to the following: excavation; falls and falling objects; confined space; hazardous substances; a Prescribed Activity; etc. Refer to WH&S Regulation 1997 S156 for a full list.

Principal Contractor: Defined by the WH&S Act 1995 S13 as: The **Principal Contractor** for construction work is the person appointed by the client as the Principal Contractor for the construction work under section 184A. The Principal Contractor has obligations to ensure the health and safety of persons from activities associated with Construction Work. These are defined in the WH&S Act 1995 S31.

Prescribed Activity: Work associated with demolition or asbestos removal as defined in the WH&S Act 1995 Schedule 1.

Site Construction Safety Plan: Each site where construction work must prepare a Site Construction Safety Plan prior to work commencing. The Site Construction Safety Plan will cover general Construction Work performed on-site during the year. For larger one-off projects a project specific Construction Safety Plan will be developed.

Structure: Defined by the WH&S Act 1995 Schedule 3 as:

Structure means—

- a. a building, a steel or reinforced concrete construction, wall, mast, tower, pylon, structural cable or telecommunications structure; or
- b. an underground works (including shafts and tunnels), pipe, pipeline, sea defence works, river works, earthworks or earth retaining construction or other construction designed to preserve or alter a natural feature; or
- c. a road or highway, footpath or driveway, railway line or siding, tramway line, airfield, dock or harbour, water storage or supply system (including a constructed lagoon), sewerage or drainage system, electricity or gas generation facility, transmission or distribution facility, gasholder, park or recreation ground (including, for example, a golf course, playing field, racecourse or swimming pool); or
- d. production, storage or distribution facilities for heavy industries; or
- e. fixed plant; or
- f. a ship or submarine; or
- g. formwork, falsework, scaffold or other construction designed or used to provide support, access or containment during construction work.

Work Method Statement: A document used to record the risk analysis process for a particular work activity or basic work activity.

Occupational Health and Safety Management System: Provides a framework for the systematic management of Occupational Health and Safety across Stanwell Corporation. The framework is documented in the Occupational Health and Safety Management Manual.

WHSO: Workplace Health and Safety Officer

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Managing Construction Work

Site Construction Safety Plan Details

TYPE OF CONSTRUCTION WORK PERFORMED	Operation and maintenance activities that meet the definition of construction work and demolition work which will include high risk construction activities required to appropriately ensure the safe and continued operation of a generating hydro power station.
START DATE	01/01/2008 (For the purpose of this section the safety plan shall commence on the 1 st of January each year)
DURATION OF CONSTRUCTION WORK	1 year (For the purpose of this section the safety plan shall be current for a period of one year)
END DATE	31/12/2008 (For the purpose of this section the safety plan shall end the 31 st of December each year)
PRINCIPAL CONTRACTOR	STANWELL CORPORATION LIMITED Barron Gorge Power Station Postal Address: GPO Box 773, Brisbane, Qld 4001 ABN: 37 078 848 674 Phone: 07 4036 6955 Fax: 07 4036 6950
HEALTH AND SAFETY COMMITTEE	There is currently no health and safety committee as per the workplace health and safety act definition on site.
WHSO	There is currently no requirement to have a WHSO on site. (There are several qualified WHSO's on site)
SIGN OFF	<hr style="border: 1px solid black;"/> Barry Atkins Site Manager
DATE	

Site Health & Safety Plan

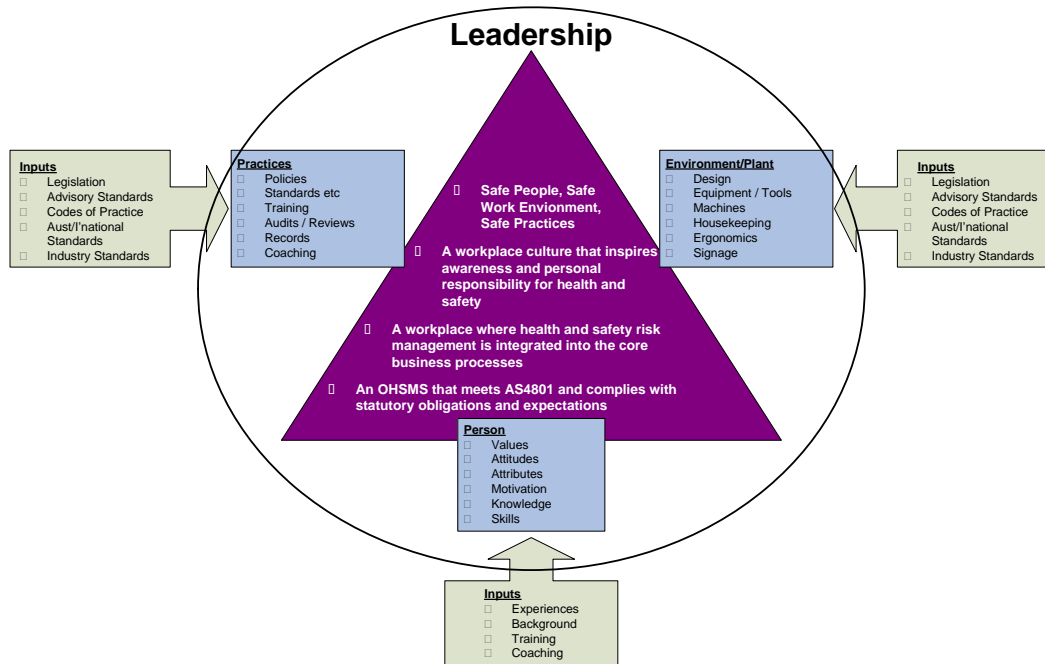
Barron Gorge Power Station

Amd Date 04/01/08

Site Safety System and Consultation

Total Safety Culture

- + Stanwell's focus is upon a Total Safety Culture that is based on the philosophy that there are four components that interact to affect the safety results of an organisation: *Leadership, Person, Work Environment* and *Practices*. Successful health and safety outcomes result when all of these components are recognised and targeted. Figure 1 below applies this philosophy to Stanwell's objectives as outlined in the [Stanwell Generating Safety Policy – HB# 560613](#).
- + Figure 1



Consultation and Communication

Stanwell endorses and encourages a policy of open discussion regarding potential OHS issues.

Employees and contractors are informed with OHS developments via regular internal communication. These include training programs, safety updates, safety alerts, e-mails, team meetings and involvement in site health and safety meetings. Stanwell endorses a range of forums for the discussion and resolution of safety issues.

Various Stanwell websites provide an alternative medium to communicate safety, health and other information across Stanwell. The [Health and Safety Management website](#) provides a gateway to access safety related corporate standards, procedures and templates.

Corporate Standards, Procedures, Templates and Awareness Training resources are also available through www.stanwell.com. This allows contractors and visitors to access relevant elements of Stanwell's occupational health and safety system online and assists in understanding Stanwell's occupational health and safety standards and requirements prior to the commencement of work / access onto a Stanwell site.

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Risks and Controls

The following tables detail the risk management process, risks and controls for the work for which Stanwell as the Principal Contractor owes a workplace health and safety obligation. The list highlights the types of activities that can be undertaken and some of the specific hazards which may be encountered.

Where it is indicated that the corporate standard or procedure is part of the control it should be noted that all procedures are available upon request and will be held on site enabling easy access to all relevant personnel.

Where corporate standards/procedures do not adequately address site or task specific issues, as identified in the tables below, then Work Method Statements (WMS) will define controls required which will then be communicated to relevant personnel for that specific activity or task on site.

The aim is to eliminate hazards completely, or to otherwise select control measures that will result in an acceptable level of risk for people, plant and the environment.

Note: High Energy High Impact (HEHI) Control Guide requirements can be used as the control measures for the HEHI component identified in the work task breakdown. The type of control guide is to be listed as the control.

As part of implementing controls, an acceptable level of risk is one that:

- The risk is reduced to as low as reasonably achievable by the implementation of controls measures,
- The risk is based on an assumption that control measures will be successfully implemented,
- The risk is reviewed and accepted by those performing the work, coordinating the work, approving the work and finalising the documented WMS.

In order of preference, the hierarchy of control options, as listed in following table, must be considered when deciding on appropriate control measures to be documented in the WMS Form.

Hierarchy of Control Options

Control Option Preference	Description
1 Elimination	The complete removal of the hazard i.e. the removal of a plant/equipment item, plant process or personnel work process in which a required outcome can still be achieved
2 Substitution	The implementation of an alternative that replaces the hazard with another less damaging hazard i.e. the use of an alternative plant/equipment item, work process, material, substance, etc
3 Engineering / Isolation	The engineering of the interface with the hazard i.e. the engineering of the plant/equipment item, working environment, current control options, etc such that additional space, barriers, guards, restrictions, or electrical / mechanical isolations are implemented
4 Administrative / Training	The administration of personnel awareness, implementation of limiters in relation to the hazard or the minimization of exposure of the people, plant, or environment to the hazard i.e. the improvement of personnel awareness through formal instructions, training, procedural development, etc and the limiting of hazard exposure through job rotation, altering the timing of the exposure, etc
5 Personal Protective Equipment (PPE)	The use of personal protective measures to guard the people from the hazard i.e. a device, item of clothing or substance used to provide a barrier or some form of personal protection

Control measures are to be documented, as deemed appropriate for each of the hazards to eliminate the hazard completely or to ensure an acceptable level of risk.

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Measure of Likelihood

Likelihood	Description
Almost certain	The event is expected to occur in most circumstances
Likely	The event will probably occur in most circumstances
Possible	The event should occur at some time
Unlikely	The event could occur at some time
Rare	The event may only occur in exceptional circumstances

Likelihood of the event occurring.

Measure of Impact

Impact	Description	
	Health & Safety	Environment
Catastrophic	One or more fatalities or serious long-term impairment and inability to continue work e.g. loss of limb, paraplegic.	Incident causing serious environmental harm and resulting in EPA closure of facilities for undisclosed period.
Severe	Serious injury resulting in long-term absence and rehabilitation and redeployment.	Incident causing off-site release and detrimental effect resulting in EPA closure of local operation for undisclosed period.
Major	Serious injury without long-term effects e.g. rendered unconscious.	On or off-site release and detrimental effects resulting in EPA prosecution with fine imposed.
Moderate	Medical treatment required.	Incident contained on site or minor discharge off site (e.g. large oil spill (>5kl) on site, offsite discharge of coal dust).
Minor	First aid or no treatment.	Incident contained on site (e.g. oil spill <5kl. Coal dust on site).

Impact that is probable from the event occurring.

Work Task Risk Analysis Table

		Impact				
		Minor	Moderate	Major	Severe	Catastrophic
Likelihood	Almost Certain	11	16	20	23	25
	Likely	7	12	17	21	24
	Possible	4	8	13	18	22
	Unlikely	2	5	9	14	19
	Rare	1	3	6	10	15

** The analysis process is to be undertaken assuming that the selected control measures will be implemented and function as intended.*

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Approval



Number Range	Approval Position	Training, Qualification, Experience
1 – 5	Competent Person	<ul style="list-style-type: none"> ▪ Hazard Management Trained, AND ▪ Specific knowledge / experience in work being conducted
6 – 10	Senior Professional / Manager	<ul style="list-style-type: none"> ▪ Engineering Professional: <ul style="list-style-type: none"> – RPEQ status, or – Engineer (>10 years heavy industry experience) ▪ Team Leader (SPS) ▪ H&S Advisor (H&S Issues Only) ▪ Environmental Advisor (Env. Issues Only) ▪ Other Professional nominated by the Site Manager
11 – 12	Senior Manager / Site Co-ordinator	<ul style="list-style-type: none"> ▪ Direct Report to the Site Manager
13 – 14	Site Manager	<ul style="list-style-type: none"> ▪ Direct Report to the General Manager or Area Manager
15 – 18	General Manager	<ul style="list-style-type: none"> ▪ Direct Report to the CEO
19 – 25	None – Work cannot proceed until the level of risk is reduced (below 19)	

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08


Site Hazard, Risk and Control Table

Class	Hazard	Risk	Corporate Controls	Additional Site Control	Risk Assessment after Controls
Any Hazard 	When determining hazards associated with a particular task, consideration should also be given to the exposure of people, plant and property <u>external</u> to the work task at hand	Injury , Illness or dangerous event during the project	SCL Generating Safety and Rehabilitation Policies Construction Safety Plan ATW System HEHI Control Guides Corporate HSE Standards Work Method Statements Hazard and Incident Reporting	Site Inductions Morning Meetings Housekeeping Inspections Registers	Minor x Rare = 1
Electrical Energy 	Contact with live electrical parts (overhead power line, welding electrode, induced voltage) Exposure to high fault currents (battery banks, within switchboards) Water ingress into electrical components Exposure to electro-magnetic fields / static build up Mechanical damage to power leads / fixed electrical wiring Working near old paper insulated cables	Electrocutation Electric Shock Burns Smoke Inhalation / Asphyxiation Flash over Damage to live cables and exposure to conductors	CORPORATE STANDARD Electrical safety Electrical and magnetic radiation Electrical testing to prove de-energised Isolation of HV circuit breakers Locking of isolation points Fault finding on LV electrical equipment Maintaining Electrical tools, Protective devices and clothing CONTROL GUIDES Live electrical maintenance work Plant isolation	Set up shielding and exclusion zones by installing physical barriers Prescribed occupation certificate must be provided for verification to the SCL Site manager upon commencement of work at the site. Site Electrical test tag register All cables must be identified and disconnected from all sources of supply at both ends before being cut.	Minor x Rare = 1

Site Health & Safety Plan

Barron Gorge Power Station


Amd Date 04/01/08

			<p>TRAINING</p> <p>Electrical Worker and Resus / LV Rescue training</p> <p>Any one performing work under a prescribed occupation must hold a current certificate</p>		
<p>Gravitational Energy</p> 	<p>Falling from a height</p> <p>Falling objects</p> <p>Slips and trips</p> <p>Working beneath a suspended load</p>	<p>Injury and illness</p> <p>Entrapment</p> <p>Crushing</p> <p>Pinch points</p> <p>Damage to plant and equipment</p>	<p>CORPORATE STANDARD</p> <p>Crane and hoist use</p> <p>Barricading and restricted access</p> <p>Elevated work platform</p> <p>Excavation and digging</p> <p>Falls and falling object</p> <p>Fork lift</p> <p>Lifting equipment</p> <p>Manual handling</p> <p>Portable ladders</p> <p>Scaffolding</p> <p>CONTROL GUIDE</p> <p>Falls and falling objects</p> <p>Excavation and digging</p> <p>Complex crane lift</p> <p>Rescue and retrieval</p> <p>TRAINING</p> <p>Any one performing work under a prescribed occupation must hold a current certificate</p>	<p>Site lifting equipment register</p> <p>Site Height safety equipment register</p> <p>Project lifting and height safety equipment register</p> <p>Prescribed occupation certificate must be provided for verification to the SCL Site Construction manager upon commencement of work at the site.</p> <p>Receive and review WMS, safety plan and Scaffold Plan from contractor prior to scaffold being erected.</p> <p>Obtain sign off certificate from contractor stating accordance with AS4576 prior to use of scaffold</p>	<p>Minor x Rare = 1</p>
<p>Work involving the movement of soil or</p>	<p>Undermining of other structures</p> <p>Contact with underground Services</p> <p>Excavation collapse</p>	<p>Injury and illness</p> <p>Entrapment</p>	<p>CORPORATE STANDARD</p> <p>Earth moving Equipment</p>	<p>Site layout and drawings of underground services.</p>	<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08


<p>ground or the insertion of objects into the ground</p>	<p>Fall from height (from excavation edge) Falling objects (onto workers in the excavation) Exposure to contaminated soil / excavated material Exposure to unsafe atmosphere within the excavation</p>	<p>Crushing Pinch points Damage to plant and equipment Damage to live cables and exposure to conductors Asphyxiation, acute or chronic health effects from chemicals</p>	<p>Barricading and restricted access Excavation and digging Falls and falling object Lifting equipment Manual handling Portable ladders Scaffolding CONTROL GUIDE Falls and falling objects Excavation and digging Rescue and retrieval TRAINING Any one performing work under a prescribed occupation must hold a current certificate</p>	<p>Visual inspection of site prior to digging/excavating or penetrating the ground. Testing for underground services to be conducted site prior to digging/excavating or penetrating the ground</p>	
<p>Chemicals Substances Energy</p> 	<p>Contact with or ingestion of chemicals / substances Inhalation of dusts, gases, fumes, vapours and mists</p>	<p>Asphyxiation, acute or chronic health effects from chemicals</p>	<p>CORPORATE STANDARD Asbestos Management Lead Management Confined Space Dangerous Goods Management Hazardous Substances Hazardous Areas Monitoring and health surveillance Welding Personal Protective Equipment</p>	<p>Site Asbestos Register Site Lead paint Register Site Confined Space Register Hazardous Substances and Dangerous Goods register (chemalert) MSDS available (chem. Alert) All personnel who enter a confined space at Barron Gorge Power Station must have passed an accredited training course to AS/NZS 2865 Safe Working in a Confined Space and have received SCL confined space</p>	<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08



++
+
+
+

			<p>CONTROL GUIDE</p> <p>Plant Isolation</p> <p>Falls and falling objects</p> <p>Excavation and digging</p> <p>Confined Spaces</p> <p>Hot Work</p> <p>Rescue and retrieval</p> <p>TRAINING</p> <p>Any one working in a confined space must undertake the SCL confined space entry training</p> <p>PPE – Breathing Apparatus, respirators</p>	<p>training.</p> <p>All workers must follow the PPE requirements detailed in the MSDS, instructions for use, storage and disposal.</p> <p>All paint is deemed to be lead based unless otherwise proven.</p> <p>If painted surfaces are to be disturbed during the course of work (particularly hot work processes) then appropriate control measures, such as the stripping of paint prior to cutting, are to be implemented to ensure there is NO exposure</p>	
<p>Thermal and/or Explosive Energy</p> 	<p>Contact with hot / cold objects</p> <p>Excessively hot / cold environments (including heat stress)</p> <p>Fire / Explosion</p> <p>Ignition of gas / dust in a hazardous area</p>	<p>Fire / burns</p>	<p>CORPORATE STANDARD</p> <p>Dangerous Goods Management</p> <p>Hazardous Substances</p> <p>Hazardous Areas</p> <p>Welding</p> <p>Hot work</p> <p>Electrical safety</p> <p>Personal Protective Equipment</p> <p>Working in hot or cold environments</p> <p>CONTROL GUIDE</p> <p>Plant Isolation</p> <p>Hot Work</p> <p>Rescue and retrieval</p>	<p>Not Applicable</p>	<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station



Amd Date 04/01/08

			TRAINING Fire Extinguisher training		
Pressurised Energy 	Release of a stored gas, liquid, solid under pressure Release of spring / tension energy Contact with pressurised agent	Injury	CORPORATE STANDARD Pressure hoses Personal Protective Equipment CONTROL GUIDE Plant Isolation Falls and falling objects Excavation and digging Confined Spaces Hot Work Rescue and retrieval TRAINING Any one working in a confined space must undertake the SCL confined space entry training PPE – Breathing Apparatus, respirators	Pressure Hose register Inspections	Minor x Rare = 1
Radiation Energy 	Exposure to ionising radiation source (industrial radiography, non-destructive testing) Exposure to non-ionising radiation source (ultraviolet, laser, welding flash, infrared, microwave, radiofrequency)	Sunburn	CORPORATE STANDARD Solar UV radiation Personal Protective Equipment	Not Applicable	Minor x Rare = 1
Manual Handling / Postural Hazards	Handling heavy, unstable or awkward objects / loads Maintaining static work postures Repetitious movements	Strain / Sprains	CORPORATE STANDARD Manual Handling Crane and hoist Lifting equipment Scaffolding	Not Applicable	Minor x Rare = 1

Site Health & Safety Plan

Barron Gorge Power Station




Amd Date 04/01/08

			Personal Protective Equipment		
<p>Kinetic / Mechanical Energy</p> 	<p>Contact with moving vehicles / mobile plant Contact with moving plant / parts: cutting, shearing, drawing in, entanglement, etc Contact with sharp objects Struck by projectiles and ejected items (including struck by foreign object in the eye)</p> <p>Mechanical damage to PPE, services or other items</p> <p>Unguarded plant</p> <p>Poorly maintained plant and equipment</p>	<p>Injury and illness</p> <p>Entrapment</p> <p>Crushing</p> <p>Pinch points</p> <p>Damage to plant and equipment</p>	<p>CORPORATE STANDARD</p> <p>Motor vehicle safety</p> <p>Crane and hoist</p> <p>Earth moving Equipment</p> <p>Elevated Work Platform</p> <p>Barricading and restricted access</p> <p>Excavation and digging</p> <p>Falls and falling object</p> <p>Lifting equipment</p> <p>Manual handling</p> <p>Portable ladders</p> <p>Scaffolding</p> <p>Personal Protective Equipment</p> <p>CONTROL GUIDE</p> <p>Falls and falling objects</p> <p>Crane use</p> <p>Excavation and digging</p> <p>Rescue and retrieval</p> <p>TRAINING</p> <p>Any one performing work under a prescribed occupation must hold a current certificate</p>	<p>Housekeeping Inspections</p> <p>Access and guarding project</p>	<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station


Amd Date 04/01/08

<p>Noise and/or Vibration Energy</p> 	<p>Exposure to increased noise (levels that may cause hearing damage / worker discomfort) Contact with vibrating plant / vehicles</p> <p>Contact with vibrating tools / objects</p>	<p>Hearing damage or loss</p>	<p>CORPORATE STANDARD</p> <p>Occupational noise management</p> <p>Personal Protective Equipment</p>	<p>Comply with site hearing protection signage</p> <p>Health Surveillance</p>	<p>Minor x Rare = 1</p>
<p>Biological Hazards</p> 	<p>Exposure to algal, bacterial, fungal, viral or parasitic agents (contact, ingestion, inhalation) Animal, insect and spider bites / stings</p> <p>Sharps injury / needle-stick exposure</p> <p>White Tail Rat Urine</p>	<p>Injury / illness / disease</p>	<p>CORPORATE STANDARD</p> <p>Animal and insect</p> <p>Biological water</p> <p>Clean up blood and bodily fluid</p> <p>First aid</p> <p>Immunisation</p> <p>Personal Protective Equipment</p> <p>Safe handling and disposal of sharps</p> <p>TRAINING</p> <p>First aid, Snake Handling</p>	<p>All wildlife is to be safely removed from work areas to protect people and fauna. Inspections and housekeeping. First Aid capability on site at all times.</p> <p>Insect repellent available</p>	<p>Minor x Rare = 1</p>
<p>Psychological, Mental, Social and Medical Hazards</p> 	<p>Exposure to workplace bullying, harassment, violence Working for excessive time periods and/or while fatigued Working under the influence of alcohol / drugs or other agents</p> <p>Working in extreme environments (heated, noisy, low visibility, etc)</p>	<p>Injury / illness / stress</p>	<p>CORPORATE STANDARD</p> <p>Fatigue Management</p> <p>Manual handling</p> <p>Lone work</p> <p>TRAINING</p> <p>Blue card, and site specific induction</p>	<p>Employee Assistance Program</p> <p>Rehabilitation Program</p>	<p>Minor x Rare = 1</p>
<p>Work Environment Hazards</p>	<p>Working alone Inadequate lighting Wet / slippery floor / surface Weather conditions eg. floods, lightning, wind Physical Injury from debris Atmospheric conditions eg. dust, vapours,</p>	<p>Exposure to Contaminants</p> <p>Falling Objects</p> <p>Prescribed Activities</p>	<p>CORPORATE STANDARD</p> <p>Confined Space</p> <p>Crane and Hoist</p>	<p>Prescribed occupation and business certificates must be provided for verification to the SCL Site Manager before the commencement of any demolition</p>	<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station



Amd Date 04/01/08

	<p>oxygen depletion Restricted / confined space access or working space Demolition work Asbestos has been identified in various areas of the power station, but there is no risk of exposure during normal work processes. May become air born during equipment and tile removal</p>	<p>Injury and illness Entrapment Crushing Pinch points Damage to plant and equipment Acute or chronic health effects from chemicals</p>	<p>Earth moving Equipment Elevated Work platforms Forklift Lifting equipment Locking of isolation points for electrical hazards Falls and falling objects Barricading and restricted access Excavation and digging Noise Lifting equipment Manual handling Portable ladders Scaffolding Safety signs CONTROL GUIDE Falls and falling objects Confined spaces Crane use Hot work Live electrical maintenance Excavation and digging Rescue and retrieval TRAINING Any one performing work under a prescribed</p>	<p>work at the site. Site Asbestos Register Site Lead paint Register If personnel suspect an item to be asbestos the Site Manager is to be informed. The area will be secured and the relevant testing arranged.</p>	
---	--	---	---	--	--

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

			<p>occupation must hold a current certificate</p> <p>Any business performing demolition work must hold a current business certificate</p>		
<p>++</p> <p>+</p> <p>+</p> <p>+</p> <p>+</p> <p>Environmental Hazards</p>  	<p>Unauthorised emissions to air, land or water</p> <p>Release of a stored chemicals used as part of plant operations</p> <p>Contamination of process waters / surface waters (including disposal into incorrect drains)</p> <p>Excess release of particulates</p> <p>Release of a harmful solid, liquid or gas during transport on / off site</p> <p>Bush Fires/Explosion</p> <p>Land contamination from chemical spills and sandblasting activities</p> <p>Incorrect waste disposal</p> <p>Uncontrolled release (oil, coolants, other substances)</p>		<p>SCL Environmental Management plan</p> <p>WTMA permits</p> <p>SCL Environmental management system</p>		<p>Minor x Rare = 1</p>

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Monitoring Site and Public Health and Safety

The Site Manager and Northern Region Health and Safety Adviser are required to informally monitor compliance with the plan and work method statements on a daily basis, any non-conformance identified will be raised immediately. If an additional hazard or non-compliance is identified which poses an imminent risk to people, plant or the environment then work will be stopped immediately until controls are put into place. Safety performance will be discussed as part of the daily toolbox chats/morning meeting/safety meetings. The general public and workforce will not be given access to the site unless authorised and appropriately inducted.

Common Plant and Equipment

Stanwell the Principal Contractor is responsible for providing and maintaining common plant and equipment so as it is safe for its intended purpose, maintained and complies with applicable regulations. The following is a list of the plant and equipment:

Plant Description	Condition
Electrical power supplies	<p>Safe access provided to trained and authorised personnel</p> <p>GPOs with RCDs (tested and tagged) earth leakage protection provided</p> <p>Permit and isolation system for access</p> <p>Class I (earthed conductive parts) & Class II (double insulated) electrical equipment is required to be tested and tagged every 3 months in accordance with AS/NZS 3012: 2003. In addition, Stanwell has adopted a standard for electrical installations. It is summarised as follows;</p> <ul style="list-style-type: none"> ▪ AS/NZS 3000 Electrical Installations (known as the Australian/New Zealand Wiring Rules) has been established as the minimum standard for all Stanwell (permanent) production sites in Queensland. ▪ At production sites: SCL will comply with AS/NZS 3012 Electrical Installations – Construction and Demolition Site for all temporary electrical installations (when Construction Work is being performed). This includes planned and forced plant outages. ▪ At construction sites: SCL will comply with AS/NZS 3012 Electrical Installations – Construction and Demolition Sites. Note: For Stanwell purposes a construction site is a designated (clearly defined) area, preferably fenced off from surrounding work areas, where Construction Work is being performed and the work requires all electrical installations to be of a temporary nature.
Lighting	<p>Portable lighting as required</p> <p>General lighting to 300lux</p>
Amenities	<p>Toilets and lunch room provided and maintained to ensure they are hygienic, safe and serviceable condition.</p> <p>Toilets – the number (one for each 15 people), location, privacy, ventilation and the supply of toilet paper.</p> <p>Room or sheltered area to eat meals in – hygienic, separated from work activities, adequate space and seating for the maximum number of construction persons likely to use the room or sheltered area at the one time and appropriate facilities for washing and storing utensils, boiling water and storing food in a cool place.</p> <p>Hands and face washing facilities – adequate clean water and washing facilities</p> <p>Drinking water – adequate supply of potable, clean and cool drinking water (reasonably available)</p>
Rubbish Bins	Provided and emptied regularly
Barricades	Tape and bollards with appropriate signage will be erected to delineate the construction site to minimise the risk of unauthorised entry
Signage	<p>Fixed to the boundary fence at all entry points</p> <p>Kept in a good condition</p> <p>Display mandatory Personal Protective Equipment</p>
Fire Extinguishers	Adequate number of serviceable extinguishers to be provided near the construction activity

Amd Date 04/01/08

Site Rules

Site Access

1. Site Inductions

- All contractors are required to have a current (last 12 months) SCL Barron Gorge Power Station Site Health and Safety induction.
- All employees are required to have a current (last 24 months) SCL Barron Gorge Power Station Site Health and Safety induction.
- All workers are required to undertake the Generic Northern Region Health and Safety induction.
- All workers must have undertaken a General Safety Induction "Construction Blue Card" prior to starting work on site; a copy must be provided to Stanwell the Principal Contractor and kept on record.
- All workers who will be working under an Authority To Work (ATW) are to have been work party member trained.
- All workers are required to undertake the site environmental training applicable to the work they are performing.
- All electrical workers performing electrical work are to have received authorised persons and safety observer training and depending on their role they may also require specific requirements for electrical work training.
- All workers who are required to work in a confined space must have completed the Stanwell Confined Space entry training.

2. Sign On/Off

All persons entering site are required to sign on and off the site daily logon/off sheet located at reception of the admin building. This is critical for site evacuation purposes

3. Authority To Work

All persons entering a designated work area must contact the ATW Coordinator for permission to access the work site and complete the ATW sign on/off sheet. This is critical to ensure everyone who is affected by the scope of work is accounted for and kept informed of the status of the job.

4. Hours of Work

Normal site hours are 07:30 to 16:00 Monday to Friday on the 1st week then Tuesday to Friday on the 2nd week. Work in excess of these hours will be aligned with the Northern Region Fatigue Management System

Site Alarms, Evacuation and Rescue plans

When the site evacuation sirens activate, immediately leave the work area and make your way to the evacuation assembly point. Specific rescue plans will be developed when identified within work method statements or control guides.

Security

Entry gates to the site are closed at all times. Stanwell reserves the right to conduct random visual baggage searches.

Boundaries and Barricades

There are only two types of barricade tapes used on site:

The caution tape (Black on Yellow) indicates hazards have been identified within an area and care should be taken when entering the area; and

The Danger Tape (Red on White) identifies imminent risk within an area – this area is controlled by a person who's permission must be sought prior to entry.

These tapes can be used in conjunction with a range of barriers. Breaching danger tape is considered a breach of the ATW system.

Danger Signs and Tags

There are danger signs located around the site. They contain mandatory instructions and must be complied with. Danger locks / tags are used in the ATW system to secure isolation points. DO NOT tamper with danger locks / tags or the item of plant they are attached to. If a danger Lock tag is found unsecured immediately inform an ATW Coordinator. If you are unsure ask the ATW Coordinator.

Site Health & Safety Plan

Barron Gorge Power Station

Amd Date 04/01/08

Delivery of Goods and Services

Delivery of all goods and services must be brought to the attention of the Site Manager or delegate.

Work Instructions

Work Instructions can be written or verbal. All personnel must follow work instructions. If unclear/ uncertain or there are some safety concerns, raise it with your ATW Coordinator / Work responsible person. Failure to follow work instructions may result in disciplinary action.

Drugs and Alcohol

No illegal drugs or alcohol are permitted on site. All prescription medication must be brought to the attention of the Site Manager and ATW Coordinator. Random Alcohol and Drug testing is planned to commence this year.

Prescribed Activities, Occupations and Certificates

Any one performing work under a prescribed activity or occupation must hold current certification and provide verification to Stanwell.

Personal Protective Equipment

Personal Protective Equipment (PPE) is mandatory where signed e.g. helmets past the yellow line. All other PPE is to be worn where appropriate. Standard PPE requirements are cotton long sleeve shirts and trousers, steel capped footwear, safety glasses and helmet. PPE requirements are detailed in specific inductions and risk assessments.

Smoking

Smoking is prohibited within 4 meters from an entry to a building, inside buildings, confined spaces and vehicles on site. Cigarette butts are to be properly disposed of.

Mobile Plant and Overhead Cranes

The forklift and overhead cranes have logbooks. Pre-start checks and logbooks are to be completed prior to use. You must have the relevant prescribed occupation certificate to operate certain mobile plant.

Speed Limit and Parking

The site speed limit is 15km/hr. There is limited parking available on site.

Confined Spaces

All entry into Confined Spaces must be in accordance with the Stanwell confined space entry requirements.

Hot Work

Any grinding, welding or drilling done on site must be in accordance with Stanwell hot work requirements. A Control Guide and Work Method Statement for the task must be completed for hot work outside designated areas.

Working at Heights and Depths

All work at heights must include some level of fall protection. Working at heights of greater than 2 meters and deeper than 1.5 must have a rescue plan. All workers using fall protection equipment must be instructed in its use

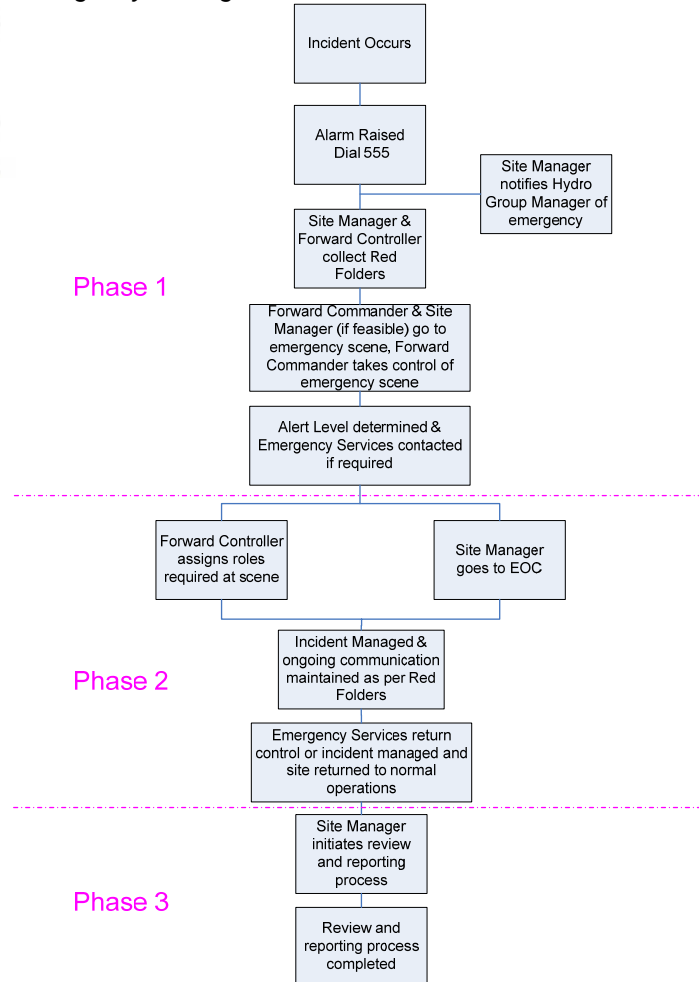
Hazardous Substances and Dangerous Goods

A Material Safety Data Sheet (MSDS) must accompany all substances brought onto and used on site. All workers must follow the PPE requirements detailed in the MSDS, instructions for use, storage and disposal. Hazardous Substances must have a risk assessment completed prior to use.

Amd Date 04/01/08

Emergency Response

Emergency Management Flowchart



Emergency Management Team Responses

ROLE	RESPONSE
Site Manager	Maintains control of emergency, co-ordinates & maintains communication in consultation with Forward Commander
Forward Commander	Maintains control of emergency scene until Emergency Services take control (if required), co-ordinates and manages emergency scene in consultation with Site Manager, maintains communication with Site Manager
EOC Administration Person	Maintains EOC, ensures all communications / responses are recorded as directed by Site Manager
Emergency Management Team Members	Respond to emergency as per roles assigned and direction from Forward Commander and/or Site Manager
SCL Management Team (Hydro Group Manager, COO)	Support Site Manager, maintain communication

Amd Date 04/01/08

Credible Emergencies

Credible emergencies are broad plausible scenarios based on site specific configurations that could result in an emergency situation. Barron Gorge Power Station has identified a list of credible emergencies that could occur at the site. Credible emergencies consider the energies prevalent, the types of events that could occur and the impacts on people, plant or the environment. The credible emergencies list is to be reviewed every five years or when major plant changes including the introduction of potential new credible emergencies. Site contact and emergency numbers are displayed on the Barron Gorge Power Station telephone listing.

Responsibilities

Stanwell Corporations Responsibilities as Principal Contractor at Barron Gorge Power Station

- Co-ordinating, supervising and overseeing work in a way that prevents or minimises risks to health and safety.
- Ensuring that the risks of the construction work for which Stanwell the Principal Contractor owes an obligation are identified and documented and that controls are implemented and documented to manage those risks
- Ensuring a consultative process is established with any other relevant parties to identify hazards associated with the work and assess risks;
- Preparing this Site Construction Safety Plan and ensuring it is available for inspection;
- Developing safe systems of work and review all prescribed activities, high risk work and construction activities (as well as any other work that could result in death or injury). Ensuring control measures are implemented and used as well as reviewing and assessing their effectiveness;
- Where applicable prevent high risk construction activities from starting until a work method statement has been prepared for the activity
- Ensuring compliance with specific regulations addressing controls for prescribed occupations & activities (asbestos and demolition), signs, housekeeping, common plant, hazardous substances, falling objects, risk of falling, amenities, ladders, scaffolding, first aid, plant;
- Providing a site specific induction, and developing site rules;
- Not allowing a person to perform a prescribed activity or prescribed occupation unless they have the appropriate authority.
- Notifying Workplace Health and Safety Queensland of workplace incidents.+
- Establish a Workplace Health & Safety Committee (if requested by a Workplace Health & Safety Representative).
- Ensuring that persons at the workplace are not exposed to risks from something or hazards for which no other person owes an obligation.
- Ensuring work activities do not pose a risk to the public at or near the workplace.

Workers (employees and contractors) involved in construction work

- Comply with all site requirements.
- Prior to work commencing, provide work method statements in an approved common format;
- Comply with work method statements;
- Supervise their workers;
- Consult with Stanwell and/or other Contractors on hazards and controls described in work method statements or any changes made thereafter;
- Stop work immediately if directed by Stanwell to do so on the grounds of safety;
- Conduct audits and checks on the implementation of the work method statements and provide copies of the results to Stanwell. In addition, all Contractors must act immediately to notify Stanwell of, and rectify, any breaches it discovers;
- Provide and or participate in any appropriate training;
- Notify Stanwell of any incident immediately and where required provide a completed incident investigation (yellow) form within 24 hours;
- At Stanwell's request, complete formal investigations;
- Attend inductions and pre start meetings to review site safety plans.

Amd Date 04/01/08

++ Review

- + This Site Construction Safety Plan is a controlled document and is subject to annual reviews.

+ Links and References

- + Queensland Workplace Health and Safety Act 1995 and subordinate legislation including the Queensland Workplace Health and Safety Regulation 1997.

[HB# 542299 - Occupational Health and Safety Management System \(OHSMS\)](#)

[HB# 543218 – Managing Construction Work – A Practical Guide](#)

[HB#1022634 – Barron Gorge Power Station Emergency Response Procedure](#)

[HB#902495 – Northern Region Registers](#)

[HB#686179 – Barron Gorge Telephone Listing](#)

[Return To Top](#)