

# **CS ENERGY PROCEDURE**

# PERSONAL PROTECTIVE EQUIPMENT (PPE) CS-OHS-50

Responsible Officer: Health and Safety Business Partners / Health and Safety Specialists

Responsible Manager: Head of Health Safety and Environment

Responsible Executive: Chief Executive Officer (CEO)

# **DOCUMENT HISTORY**

Key Changes	Prepared By	Checked By	Approved By	Date
Original Draft	D Clarke	H&S Team	A Brown	21/01/2012
Update	B Pike	H&S Team Site Managers - P Matha L McLachlan I Foy	K Ussher	12/08/2014
Updated PPE Site Plans for Callide and Kogan in attachments as released in June.	S Collard			05/07/2018
Clarification of safety helmet colours and Hi-Vis Protective Clothing requirements	A Bruce	D Clarke	S Faulkner	12/02/2019
Clarification of respiratory protective equipment requirements and other minor amendments throughout	N Seibel	H Lonsdale A Cashin D Clarke A Bruce	S Faulkner	10/05/2019
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### 1 PURPOSE

This procedure provides information about the required Personal Protective Equipment (PPE) for use by employees, contractors, and visitors whilst on CS Energy (CSE) operational sites.

#### 2 SCOPE

This procedure applies to all CSE operational sites.

# 3 RESPONSIBILITIES AND ACCOUNTABILITIES

# 3.1 Managers/Supervisors

Managers/Supervisors are responsible for ensuring that:

- The requirements of this procedure are enforced within their area of responsibility;
- Regular checks are carried out to confirm compliance;
- Adequate PPE is made available for the task at hand. Obtain professional advice from the Health and Safety team if required;
- Visitors are made aware of the site PPE requirements prior to their arrival at site, in particular, the need to supply their own safety boots that meet the standard specified in this procedure;
- Appropriate information, instruction and training is provided to each of their employees for the type of PPE used;
- Processes are in place to inspect, clean and maintain PPE; and
- Variations to prescribed minimum PPE requirements are risk assessed and approved.

# 3.2 Employees, Contractors and Visitors

Employees, contractors and visitors shall:

- Wear all items of PPE as instructed and not modify, damage or use PPE in a way contrary to manufacturer's instructions;
- Check the condition of any PPE before use, look after it whilst in their possession, and return it to its correct location after use (where applicable);
- Remove from use all defective/damaged PPE, tag out of service as necessary;
- Return all borrowed PPE to security or site contact after use.

# 3.3 Health and Safety

Site Health and Safety team shall:

- Maintain the currency and accuracy of this procedure;
- Provide guidance and/or training on the selection, use and limitations of PPE as required;
- Provide general awareness training in relation to the requirements of this procedure; and
- Monitor the implementation of this procedure and undertake audits to confirm compliance.



# 4 PERSONAL PROTECTIVE EQUIPMENT

#### 4.1 General

Legislation and Australian Standards cover the basic requirement for PPE, but in striving towards best safety practice, these requirements may be exceeded for specific purposes.

PPE as specified shall be worn and used by all employees, contractors and visitors in accordance with the rules prescribed. Adherence to these rules is a condition of employment with CS Energy and a condition of entry to site for contractors and visitors.

Employees will be subject to normal performance management processes, and contractors and visitors may be removed from site, should they fail to correctly use PPE as instructed.

Unique operations requiring PPE will be subject to a risk assessment (JSEA) to determine the most appropriate PPE to be worn.

Minimum mandatory PPE requirements outside the administration precinct includes;

- Day/night high visibility clothing (with retro reflective material) clothing shall comply with AS/NZS 4602.1
- safety helmet selected in accordance with AS/NZS 1800
- safety boots protective toe capped safety footwear shall comply with AS 2210
- safety glasses glasses shall be selected in accordance with AS/NZS 1337. Selected eye
  protection (mono goggles or enclosed eye protection such as foam backed) is to be carried in
  coal fired plants.
- Safety gloves safety gloves shall be carried on each person

Any variation to the minimum PPE requirements must be risk assessed and approved by the relevant site Manager and the Health and Safety team.

### 4.2 Administration Precinct and Other Risk Assessed Area.

CS Energy Sites have an administration precinct area which has been specified exempt where minimum PPE requirements are lessened due to a lower risk identified.

PPE requirements for the Administration Precinct:

- Enclosed Footwear for visitors must be flat shoes, no high heels (Employees and Contractors at start and end of shift only)
- High Visibility Protective Clothing

Eye protection is required in signposted areas but is not mandatory whilst inside offices, crib rooms, plant control rooms and vehicles where the windows are wound up.



#### Note:

Prior to leaving the Administration precinct or other risk assessed areas, it is a requirement to have the minimum mandatory PPE.



#### 4.3 Visitors

CS Energy personnel are responsible for ensuring that Visitors comply with the minimum and/or supplementary PPE for the site or area of site. The following PPE is available for use from the security gatehouse (coal fired) or administration building (Hydro):

- Hi-Visibility vests;
- Gloves;
- Safety glasses; and
- Safety helmets.

The Visitor's CS Energy Contact is responsible for advising Security in advance regarding the arrival of visitors. The CS Energy Contact is expected to ensure that an adequate supply of loan PPE is available.

Visitors who do not meet the minimum PPE requirements (including exempt areas) will not be permitted onto site. Site Security reserves the authority to refuse entry in these circumstances.

# 4.4 Supplementary PPE

Where supplementary PPE is required for a task/job then the following shall occur:

- Before prescribing the type of supplementary PPE required for a task, either a 2x2 Personal Risk Analysis, or a Job Safety and Environmental Analysis (JSEA) will be used to determine appropriate PPE requirements as part of the hazard control process;
- These methods will not be used to override mandatory PPE requirements;
- When new hazardous chemicals are introduced to a CS Energy Site, there will be a formal risk assessment of the PPE requirements for the actual use of such chemical. The appropriate chemical's Safety Data Sheet must be consulted.

# 5 PERSONAL PROTECTIVE EQUIPMENT STANDARDS

# 5.1 Eye Protection



The minimum eye protection to be worn by all personnel at CS Energy Sites shall be safety spectacles with side shields (or wrap around type) which comply with AS/NZS 1337.1.2010

The following rules also apply:

- Eye protection will be mandatory at all sites inside the perimeter security fencing outside of office and plant control room areas;
- Sealed eye protection (Mono-goggles or enclosed eye protection such as foam backed) is to be carried on the individual (e.g. inside carry bag secured to the waist) whilst outside of the administration precinct area (at coal-fired plant only).
- The standard safety glasses for use in and around plant areas (i.e. poorly lit, confined spaces, inside buildings etc.) shall be clear lenses or inside / outside lenses.
- Shaded safety glasses can be worn for outside day work only;



- Persons using prescription glasses must have hardened lenses in an approved frame with the glasses compliant to AS/NZS1337. For supply of Prescription safety glasses to CS Energy employees, refer to site H&S team;
- Damaged safety glasses shall be replaced immediately; and
- Welding or face shields shall be attached to the helmet unless there is a clear assessment provided in the JSEA.

# **5.1.1** Additional Eye Protection

Additional eye protection may be required for specific tasks. The table below is an example of some of the tasks requiring additional eye protection.

Activity	Eye Protection Required
<ul><li>Drilling / Hammering</li><li>Steel strapping / banding</li><li>Low Speed Compressed Air Tools</li></ul>	- Minimum of safety glasses.
<ul><li>Insulation</li><li>Painting</li></ul>	<ul> <li>Refer to manufacturers SDS for minimum required PPE. Where eye protection is not specified on the SDS, safety glasses shall be worn.</li> </ul>
- Vessel entry	- Sealed Eye Protection
- Welding	- Welding shield worn over sealed eye protection.
<ul> <li>Oxy and Plasma cutting</li> <li>Grinding</li> <li>Scabbling</li> <li>Other high speed rotating tools, including cut off saws</li> <li>High Speed Compressed Air Tools</li> <li>Hydrostatic / pneumatic testing</li> </ul>	- Sealed eye protection and full-face protection.
Using chemicals including:     solvents and cleaners	<ul> <li>Refer to manufacturers SDS for minimum required PPE. Where eye protection is not specified on the SDS, safety glasses shall be worn.</li> </ul>
- Grit blasting	- Air ventilated blast helmet over safety glasses.
- ALL overhead works	<ul> <li>Sealed eye protection, and</li> <li>Full face protection when interacting with kinetic energy.</li> </ul>

# 5.2 Safety Helmets



In relation to safety helmets the following rules apply:

- Helmets shall be selected in accordance with AS/NZS 1800;
- It is a CS Energy requirement that head protection is worn by everyone outside of the Administration precinct;
- No hats or caps shall be worn under helmets (unless designed for this purpose);
- If bump hats are required, a formal risk assessment must be completed;



- Chin straps shall be fitted to all safety helmets and used when the need arises to prevent helmets falling off when traversing or working at heights;
- Under no circumstances will helmets be painted or written on in any fashion. (Solvents affect the properties of the plastics used in helmets which may compromise the material);
- Helmets may be labelled with stick-on name tags and approved attachments;
- Helmets that have suffered any significant impact or deterioration shall be replaced:
- Safety helmets shall be replaced every 3 years from date of issue; and
- Helmet Colours -

White General multipurpose use (all sites)

Yellow Evacuation Warden (all sites)

Red Emergency Response Team (Kogan) Green Emergency Response Team (Callide)

Blue Security (Callide) Visitors (all sites) Orange

#### 5.3 **Safety Footwear**



In relation to safety footwear the following rules apply:

- It is a CS Energy requirement that protective toe capped Safety Footwear complying with AS 2210 must be worn by everyone outside of the Administration precinct;
- Visitors as a minimum requirement shall wear enclosed footwear (flat shoes and no high heels);



Placing any device within a safety shoe (e.g. orthotics, inners) may make the footwear non-compliant with the relevant Australian Standard. If inserts are required, the wearer shall ensure the inserts meet AS2210, particularly for persons who perform electrical work.

#### 5.4 **Hi-Vis Protective Clothing**



Acceptable clothing must cover the wearer's arms to the wrist and legs to the ankles. Sleeves must be rolled down on shirts and buttoned up.



# **High Visibility Requirements:**

High visibility clothing shall be worn when at a Power Station site. The clothing must be predominantly natural fibre and comply with AS/NZS 4602.1-2011.

Minimum requirements at CS Energy are:

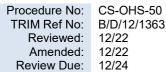
- Shirts must comply with AS/NZS 4602 Day / Night Hi-Vis (with retro reflective material) long sleeved shirt requirements;
- Long trousers (exempt from high visibility requirements);
- Any retro reflective material used on attire that is 'FR' rated shall also use fire resistant tape static free and non-electrical conducting, which is compliant to AS 4824 and AS 4967 (50mm tape);
- Only company logo's, employee names and approved safety slogans shall be affixed on protective clothing; and
- Winter wear shall also be compliant with the high visibility requirements outlined in AS/NZS 4602.

# 5.5 Hearing Protection



In relation to hearing protection the following rules apply:

- Hearing protection is to be selected is accordance with AS/NZS 1270;
- Hearing protection is to be carried on the individual outside of the Administration precinct;
- Approved hearing protection will be worn at all times in designated 'Hearing Protection Areas' as indicated by signs;
- Hearing protection will be worn in other circumstances (e.g. job/ area specific) when noise levels exceed 85 dB(A) in an 8 hour period or adjusted dB (A) time frame period or 140 dB(A) short term exposure, including workshops where 'noisy' activities are being carried out;
- Ear plugs, helmet attachable ear muffs or separate ear muffs may be worn;
- Ear plugs may be required to supplement muffs when employees are exposed to excessive noise for short periods of time;
- Employees will be responsible for maintaining ear muffs in a clean and operative condition;
   and
- Employees shall receive training in the correct fit technique for ear plugs / muffs e.g. through Toolbox Talks.
- During overhauls and outages, a noise survey may be conducted where there is other operational plant to clearly define boundaries where mandatory hearing protection in designated areas can be relaxed except for task specific activities (e.g. grinding documented in your JSEA)







Ear muffs shall be correctly fitted to give a good seal for proper protection. Extra care shall be taken in fitting ear muffs if ear protection is being worn. Good hygiene practices need to be observed whilst using ear plugs.

#### **Hand Protection** 5.6



In relation to hand protection the following rules apply:

- Gloves shall be carried by each person whilst on site outside administration precinct areas;
- Users must ensure they select the appropriate glove to provide protection from the specific hazards present i.e. rough or sharp surfaces, heat, chemicals etc. Reputable glove manufacturers label their gloves with a mechanical rating to assist the end user to make the right choice in glove selection, a JSEA or 2x2 should be used to determine correct PPE for each task;
- AS/NZS 2161:2008 requires gloves to be tested to determine how well they perform for different applications. These tests are independently administered, and product marked accordingly with a mechanical hazard shield and a series of 4 digits on how the glove rates. The glove is tested on four measures:
  - a) Abrasion Resistance
  - b) Blade Cut Resistance
  - c) Tear Resistance
  - d) Puncture Resistance
- Gloves are not to be worn when there is a risk of a glove being caught in a rotating device such as, using a pedestal grinder, lathe or drill etc.
- Gloves must be worn when interacting with the specific hazard they are intended to be used for as per the JSEA

#### 5.7 **Respiratory Protection**







Appropriate respiratory protection must be chosen suitable to the task being performed.

- All Respiratory Protective Equipment (RPE) used will comply with AS1716. Wearers of RPE must ensure they can maintain a facial seal;
- Where practical, workers required to wear respirators are to be issued with respirators for their own exclusive use;



- In the event of unusual dust excursion leading to potential exposure to dust, a personal risk assessment shall be completed and RPE determined for that task;
- The use of respirators must be risk assessed where a respiratory hazard exists e.g. including dust, legionella, abrasive blasting, spray painting;
- Where the use of respirators is indicated by risk assessment they must readily available;
- Employees shall receive a fit test and training in the correct fit technique for Respiratory Protection; and
- Where compressed air is used it will be either medical air or air tested and proved to be of adequate quality as defined in AS1715.

Where Breathing Apparatus is provided there will be:

- Specialised training;
- Programmed maintenance of the equipment. Maintenance schedules and documentation are to be kept.

### 5.7.1 Correct Respirator Fit

Facial hair, some hairstyles, other facial features and make-up may prevent an adequate seal between the wearer's face and the fitting surfaces of a face piece or mouthpiece. Facial hair may also interfere with inhalation and exhalation valve operation. The complete sealing surface of the respirator mask should be in contact with the wearer's skin. As a result, workers who are required to use a respirator must have regular facial fit tests to ensure an effective seal is obtained and maintained.

#### 5.8 Electrical Work PPE

Refer to CS-OHS-34 Selection, Maintenance and Use of Electrical Safety Equipment and PPE procedure that describes the requirements for the selection and use personal protection equipment whilst performing live electrical work on CS Energy sites.

All reflective tape shall be flame retardant and arc flash compliant.

# 5.9 Skin Protection

In relation to Ultra Violet Radiation (UVR) the following rules apply:

- Personnel working in the sun for periods longer than 20 minutes shall apply sunscreen on unprotected areas of skin.
- CS Energy shall provide Sun Protection Factor (SPF) 30+, broad spectrum and water-resistant sunscreen for use;
- Sunscreen shall be stored in a cool dry place as it can deteriorate if exposed to heat and/or air for long periods of time;
- It is recommended that persons using a new sunscreen brand for the first time, test on a patch of skin before applying;
- Sunscreen should be applied liberally to clean dry skin, at least 20 minutes before being exposed to UVR;
- Sunscreen shall not be used as the sole form of sun protection for the skin; and



 Sunscreen is the skin's last line of defence from UVR and shall be used in conjunction with other sun protective measures, such as shade, long sleeved clothing and long pants, hats and sunglasses.

# Other activities:

Persons with sensitive skin may benefit from the use of barrier cream on hands to prevent irritation from work activities and regularly washing hands (Note: appropriately selected protective gloves shall be worn to protect hands from chemicals/hazardous substances i.e. as recommended on the Safety Data Sheet - SDS). Protection from sun or wind burn to the lips should also be considered by outdoor workers.

# 5.10 Water Safety

# Coal fired plant:

Personal Floatation Devices (PFD) shall be made available whilst working above, in or around water

- Personal Water Craft Life jackets should be accessible at all times; if they aren't visible to passengers, signage must indicate where life jackets are stowed.
- They must be kept in good condition.
- They must fit the wearer ill-fitting Personal Floatation Devices won't meet the safety equipment requirement.
- Use Personal Floatation Devices as intended by the manufacturer.
- Make sure you know how to put them on quickly.
- Personal Floatation Devices shall be marked correctly to ensure they comply with standards.

# 6 PROCEDURE REVIEW

The CS Energy CS-OHS-50 Personal Protective Equipment procedure will be reviewed every 2 years, or on an as needs basis (e.g. following legislative change, new information, relevant incident, etc.)

### 7 DEFINITIONS

Term	Definition	
Negative Pressure Respirator	A respirator that has negative (lower) air pressure inside the face piece with respect to the ambient air pressure outside the respirator during inhalation.	
Personal Protective Equipment (PPE)	Any clothing, equipment or substance designed to be worn which protects the wearer from risk of injury or illness.	
Must/Shall	Indicates that compliance with the requirement is mandatory.	
Sealed eye protection	Mono-goggles or enclosed eye protection such as foam backed safety glasses	
Visitor	<ul> <li>An individual who:</li> <li>is at a CS Energy workplace on a short term basis (no more than 3 consecutive days for any one stay);</li> <li>has not undertaken a full CS Energy induction;</li> <li>is not undertaking work on or around operational areas, and</li> <li>is accompanied by a CS Energy Employee or Contractor at all times who has been fully inducted.</li> </ul>	



### 8 REFERENCES

Reference No	Reference Title	Author
	Queensland Work Health and Safety Act and Regulations 2011	Qld Govt
AS 1270	Acoustics – Hearing Protectors	Standards
AS 1319	Safety Signs for the Occupational Environment	Standards
AS 1336	Eye and face protection - guidelines	Standards
AS 1337	Personal Eye Protection – Eye and Face Protectors for occupational applications	Standards
AS 1715	Selection, Use and Maintenance of Respiratory Protective equipment	Standards
AS1800	Occupational Protective Helmets – Selection, Care and Use	Standards
1906.4		
AS 2161	Occupational Protective Gloves – Selection, Use and Maintenance	Standards
AS 2161.2	Occupational Protective Gloves – General Requirements	Standards
AS 2210.1	Occupational Protective Footwear – Guide to Selection, Care and Use	Standards
AS 4399	Sun Protective Clothing – Evaluation and Classification	Standards
AS 4602.1	High-visibility Safety Garments – Garments for high risk applications	Standards
F/14/2608	Folder - CAL - Risk Assessments - PPE Variance	CS Energy
F/14/3029	Folder - KOG - Risk Assessments - PPE Variance	CS Energy
F/14/3030	Folder - WIV - Risk Assessments - PPE Variance	CS Energy

# 9 RECORDS MANAGEMENT

In order to maintain continual improvement, suitability, safety and effectiveness of the organisation, registered documents will be reviewed on a two-yearly basis or at intervals specified by legislative or regulatory requirements. Review of controlled documents should occur where it has been identified that there are changes in technology, legislation, standards, regulations or where experience identifies the need for alteration to the content. Registered documents should also be reviewed following an incident, change management process, modification or where directed as part of a risk assessment process. A 'review' can simply mean that it has been identified, confirmed and appropriately recorded that no changes are required and that the existing process remains the same.

Government Owned Corporations must ensure that records are retained according to accountability, legal, administrative, financial, commercial and operational requirements and expectations. In compliance with records retention and disposal, all documentation created in relation to business must be retained in line with minimum retention periods as detailed in legal retention and disposal schedules.



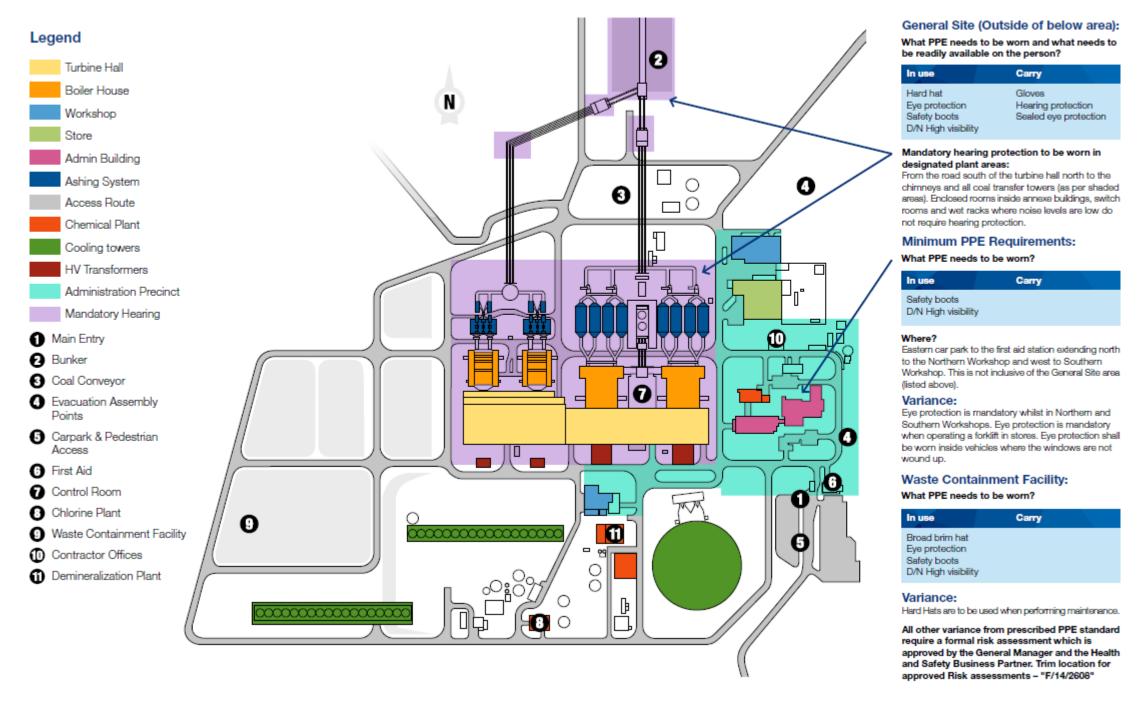
# 10 ATTACHMENTS

# 10.1 Attachment 1 – Callide B and C Power Station Site

PPE - Callide Plan on a page CAL - Risk Assessments - PPE Variance



# PPE SITE PLAN - Callide B+C Power Station

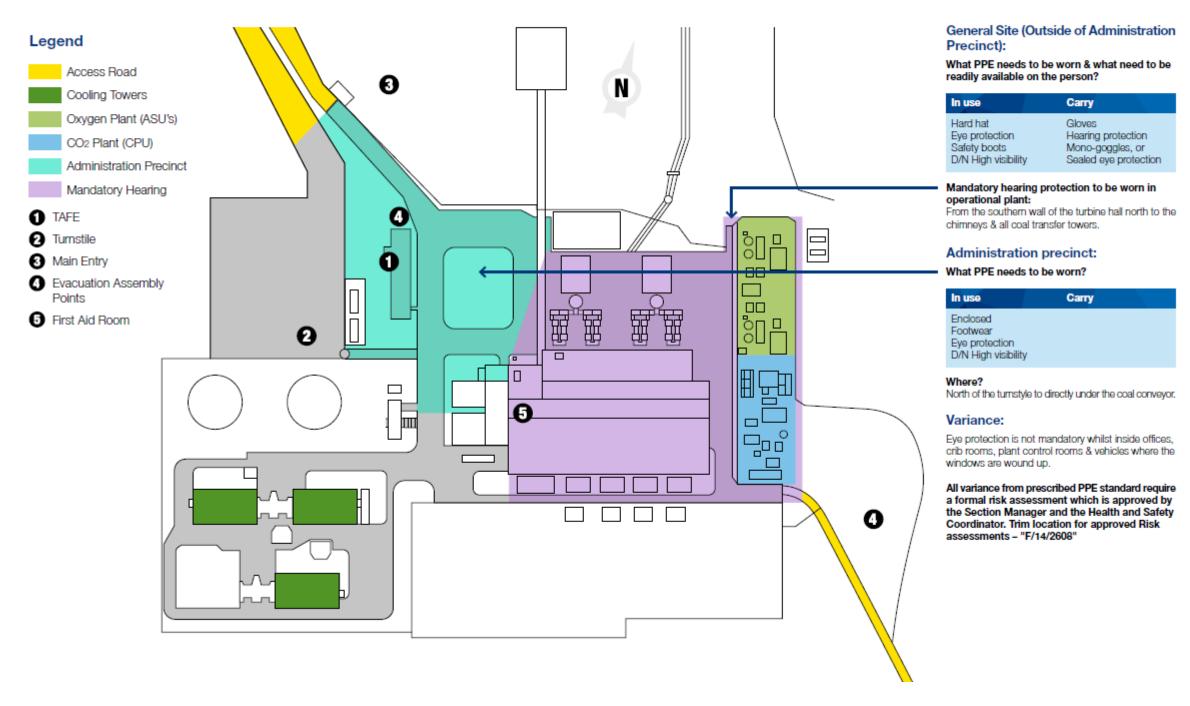




# 10.2 Attachment 2 – Callide A Power Station Site



# **PPE SITE PLAN - Callide A Power Station**





# 10.3 Attachment 3 – Kogan Creek Power Station Site

KOG - Risk Assessments - PPE Variance

