



WHS-05 Electric Shock Response

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2.0	08/09/2014	Whole of Document	Document reviewed, removed references to PWC, converted to Territory Generation document.

1 Purpose

The purpose of this procedure is to outline the safe and authorised procedure for the management of persons (employee, contractor, visitors) on Territory Generation maintained sites; who have sustained an electric shock.

2 Scope

This procedure is applicable to all Territory Generation personnel and its contractors.

3 References

St Johns Ambulance Australia: *First Aid for Electric Shock Victims*

4 Roles and Responsibilities

Role / Title	Responsibility
Chief Executive Officer	Shall ensure that : <ul style="list-style-type: none"> All personnel are aware of requirements of this procedure and its management in sites under Territory Generation control. Initiates procedure review as required.
Managers Generation North/ South	Ensure that: <ul style="list-style-type: none"> All electric shock events are investigated All notifiable electric shock incidents are reported to NT WorkSafe
All Managers/Site Coordinators	Shall ensure that: <ul style="list-style-type: none"> This procedure is put in place at all Territory Generation controlled power stations sites. Personnel are advised and trained as necessary in the procedure to be followed. Contractors are informed of and follow the procedure, where applicable. Contribute to procedure reviews
Project Officers/Contract Managers	Shall ensure that: <ul style="list-style-type: none"> Contractors under their control are informed of and follow the procedure, where applicable. Contribute to procedure reviews
All Personnel	Shall ensure that: <ul style="list-style-type: none"> This procedure is followed personally and by contractors/visitors under their control, where applicable Contribute to procedure reviews
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5 Definitions

High Voltage (HV)	Means a nominal voltage exceeding 1000 volts alternating current or exceeding 1500 volts direct current
Low voltage (LV)	Means nominal voltage exceeding 50 volts alternating current or 120 volts direct current but not exceeding 1000 volts alternating current or 1500 volts direct current
Electric Shock:	<p>Is the passage of a current of electricity through a portion of the body causing a sudden painful involuntary reaction consisting of nerve stimulation and muscle contraction.</p> <p>The passage of an electrical current through the body can cause:</p> <ul style="list-style-type: none"> • The heart to stop (cardiac arrest) or cause it to beat erratically; through electrical interference or damage, • Contraction of the muscles of the body and paralyze breathing, • Burns to skin and internal tissues
Shall	Means a mandatory requirement
Should	Means an advisory requirement

6 Records

The GRACE database shall be used to record all electric shock incidents.

7 Rescue and first aid

If you witness an electric shock or believe one has occurred:

- **D R S A B C D - Remember don't become the second victim**
- If possible and safe to do so – de-energise the power supply
- If a flexible power cord cable is present, switch off the supply and remove the plug from the socket.
- **For low voltage** If it is not possible to switch off or break the current, remove the person from contact by using non-conductive dry materials e.g. heavy duty insulated gloves, wooden poles etc.
- Only those persons appropriately trained and competent in Low Voltage Release and Rescue shall attempt a rescue.
- **For high voltage** – Do Not attempt to rescue a person until the supply has been de-energised and earthed.

- Use extreme caution if the skin at the point of contact or the ground is wet, as water conducts electricity.
- Ensure all plant is isolated and has been made safe.
- Continue with first aid response and assist the affected person only when you are sure it is safe to do so.

8 Medical emergency response (Code Blue)

Emergency response by site:

a) Territory Generation major sites (**Channel Island, Weddell & Ron Goodin**):

- Assisting persons at the incident scene are to notify the Control Room Operator who will initiate a Code Blue Medical Emergency Response as per site emergency plan.

b) Territory Generation regional sites (Owen Springs, Katherine, Yulara, Kings Canyon and Tennant Creek):

- Assisting persons at the incident scene are to notify the site Chief Warden who will initiate Code Blue Medical Emergency Response as per site emergency plan.

Sites with advanced life support equipment are to initiate notification of trained personnel to attend the incident scene, with this equipment; as per site emergency plan.

9 Electric shock effects and medical assessment requirements:

Electric shock effects:

The physical effects of an electric shock on a person are variable and will depend on factors such as body mass, skin resistance, current path, age, duration and dampness.

There may be obvious signs of physical injury such as burns or the injury may be unseen i.e. internal or even emotional.

The following are commonly observed effects following an electric shock:

Short term/Immediate:

- Exhaustion
- Dizziness
- Loss of function along the current path

Long term:

- Weakness/ dysfunction along the current path
- Chronic pain
- Irritability
- Depression
- Chronic exhaustion

Medical Assessment

All persons who have experienced any form of electric shock shall be reviewed by an ambulance paramedic or attend a Medical Practitioner as soon as practicable after the incident.

10 Transport for medical assessment

a) Ambulance transport:

An ambulance **shall** be called:

- If initial first aid is administered after the incident
- If the person affected complains of any symptoms
- If the person has a known history of cardiac illness

b) Private vehicle transport:

If the person is to be transported by private vehicle to attend a follow up medical assessment:

- Two nominated Territory Generation staff members with senior and/or advanced first aid qualifications shall travel with the person
- A mobile phone and advanced life support equipment (if available on site) is to be carried in the transporting vehicle.
- One staff member is to remain with the person once they reach the relevant medical facility and advise line coordinator of safe arrival.

11 Reporting and incident investigation

a) All electric shock incidents shall be reported in the GRACE system and will be fully investigated.

b) Notifiable electric shock incidents

The NT Work Health and Safety Act prescribes that certain events shall be notified to the Regulator. An electric shock is deemed as a dangerous incident and is therefore reportable under the Act.

- Examples of electric shocks that are notifiable are: Minor shock resulting from direct contact with exposed live electrical parts (other than “extra low voltage”) including shock from capacitive discharge.
- Examples of electric shocks that are not notifiable are: shocks due to static electricity and “extra low voltage” shock (i.e. arising from electrical equipment less than or equal to 50V AC and less than or equal to 120V DC)

In the event that the electric shock is deemed notifiable the incident will be reported to NT WorkSafe via the Territory Generation WHS team.