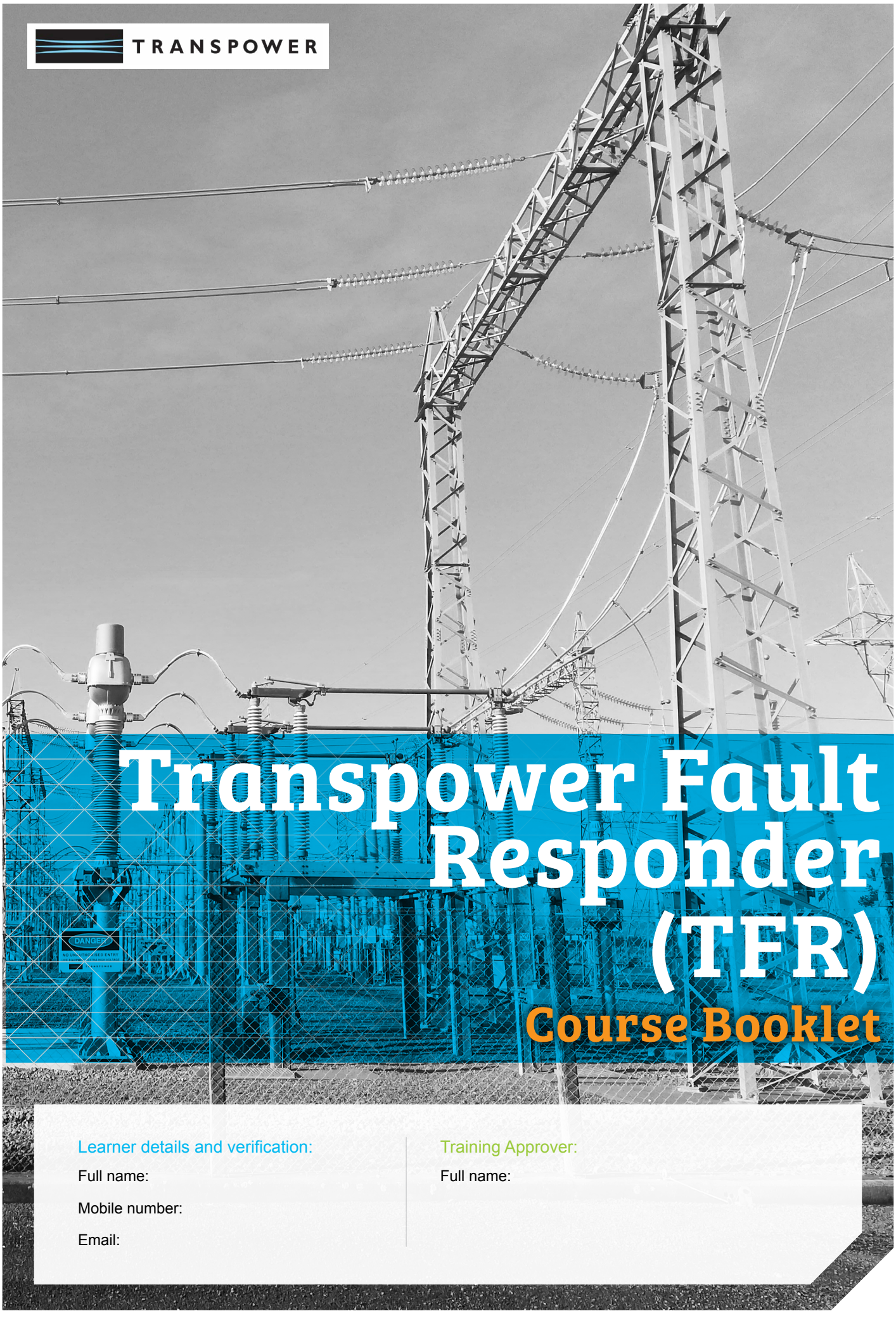

Transpower Fault Responder (TFR)

Course Booklet

Learner details and verification:

Full name:

Mobile number:

Email:

Training Approver:

Full name:

Learning outcomes

Learning outcomes for the course are:

- Demonstrate knowledge of substation fault response carried out by Transpower Fault Responders.
- Demonstrate knowledge of site-specific equipment in normal operation and signs of distress.
- Prepare to respond to faults.
- Respond to Priority One substation faults.
- Carry out post-response activities.

Site activity 1: Arrival and access

Location: Substation

Instructions

The trainer will take you through the process of accessing the site.

Together you will:

- determine the safe arrival point(s) in the carpark or near site which provides visibility of the yard, access points or equipment in the case of expected:
  - intruder alert or alarms
  - equipment in distress
  - other emergency
- call NGOC upon arrival at site
- identify yard access points for emergency services if required
- walk the external perimeter of the site identifying any adjacent features or hazards of note
- verify cell phone communications accessibility (whether cell phones work or not, and nearest point if cell connection is unavailable on site)
- access the control room/main building following Transpower procedures for entry, log in and hazard identification

During this activity you will need to consider how you will safely arrive on site depending on the circumstances of a call-out, and when and how to communicate with NGOC.

Learner notes

Learner notes

Site activity 2: Control and relay room(s)

Location: Control and relay room(s)

Instructions

The trainer will tell you about equipment and indicators likely to be relevant to a priority-one call out.
The trainer will lead you through the control and relay room(s), noting:

- station logs and hazard boards (check recent work history)
- communications (station phone)
- location of site maps
- inside equipment or relays relevant to priority one call-out including
  - relays/flagging sheets
  - remotes
  - HMI
  - battery banks and charger
  - other, i.e. electric fence supply
- equipment or areas which may not be under Transpower control (e.g. connected party equipment).
- locations for relevant emergency response items (such as spill kits, safety showers, fire extinguishers, alarms or water)
- equipment you might need to operate under the guidance of NGOC, i.e. remote operation from control room

During you will need to:

- pay attention to the equipment you may need to read to operate.
- consider what ‘normal’ looks/sounds/smells like and what might be different in the case of a fault.

Learner notes

Learner notes

Site activity 3: Outdoor switchyard (ODS) equipment familiarisation

Location: Substation ODS

Instructions

The trainer will tell you about equipment and indicators likely to be relevant to a priority-one call out.
The trainer will lead you through the ODS, noting:

- access to the ODS (consider yard lighting)
- safe routes
  - approach in the ODS when equipment is in distress
  - care taken when flooding occurs i.e. duct lids
- site specific hazards
- other secure access points to the yard (i.e. gates)
- entry into switch rooms
- equipment relevant to call out:
  - relevant equipment gauges
  - relevant control boxes
  - other indicators which may need to be observed and reported on
  - equipment history which may be directly relevant to a call out
  - anticipated signs or indications of equipment in distress
  - safe observation points in the yard to watch equipment
- equipment or areas which may not be under Transpower control (e.g. connected party equipment).
- locations for relevant emergency response items (such as spill kits, safety showers, fire extinguishers, alarms or water)
- any known site or equipment abnormalities

During this activity you will need to consider what ‘normal’ looks/sounds/smells like and what might be different in the case of a fault.

Learner notes

Learner notes

Knowledge assessment

1. List your employer's fault response policies/procedures.

2. Describe where you find these documents.

3. List THREE (3) hazards you might come across on route to one of the substations you will travel to.

4. Stay alert to changes while on route to substation. What should you do if you find the road is no longer accessible? (tick all that apply)

- ◯ a. Try to find an alternative route
- ◯ b. Advise Service Provider
- ◯ c. Go home

5. Where should you park onsite when responding to a call-out? (tick all that apply)

- ◯ a. 100m from substation
- ◯ b. In the car park
- ◯ c. It depends on the call-out type

6. How can you contact NGOC when on site? (tick all that apply)

- ◯ a. The substation radio
- ◯ b. Your own mobile phone
- ◯ c. The substation landline

7. Your own safety is more important than the condition of the substation. True or false?

- ◯ a. True
- ◯ b. False

8. Who is responsible for managing threats at the substation such as fire, intruders and bombs?

- ◯ a. The Fault Responder
- ◯ b. Emergency services

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9. At the end of a call-out, when you leave the site you should speak to your employer concerning transport from the site if: (tick all that apply)

- ◯ a. The road may become blocked
- ◯ b. The response only required you to be on site briefly
- ◯ c. You are fatigued

10. What can help ensure safe and fast exit from a substation? (tick all that apply)

- ◯ a. Parking in reverse
- ◯ b. Keeping access clear
- ◯ c. Advising NGOC

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11. It is important to know how the substation normally looks, sounds and smells. That way if any of these things are different, it could indicate a fault. True or false?

- ◯ a. True
- ◯ b. False

12. When assessing site from a distance, what can be some signs of equipment is in distress? (tick all that apply)

- ◯ a. Fire
- ◯ b. Smoke
- ◯ c. Arcing/Noise
- ◯ d. Debris on ground
- ◯ e. Smell of smoke or burnt oil

Practical assessment

Your trainer will lead you through a fault response scenario while the other learners observe. You will play the role of a TFR, while your trainer will play the role of NGOC and your employer as well as informing you of the condition of the scenario throughout.

Make sure you demonstrate all of the steps in the call-out process and listen carefully to your trainer's instructions and prompts.

You may use the Transpower Response Guide or employer policies/procedures you have been provided to respond appropriately.

The trainer may use one of the scenarios below or one of their own.

- An equipment temperature alarm
- Equipment in distress
- Suspected fire
- Suspected intruder

The Practical assessment requires two verified observations; one will be on the day of the course and the other will be off course. Your trainer/verified observer will need to complete the following two pages, one for each observation.

On course Observation

Details

Substation name:

Scenario:

Verifier checklist

As the scenario progresses, your trainer will assess you using this fault response scenario checklist and discuss with you afterwards:

(tick as appropriate)

Plan route
- Considers conditions, hazards
- Route options
- Advises ETA
- Anticipates appropriate parking location

Preparation
- PPE
- Grab bag
- Key, fob
- Phone

Arrival
- Safe arrival
- Parking
- Contact NGOC

Correct entry
- Safely accesses site or not approaching/entering if the scenario requires
- Visual assessment prior to entry

Identify relevant conditions
- Indicators and factors related to the fault or issue

Communicate effectively
- Correct terminology
- Reports appropriately

Emergency services (if required)
- Appropriate inductions and access provided
- Communicates effectively re known risks

Maintains site security as required
- Provides or restricts access to others

Stand down
- Handover and advice to others
- Maintains site security
- Finalizes communication to NGOC
- Safe exit

General
- Follows NGOC instructions
- Maintains own safety throughout
- Follow procedures for site records

Completed

Observer verification

I/we verify that:

- the learner has performed all outcomes to industry standard
- I am approved by my employer to conduct this observation

Observer full name

Observer mobile number

Signature and Date

Comments

Post course Observation

Details

Substation name:

Scenario:

Verifier checklist

As the scenario progresses, your trainer will assess you using this fault response scenario checklist and discuss with you afterwards:

(tick as appropriate)

Plan route
- Considers conditions, hazards
- Route options
- Advises ETA
- Anticipates appropriate parking location

Preparation
- PPE
- Grab bag
- Key, fob
- Phone

Arrival
- Safe arrival
- Parking
- Contact NGOC

Correct entry
- Safely accesses site or not approaching/entering if the scenario requires
- Visual assessment prior to entry

Identify relevant conditions
- Indicators and factors related to the fault or issue

Communicate effectively
- Correct terminology
- Reports appropriately

Emergency services (if required)
- Appropriate inductions and access provided
- Communicates effectively re known risks

Maintains site security as required
- Provides or restricts access to others

Stand down
- Handover and advice to others
- Maintains site security
- Finalizes communication to s
- Safe exit

General
- Follows NGOC instructions
- Maintains own safety throughout
- Follow procedures for site records

Completed

Observer verification

I/we verify that:

- the learner has performed all outcomes to industry standard
- I am approved by my employer to conduct this observation

Observer full name

Observer mobile number

Signature and Date

Comments

Learner notes

Learner notes

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