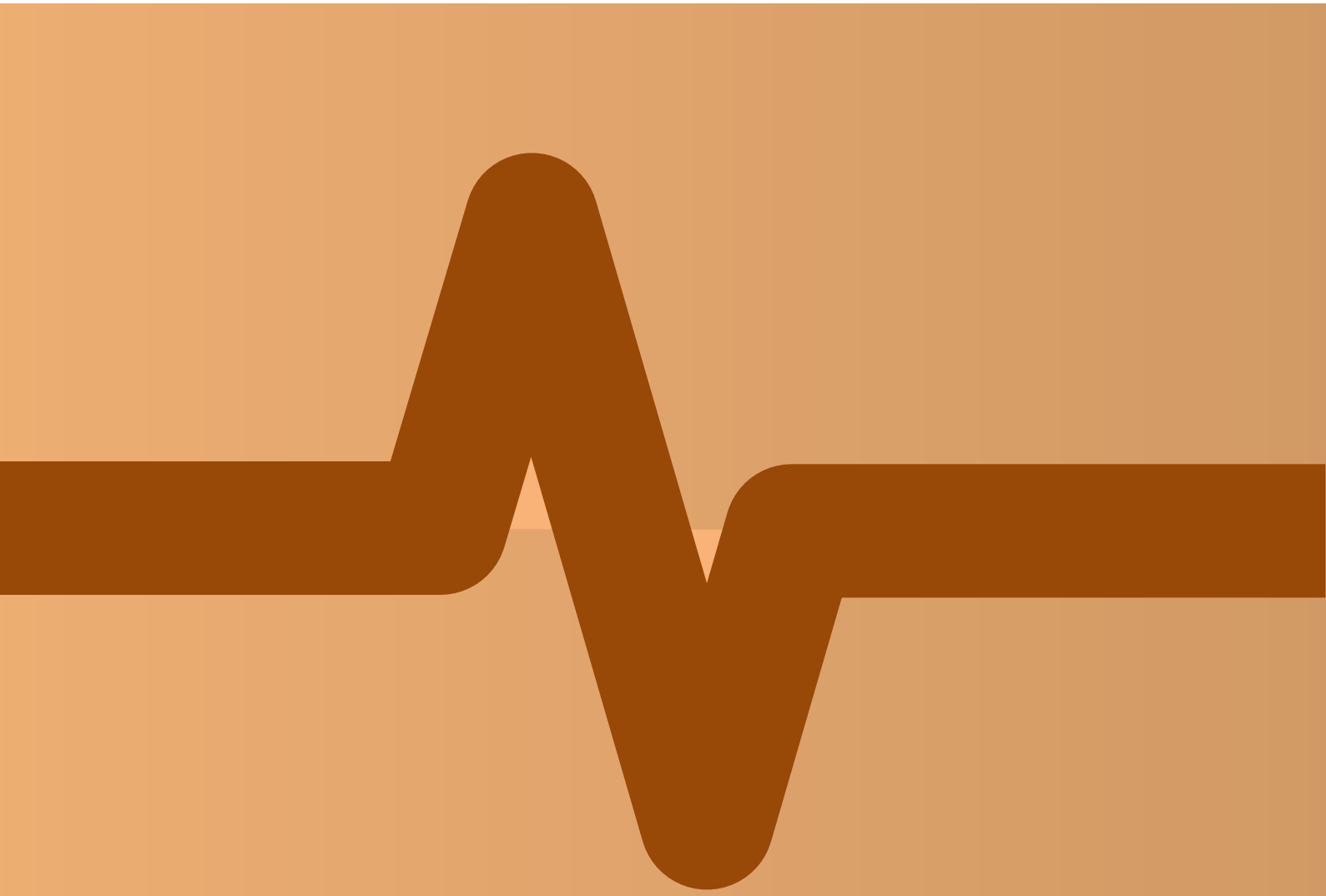
Work Control Procedures

Operating Orders & Isolation Instructions MAY 2024

The Operating Order is a planned sequence of operating actions (or a single action) that has been compiled in an approved format.

An Isolation (De-isolation) Instruction is a list of operating instructions (not sequenced) compiled in an approved format required to isolate or de-isolate a defined asset or equipment.



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Preparation of Work Control Procedures

StayLive Work Control Procedures are prepared by a consensus process involving representatives nominated by major generating companies in NZ. These procedures may be derived from existing industry procedures, from established international procedures and practices or may be developed by the StayLive Work Control Procedures Working Group.

The following companies are represented on the WCP Group:

Contact Energy Ltd
Genesis Energy Ltd
Meridian Energy Ltd
Mercury NZ Limited
Manawa Energy Ltd
Nova Energy Ltd
Pioneer Energy Ltd

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Disclaimer

This document has been prepared by a group of representatives of the electricity industry for the purpose of providing principles on safety and other practices for use by the generation sectors of that industry. It sets out standards considered to be appropriate for the electricity industry; in some instances, further procedures will need to be developed in order to implement those standards. Although this document is recommended by industry representatives, it is not legally binding; as such, the industry representatives involved in its development can accept no liability or responsibility for any injury, loss, damage, or any other claims caused by or resulting from any inaccuracy in or incompleteness of the document.

1. INTRODUCTION

PURPOSE

StayLive adopts the Safety Manual – Electricity Industry (SM–EI) rules as its essential safety requirements for the control of hazards.

The Operating Order / Isolation Instruction process supports the Work Control Procedures.

This document defines the procedures for compiling, checking, and actioning operating orders and the use of isolation instructions.

OVERALL PHILOSOPHY

Achieving safe work practices on our worksites is conditional upon three key elements:

1. Personnel shall fully understand their individual roles and responsibilities and also an understanding of the roles and responsibilities of others.
2. Effective planning will drive efficient and safe work execution.
3. Clear, concise, and effective communication between all parties is essential to ensure the correct application of these work control procedures and the safe completion of site activities.

SCOPE AND APPLICATION

These Work Control processes are mandatory on generating plant and facilities.

These Work Control processes take precedence wherever there is an optional requirement or ambiguity with the SM–EI rules and procedures.

In this document, the following verbal forms apply:

- "shall" indicates a requirement (mandatory),
- "should" indicates a recommendation,
- "may" indicates a permission,
- "can" indicates a capability.

STANDARD OPERATING PROCEDURES

If the implementation of these procedures results in sub-optimal or impractical outcomes, then Standard Operating Procedures (SOP) may be developed which provide an equivalent or greater standard of control of the work environment.

THE OPERATING ORDER / ISOLATION INSTRUCTION

The Operating Order is a planned sequence of operating actions (or a single action) that has been compiled in an approved format.

An Isolation (De-isolation) Instruction is a list of issuer applied safety measures(IASMs) (not sequenced) compiled in an approved format required to isolate or de-isolate a defined asset or equipment.

Isolation instructions are often used for complex thermal plant where sequenced operating orders are not practical.

The use of isolation instructions shall be approved by the asset owner.

Operating orders and isolation instructions can be used singularly or combined as part of an overall process.

OPERATING ORDER / ISOLATION INSTRUCTION PRINCIPLES

- Operating orders and isolation instructions shall be planned, compiled, and agreed to by the parties involved before being actioned.
- The compiler and checker shall have knowledge of the station and the equipment when preparing an operating order or isolation instruction.
- Only personnel deemed competent by the asset owner may compile, check and/or action an operating order or isolation instruction.
- Operating orders shall be used as the formal procedure for managing operating actions where:

- the correct operating sequence or action is essential for safety and plant integrity or
- where isolation instructions for mechanical equipment are not part of an approved procedure.
- the format of operating orders & isolation instructions shall be comparable with the examples provided in this document.

2. PRIMARY ROLES AND RESPONSIBILITIES

PRIMARY ROLES

Primary roles for Operating Orders and Isolation Instructions are:

- Compiler – person developing the draft operating order or isolation instruction.
- Checker – second person that verifies the draft operating order or isolation instruction sequence and content achieves the objective.
- Actioner – person physically carrying out actions defined in the operating order or isolation instruction.

RESPONSIBILITIES

It is the responsibility of each person, including persons scoping, scheduling, and implementing work to:

- fully understand their respective role and their associated responsibilities to provide safe access to equipment for the purposes of undertaking work
- be conscious of the hazards associated with, or introduced by, their work and have effective mitigations in place for those hazards
- plan and communicate effectively so that intentions are well understood, and risks can be effectively managed

COMPETENCY

Each defined role shall only be performed by persons meeting the competency criteria for that role or by persons undergoing training, or competency assessment, or where they are under the direct supervision of a competent person.

The asset owner is responsible for ensuring those carrying out operating “functions” in relation to operating orders and isolation instructions are competent.

COMPILER

It is the responsibility of the compiler to ensure:

- that operating orders and isolation instructions are correctly drafted to achieve the required objective before being checked.

CHECKER

It is the responsibility of the checker to ensure:

- that operating orders and isolation instructions are correctly drafted to achieve the required objective before being actioned.

ACTIONER

It is the responsibility of the actioner to:

- understand the objective and actions
- safely execute operating orders and isolation instructions
- stop and review the process if any action or situation is unsafe, incorrect or if the objective will be compromised

OPERATIONAL DUTIES

Operating orders or isolation instructions are not required where competent operators of a specific site carry out routine operating duties where no work control procedure or assurance is required, e.g.

- activities where an operational procedure or job plan exists
- normal operational start-up and shutdown of plant
- duty/Standby Changeover
- walkdowns and visual inspections

3. OPERATING ORDER AND ISOLATION INSTRUCTION REQUIREMENTS

Wherever IASMs are applied or removed, an operating order or isolation instruction shall be used.

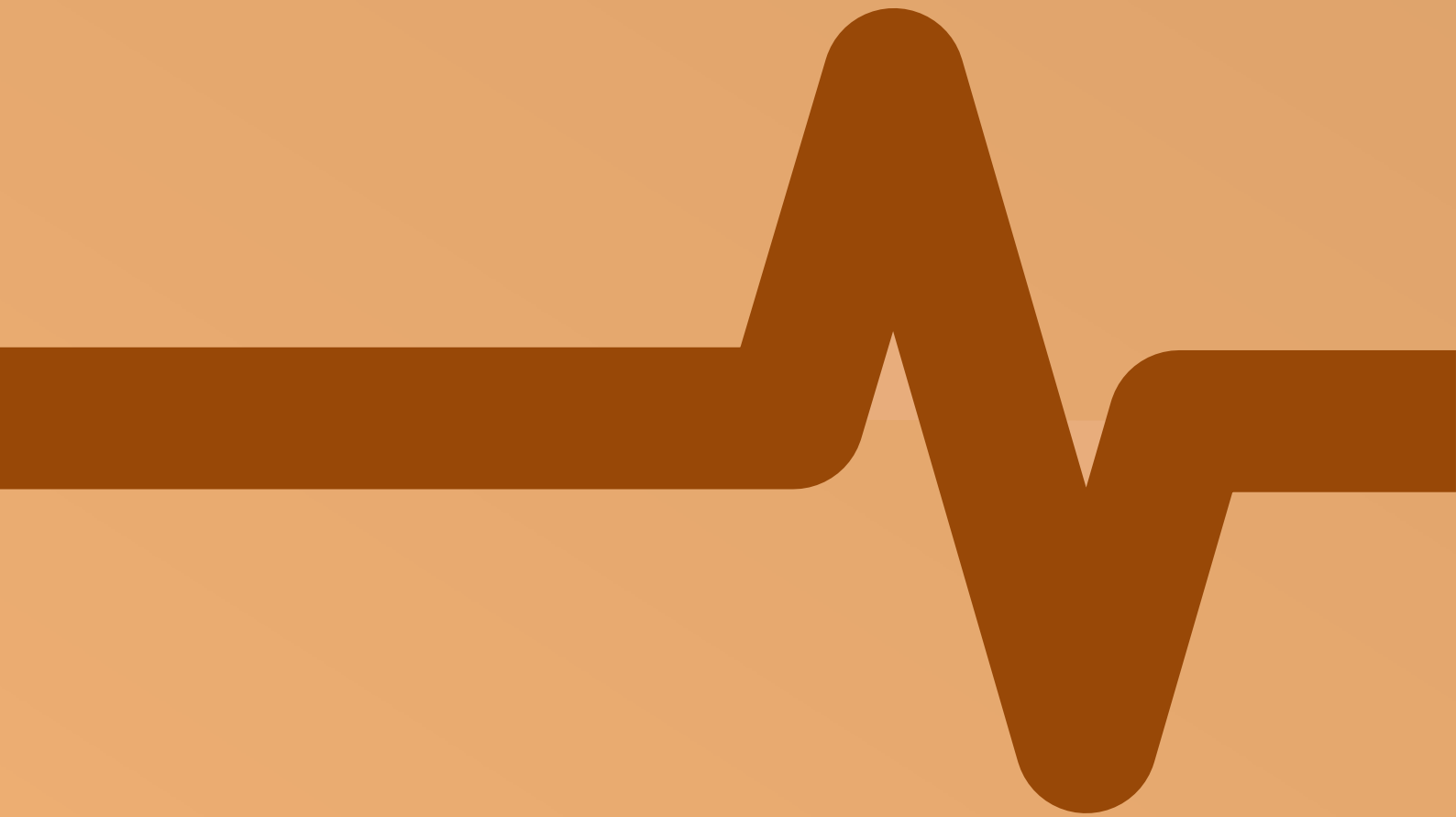
1. Operating Orders shall be used for:
    - the operation of all high voltage switchgear (greater than 1000Vac or 1500Vdc).
    - the operation of electrical equipment where lethal hazards may be introduced.
    - situations where the correct operating sequence or action is essential for safety and plant integrity or where isolation instructions for mechanical equipment are not part of an approved procedure.
    - proving high voltage equipment is de-energised.
    - the application of issuer applied earths required for the issue of an Access/Test Permit.
    - the removal of issuer applied earths, except under Test Permit conditions.
    - operation of test switches for the removal and restoration of protection for primary equipment.
    - the secondary circuit switching of VTs.
    - application and removal of HV permit areas
    - wherever the asset owner deems appropriate to use an operating order.

2. Isolation and de-isolation instructions

Where management of IASM's do not meet the above criteria, the asset owner may permit the use of isolation or deisolation instructions to manage the application or removal of the remaining non-sequential IASMs required to present plant in a desired state.

3. Operating Orders are not required for:
    - emergency operations where action must be taken immediately to prevent injury, loss of life, impact system security or damage to equipment.
    - start-up, shutdown, and control of equipment, for example:
        - Generators
        - synchronous condensers
        - spillways
        - sluice or canal gates
        - machine headgates or main valves
        - other routine operating duties as determined by the asset owner.
    - operation of equipment for which an access/test permit is issued and is under the control of the recipient.
    - alteration of IASMs documented on a test permit as those which may be removed for testing.

The Operating Order and Isolation Instruction Process



PLANNING FOR THE OPERATING ORDER

Ensure the scope of the work is understood.

Planning shall consider the following factors:

- potential impact on equipment remaining in service, system security and the environment
- any necessary liaison with a Network Company/Direct Customer/Other Stakeholders;
- where multiple (including external) parties will be completing operating actions, appropriate pre planning shall be completed to ensure alignment for each parties' requirements
- the continuity of voltage supply for protection and metering;
- identification of all equipment requiring IASMs
- all operating orders used in the isolation process;
- the extent of the HV switching and isolation required;
- the current configuration of the system;
- the extent of the equipment to be returned to service;
- any commissioning requirements;
- adequate distance from any in service equipment for the work to be done safely;
- sufficient work space within any applicable permit area to allow work to be performed safely

Plan the sequence of operations so that the objective can be met with the minimum number of operations.

- identify any other work occurring on site and confirm that the intended operating actions will not adversely affect this other work
- identify if there are any current or planned safety measures, whether they will be affected, and what actions are required to manage any risks

COMPILING THE OPERATING ORDER

Pre-requisites

The compiler shall be competent, have familiarity with the site(s), equipment concerned and planning requirements;

The operating order should be compiled at least 24 hours prior to actioning to allow sufficient time for the planning and coordination of the proposed actions, whenever practicable.

Relevant documentation is to be consulted when compiling e.g. single line diagrams (SLD), process & instrument diagrams (P&ID's) Standard operating procedures.

Compiling procedure

The following process is common for either hard copy or digital equivalent operating orders.

1. Clearly state the objective for the required outcome.
2. Clearly identify the sequential order that actions shall be undertaken.
3. Each action shall have a sequential item number.
4. Record an appropriate location short code for the location of the actioner in the "At" column for that action, e.g., ODS (outdoor switchyard), CCR (Central control room).
5. Write all entries clearly and legibly. Use correct abbreviations and terminology.
6. Where practical all IASMs shall be locked.
7. The operating order action may reference any related operating documentation used to achieve the desired outcome, e.g. Standard Operating Procedure
8. Compile operating orders in an instruction format.
9. Use a separate line for each operating action.

10. The end of the operating order should be indicated e.g. insert an 'End' entry to prevent ad hoc entries being added.
11. Clearly indicate the page number and total number of pages on each page.
12. Check all entries carefully for accuracy and completeness.
13. Sign the 'compiled by' field on each page.

COMPILING ACTION DETAIL

Write the entry for each action as an instruction, beginning with a verb, e.g.

ADVISE, APPLY, CONFIRM, OPEN, CLOSE, CHECK, DISABLE, ENABLE, FIT, REMOVE, RAISE, LOWER, SELECT, LOCK, UNLOCK, TAG, UNTAG, RACK OUT, RACK IN, PROVE.

Identify equipment or isolation points by their unique identification reference.

State the change in equipment status or position required, e.g. RAISE SPILLWAY GATE 1 TO 1.5 m.

Check Entries

Use "Check" entries for physical checks to ensure:

- a prerequisite condition, e.g. CHECK 6 MW OF LOAD TRANSFERRED FROM T2,
- (the circuit breaker is open immediately before operating a Disconnector locally, e.g. CHECK CB52 OPEN,
- all required actions have been completed, e.g. CHECK MIMIC,
- Following the removal of all portable earths, e.g. CHECK 6 EARTHS REMOVED.

Confirm Entries

Use 'Confirm' entries to ensure that actions have been taken at another location:

- where switching is done on equipment controlled by another person, e.g. CONFIRM HLY DIS46 OPEN, LOCKED. (HLY = Huntly)

Issuer Applied Safety Measures

Identify the action then the equipment:

- for the isolation of control circuits, e.g. REMOVE CB52 CONTROL FUSES, TAG; SELECT CB52 MLS SWITCH TO LOCAL, TAG,
- state the number of earths and define the exact position, e.g. APPLY 3 EARTHS BETWEEN CB52 AND DIS154, AT CB52,
- CHECK ACCUMULATOR 2 DEPRESSURISED
- CHECK UNIT 1 PENSTOCK PRIMING VALVE CLOSED

Use the words LOCK, UNLOCK TAG and UNTAG in association with the relevant operating action for the application and removal of IASM locks and tags, e.g. OPEN DIS156, LOCK; CLOSE V/V 78, LOCK; CHECK CB122 OPEN, TAG, etc.,
NOTE: This also applies to fuses or links which are points of isolation.

- use the term DRESS MIMIC for the application and removal of mimic notices on panels and HMI's,
- for HV equipment the placement or removal of Permit boundary markings, e.g. DEFINE PERMIT AREA FOR T1 & CB62.

Action by Remote Control

Ensure the three letter code for the station is inserted before the equipment number, e.g. OPEN TAR CB12.

NOTE: The abbreviation for the station name in the "At" column is the name of the station from which the remote operation is controlled.

CHECKING THE OPERATING ORDER

The operating orders shall be compiled and then checked by different competent persons. NOTE: If this is not possible seek approval by Asset Owner.

Validate the actions in the compiling procedure have been completed correctly and meets the required objective.

Sign the "Checked by" space on each page on completion of checking.

Where changes are identified during the "checking" process the changes are to be made by the compiler. If the original compiler is unavailable the checker assumes the role of compiler and another checker is required to complete final validation.

ACTIONING THE OPERATING ORDER

Immediately before actioning

Confirm:

- Plant status has not changed since the operating order was compiled.
- That the operating order still achieves the objective.
- The operating order has been compiled, checked, and signed. Enter the action date.

Actioning process single person

An operating order shall remain with the person carrying out the actions.

1. Enter a "start time" for the first action on the operating order.
2. Identify the action to be completed.
3. Identify equipment to be operated, and confirm it matches action item.
4. Carry out the operation.
5. Confirm that the operation is complete.
6. Cross off completed item so that it is still legible (paper), or digital equivalent.
7. Continue process for subsequent items.
8. Once final item has been actioned, enter a finish time.
9. Enter name and sign “Actioned by” section of the operating order.

Actioning process multiple persons

When separate actions of any operating order are to be carried out by two or more persons, each shall have a complete copy of the current operating order

1. Agree who takes overall lead and coordinates the entire process.
2. Agree on which actions are to be completed by each person.
3. Confirm the communication methods to be used and contact details.
4. The persons responsible for the first action on the operating order enters a “start time” on their copy of the operating order.
5. Communicate start time to other persons.
6. Identify the action to be completed.
7. Identify equipment to be operated, and confirm it matches action item.
8. Carry out the operation.
9. Confirm that the operation is complete.
10. Cross off completed item so that it is still legible (paper), or digital equivalent.
11. Continue process for subsequent items until their agreed sequential actions are completed.
12. Once the last item(s) in this group has been actioned, enter a finish time.
13. Communicate completion of item or group of items to other persons. Lead person confirms that the next item in the order may proceed.
14. The persons responsible for the next subsequent action(s) on the operating order enters a “start time” on their copy of the operating order.
15. Repeat steps 4 through 12.
16. Once each actioners final item has been actioned, enter a finish time, and confirm completion with all persons.
17. Enter name in “Actioned by” section of the operating order.

Actioning process for multiple parties

When separate actions are to be carried out by multiple, external or third parties, each parties operating orders shall be aligned and sequenced to achieve the required objective.

Common Actioning Principles

There may be times when the original actioning person cannot complete their assigned actions. When this occurs, the departing actioner shall initial the last item actioned by them.

When taking over a partly actioned operating order, the objective and operating sequence shall be fully understood before continuing.

If the actioner is interrupted during the actioning process e.g. phone call, the actioner shall stop, go back to the previous step to validate that that step has been completed correctly to the operating order.

Once actioning has started, the operating order **shall not** be altered.

If the operating order under action is no longer applicable, and the required objective cannot be achieved, all actions shall cease immediately.

1. cancel the uncompleted part of the operating order. e.g. by drawing a line diagonally through it (paper) and marking as cancelled or digital equivalent;
2. record these actions in the log.
3. plan, compile, and check a new operating order to suit the changed conditions;

Requirements for recording start/finish times

The operating order start and finish times form an administrative record which can be used for:

- audit/process improvement
- fault finding
- future resource planning

As a minimum record the start time on the first action to be completed and the finish time of the last completed action items

In addition to this, times shall be recorded for

- different actioners
- new action locations
- Interruptions or delays to an operating order.

Communication

All communications for operating action(s) shall be verbal and in real time. The following shall not be used:

- voice messages.
- text messages.
- recorded video messages.

Employees shall clearly identify themselves and the operating order number and line item number.

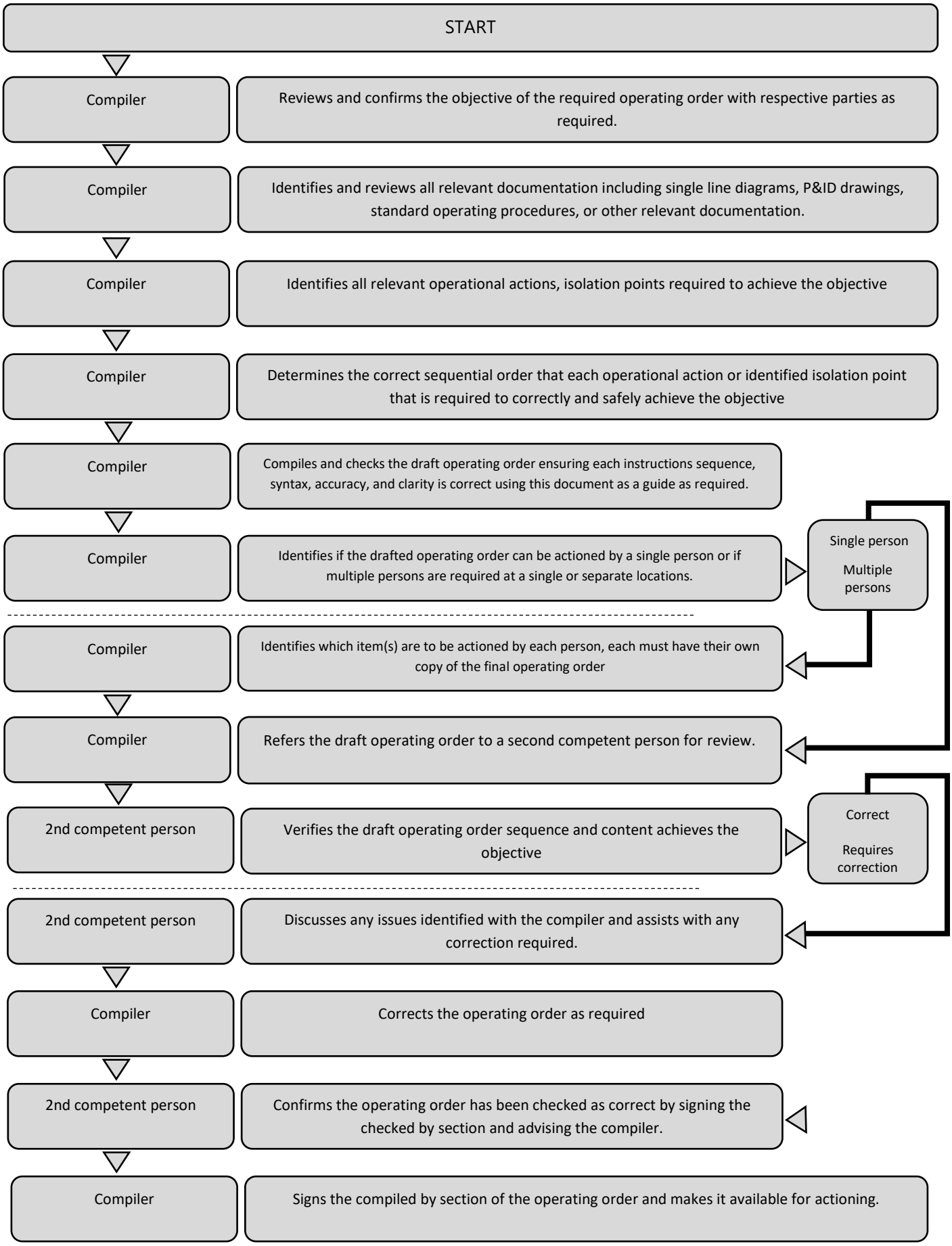
All verbal transactions shall be clearly understood by both parties and include a confirmation and acknowledgement process.

Records

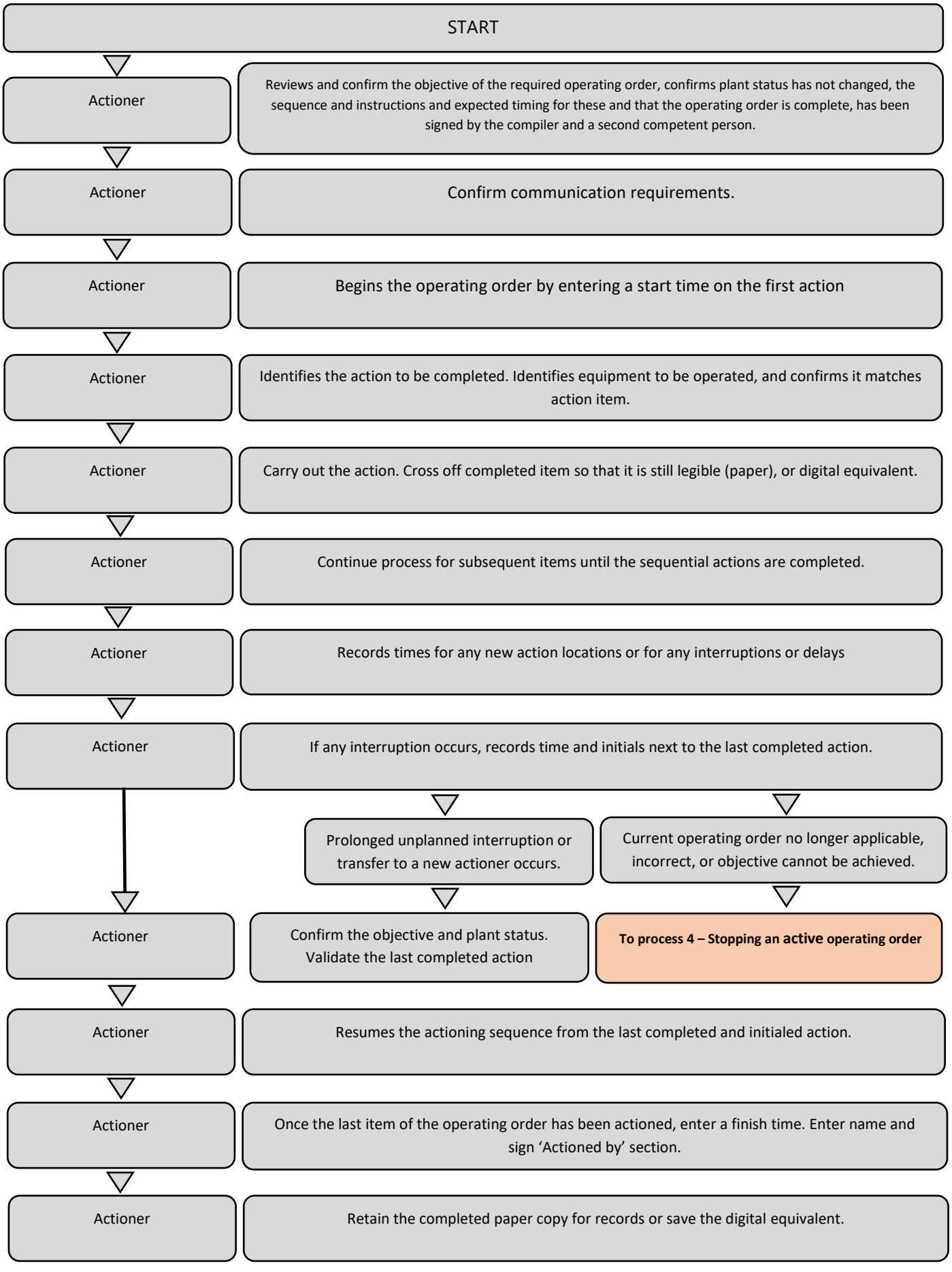
Retain all actioned or partially completed/cancelled operating orders as part of the log.

PROCESS FLOW CHARTS

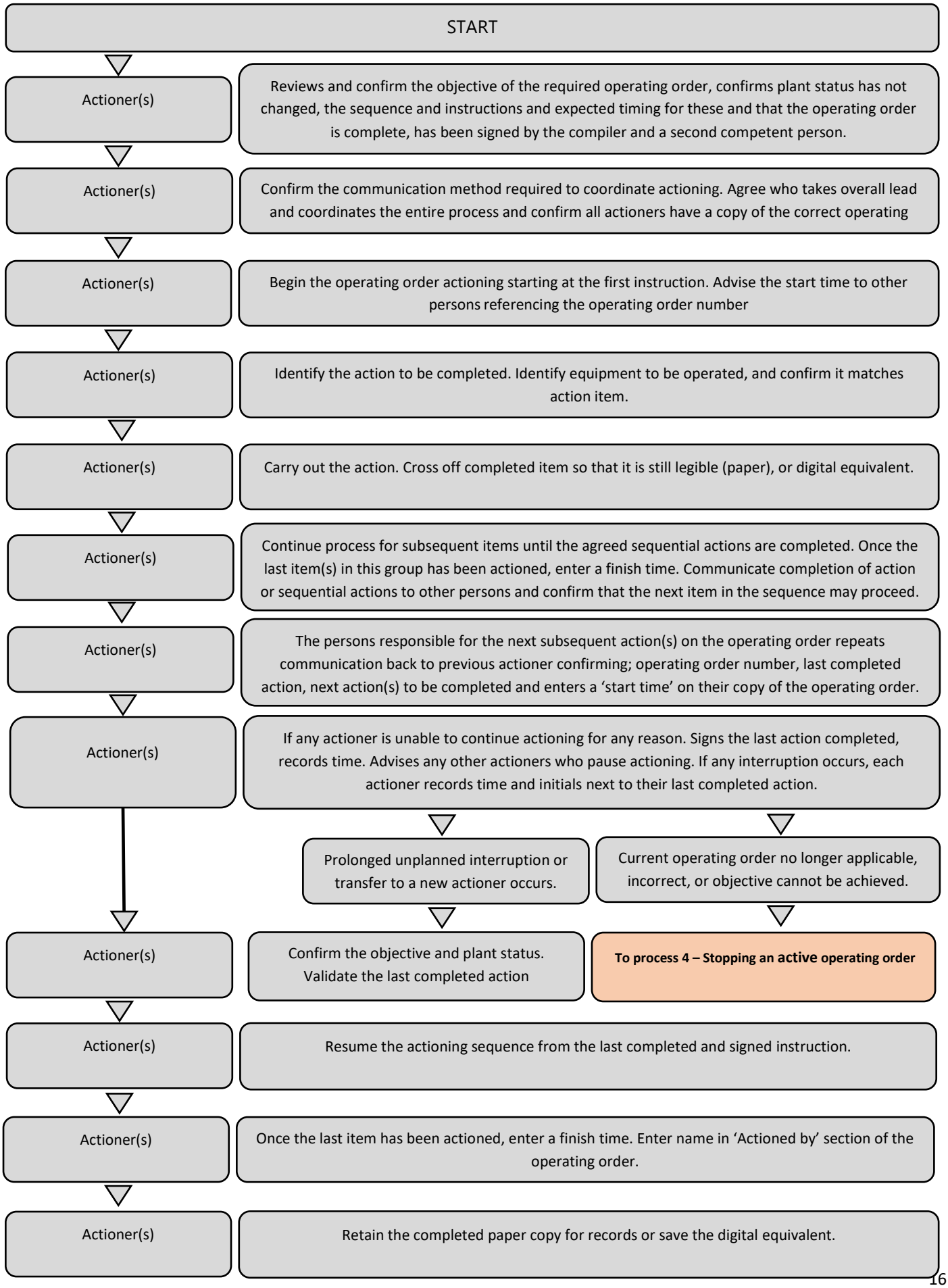
1. Planning for and compiling an Operating Order



2. Actioning an Operating Order (Single Person)



3. Actioning an Operating Order (Multiple Persons)



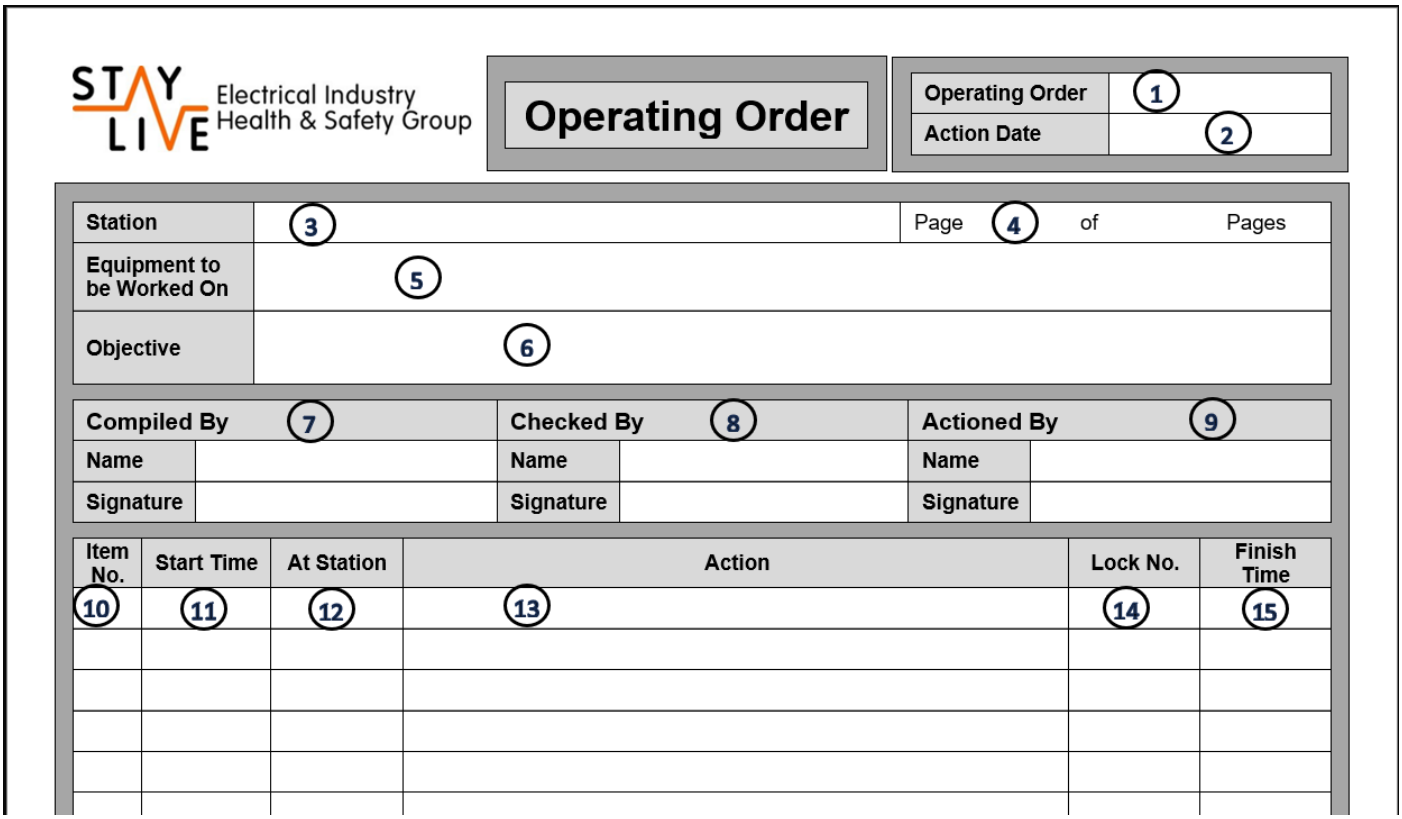
4. Stopping an active Operating Order

START

Actioner(s)	Confirm the need to stop actioning the operating order.
Actioner(s)	All persons actioning the operating order draw a line diagonally through the uncompleted actions on their copy of the operating order and mark as cancelled or cancel as required for any digital equivalent. Enter name and sign 'Actioned by' section.
Actioner(s)	Refer the cancelled operating order back to the compiler for revision or actions required by the situation. Record status in the log.
Compiler	Reviews the situation and determines the required action.

Return to 1. Planning for and compiling an Operating Order

OPERATING ORDER AND ISOLATION INSTRUCTION FORMS



STAY LIVE Electrical Industry Health & Safety Group

Operating Order

Operating Order	1
Action Date	2

Station	3	Page 4 of Pages	
Equipment to be Worked On	5		
Objective	6		

Compiled By 7		Checked By 8		Actioned By 9	
Name		Name		Name	
Signature		Signature		Signature	

Item No.	Start Time	At Station	Action	Lock No.	Finish Time
10	11	12	13	14	15

Figure 1: Example of Operating Order

1. Numbers issued consecutively by the controlling station
2. The date on which the O/O is actioned.
3. Name of the controlling station where the action is to occur.
4. Page number and total number of pages.
5. As stated.
6. The objective of the operating sequence.
7. Name & Signature of the compiler.
8. Name & Signature of the checker.
9. Name & Signature of the actioning person.
10. Item number in action sequence.
11. Record start time. Use 24 hr. clock.
12. Used when more than one station/location or actioner is involved.
13. Record actions in their correct sequence.
14. IASM Lock number used.
15. Record finish time. Use 24 hr. clock.

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Isolation / De-Isolation Instruction (1)

Reference No.	(2)
Lockout Box No.	(3)

Station	(4)	Page (5)	of Pages
Equipment to be worked on	(6)		
Work to be done	(7)		
Note That	(8)		

Checked By (9)	Print:	Sign:	Date:	Time:

Item No.	Safety Measures			Tags/Locks No.	Fuse/Bar Drawer	LOB No.	Done (Initial)
(10)		(11)		(12)	(13)	(14)	(15)

Completed By (16)	Print:	Sign:	Date:	Time:

1. Cross out as appropriate
2. Isolation instruction Reference
3. As stated
4. Name of the controlling station where the action is to occur
5. Page number and total number of pages
6. As stated
7. As stated
8. Equipment status advice
9. Name, Signature of the checker, date & time
10. IASM line item reference
11. IASM reference, description, and status details
12. As stated
13. Location of removed fuses
14. Lockout box reference
15. Initials when item completed
16. Name, Signature of the person applying the IASMs, date & time

OPERATING ORDER AND ISOLATION INSTRUCTION EXAMPLES

Example 1: Partially actioned operating order

STAY LIVE Electrical Industry Health & Safety Group

Operating Order

Operating Order	MX25644
Action Date	29/04/2024

Station	Waipori 5	Page 1 of 1 Pages	
Equipment to be Worked On	WPI5 CB52		
Objective	Routine Testing		

Complied By		Checked By		Actioned By	
Name	Rex Easley	Name	Iona Corolla	Name	Chrisp Bacon
Signature	Rex Easley	Signature	Iona Corolla	Signature	

Item No.	Start Time	At Station	Action	Lock No.	Finish Time
1	09:25	WPI5	~~CONFIRM WPI5 UNIT 1POINT OF CONTROL~~	----------	
2		WPI5	~~CHECK WPI5 UNIT 1SHUT DOWN~~	----------	
3		WPI5	~~SELECT WPI5 UNIT 1 MLS SWITCH TO LOCAL. TAG~~	----------	
4		WPI5	~~CHECK WPI5 UNIT 1 PENSTOCK PRIMING VALVE CLOSED. LOCK~~	3	
5		WPI5	CHECK WPI5 UNIT 1 ACCUMULATOR 2 DEPRESSURISED		
6		WPI5	OPEN CB52		
7		WPI5	CHECK CB52 OPEN. TAG		
8		WPI5	OPEN DIS156		
9		WPI5	CHECK DIS156 OPEN. LOCK		
10		WPI5	OPEN DIS154		
11		WPI5	CHECK DIS154 OPEN. LOCK		
12		WPI5	PROVE CB52 DE-ENERGISED BETWEEN CB52 & DIS154 AT DIS154		
13		WPI5	APPLY 3 EARTHS BETWEEN CB52 & DIS154 AT DIS154. LOCK		
14		WPI5	PROVE CB52 DE-ENERGISED BETWEEN CB52 & DIS156 AT DS156		
15		WPI5	APPLY 3 EARTHS BETWEEN CB52 and DIS156 at DIS156. LOCK		
16		WPI5	DRESS SCADA MIMIC		
17		WPI5	DEFINE PERMIT AREA For CB52		
18		WPI5	END		

Example 2: Actioned and completed isolation Instruction

STAY LIVE Electrical Industry Health & Safety Group

Isolation / De-Isolation Instruction

Reference No.	AP No: 2020 / 00659
Lockout Box No.	12

Location	Huntly Power Station	Page 1 of 1 Pages
Equipment to be worked on	COAL HANDLING PLANT MSD3712 3.3KV COAL HANDLING BOARD, MSD 3712, COAL CONVEYOR 6B	
Work to be done	Routine cable test	
Note That	----------	

Checked By	Print: Les Payne	Sign: Les Payne	Date: 28/04/2024	Time: 10:20

Item No.	Safety Measures			Tags/Locks No.	Fuse/Bar Drawer	LOB No.	Done (Initial)
1	IPMSD3712	3.3KV COAL HANDLING BOARD, COAL CONVEYOR 6B, MSD3712	BUS SHUTTER LOCKED	246	----------	12	DF
2	IPMSD3712CE	3.3KV COAL HANDLING PLANT BD, COAL CONVEYOR 6B, MSD3712 CABLE EARTH	EARTH APPLIED & TAGGED	T5021	----------	----------	DF

Completed By	Print: Douglas Furr	Sign: Douglas Furr	Date: 29/04/2024	Time: 08:50

WCP GLOSSARY

Terms	Definition
Access Permit [AP]	A Works Management System used to present out of service equipment in an agreed and defined state for work, using issuer applied safety measures, where the work does not include the introduction of primary energy sources, test voltages or potentially lethal hazards
Actioner	The competent person physically carrying out actions defined in the operating order or isolation instruction
Allocate	To pass from one operating employee to another the instructions for carrying out defined operating actions.
Approved	Having an asset owner's or employer's endorsement for a specified function or purpose.
Asset Owner [AO]	A participant in the electricity supply industry who owns plant or equipment used for generating or conveying electricity ultimately responsible for safety at site.
Assurance	The Assurance is an administrative system between different asset owners used to confirm the agreed and defined state, of equipment not under the control of the Issuer, necessary for access or test permits.
But Note That:	Field on a permit where the Issuer indicates any remaining hazards.
Checker	The second competent person that verifies the draft operating order or isolation instruction sequence and content achieves the objective.
Competent	Has the necessary ability, knowledge, and skill to carry out work safely and to the quality and standard required.
Compiler	The competent person developing a draft operating order or isolation instruction.
Conductor	Material used for the conveyance of electricity.
Daily Meetings	A meeting to communicate the key aspects for the intended work
De-energised	Not connected to or containing a source of energy, e.g., electrical, steam, compressed air, hydraulic.
Departing Recipient	The Recipient of a Permit that is to be transferred to a New Recipient
Entry Approval Competence	Competence for unsupervised access to a site.
Earthed	Effectively connected to the general mass of earth.
Earthing Device	An approved device to effectively connect equipment to the general mass of earth.
Earth switch	A switch that when closed provides an electrical connection between equipment and the general mass of earth.
Energised	Connected to or containing a source of energy, e.g., electrical, steam, compressed air, hydraulic.
Equipment	Electrical and mechanical apparatus and civil infrastructure, which is typically fixed in location, and used for generation, transmission, or distribution of electricity.
Extra Low Voltage [ELV]	Any voltage normally not exceeding 50 volts AC or 120 volts ripple-free DC
Gate	Spillway, sluice, headgate, control gate or valves performing the same (or similar) function
General Work	A Minor Works Management System, applied to manage work that presents no risk to equipment operation, or resource consent compliance.

Generation Controller (Function)	An employee at a Generation Control Centre with Point of Control for plant operation within their area of responsibility.
Hazard	Anything that can cause harm, including a person's behaviour, that has the potential to cause death, injury, or illness to a person.
High Voltage [HV]	Any voltage exceeding 1000 V ac. or 1500 V dc.
In Service	The state of equipment that is not isolated: and is in a state to perform its designated function.
Isolated	Deliberately disconnected from external sources of harm, e.g., energy (electrical or mechanical) or asphyxiating, toxic or flammable gas, and rendered incapable of being reconnected without deliberate action.
Isolation (De-isolation) Instruction	A list of operating instructions (not sequenced) compiled in an approved format required to isolate or de-isolate a defined asset or equipment.
Isolation Point	A location designed as a facility to safely disconnect, separate, or provide a barrier between an energy source and intended work area for any work management system'
Issuer	A competent worker that administers WA/AP/TP and Assurance documentation as prescribed within Issuer responsibilities.
Issuer Applied Safety Measures [IASM]	Safety measures under a Work Management System applied by, or on behalf of the issuer for work or testing on equipment presented in a defined state, removed from and unavailable for service
Hazard ID and Risk Management Process	Summary of work scope, associated hazards and their controls and work party acknowledgement, understanding and compliance with these controls. Includes Job Safety Analysis and Worksite Safety Plans
Limited Testing	Limited testing is permitted under an AP, but only after a risk assessment has been completed to ensure such testing has insufficient capacity to cause harm.
Live	Connected to a source of electrical supply or subject to hazardous induced or capacitive voltage.
Live Work	Work performed inside the minimum approach distance of equipment that is live.
Lock Box	A lockable facility for securing keys, fuses etc. associated with safety measures controlled under a Works Management System.
Low Voltage [LV]	Any voltage exceeding 50 V ac. or 120 V ripple free dc. but not exceeding 1000 V ac. or 1500 V dc.
Main Boundary Isolation	IASM's on energy sources that form the main perimeter of isolations for a permit. These are of a nature that if altered, would introduce a safety risk to a work party.
Major Isolations	IASM's that isolate a primary or significant energy source or are of a nature that if altered would introduce a safety risk to a work party. Can be a main boundary isolation or within the perimeter.
Minimum Approach Distance [MAD]	The MAD is the minimum safe distance that workers, vehicles, and mobile plant shall be separated from live conductors to prevent the risk of accidental contact and electric shock.
Minor Works Management System [MWMS]	A system used to manage work where an access permit, or test permit is not required, and the supervisor manages the control measures. General work or a work authority is used in this context.
Daily Meeting	Meeting for all work party supervisors to meet with the asset owner to discuss and document the nature and location of each party's work and the hazards that may be created through their work.
New Recipient	A Recipient accepting a Permit via the Recipient transfer process.
Objective	The purpose or outcome required for an operating order or isolation (deisolation) instruction.

Operating Action	An action that changes the status of equipment. Achieved automatically, manually, remotely, or actioned though an operating order or isolation instruction.
Operational Control	The assigned authority and ability to change the status of equipment.
Operating Order [OO]	A planned sequence of operating actions (or a single action) that has been compiled in an approved format
Outage	The release of equipment or plant via a formal request and approval process.
Permit Area	The defined work area for an Access Permit or Test Permit
Permit Competency	An employer recognition of training and experience stating a person is competent to be an AP/TP recipient, issuer, or both.
Planning Function	Roles that support planning and coordination of work.
Plant	Additional to equipment, infrastructure at or associated with a generation facility.
Plant Outage Request [POR]	Formal request for an outage on generation equipment.
Point of Control [POC]	The responsibility from which operational control of equipment is held within an organisation.
Portable Earth	An approved portable earthing device for temporarily earthing isolated equipment.
Pre-Work Planning [PWC]	The process of developing a work plan prior to work commencing.
Primary Energy Source	The main source(s) of energy used to energise equipment e.g., live high voltage, high pressure steam, penstock pressure water
Production	Continuity of planned generation
Receiver	The person receiving an assurance that safety measures have been applied as requested to assets under the control of the sender.
Recipient	A competent worker that receives and manages work authorities, access, or test permits.
Recipient Applied Safety Measures [RASM]	Safety measures applied by or on behalf of the work site Supervisor for General Work, or Recipient for Work Authorities, Access, and Test Permits.
Recipient Applied Safety Measures Register	Formal record of all recipient-applied measures to ensure safe management of isolation points or plant status.
Remote Access	Access to plant and equipment systems (e.g., control, protection, communication) via a network when physically located elsewhere.
Risk	Potential exposure to situations that may affect people's health and safety, plant and equipment operation or the environment.
Safety Manual - Electricity Industry [SM-EI]	Guidance on safety practices published by the electricity supply industry.
Safety Measures	Actions taken to present equipment in an agreed state.
Safety Measure Competence	Competence to apply safety measures as specified in the applicable WCP
Sender	The person sending an assurance that safety measures have been applied as requested to assets under the control of the sender.
Standard Operating Procedures [SOP]	A documented and approved procedure or instructions for an established routine or specific operational activity.
State of Equipment	A description of the current status of the equipment.
Supervisor (Access Permit)	A role performed by the Recipient, or competent person(s) agreed with the Recipient, with specific responsibilities for the access permit process, safety, and integrity.

Supervisor (Test Permit)	A role performed by the Recipient with specific responsibilities for the test permit process, safety, and integrity.
Supervisor (Test Permit Work Position)	An additional role appointed by the Test Permit Recipient with specific responsibilities for work position process, safety, and integrity for every working position that the recipient of a test permit cannot supervise directly.
Supervisor (Work Party)	A role performed by a competent person at the worksite responsible for the safety, quality, and control of the work activity.
Supplementary Operating Order	An extra operating order used when additional actions are required when actioning an existing operating order (GPG definition)
Suspension	Status of an AP when it is returned by the Recipient to the Issuer but not reissued or cancelled. A TP shall not be returned for suspension.
Switchyard	A restricted area, enclosed by a security fence or other secure boundary, containing normally energised conductors and equipment.
Tag	A label used to visually identify a safety measure or isolation point.
Test Permit [TP]	A Works Management System used to present equipment in an agreed and defined state for testing, using issuer applied safety measures, where testing includes the introduction of primary energy sources, test voltages or potentially lethal hazards. The process allows for the agreed alteration of IASM's.
The Log	A complete record of all operating actions and events, time stamped as they occur.
Work Authority [WA]	A Minor Works Management System, for work on or near in service or available for service equipment where that work may present a risk to equipment operation or affect resource consent compliance.
Work Authority Competence [WAC]	An employer recognition of training and experience stating a person is competent to be a work authority recipient, issuer, or both.
Work Management System	A documented system to control risks for work on or near equipment which is presented in an agreed and defined state. An access permit, test permit or assurance is used in this context.
Work Position	The location(s) where work activity is taking place.