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06/12/2023

Subject: Port Kembla Gas Terminal – Construction Safety Plan (Stage 3)

Dear Ms Lovell

I refer to your submission requesting review and approval of the second Construction Safety Plan (CSP) for Stage 3 (Commissioning of Pipeline) for the Port Kembla Gas Terminal project.

The Department has carefully reviewed the document and we consider that the commissioning portion of the CSP to have been prepared in accordance with Schedule 3, Condition 21(d) of the Infrastructure Approval for SSI-9471, also covering commissioning requirements under AS 2885. As such, the commissioning portion, along with the CSP which was previously approved, by the Department on 22 September 2022, completes the requirements for this condition.

Accordingly, as nominee of the Planning Secretary, I approve the Construction Safety Plan, titled Commissioning Health, Safety & Environment Management Plan (Rev 1, dated 14 September 2023).

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Wayne Jones on (02) 6575 3406.


Yours sincerely




Stephen O'Donoghue
Director
Resource Assessments
As nominee of the Planning Secretary



Document Cover Sheet

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By: Leon Terenyi, Jemena

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PORT KEMBLA PIPELINE PROJECT COMMISSIONING HEALTH, SAFETY & ENVIRONMENT MANAGEMENT PLAN


GAS-599-PA-CS-002

Revision Number: 1


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AUTHORISATION

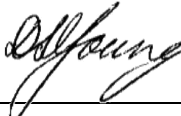
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TABLE OF CONTENTS

1	INTRODUCTION.....	6
1.1	DOCUMENT PURPOSE & SCOPE.....	6
1.2	PROJECT BACKGROUND.....	6
1.3	COMMISSIONING SCOPE.....	6
2	REFERENCES.....	7
3	DEFINITIONS.....	8
3.1	DEFINED TERMS	8
3.2	ABBREVIATIONS & ACRONYMS.....	8
4	JEMENA HSE POLICIES.....	9
5	LEGAL REQUIREMENTS.....	10
6	HSE DOCUMENTATION HIERARCHY & ALIGNMENT	10
6.1	WORK UNDER CONSTRUCTION CONTRACTOR (PRINCIPAL CONTRACTOR)	10
6.2	PRE-COMMISSIONING POST MECHANICAL COMPLETION.....	11
6.3	GAS COMMISSIONING.....	11
6.4	HANDOVER TO OPERATIONS.....	11
6.5	EMERGENCY RESPONSE DOCUMENTS	11
7	COMPLETIONS & PRE-COMMISSIONING.....	12
8	COMMISSIONING PERMIT TO WORK & LOTO	12
9	COMPLETIONS & PRE-COMMISSIONING SPECIFIC HAZARDS & CONTROLS	13
9.1	PARALLEL PRE-COMMISSIONING & CONSTRUCTION ACTIVITIES.....	13
9.2	ENERGISING ELECTRICAL EQUIPMENT.....	14
9.3	NITROGEN INERTING	14
10	TRANSITION TO GAS COMMISSIONING.....	15
11	GAS COMMISSIONING SPECIFIC HAZARDS & CONTROLS	15
11.1	INTRODUCTION OF NATURAL GAS.....	15
11.2	PLANT STARTUP & RAMPUP OF COMMERCIAL FLOWS	15
12	COMMISSIONING HSE RESPONSIBILITIES AND AUTHORITIES.....	16
12.1	COMMISSIONING MANAGER.....	16
12.2	COMMISSIONING SITE LEAD	16
12.3	HSE MANAGER.....	16
12.4	GENERAL WORK PARTY MEMBERS	17
12.5	VISITORS	18
13	COMMUNICATION	18
13.1	INTERNAL & EXTERNAL COMMUNICATION AND REPORTING	18
13.1.1	SITE COMMUNICATION.....	18
13.1.2	COMMUNICATIONS HARDWARE.....	18
13.1.3	MEETINGS & REPORTING.....	19
13.2	SAFETY ALERTS / LESSONS LEARNT / HSE BULLETINS	19

13.3	SAFETY SIGNAGE AND BARRICADING.....	19
13.4	SAFETY CONCERNS AND RESOLUTIONS.....	19
14	INCIDENT MANAGEMENT	19
14.1	IMMEDIATE ACTION.....	20
14.2	EMERGENCY RESPONSE PLAN.....	20
14.3	HSE INCIDENT REPORTING.....	20
14.4	NOTIFIABLE INCIDENTS	20
14.5	HSE INCIDENT INVESTIGATION AND ANALYSIS.....	21
14.6	RETURN TO WORK (RTW) / REHABILITATION.....	21
14.7	COMPENSATION CLAIMS	22
15	TRAINING AND COMPETENCY	22
15.1	SITE INDUCTION	22
15.2	VISITOR INDUCTION	22
16	HAZARD AND RISK MANAGEMENT.....	23
16.1	THE CAPACITY MODEL.....	23
16.2	QUANTA HUMAN PERFORMANCE PRINCIPLES	23
16.3	APPLYING THE CAPACITY MODEL	24
16.3.1	STKY (STUFF THAT KILLS YOU).....	24
16.3.2	THE ENERGY WHEEL	24
16.3.3	CRITICAL CONTROLS.....	25
16.3.4	OPERATIONAL LEARNING	25
16.4	ZINFRA / SGSPAA SAFETY NON-NEGOTIABLES	25
16.5	COMMISSIONING HAZID	26
16.6	RISK REGISTER.....	26
16.7	HAZARD IDENTIFICATION.....	26
16.7.1	SAFE WORK METHOD STATEMENT (SWMS).....	26
16.7.2	TAKE 5 / HAZID CARDS.....	27
16.8	HAZARD REPORTING & HSE INSPECTIONS	27
16.9	PLANT AND EQUIPMENT ASSESSMENTS.....	28
16.10	MANAGEMENT OF CHANGE	28
17	GENERAL SITE SAFETY CONTROLS	28
17.1	ENFORCEMENT OF SAFETY STANDARDS.....	28
17.2	SAFETY MANAGEMENT RECORDS.....	28
17.3	FIRST AID	29
17.3.1	FIRST AID KITS.....	29
17.4	INSPECTIONS & AUDITS	29
17.5	FITNESS FOR WORK	30

17.5.1	COVID-19	30
17.6	SMOKING	31
17.7	FATIGUE MANAGEMENT	31
17.8	HEAT STRESS	31
17.9	DANGEROUS FLORA AND FAUNA	32
17.10	BOUNDARY ISOLATION	32
17.11	COMMISSIONING CONTROL AREAS	32
17.12	NOTICE OF ENERGISATION (NOE).....	32
17.13	PERSONNEL PROTECTIVE EQUIPMENT (PPE)	32
17.14	DRIVING.....	33
17.14.1	REMOTE TRAVEL.....	33
17.14.2	DELIVERY OF GOODS & MATERIALS.....	33
17.15	EXCAVATION & TRENCHING	34
17.16	UNDERGROUND SERVICES.....	34
17.17	ELECTRICAL SAFETY	35
17.18	HAZARDOUS CHEMICALS	35
17.18.1	GAS CYLINDERS	35
17.19	HAZARDOUS ATMOSPHERES	35
17.20	CONFINED SPACES.....	35
17.21	SCAFFOLDING	36
17.22	WORKING AT HEIGHTS.....	36
17.23	CRITICAL LIFTS	36
17.24	HOUSEKEEPING.....	37
17.25	PORTABLE TOOLS, HAND TOOLS AND OTHER EQUIPMENT.....	37
17.26	NON-DESTRUCTIVE EXAMINATION (NDE).....	37
17.27	PUBLIC ACCESS AND WORKPLACE SECURITY	37
17.28	EMERGENCY RESPONSE DRILLS	38
18	ENVIRONMENTAL MANAGEMENT	38
18.1	WEED MANAGEMENT.....	38
18.2	WASTE MANAGEMENT	38
18.3	TRAFFIC MANAGEMENT	39
18.4	CHEMICAL STORAGE	39
18.5	NOISE MANAGEMENT.....	39
18.6	FAUNA AND FLORA	39
18.7	ENVIRONMENTAL INSPECTIONS	39
19	APPENDIX 1 SAFETY NON-NEGOTIABLES	40

1 INTRODUCTION

1.1 DOCUMENT PURPOSE & SCOPE

This Commissioning Health, Safety and Environment Management Plan (CHSEMP) details the requirements for managing workplace health, safety and environment throughout the pre-commissioning, gas commissioning, performance testing and handover to operations phases of the Jemena/Zinfra Port Kembla Pipeline Project (PKP)

The execution of the commissioning works (inclusive of all the above stages) will be carried out as per the Commissioning Management Plan (GAS-599-PA-CS-001).

This document describes the system used to manage the transition from construction to operations in a logical, structured and auditable approach.

This document will be in place for all pre-commissioning and gas commissioning operations and is one part of the overall project management structure.

The objectives of this plan are to:

- Ensure adequate systems and processes are in place to enable the safe commissioning and handover of the project; specifically ensuring the health and safety of all persons that could be at risk as a result of commissioning activities;
- Ensure adequate systems and processes are in place to minimise any environmental impact associated with commissioning;
- Ensure that this document is aligned and compliant with the approved Jemena/Zinfra project safety and environment management documents for the construction and pre-commissioning phase; and
- Ensure that this document is aligned and compliant with the regulator approved Jemena/Zinfra Pipeline Management Plan for the gas commissioning phase;

1.2 PROJECT BACKGROUND

The Eastern Gas Pipeline (EGP) is a key natural gas supply artery between gas fields in Gippsland in Victoria and the major gas markets in NSW and the ACT.

Jemena/Zinfra is executing a project to connect an Import Terminal at Port Kembla, to a new lateral pipeline

named the Port Kembla Pipeline (PKP) including the Kembla Grange Metering Station (KGMS) and Kembla Grange Main Line Valve (KGMLV) Station modifications, into the EGP.

There is expected to be up to 500 MMSCFD of gas being injected into the EGP from the Floating Storage and Regasification Unit (FSRU) in Port Kembla to be transported to the Victorian and New South Wales gas pipeline networks.

1.3 COMMISSIONING SCOPE

This document applies to the commissioning work performed by the Jemena/Zinfra PKP Project Commissioning Team and supporting contractors and vendors. The scope includes all construction

completions, pre-commissioning, gas commissioning, performance testing, operator training and the site management works until the sites are formally handed over to the Jemena/Zinfra Operations Group.

This document is applicable to the above activities at all of the PKP sites.

2 REFERENCES

Document Number	Title
Jemena Policy Documents	
JAA-HSE-PO-0001	HSEQ Policy
JEM-PO-0020	Return to Work and Rehabilitation Policy
Jemena HSEMP Documents	
GAS-599-PA-HSE-002	Project Marlin – Pipeline and Facilities HSE Management Plan
GAS-599-PA-HSE-004	Jemena Port Kembla Gas Project Environment Management Plan
GAS-999-PR-HSE-006	Jemena Permit to Work Procedure
GAS-999-PR-HSE-007	Jemena Isolation and Tagging Procedure
JAA NSO PL 0003	Emergency Management Plan
JAA NSO PL 0003_02	Emergency Management Plan - Annex Two Eastern Gas Pipeline (EGP)
Construction Contractor (Principal Contractor) Construction HSEMP Documents	
GAS-559-PA-HSE-010	WASCO Construction Safety Management Plan
GAS-559-PA--EV-009	WASCO Construction Environmental Management Plan
(GAS-599-PA-CN-005)	WASCO Traffic Management Plan
GAS-599-PA-EM-001	WASCO Emergency Response Plan
Commissioning Management Documents	
GAS-599-PA-CS-001	Commissioning Management Plan
GAS-599-PA-CS-004	Commissioning Emergency Response Plan
GAS-599-PR-EL-003	Commissioning Notice of Energisation Procedure
GAS-599-PR-EL-004	Commissioning Isolation And Lock-Out Tag-Out Procedure
GAS-599-RP-CS-001	Commissioning HAZID Terms of References

Document Number	Title
GAS-599-PR-CN-006	Commissioning Boundary Isolation Procedure
GAS-599-DW-CS-001	Commissioning Workflow Diagram

3 DEFINITIONS

3.1 DEFINED TERMS

Where used in this document, the following definitions will apply.

Term	Definition
Brownfields	A work area within/around an operational asset where the presence of an existing asset introduces additional working hazards. Once the gas commissioning phase is entered, the entire hazardous area of the facilities will be considered Brownfields.
Greenfields	A work area with no previous development or existing asset
Project	The PKP Project.

3.2 ABBREVIATIONS & ACRONYMS

The following abbreviations and acronyms are used in this document.

Abbreviation / Acronym	Definition
ACT	Australian Capital Territory
AIE	Australian Industrial Energy (a.k.a Squadron Energy)
CHSEMP	Commissioning Health, Safety & Environment Management Plan
COVID-19	Coronavirus Disease 2019
E&I	Electrical and Instrumentation
EGP	Eastern Gas Pipeline
ERP	Emergency Response Plan
FSRU	Floating Storage Re-gasification Unit
HAZID	Hazard Identification

Abbreviation / Acronym	Definition
HSE	Health, Safety & Environment
HSMP	Health and Safety Management Plan (WASCO)
KGMLV	Kembla Grange Main Line Valve
KGMS	Kembla Grange Metering Station
LOTO	Lock Out Tag Out
MMSCFD	Million Standard Cubic Feet per Day
NDT	Non-Destructive Testing
NSW	New South Wales
PCHSMP	Project Construction Health & Safety Management Plan
PKP	Port Kembla Pipeline
PPE	Personal Protective Equipment
PTW	Permit to Work
RAT	Rapid Antigen Test
SDS	Safety Data Sheet
SFAIRP	So Far as is Reasonably Practicable
SGSPAA	State Grid Singapore Power (Australia) Assets (Jemena & Zinfra Owner)
STKY	Stuff That Kills You
SWMS	Safe Work Method Statement
WHS	Work Health and Safety

4 JEMENA HSE POLICIES

Compliance with SGSPAA HSE policies is mandatory and the policies will apply to all activities and personnel. The SGSPAA HSE policies are available in the following documents,

- JAA-HSE-PO-0001 – HSEQ Policy
- JEM-PO-0020 – Jemena Return to Work and Rehabilitation Policy

Implementation of these policies supports the delivery of SGSPAA's health, safety and environment commitments. The Commissioning Manager will ensure all personnel are made aware of these HSE Policies as part of the induction process.

5 LEGAL REQUIREMENTS

All workers on the Project are required to comply with:

- SGSPAA WHS Policies;
- Relevant Codes of Practice;
- Relevant Australian Standards;
- Any guidelines set out that may impact on third party infrastructure;
- The relevant approved Safety Cases for the specific stage of the works;
- The provisions of the Work Health and Safety Act 2011 (NSW) and Work Health and Safety Regulations 2017 (NSW)
- The provisions of the Protection of the Environment Operations Act 1997 (NSW)

Jemena/Zinfra and the PKP Project Commissioning Team are responsible for ensuring all relevant health, safety and environment legislative obligations and responsibilities relating to this scope of work are identified and fulfilled and that all relevant personnel have access to sufficient HSE legislative information to allow them to understand and fulfil the HSE obligations of their job role.

This Commissioning HSE Management Plan structure reflects the common principles of ISO45001:2018 Occupational Health and Safety Management Systems and ISO14001:2015 Environmental Management Systems.

Note: Where the above-mentioned documents make reference to statutes, regulations, guidelines, forms, procedures, policies, matrices, standards, codes of practice, plans, etc. these are deemed to be requirements of this Commissioning HSE Management Plan.

6 HSE DOCUMENTATION HIERARCHY & ALIGNMENT

The project commissioning works will overlap with several distinct phases of the overall project. As such, the governing HSE documentation, legislated responsibilities will change throughout the course of the works. The following sections summarise these requirements throughout the various phases of work.

This document, as well as the PKP Commissioning Management Plan (GAS-599-PA-CS-001), apply through all phases of the commissioning works and has been prepared to satisfy the requirements of all governing documents applicable at each stage.

6.1 WORK UNDER CONSTRUCTION CONTRACTOR (PRINCIPAL CONTRACTOR)

At the metering station and on the pipeline sites, the respective Construction Contractor will have control of the site as the Principal Contractor during construction and the construction completions phase. The following documents detail the health and safety management processes which will act as the governing documents for the specific site whilst the Construction Contractor retains the Principal Contractor status:

- WASCO Construction Safety Management Plan (GAS-599-PA-HSE-010)

Construction completions works and pre-commissioning works completed whilst the Construction Contractor retains the Principal Contractor status will be completed under their overall control and in accordance with the respective HSMP plan listed above.

The Jemena permit to work system and isolation and tagging procedures will be implemented during the pre-commissioning phase to manage the works and protect personnel from energy sources. (Note: the Enscope Commissioning Isolation and Lock-out Tag-out (LOTO) system is available to be utilised

for commissioning where there is a need or value in doing so, and agreed to by Jemena/Zinfra). Whilst the Construction Contractor remains on site, the Commissioning Boundary Isolation Procedure (GAS-599-PR-CN-006) will be implemented to protect construction personnel from energy sources in the commissioning-controlled locations.

6.2 PRE-COMMISSIONING POST MECHANICAL COMPLETION

At some point during pre-commissioning, once all systems and areas are handed over, and in accordance with the particulars of the contract between Jemena/Zinfra and each Construction Contractor, Mechanical Completion will be achieved and overall control and Principal Contractor status will be handed over to Jemena/Zinfra. At this point, the PKP Project Commissioning Team will assume overall management of the site under this document and the Commissioning Management Plan.

6.3 GAS COMMISSIONING

Upon satisfying all requirements and regulatory approvals required to confirm readiness for gas, the management and governing health and safety documentation for the sites will transition to the Jemena/Zinfra Operations and to their respective plans.

At this point, the sites will be considered by the applicable Regulator as an operating (plant) site. The Jemena/Zinfra business will become the active licensee and operator of the sites, but the PKP Project Commissioning Team will retain ownership and management of the site.

6.4 HANDOVER TO OPERATIONS

Upon satisfying all requirements and operations approval to achieve handover to operations, the Jemena/Zinfra Operations Group and Asset Manager will accept ownership and management of the site and work entirely under the operations systems.

6.5 EMERGENCY RESPONSE DOCUMENTS

Emergency response by the PKP Project Commissioning Team is detailed in the Commissioning Emergency Response Plan (GAS-599-PA-CS-004) which effectively escalates the response or manages it internally as per the following milestones,

- During construction completions, whilst the Construction Contractor retains Principal Contractor status, the commissioning emergency response escalates to the Construction Contractor's Emergency Response Plan (GAS-599-PA-EM-001) and assists where possible and as directed.
- During pre-commissioning, after Jemena/Zinfra accepts the Principal Contractor status, the PKP Project Commissioning Team manages emergency response locally with notification to Jemena/Zinfra operations group as required. For major emergencies, the response is escalated to the Jemena Emergency Management Plan (JAA NSO PL 0003) and Annex Two Eastern Gas Pipeline (JAA NSO PL 0003_2) plan with assistance provided to the operations group where possible and as directed.

During gas commissioning, all emergencies are escalated to Jemena's Operational Emergency Response plan with assistance provided where possible and as directed.

7 COMPLETIONS & PRE-COMMISSIONING

As detailed in the previous sections, all completions activities are to be completed and managed under the relevant Project Construction Health & Safety Management Plan (PCHSMP) and supporting documents. Further, whilst the Construction Contractor at site remains as the Principal Contractor, their respective PCHSMP documents will remain in force.

For the pre-commissioning stage of the works, this document acts as a Bridging Document which confirms that the same management controls and systems detailed in the PCHSMP document will be applied with additional controls specific to the pre-commissioning works detailed in this section.

- **Responsibilities and Authorities** will be consistent with the PCHSMPs with the addition of the roles described in the **Roles & Responsibilities** section of the Commissioning Management Plan (GAS-599-PA-CS-001).
- **Communication** will be consistent with the PCHSMPs with the additional requirements described in the **Communications, Meetings & Interfaces** section of the Commissioning Management Plan (GAS-599-PA-CS-001)
- **Incident Management** will be consistent with the PCHSMPs and Jemena's procedures
- **Training & Competency** requirements will be consistent with the PCHSMPs with the additional requirements described in the **Personnel Competency & Training** section of the Commissioning Management Plan (GAS-599-PA-CS-001)
- **Hazard & Risk Management** will be consistent with the PCHSMPs with the additional requirements described in the following sections of the Commissioning Management Plan (GAS-599-PA-CS-001),
 - **Commissioning HAZID**
 - **Commissioning Risk Register**
 - **System Boundaries and Boundary Isolation**
 - **Commissioning Controlled Areas**
 - **NOE - Notice of Energisation**
 - **Commissioning Inductions**
- **Permit to Work & Lock-Out Tag-Out** will be as described in the Commissioning Management Plan (GAS-599-PA-CS-001) and further detailed in the next sections of this document.
- **Hazard & Risk Management** will further include the construction completions and pre-commissioning specific controls contemplated in the next section of this document.
- **Execution & Control** requirements will be consistent with the PCHSMPs

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), a Commissioning HAZID will be completed to identify hazards, risks and required controls specific to the all the commissioning activities being completed.

8 COMMISSIONING PERMIT TO WORK & LOTO

For the entire commissioning works (inclusive of both pre-commissioning and gas commissioning), the Jemena Permit to Work Procedure (GAS-999-PR-HSE-006) and Isolation and Tagging Procedure (GAS-999-PR-HSE-007) will be implemented to manage the works and protect personnel from energy sources. Where required, the Enscope Commissioning Isolation and Lock-Out Tag-Out (LOTO) Procedure (GAS-599-PR-EL-004) is available to be utilised for commissioning work in tandem with the Jemena PTW system. The decision to utilise the Enscope LOTO system for commissioning, in place of

the Jemena Isolation and Tagging system, will be agreed to by all relevant project stakeholders and clearly communicated prior to implementation on site.

Whilst the Construction Contractor remains on site, the commissioning Boundary Isolation Procedure (GAS-599-PR-CN-006) will be implemented to protect construction personnel from energy sources in the commissioning-controlled areas. Boundary Isolations may remain in place after handover from the construction contractor in situations where there could be external sources of energy from outside project-controlled areas impacting on the project equipment/team. Additionally, Boundary isolations will be in place between adjacent facilities to protect others from works outside the fence.

9 COMPLETIONS & PRE-COMMISSIONING SPECIFIC HAZARDS & CONTROLS

9.1 PARALLEL PRE-COMMISSIONING & CONSTRUCTION ACTIVITIES

During the construction completions and handover process, in certain areas there will be both pre-commissioning and construction and/or Punchlist closeouts activities occurring. The risks associated with these simultaneous operations include,

- Transfer of energy (electrical, pneumatic, liquids) from pre-commissioning works to a construction controlled location;
- Construction personnel completing work in a commissioning controlled location without understanding the additional hazards that may be present in these areas and the controls that will be adhered to;
- Construction personnel not being aware that particular equipment/systems have been energised; and
- Conflicting works being planned.

These risks will be managed through the implementation of the following controls:

- Boundary Isolations to be reviewed, agreed and implemented between the Construction Contractors and the PKP Project Commissioning Team to prevent the transfer of energy in accordance with the Boundary Isolation Procedure (GAS-599-PR-CN-006).
- As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), all personnel needing to work within Commissioning controlled locations will be required to undertake the commissioning induction which defines the additional hazards and controls applicable to these areas.
- As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), a Notice of Energisation Procedure (GAS-599-PR-EL-003) will be applied to the energisation of all electrical equipment, equipment and pipe work systems to seek approval to energise, notify all site personnel prior to the energisation and indicate that status of energised equipment.
- At the end of each day, a supervisor planning meeting will be held to discuss the activities planned for the next day, plan the permits required and considering the simultaneous operation risks in these activities. Further, all site personnel are required to attend the pre-start meeting at the start of each day where all works planned for the day are communicated to the work parties.

9.2 ENERGISING ELECTRICAL EQUIPMENT

As discussed in the Commissioning Management Plan (GAS-599-PA-CS-001) and Section 9.1 above, a Notice of Energisation Procedure (GAS-599-PR-EL-003) will be applied to the energisation of all electrical equipment. As part of this process, the requirement for Boundary Isolations to prevent the transfer of this electrical energy to other areas will be reviewed and implemented in accordance with the Boundary Isolation Procedure (GAS-599-PR-CN-006).

Further, all electrical works are to be completed by licensed electricians in accordance with Personnel Competency and Training Requirements detailed in the Commissioning Management Plan (GAS-599-PA-CS-001).

All works involving the energisation/testing of electrical equipment will include 'Test Before You Touch' precautions in the SWMS. Testing will be done at the lowest available energy point ie behind fault limit fuses or low current carrying capacity protection.

9.3 NITROGEN INERTING

Nitrogen inerting is typically completed at the end of the pre-commissioning stage in preparation for the introduction of hydrocarbons in the subsequent gas commissioning stage. Nitrogen inerting is completed to displace or dilute the oxygen within the process piping to ensure the atmosphere in the piping cannot form an explosive atmosphere during the introduction of gas.

Nitrogen is typically introduced from a portable nitrogen pack or through the use of a nitrogen generator. The use of nitrogen and nitrogen packs introduces the following hazards,

- Asphyxiation through nitrogen displacement of oxygen
- Overpressure of piping where the nitrogen pack pressure exceeds the design pressure of the piping to which it will be connected
- Overpressure of piping where the nitrogen pack pressure exceeds the hydrotest pressure of the piping to which it will be connected

To manage these hazards, the following controls will be implemented,

- All personnel working with nitrogen will wear a personal gas detector with a low Oxygen alarm
- When the pressure in the system is being increased, the point where pressure is introduced into the system (valve, nitrogen pack etc) will be continuously manned
- When the pressure in the system is being increased, a permanent or temporary pressure indicating device on the system will be continuously manned to monitor the pressure
- Continuous communications between the operator introducing the pressure and the operator monitoring the pressure will be maintained. Where noise may hinder the use of verbal communication (direct or via radio), other communication methods such as hand signals or a relay person will be pre-arranged.
- All temporary connections and hoses will be rated to the maximum nitrogen pack pressure
- Where the possibility of overpressure beyond the design pressure exists, certified pressure regulators will be utilised to manage the pressure introduced to the piping system (noting the below exceptions and additional controls)
- Where the possibility of overpressure beyond the hydrotest pressure exists or where the use of regulators would result in pressurisation flow rates that are inadequate for the activity being completed,

- The Commissioning Manager will review and approve the work instruction and hazard controls being proposed
- only large piping volumes will be pressurized to ensure the pressurisation rate can be monitored and controlled
- the Permit Holder will lock open (using Personal Danger Lock/Tag) sufficient valving to ensure there is an open flow path from the connection point to a large volume that will include a pressure gauge or pressure transmitter

10 TRANSITION TO GAS COMMISSIONING

As part of the Readiness for Gas (Gate 5) Checklist, prior to gas commissioning commencing, a transition process will be undertaken to manage the transition from pre-commissioning to gas commissioning and the change in governing documents that applies at this point.

Prior to the transition, meetings will be held on site between the commissioning management team and the Operations management team to plan for, and manage the transition process.

This will include as a minimum, planning for the following changes to take place in a seamless manner,

- Transition from the Project Commissioning Safety Management Plan to the approved Operations Management Plan
- Transition from the Commissioning Emergency Response Bridging Plan to the Jemena Operations Emergency Response Plan
- All other changes required to ensure site management is completed in accordance with the governing documents that apply to the gas commissioning phase

11 GAS COMMISSIONING SPECIFIC HAZARDS & CONTROLS

11.1 INTRODUCTION OF NATURAL GAS

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), specific requirements apply to the first introduction of natural gas.

In addition to the technical requirements detailed in the Readiness for Gas (Gate 5) Checklist, this milestone event also requires the transition from the governing documents applicable to the pre-commissioning stage to the governing documents applicable to the gas commissioning stage as discussed at the start of this document.

For introducing gas into the facility piping, nitrogen inerting will be assessed to determine if it is required, and if so, to have been completed prior. An oxygen depleted atmosphere in the piping will be confirmed immediately prior to introducing gas.

Piping will be pressurised, and service leak tested in a controlled manner stopping to complete leak testing at agreed intervals to detect leaks as early as possible.

11.2 PLANT STARTUP & RAMPUP OF COMMERCIAL FLOWS

This Project will not be proceeding to gas flow or commercial operations. After the introduction of gas (to certain areas only) at a static pressure, the station will be placed in a preservation state.

12 COMMISSIONING HSE RESPONSIBILITIES AND AUTHORITIES

Refer to the Commissioning Management Plan (GAS-599-PA-CS-001) for the general roles and responsibilities of the PKP Project Commissioning Team.

The below sections detail the health & safety specific responsibilities of the main site roles during commissioning.

12.1 COMMISSIONING MANAGER

The Commissioning Manager is responsible for the following:

- Overall management of the Sites – noting that the extent of this role will vary from when the Construction Contractor is the Principal Contractor compared to when Jemena/Zinfra has taken Principal Contractor status;
- Understanding and implementing the requirements of the Commissioning HSE Management Plan;
- Coordinating and planning the commissioning works in conjunction with the commissioning site leads;
- Reporting incidents to the Jemena/Zinfra Project Management Teams and where relevant, the Jemena/Zinfra Operations Team;
- Reporting to Jemena/Zinfra Management on progress and planned activities.

12.2 COMMISSIONING SITE LEAD

The commissioning site lead is responsible for the following,

- Overall management of their particular site – noting that the extent of this role will vary from when the Construction Contractor is the Principal Contractor compared to when Jemena/Zinfra has taken Principal Contractor status;
- Understanding and implementing the requirements of the Commissioning HSE Management Plan;
- Conducting Pre-Start Meetings;
- Reporting incidents to the Jemena/Zinfra Project Management Teams and where relevant, the Jemena/Zinfra Operations Team;
- Addressing HSE issues as raised by Workers;
- Instructing personnel on work procedures;
- Conducting meetings with Contractor supervision;
- Conducting Toolbox Meetings;
- Providing adequate facilities; and
- Providing information, instruction, training and adequate competent supervision.

12.3 HSE MANAGER

Where it's determined there is a requirement for a site-based HSE Manager, they are responsible for the following. If Jemena/Zinfra is the Principal contractor, this role will typically be filled by a Jemena/Zinfra HSE Business Partner on site. In the absence of a site-based HSE Manager these

responsibilities transfer to the Commissioning Manager and Site Lead, with support provided from the office-based HSE Manager:

- Commissioning HSE Management Plan
- Emergency Response Plan, escalates to the Jemena Emergency Control Room & systems
- First aid kits and Defibrillator
- Spill Kit
- Dangerous Goods Cabinet and Aerosols cage
- Conduct daily Pre-start meeting
- Maintain site sign-in log
- Commissioning Site Induction
- Toolbox meetings along with Jemena/Zinfra HSE
- Hazard Reports
- Incident reporting & Investigation
- HAZID/Risk Register
- SWMS Preparation
- HSE Inspections jointly done with Jemena/Zinfra
- Tracking of HSE actions (arising from inspections, hazards, reports, incidents)
- PPE stock/supply
- Commissioning materials

12.4 GENERAL WORK PARTY MEMBERS

It is the responsibility of all work party members to:

- Co-operate with their employer to comply with safety policies, rules and the Act or Regulations;
- Not misuse items provided for health and safety;
- Understand and actively participate in a positive safety culture;
- Participate to stop unsafe acts;
- Participate in Prestart and Toolbox meetings and raise WHS issues;
- Participate in risk assessments relating to work they are involved in;
- Ask questions to clarify tasks and safety issues;
- Cooperate in WHS matters;
- Work in a safe manner at all times, giving due consideration to the safety of themselves and others;
- Inspect Plant and equipment before, during and after use, and report any defects;
- Keep the workplace clean and tidy at all times;
- Attend work fit for duty;
- Identify improvements or initiatives for WHS;
- Immediately report incidents and unsafe conditions or acts;
- Control and make safe hazards where possible; and

- Participate in rehabilitation and return to work processes as required.
- Sign on to all relevant SWMS stating that you understand and will comply.

12.5 VISITORS

All visitors (including suppliers and vendors) visiting the Site will comply with the requirements of this Commissioning Safety Management Plan and the site visitor's induction and will:

- Comply with all safety and environmental directions at all times;
- Immediately report incidents and unsafe conditions or acts;
- Comply with relevant operating procedures, legislation, site policies and rules;
- Work in a safe manner at all times, giving due consideration to the safety of themselves and others; and
- Stop unsafe acts.

13 COMMUNICATION

13.1 INTERNAL & EXTERNAL COMMUNICATION AND REPORTING

13.1.1 SITE COMMUNICATION

During the commissioning works, health and safety information will be made readily accessible to all personnel to assist with the identification, assessment and control of hazards associated with the Project.

HSE information that will be readily accessible includes:

- Relevant Management Plan;
- Legislation;
- Australian Standards; and
- Drawings, specifications, SWMS and SDS's.

Methods for providing information will include:

- Dedicated HSE notice boards displaying minutes of meetings, safety alerts, Project hazard register, incident reports and other general awareness information, notices of energisation;
- Toolbox / prestart meetings; and
- HSE displays in facilities / amenities and other strategic locations.

13.1.2 COMMUNICATIONS HARDWARE

General communications between workgroups on the project site will be verbal or by radio. As the worksite is comparatively smaller to others, each work group will not be required to have a radio with them but this will be assessed to ensure work can be adequately done safely. Radio communication may be used to advise workers of an emergency event and those who are allocated a radio will pass on any instructions to their work crew.

In Brownfields areas (hazardous areas) only intrinsically safe radios may be used for communication.

13.1.3 MEETINGS & REPORTING

Meetings and reporting requirements will be as detailed in the Commissioning Management Plan (GAS-599-PA-CS-001) and include,

- Daily Pre-Start Meetings
- Weekly Toolbox Meetings
- Daily Close out Meeting
- Daily Reports
- Monthly Reports

13.2 SAFETY ALERTS / LESSONS LEARNT / HSE BULLETINS

Any safety alerts, lessons learnt, and/or HSE bulletins received from Jemena/Zinfra will be printed and displayed on the site safety notice board and discussed at the daily pre-start. Other relevant HSE information received from external sources may also be displayed for information with the approval of the HSE Manager.

13.3 SAFETY SIGNAGE AND BARRICADING

The HSE Manager will ensure that relevant site signage is installed, including contact details and visitor information. HSE rules, policies and emergency information will be posted in crib huts and offices. Other site signage and barricading will be used to demarcate potentially hazardous situations. The signposting and barricading will comply with AS 1319:1994 and will include safety signs, regulatory signs, emergency information signs, fire signs, barricades and general signage.

Adequate danger and warning signs will be installed in the vicinity of site hazards, to adequately warn persons of the presence of hazards, including those from mobile equipment and NDT processes. Flagging/Bunting will be used to demarcate hazardous areas, and those requiring special permitting, information tags will be placed at the entrance to such areas. Access will be restricted to personnel required for the task.

13.4 SAFETY CONCERNS AND RESOLUTIONS

Everyone involved in the Project has the right to stop any given job if they genuinely believe that their or other peoples' safety is at risk. The Commissioning Manager will ensure procedures are in place to ensure that a worker who encounters what they believe to be an unacceptable hazard, or are allocated work in what they consider constitutes an unsafe situation discusses the situation immediately with their responsible supervisor.

If required the Commissioning Manager will facilitate a resolution meeting/s which involves the relevant personnel and ensure a timely rectification of issues. This process will allow for isolation of the matter in dispute without impacting the continuity of the project and for the escalation of unresolved matters.

14 INCIDENT MANAGEMENT

The Commissioning Manager will ensure that the SGSPAA Managing Incident Procedure (JAA-HSE-PR-0004) are complied with. Incident management will be completed as per the following sections.

14.1 IMMEDIATE ACTION

Following an incident or near miss there may need to be immediate action.

These actions may include:

- making the situation or scene safe to prevent escalation, immediate recurrence of the incident or injury to others – if it is safe to do so;
- providing immediate care / first aid to individuals as required;
- notifying external responders as required;
- making on-site notification;
- Initiate Emergency Response Plan if required.

14.2 EMERGENCY RESPONSE PLAN

The priorities in managing an emergency are safety of personnel (on and off-site), minimising impact on the environment and minimising impact on property and assets. Emergency management planning during the commissioning phases is,

- Primarily the responsibility of the Construction Contractor whilst they are the Principal Contractor with assistance provided wherever possible by the PKP Project Commissioning Team
- the responsibility of the Project Commissioning Team during pre-commissioning as per the Commissioning ERP (GAS-599-PA-CS-004)
- a shared responsibility between the PKP Project Commissioning Team and the Jemena/Zinfra Operations during gas commissioning and will be managed in accordance with the Commissioning ERP (GAS-599-PA-CS-004) and the Jemena Emergency Management Plan (JAA NSO PL 0003) and Annex Two Eastern Gas Pipeline (JAA NSO PL 0003_2).

14.3 HSE INCIDENT REPORTING

All incident reporting on the project will be in accordance with the Jemena Incident Management Procedure (G-HS-PR-000153). The Commissioning Manager will ensure all incidents are reported to Jemena/Zinfra in accordance with their required timeframes.

The Jemena/Zinfra Project HSE Manager will ensure that all incidents are reported, recorded and investigated as per the Jemena/Zinfra Incident Reporting System. An incident report will be completed and a register of incidents maintained on-site and submitted with the Weekly Commissioning Report. Incident details will be made available to all project personnel in a way that ensures that employees involved in the incident cannot be identified, unless they have previously agreed for the information to be discussed.

Jemena/Zinfra will ensure that all notifiable incidents are reported to the appropriate authority in accordance with the legislative requirements.

14.4 NOTIFIABLE INCIDENTS

Jemena/Zinfra is required to report any Notifiable Incidents which arise out of any work concerned with the Project to the appropriate regulatory body.

Any Notifiable Incident as defined in the Jemena Incident Management Procedure (G-HS-PR-000153). will be reported immediately in accordance with Jemena's internal procedures and requirements;

Work Health & Safety Legislation also includes non-disturbance / site preservation provisions which require an incident site which has been defined as a non-disturbance or site preservation area to remain unaltered until an inspection / investigation has been carried out by the relevant Statutory Authority.

In accordance with this requirement the HSE Manager will ensure that, in the case of a Notifiable Incident, all work ceases in the immediate area and appropriate barricades and signage are erected to prevent unauthorised entry or alteration and/or contamination of the site. Where possible all plant and machinery is to be shutdown.

The non-disturbance / site preservation provision does not prevent such actions as helping or removing trapped or injured persons, making the scene safe to prevent further incidents, or actions directed or permitted by an Inspector of a Statutory Authority.

All documents associated with the incident will be captured as part of the investigation report and recorded within the Jemena Aspire system.

14.5 HSE INCIDENT INVESTIGATION AND ANALYSIS

The HSE Manager will ensure that all incidents are recorded and investigated in accordance with the Jemena Incident Management Procedure (G-HS-PR-000153). The level of the investigation will match the level of the actual or potential risk of the incident.

Whenever an incident occurs and there is a possibility of legal action by a regulatory authority, these matters will be raised immediately to the Jemena/Zinfra Project Manager.

Upon completion of an investigation, the findings and recommendations which are permitted to be released into the public domain will be distributed to the relevant work crews for discussion at Toolbox meetings.

All incidents and the results of the subsequent investigation are to be tabled and reviewed at the next Project Meeting.

14.6 RETURN TO WORK (RTW) / REHABILITATION

For instances of serious medical illness or injury, personnel will not be permitted to return to work unless a Medical Certificate is provided stating that the worker is considered fit to return to work. A copy of all Medical Certificates or Certificates of Capacity related to any injury or illness as a consequence of Project activity will be forwarded to the Enscope HSE Manager.

Enscope has a statutory obligation to provide workplace rehabilitation in respect of work related injuries.

Where a project employee is subject to a serious medical illness or injury their employer will ensure:

- Early intervention;
- Appropriate and timely service, based on assessed needs;
- An efficient and safe return to work;
- Injured or ill employees can be maintained in their previous position or returned to other suitable employment;
- Meaningful alternative duties are allocated to the employee as deemed suitable by medical personnel and/or the HSE Manager; and
- The employee is not to be permitted to return to work unless a doctor's certificate has been sighted by the HSE Manager.

14.7 COMPENSATION CLAIMS

A Worker's Compensation Claim will be initiated by the worker's employer where it has been requested by the employee as a result of requiring any time off work or incurring any medical costs as a result of a Project related injury or illness.

The Worker's employer will liaise with the applicable Worker's Compensation insurance provider, rehabilitation personnel and medical practitioners as appropriate regarding the status of active claims, and advise the Commissioning Manager on the progress of active Project related claims on a weekly basis. This will include details regarding any work restrictions to be observed upon resumption of duties.

Injured personnel will be required to assist in the development of a Return to Work Plan as per the Enscope Return to Work Procedure as part of the injury rehabilitation process. This process will commence as soon as practicable after the injury using sound medical and other relevant professional advice and will be managed by the Worker's employer. Jemena/Zinfra may request regular updates on the injured personnel's return to work / rehabilitation progress.

15 TRAINING AND COMPETENCY

Personnel Competency and Training requirements will be as detailed in the Commissioning Management Plan (GAS-599-PA-CS-001). All personnel attending site for work will be registered in Pegasus WAS system and complete all required profile creation, inductions and submission of documentation/licenses.

15.1 SITE INDUCTION

All Project personnel, will complete the following inductions prior to working on Site:

- Project Specific Induction – covering hazards specific to the Project and Site, to be completed at Site (conducted under the auspices of the Principal Contractor(s)).
- Site Commissioning Induction – covering hazards specific to commissioning activities (as an addendum to the Principal Contractors project specific Induction.)
- Jemena HSE and Gas Transmission Inductions

Site personnel may only work in the delineated commissioning area if they have completed the Commissioning Induction.

Records of attendance and assessments will be maintained, including a summary of the number of personnel trained and their employment classification.

Records for the Jemena Pre-mobilisation Induction and Project site inductions will be maintained by the HSE Manager.

The HSE Manager will ensure each company involved in the commissioning phase provides an updated copy of their respective training/competency registers to Jemena for review prior to the arrival of personnel onsite.

15.2 VISITOR INDUCTION

All visitors to the PKP commissioning work sites will be advised by their contact, either prior to or upon arrival that they are required to:

- Undertake a visitor's induction which approves them to enter the work site;

- Be accompanied at all times by a person who has completed the full Induction training as required;
- Be subject to all site policies (including Fitness for Work).

Records of inductions of visitors attending the visitors induction will be maintained on site.

16 HAZARD AND RISK MANAGEMENT

16.1 THE CAPACITY MODEL

Enscope's approach to risk management is guided by Quanta's Capacity Model. This approach to safety shifts the focus from simply preventing errors to building the space or capacity for these errors to happen safely. By introducing the capacity to fail safely into the workplace, errors can be absorbed without major injury or death.

The Capacity Model requires a three-part approach to safety: **Prevention**, **Capacity for Failure**, and **Learning**.

- **Prevention:** Continue to work at preventing accidents from occurring.
- **Capacity for Failure:** Apply enough safeguards and controls to absorb the consequences of an incident safely (without seriously injuring or killing anyone) when an error occurs.
- **Learning:** Accept that error is inevitable in life and business; learn from error to improve prevention and build capacity.



16.2 QUANTA HUMAN PERFORMANCE PRINCIPLES

Human Performance is a way of thinking about how normal human behaviour plays out in the workplace. As we deal with constantly changing tasks, environments, and hazards, there will be failures. Managing a work site with this in mind will help workers and supervisors find realistic methods for allowing this failure to happen safely. Quanta's Human Performance Principles are fundamental to The Capacity Model and improving safety.



16.3 APPLYING THE CAPACITY MODEL

The Capacity Model features four distinct elements for creating capacity.



16.3.1 STKY (STUFF THAT KILLS YOU)

STKY (pronounced “sticky”) stands for Stuff That Kills You. STKY includes any high-energy hazard that, if released, could be:

- Life-threatening;
- Life-altering; or
- Life-ending

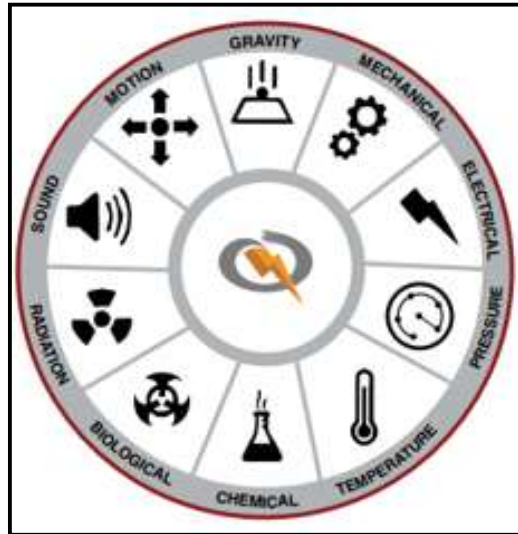
STKY is at the foundation of The Capacity Model and it's what we want to focus our attention on.

STKY discussions are brief talks that focus on identifying STKY on the job site or planned task and deciding how to deal with it. They are an informal exchange of ideas between the crew members, including the supervisor, and should focus on recognising STKY rather than compliance-based safety. The discussions are based on three key questions:

- What's STKY on this job site?
- When a STKY event happens, what will protect you and the crew?
- Is that protection enough, or do you need more?

16.3.2 THE ENERGY WHEEL

Job sites can be complex, posing numerous threats to health and safety. Some hazards are obvious like falling from height or being struck by mobile plant. Other hazards can be sudden or unexpected, like a failure of rigging during a lifting operation, or are not obvious to the eye like a pressurised system or live electrical equipment. The Energy Wheel is a job aid used to identify hazardous energies both before and during work. By systematically examining our job sites based on the types of energy, we will increase the percentage of hazards identified. The Energy Wheel is incorporated into Ensco's hazard identification and risk assessment tools.



16.3.3 CRITICAL CONTROLS

A Control refers to acts (things a person does), objects (a device that works without acts), or systems (a combinations of acts and objects) intended to prevent or mitigate an unwanted event. When managing STKY, a critical control is one that is heavily relied upon – by itself or in combination – to prevent or mitigate a potentially life-ending incident after the unwanted event has already occurred. Critical controls will:

- Specifically target the high-energy source.
- Effectively mitigate exposure to the high-energy source when installed, verified and used properly; and
- Work even if there is human error during the work.

16.3.4 OPERATIONAL LEARNING

The operational learning approach is based on the human performance principles. Rather than seeking to find fault and blame, operational learning acknowledges that humans will make mistakes, therefore involving the people who do the work in the learning exercise will enable a better understanding of the context, how the work gets done, and where actions can be taken to improve and prevent the same thing happening again.

16.4 ZINFRA / SGSPAA SAFETY NON-NEGOTIABLES

Zinfra / SGSPAA manage their critical risks by implementing their ten (10) Safety Non-Negotiables. These non-negotiables apply on the Project and therefore Enscope personnel shall comply at all times throughout commissioning. The safety non-negotiables exist for:

- Confined space entry
- Working in or near traffic
- Crane lifting
- Working at height
- Excavations and trenches
- Working with an around high risk plant
- Hazardous areas

- Electrical hazards
- Working near underground services
- Working with live electricity.

Further information on the non-negotiables that apply to each of these activities is contained in Appendix 1.

16.5 COMMISSIONING HAZID

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), a Commissioning HAZID Workshop will be conducted to identify the risks associated with commissioning and to determine the mitigating measures required to eliminate or reduce these risks to SFAIRP. The HAZID will be undertaken in accordance with the Commissioning HAZID Terms of Reference (GAS-599-RP-CS-001).

16.6 RISK REGISTER

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), a Commissioning Risk Register will be developed based on the Commissioning HAZID.

16.7 HAZARD IDENTIFICATION

16.7.1 SAFE WORK METHOD STATEMENT (SWMS)

A Safe Work Method Statement (SWMS) will be developed for any activity that involves defined high risk construction work or has an initial risk rating of High or above according to the Jemena risk matrix or as identified in the HAZID. Where required by Jemena, SWMS will be developed in accordance with the Jemena Safe Work Method Statement (SWMS) Template (G-HS-PR-00676). Alternatively, if approved by Jemena the Enscope SWMS template can be used. Each SWMS will have a documented SWMS Review and Approval checklist (G-HS-FM-00687) attached. All personnel participating in the activity are to be involved in the Hazard Identification and risk reduction process. Where all personnel cannot practically be involved in the SWMS development, every personnel carrying out the task will be inducted into the SWMS and provided the opportunity to review and comment on its content and offer suggestions for possible improvements prior to signing on.

Any deficiencies in the SWMS are to be resolved with the work team and the SWMS resubmitted for review.

Supervisors of works covered by a SWMS will,

- Familiarize themselves with the hazards and controls identified in the SWMS;
- Monitors compliance to the SWMS; and
- Order the work to be ceased where the SWMS is not being complied with and ensure corrective action is taken before work recommences.

SWMS will be readily available for inspection at the site where the activity is being performed,

SWMS will be reviewed by the work crews as a minimum,

- When work conditions change;
- Weekly;
- As a result of an incident / emergency; and

- As identified through a review / audit of the work activity.

During the works, if any change occurs in the conditions, job scope or any other aspect which might affect the risks associated with the tasks, the SWMS will be reviewed to ensure the changed conditions are captured and controlled. All work crew members must sign onto all relevant SWMS. Signing onto the SWMS notes that you have read them and agree to meet all requirements noted in them.

16.7.2 TAKE 5 / HAZID CARDS

A Take 5 / HazID card initiative will be implemented on site with all personnel to be provided with Take 5 / HazID booklets. health, safety and environmental hazards before starting a job. A take 5 for safety asks the question “Am I safe to work?” and provides a clear checklist format, which takes less than 5 minutes to complete.

Take 5s encourage all workers to identify any potential hazards are to completed per the following procedure,

- Stop think about the potential dangers associated with the job
- Look identify any hazards
- Assess the risk. Consider any possible threats of damage or injury
- Manage controls. Implement suitable control measures to reduce risk.
- Safely complete the task

Completion of Take 5 cards are a leading indicating to incidents and the regular completion of these will be monitored by the HSE Manager.

16.8 HAZARD REPORTING & HSE INSPECTIONS

The Enscope Commissioning Manager will ensure formal weekly workplace inspections and general hazard reporting is conducted to identify, eliminate or minimise risk and ensure that:

- Personnel are required to report all hazards and ensure that appropriate measures are implemented to prevent an accident, incident or near miss;
- All personnel will be trained in the reporting procedure during induction and given follow-up reinforcement as necessary;
- All supervisory personnel are to take appropriate action to rectify any hazard, either identified by them or reported to them. These actions should be recorded and periodically reviewed to monitor their effectiveness;
- Where the hazard poses an immediate threat to the health and safety of any person, then work in the affected area will cease until such time as the hazard has been mitigated to SFAIRP;
- Where a hazard cannot be rectified immediately then consultation will take place between the affected employees, employee representatives and employer representatives to identify an appropriate and adequate solution;
- Project hazards will be tabled for discussion at pre-start and project safety meetings;
- A Hazard Register will be maintained and available for inspection and audit at all times.

16.9 PLANT AND EQUIPMENT ASSESSMENTS

All commissioning plant and equipment shall be assessed prior to use on site and deemed to be compliant with the requirements arising from Workplace Health & Safety legislation by completing an Equipment Acceptance Inspection (HSE-FRM-0025). A record of this compliance and approval will be maintained in an on-site plant and equipment register.

Risk assessments will be completed prior to the first use of the major plant and equipment on site and daily plant and equipment checks are to be completed prior to the commencement of each day's work.

16.10 MANAGEMENT OF CHANGE

Design changes may occur as a result of Technical Queries, Requests for Information, risk assessments and other reasons. Such changes will be managed in accordance with the change management process detailed in the Commissioning Management Plan so as not to present an unacceptable level of risk to safety, health or the environment.

17 GENERAL SITE SAFETY CONTROLS

17.1 ENFORCEMENT OF SAFETY STANDARDS

Where any person has been advised of, or is of the opinion that personnel are in contravention of WHS Legislative requirements, work may cease until items or procedures in contravention are rectified. Where practicable, immediate action will be taken by the person raising the HSE Hazard Report to rectify the unsafe situation.

The HSE Hazard Report will be reviewed by the Commissioning Manager and HSE Manager. If further action is required, this will be specified on the Report, assigned an owner and target close out date. A Hazard Report will be closed out only when relevant personnel have demonstrated a satisfactory remedy and the report has been signed off by the Commissioning Manager. Hazard Report cards are available in the Take 5 booklets or will be readily available to all personnel and will be distributed by HSE Team, Supervisors and Managers.

17.2 SAFETY MANAGEMENT RECORDS

The list below outlines other documentation and registers that will be maintained by and kept up to date on site which may include (but not be limited to):

- Corrective actions register
- Incident register
- SDS Register
- Electrical Tagging Register
- Lifting/rigging Equipment Register
- SWMS Register
- Plant Register
- Induction Register

- Project Risk Register
- Competency Register

17.3 FIRST AID

As a minimum, one person at the Site will hold a current Provide First Aid qualification and will be present at all times while work is in progress. Additional personnel on site will hold a current Provide First Aid qualification. Where the assessment of a workplace location has identified increased risk, additional trained personnel will be assigned as appropriate.

17.3.1 FIRST AID KITS

First aid kits will be provided on each site. The exact location of the first aid kit will be identified as part of the site induction. The HSE Manager will maintain responsibility for ongoing monitoring of first aid supplies and ensuring any first aid consumables used are replaced in a timely manner.

Each vehicle will be equipped with a vehicle first aid kit, which will include items for treating bites/stings (i.e. instant cold pack, heavy crepe bandages).

17.4 INSPECTIONS & AUDITS

The Commissioning Manager and HSE Manager will conduct a documented weekly inspection of the site. Findings of the inspections will be recorded in the Corrective Action register.

Formal WHS Audits and Inspections will be conducted by the PKP Project Team as follows:

Audit and Inspection Schedule:

Type	Timing
Safety Walks	Weekly after commencement of commissioning.
SWMSs Audits	Weekly
PTW Audits	Weekly
Workplace Inspections	Weekly

Additional external audits may be arranged by the HSE Manager or via the Jemena/Zinfra Operations Team.

The objectives of WHS audits will be:

- To determine the extent to which requirements of the Jemena/Zinfra, regulatory authorities and industry standards are being met; and
- To determine the effectiveness of the Quality Management system, Plans and Procedures.

Audits will be conducted in accordance with accepted industry standards. They will incorporate document review, interviews with key personnel, field inspection, collection of evidence, entry and exit interviews and preparation of a report outlining the audit findings and recommendations.

Documents reviewed should include:

- Previous audit documentation;

- Non-Conformance Reports;
- Corrective action Plans;
- Close out of previous audits, actions, Non-Conformance Reports;
- Incident Notification and Investigation Reports;
- Field Inspection Checklists;
- Safe Work Method Statements;
- Minutes of Toolbox and other meetings;
- Permit to work permits and isolations;
- Records of Inductions;
- Notices; and
- Project documentation and mapping including Alignment Drawings.

Audit reports should include:

- Completed Audit Checklists;
- Collected evidence of instances of both good and bad practice (e.g. photographs);
- A summary of key findings; and
- Recommendations for improvement, where necessary.

17.5 FITNESS FOR WORK

The Jemena Drug and Alcohol Procedure (refer G-HS-PR-00031) details the controls and actions that will be implemented to ensure that personnel working on the Project are fit for work. This involves ensuring amongst other things, that people in the work place are not adversely affected by drugs, alcohol, heat or fatigue, and also to encourage healthy eating and social behaviours.

Daily breath alcohol testing will be undertaken. Drug testing may be undertaken on a random, blanket or for-cause basis.

17.5.1 COVID-19

The Project will follow any NSW Government COVID-19 mandates and guidelines that exist. At the time of writing there are no mandates or Public Health Orders in place, however the project will monitor this to stay abreast of any changes that arise. The following practices will be applied on the Project to minimise risk:

- Where practicable, personnel experiencing cold or flu like symptoms should not attend site. If it is necessary to attend site, the individual will complete a COVID-19 Rapid Antigen Test (RAT) prior to attending site to ensure they are not positive for COVID-19;
- If persons are COVID-19 positive, they will not attend site until they are asymptomatic or testing negative on a RAT, whichever comes first;
- If any personnel develop COVID like symptoms during the day, they should immediately inform this to the Commissioning Manager and complete a RAT test
- Personnel will practice good personnel hygiene whilst on the project;
- Face masks and alcohol based sanitiser will be made available for use on site.

17.6 SMOKING

The Project Sites are a no-smoking workplace.

Smoking in areas such as offices, crib rooms, vehicles, workshops and toilets is prohibited and subject to the Project No Smoking Policy. Personnel who are found to be in breach of the No Smoking Policy will be subject to disciplinary action. It is the responsibility of all supervisory personnel to ensure that all personnel adhere to the No Smoking Policy.

17.7 FATIGUE MANAGEMENT

Fatigue is an acute, ongoing state of tiredness that leads to mental or physical exhaustion and prevents people from functioning within normal boundaries. The Commissioning HAZID will assess fatigue risks during commissioning.

The causes of fatigue include, but are not limited to, insufficient sleep, high workloads, extended periods of work, irregular hours, 'out of hours' operations, as well as poor personal health and/or well-being. Fatigue increases the risk of incidents that may result in injury or, in extreme situations even death.

The Commissioning Manager will ensure that the following mandatory requirements are addressed as part of fatigue management:

- Risk assessments will be completed for safety critical roles & activities that may have increased risk of fatigue;
- Both routine and emergency work is managed for fatigue;
- Review and approval is required where work is to occur outside established work roster hours; and
- All personnel will stop work and report it to their supervisor where they experience the effects of fatigue. The Fatigue Assessment Checklist (ESCORP-HSE-LST-0002) will be completed to evaluate the individual's fitness for work.

Fatigue-related hazards associated with project activities will be identified and where fatigue-related risk is determined to be elevated to unacceptable levels, preventative actions will be applied.

17.8 HEAT STRESS

Working in hot weather conditions is an inherent risk for activities in the Project's region, with the hottest periods from December to February. The Commissioning Manager will ensure that all personnel are adequately educated and trained in the recognition of the signs and first response treatment of heat stress. The PKP Project will monitor environmental conditions and apply the PKP critical risk minimum mandatory requirements for work in hot environments which will be applied when working in hot conditions.

Education will be carried out through the Project Induction, ongoing reinforcement with work crews at toolbox / prestart meetings.

The PKP Project Team will provide sufficient quantities of potable water and ice for personal consumption and electrolyte replacement supplements as deemed necessary.

17.9 DANGEROUS FLORA AND FAUNA

SWMS's will take into account the identification of hazards arising from dangerous fauna and flora which may be encountered on the Project, and the management of those identified hazards. Communication with the Project's workforce (includes but not limited to Inductions, notice boards, Toolbox / Prestart meetings, and education sessions from fauna handling / environmental personnel) will ensure that all members of the workforce are aware of the relevant hazards and the correct course of action to take if encountered.

The HSE Manager will ensure that all Personnel on site is made aware of who and how to contact the appropriate snake handling services if ever required.

17.10 BOUNDARY ISOLATION

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), boundary isolations will be used to protect between Construction, Commissioning and Operational Systems at different stages. Boundary isolations will segregate and protect the Construction Team(s) from potential energy sources leaving the Commissioning systems. Boundary isolations will segregate and protect the PKP Project Commissioning Team(s) from potential energy sources leaving the Operational systems. Refer to the Boundary Isolation Procedure (GAS-599-PR-CN-006).

17.11 COMMISSIONING CONTROL AREAS

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), commissioning controlled areas will be delineated by blue flagging/bunting indicating that the area is under control of the PKP Project Commissioning Team and that the requirements of this Commissioning Safety Management Plan apply.

Separation of non-Commissioning personnel is a key control measure in eliminating the interface with potentially hazardous situations and personnel on the facility.

17.12 NOTICE OF ENERGISATION (NOE)

As detailed in the Commissioning Management Plan (GAS-599-PA-CS-001), the Notice of Energisation Procedure (GAS-599-PR-EL-003) will be utilised to manage the approval, notification and indication of energizing electrical and particular mechanical and process equipment.

Communication of change in authority is a key control measure in eliminating the interface of potentially energized equipment and or systems and the Construction Team(s).

17.13 PERSONNEL PROTECTIVE EQUIPMENT (PPE)

Personal Protective Equipment (PPE) requirements will be outlined in each SWMS.

As a minimum, the following PPE that meets the required Australian Standard will be worn on the Site at all times:

- Hard hat as per: AS 1800;
- Lace up ankle high boots as per: AS 2210;

- Long sleeves and long trousers (100% Cotton);
- High visibility clothing will be incorporated into a shirt (alternatively a 100% cotton safety vest will be worn, compliant to AS 4602); and
- Safety glasses including prescription safety glasses (compliant to AS 1337).

Additional PPE may be required for specific tasks and should be identified during development of the task specific SWMS. All PPE will be freely available and replaced when worn, damaged, lost or stolen.

Gloves will be carried on person when on Site, and will be worn as prescribed in the SWMS.

Hard hats will be worn when on Site at all times, except where use is assessed as not required in the SWMS applicable to the task being performed.

Persons wearing respiratory protection will ensure a good fit is obtained using the designated fitting test process associated with that respirator, noting that and identifying certain physical appearances and structures could impede the effectiveness of the respirator (e.g. facial hair).

Where PPE has been provided, the HSE Manager will monitor that the equipment is adequate and ensure that such equipment is being issued, used and that personnel are trained in the correct use of the PPE.

17.14 DRIVING

Driving on site should be minimized. For Brownfields areas, vehicles may only enter if approved to do so under a Permit – complying with any Permit requirements (i.e. personal gas detector).

Personnel will always drive to the conditions, always wear a seatbelt, never use a mobile phone while driving, not speed and be a licensed and qualified driver. Personnel will not drive in dust clouds and will pull over until the dust has sufficiently settled.

Ensure you have a spotter or conduct a 360 degree walk around before you reverse a vehicle.

All personnel when arriving at site will report to the site office and sign onto the population register, when leaving site personnel will also sign off the population register.

17.14.1 REMOTE TRAVEL

For journeys beyond 2 hours in length, a Journey Management Plan will be developed for the trip, with the details completed on the Journey Management Form Template for issue to the Journey Management Centre. All Jemena requirements will be complied with as detailed in the following documents,

- Jemena Journey Management Induction
- Field Travel Checklist

17.14.2 DELIVERY OF GOODS & MATERIALS

The delivery and loading / unloading of all goods, materials, pipe, temporary buildings and stores to the Project will be carried out in a safe controlled manner.

Transport subcontractors making deliveries that require access to the project site will complete a visitor induction and be escorted to their offloading point. Drivers will be restricted to positioning the vehicle and application or removal of load/unload restraints only. Any deliveries to offices or laydown areas not on the Project Sites does not require the driver to complete a visitor's induction.

All drivers will comply with Project PPE requirements and will remain in the immediate vicinity of their vehicle or the assigned waiting area. Non-inducted drivers will not be allowed to access the Right of Way or any other Project Site that is a part of an operating lease owned by others.

17.15 EXCAVATION & TRENCHING

The Commissioning Manager will ensure that where there is a risk to a person or person's health and safety from the collapse of an excavation. The PKP Project will apply the PKP critical risk minimum mandatory requirements for work in excavations which will be applied when working in excavations. Whilst working in or accessing a trench or excavation the following mandatory controls will be implemented:

- The appropriate approvals and licensing will be in place prior to works commencing;
- Where required excavation permits have been raised and any underground services identified;
- Appropriate site and task specific risk controls will be detailed through the use of Safe Work Method Statements (SWMS) and an emergency plan;
- The appropriate use of benching, battering and positive ground support - for example shoring or shielding;
- Where practical barricading or hoarding of at least 900mm high will be used to prevent unauthorised persons from entering a trench or excavation. The methods to prevent persons falling into an excavation deeper than 1.5m, where the risk exists, are to be outlined in the relevant SWMS;
- All safety equipment will be appropriate and available according to the hazards identified through the risk assessment process;
- Where road or rail traffic may be impacted by the excavation or trenching works, a traffic management plan will be in place;
- Personnel involved in excavation and trench works will be appropriately qualified and trained, and have the appropriate permits and licenses to perform the work;
- Open excavations and assets will be secured in a safe manner when there are no personnel on site;
- In every trench deeper than 1.5m, ladders will be provided for safe access or egress. Safe and serviceable ladders, stairways or ramps will be provided for access to and egress from every place in an excavation where an employee or other person is required to work;
- Atmospheric monitoring will be conducted prior to any person entering an excavation or trench where there is potential for the atmosphere to be oxygen depleted or contaminated; similarly continuous monitoring will be conducted where the activity in or near the excavation or trench may cause the atmosphere to be oxygen depleted or contaminated; and
- Ladders used for access or egress in a trench or excavation should extend from the bottom to at least 1 meter above the top and should be secured to prevent movement.

17.16 UNDERGROUND SERVICES

Where any work is to be undertaken in an area where there may be underground utilities/services, measures will be taken to identify the location of the utilities/services and may include but not be limited to the following:

- Before commencement of any excavation on the Project sites, consultation with the as-built drawings will be undertaken and all known existing underground services and cabling are positively located and identified. These services will be protected and marked (pegged or paint) prior to excavation operations;

- Excavations near existing live services will only proceed with the service being included on the relevant Permit to Work and the use of a spotter; and
- All excavation works will be in accordance with the relevant permit requirements.

17.17 ELECTRICAL SAFETY

All electricians will be certified and registered with the relevant regulatory authority. The PKP Project will apply the PKP critical risk minimum mandatory requirements for electrical safety which will be applied when conducting electrical work.

Electrical equipment on the project is required to be tested and tagged as per by a licensed electrician or competent person.

Appropriate signage on any equipment operated at low voltage or higher will be installed. As a minimum this signage will be installed prior to the equipment being made live.

17.18 HAZARDOUS CHEMICALS

All hazardous chemicals will be stored and handled appropriately according to their Safety Data Sheet (SDS). Any Dangerous Goods are to be stored in a suitably banded Dangerous Goods container, with goods segregated as per Dangerous Goods regulations.

The Commissioning Team are responsible for maintaining registers of the chemicals brought onto the Project. Appropriate PPE for the handling of all chemicals on site will be made available to commissioning personnel.

17.18.1 GAS CYLINDERS

All storage areas for gas cylinders will comply with requirements as outlined in the Dangerous Goods Regulations.

17.19 HAZARDOUS ATMOSPHERES

Hazardous atmospheres may be present on the Project. Any work party operating in a hazardous area will have a personal gas detector(s) to monitor atmospheric levels for possible gas leaks.

Any identified leaks are to be immediately rectified if possible and reported to the Commissioning Manager.

17.20 CONFINED SPACES

Confined spaces are present in the facilities, including: pits and any area that is not designed to be occupied by a person, where there is a likelihood of risk to health from engulfment, contaminants, atmospheres that may explode or catch fire or not be at normal atmospheric pressure while occupied. The PKP Project will apply the PKP critical risk minimum mandatory requirements for confined space access which will be applied when entering a confined space.

Where there is a space identified as a confined space that is available for access, these will be registered and posted with a warning sign/sign writing to identify that the area is a confined space. Where the access to a potential confined space is provided with a cover that requires tools to open or remove, the confined space is registered. These need not be signed and or barricaded until the access

is open. All confined spaces will be managed using the Jemena Confined Space access and management tools.

There are several areas that are restricted for access in use and have a procedural or other warning system to ensure that the area when occupied does not pose a potential risk to engulfment, contaminants, atmospheres that may cause fire and explosion. These areas include: Hazardous Goods Container, storage containers, close fit enclosure, and the switch room. These areas are provided with natural ventilation, forced ventilation, removable panels or large access doors that can be opened, isolation of suppression systems and warning systems that warn occupants to vacate the area.

Other areas that may develop into confined spaces will be identified as the works are planned and managed through the Jemena Confined Space access and management tools, these include space created by enclosing an area (humpies, covers, tarpaulin shelters, etc) or by creating an area that develops into a confined space (trench, excavation, etc).

17.21 SCAFFOLDING

Any scaffolding used on the project is to be erected, checked and tagged by qualified scaffolders, with the exception of quick scaff, prior to erecting any scaffolding the area should be assessed for potential hazards and to determine the most suitable location for erection of the scaffolding.

17.22 WORKING AT HEIGHTS

Working at Heights includes any work where there is the possibility of falling, or where the risk of a fall from one level to another is assessed as being likely to cause an injury. Where such work is required for planned activities it will be risk assessed and carried out in accordance with the Contractor's relevant approved permit/procedure, or a relevant Company procedure. The PKP Project will apply the PKP critical risk minimum mandatory requirements for working at heights which will be applied when working at height.

Where work is to be performed from a ladder, only A-frame platform ladders with a back bar will be used, with all work performed from the platform in accordance with the manufacturer's instructions. The platform will be provided with a back bar which will be closed when working on the platform. Where the platform height of a ladder is greater than 2.1 m, it will be inspected and approved by the HSE Manager prior to use.

17.23 CRITICAL LIFTS

Critical lifts are required to be risk assessed and have a lift plan prepared by the competent person prior to executing the lift. Critical lifts are defined as one or more of the following:

- A lift by a mobile crane or boom truck that exceeds 80% of its rated capacity while it is lifting the load at a load radius of more than 50% of its maximum permitted load radius, taking into account its position and configuration during the lift;
- A tandem lift if the load on any one crane, hoist or other piece of powered lifting equipment exceeds 75% of the rated capacity of that crane, hoist or other piece of powered lifting equipment;
- A tandem lift involving the simultaneous use of more than two cranes, hoists or other pieces of powered lifting equipment;
- A lift of a person in a work platform suspended from or attached to a crane or hoist;
- A lift in which the center of gravity of the load changes during the lift;

- A lift in which the length of one or more sling legs changes during a lift;
- A lift by a crane, boom truck or hoist, supported on a floating base, that exceeds 90% of rated capacity for the lifting system;
- A lift of a load over or between energized high voltage electrical conductors; or
- A lift of a load over live (pressurised) hydrocarbon pipework
- A lift of a submerged load.

17.24 HOUSEKEEPING

All workplaces on the Project will be regularly and adequately maintained in a fit and tidy state, such as to reduce the risks associated with trip hazards, dropped objects and other hazards associated with poor housekeeping.

Supervisors of work areas will conduct regular visual inspections to assure compliance, and HSE personnel will conduct regular documented inspections as a part of their regular duties.

17.25 PORTABLE TOOLS, HAND TOOLS AND OTHER EQUIPMENT

In all cases, tools will only be used in a manner compliant with manufacturer's recommendations, or their intended purpose.

Personnel are required to complete specific training requirements for some equipment e.g. power activated tools, quick cut saws, etc. These activities will require the worker to produce appropriate certification or licenses for the specified equipment.

All portable electric tools will be tested and tagged quarterly and recorded on the electrical test and tag register. Damaged tools will be tagged 'out of service' and removed from use.

Chainsaws are not permitted to be used on the Project without approval from the Commissioning Manager.

The use of "cheater bars" is not permitted on the Project.

17.26 NON-DESTRUCTIVE EXAMINATION (NDE)

NDE activities are not planned for the commissioning phases. If NDE works are undertaken, the requirements defined in the PCHSMP will apply.

17.27 PUBLIC ACCESS AND WORKPLACE SECURITY

Access to Project sites is restricted to inducted Project personnel and approved visitors only. Any other persons trying to access Project sites will be reported to the Commissioning Manager.

The Jemena Unauthorised Site Access Protocol will be followed for all unauthorised access to site incidents.

At the end of each work day all gates at the facilities and on access tracks will be closed (and locked as required). Site offices, plant, equipment, vehicles and materials are to be locked up overnight.

17.28 EMERGENCY RESPONSE DRILLS

Prior to gas commissioning commencing, an Emergency Response Drill will be completed in order to familiarise project personnel with the appropriate response in an emergency scenario and provide a means of training the Emergency Response Team in their roles and responsibilities during such an event.

A desk top Emergency Response exercise will be conducted to test the preparedness of the Emergency Response Team for Commissioning and ensure that all Safety Requirements are in place prior to the introduction of hydrocarbons.

Further detail on Emergency Response is covered in the Commissioning Emergency Response Plan (GAS-599-PA-CS-004).

18 ENVIRONMENTAL MANAGEMENT

18.1 WEED MANAGEMENT

Vehicles, plant & equipment will arrive to site free of weeds, seeds or hazardous foreign materials. Visual inspections will be undertaken of vehicles and mobile plant & equipment to ensure they are adequately clean and free from weeds & seeds. Where an inspection determines equipment is not sufficiently clean it may be rejected from site for cleaning off-site.

18.2 WASTE MANAGEMENT

The commissioning team will handle waste in accordance with the Principal Contractor's waste management system for the site. All commissioning waste will be placed into the appropriate receptacle for the waste stream.

Where waste is required to be handled and stored onsite prior to offsite recycling/disposal, the following handling and storage measures will apply:

- A licenced subcontractor(s) will be engaged to provide waste storage, waste classification, transport and disposal in accordance with EPA and legislative requirements
- Liquid wastes are to be stored in appropriate containers in bunded areas until transported off site. Bunded areas will have the capacity to hold 110 per cent of the liquid waste volume for bulk storage or 120 per cent of the volume of the largest container for smaller packaged storage;
- Contaminated material will be stockpiled and stored on hardstand or lined areas and segregated from uncontaminated material to prevent cross-contamination. Contaminated material will be transported by EPA licenced waste transporter and disposed off-site at a EPA licenced facility
- Hazardous waste will be managed by appropriately qualified and licensed contractors, in accordance with the requirements of the EPA waste disposal guidelines, and
- Recyclable and non-recyclable wastes will be stored in appropriately covered receptacles (e.g. bins or skips) on site and contractors will be commissioned to regularly remove/empty the bins to approved disposal or recycling facilities.

18.3 TRAFFIC MANAGEMENT

The relatively small size of the commissioning team and short duration of the commissioning works mean the impact of commissioning related traffic is considered minor. Commissioning traffic will be managed in accordance with the aspects of the Construction Contractor's Traffic Management Plan (GAS-599-PA-CN-005) that relate to management of traffic on the commissioning site (e.g. speed limits, parking areas, traffic flow, etc.).

18.4 CHEMICAL STORAGE

All hazardous chemicals will be stored and handled appropriately according to their Safety Data Sheet (SDS). Any Dangerous Goods are to be stored in a suitably bunded Dangerous Goods container, with goods segregated as per Dangerous Goods regulations.

Spill kits will be available at site to respond to any spill events.

18.5 NOISE MANAGEMENT

As far as practicable, noise generated from commissioning activities will be kept to a minimum. Where high noise generating activities are to be carried out these will be scheduled during the day to avoid impact on adjacent residents / landholders. Any noise complaints will be passed on to the Commissioning Manager for resolution.

18.6 FAUNA AND FLORA

The commissioning scope takes place within an existing cleared facility and does not involve any excavation or clearing works therefore the potential for impact on flora and fauna is considered low. The risk of fauna interaction is most likely to occur driving while driving. Where there is a requirement to catch, handle or assist injured fauna the Commissioning team will engage a trained fauna handler to manage this.

18.7 ENVIRONMENTAL INSPECTIONS

Environmental aspects will be included in the Weekly HSE inspections completed on site.

19 APPENDIX 1 SAFETY NON-NEGOTIABLES

Safety Non-Negotiables

10. WORK WITH LIVE ELECTRICITY



1. CONFINED SPACE ENTRY



2. WORKING IN OR NEAR TRAFFIC



9. WORKING NEAR UNDERGROUND SERVICES



Zinfra is bringing our most important value to life by directly managing critical hazards through our Safety Non-Negotiables documents. These non-negotiables apply to all employees and vendors, including suppliers, subcontractors or consultants across all Zinfra controlled sites.

3. CRANE LIFTING



8. ELECTRICAL HAZARDS



4. WORKING AT HEIGHT



7. HAZARDOUS AREAS



6. WORKING WITH AND AROUND HIGH RISK PLANT



5. EXCAVATIONS AND TRENCHES



ZINFRA VALUE #1:

HEALTH, SAFETY AND THE ENVIRONMENT

For more information on the Zinfra Safety Non-Negotiables, please refer to zinfra.com.au/en/safety



SAFETY NON-NEGOTIABLE



1. CONFINED SPACE ENTRY

Definition

An enclosed or partially enclosed space that:

- Is not designed or intended primarily to be occupied by a person; and
- Is, or is designed or intended to be, a normal atmospheric pressure while any person is in the space; and
- Is or is likely to be a risk to health and safety from:
 - An atmosphere that does not have a safe oxygen level, or
 - Contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
 - Harmful concentrations of any airborne contaminants, or
 - engulfment

Non-Negotiables

- ✓ Must have and follow Safe Work Method Statement
- ✓ Follow all issued permit requirements
- ✓ Test and maintain a safe atmosphere within the confined space
- ✓ Isolate services that may cause harm (e.g. drowning or suffocation)
- ✓ Only enter a confined space if you are appropriately trained
- ✓ Only enter a confined space if a trained stand-by person is positioned at the entry point for the duration of the work
- ✓ Set up emergency rescue equipment and maintain agreed communication with the stand-by person
- ✓ Use tested and certified safety equipment
- ✓ Place warning signs and barricades at all access points
- ✓ Secure the confined space each day once the work is completed



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SAFETY NON-NEGOTIABLE

2. WORKING ON OR NEAR LIVE TRAFFIC



Definition

Work activity where vehicles, plant and pedestrians interact whilst travelling on a public or private roadway, or within a static construction sites or depots.

Non-Negotiables

Public Roadway

- ✓ Must have an follow the Safe Work Method Statement
- ✓ Follow the relevant road authority permits
- ✓ Only start work with a suitable Traffic Management Plan (TMP) in place
- ✓ Only start work after traffic control devices are setup according to the TMP
- ✓ Only set up traffic control devices if you are appropriately trained and certified
- ✓ Maintain communication between traffic controllers and work crews
- ✓ Setup clearance distanced between construction plant or vehicles and traffic according to the posted speed limit and road type
- ✓ Watch for potential changes in visibility or blind spots and adjust the TMP accordingly
- ✓ Wear high visibility clothing with reflective stripes at all times

Static construction sites or depots

- ✓ Follow Vehicle Movement Plan (VMP)



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3. CRANE LIFTING

Definition

Operating a machine equipped with a hoist that raises, moves and/or lowers materials or objects.

Non-Negotiables

- ✓ Must have and follow Safe Work Method Statement
- ✓ Follow the special conditions prescribed in a lift study/permit/SWMS (approved by a rigger/dogger) when:
 - Operating a crane at more than 85% of its Safe Working Load (SWL)
 - Using multiple cranes in the same lift
- ✓ Use a licensed rigger or dogger to determine the rigging method
- ✓ Perform the lift with licensed riggers, doggers and crane operators
- ✓ Check ground and site conditions before setting up the crane (crane operator)
- ✓ Use tested, tagged and rated lifting equipment, and inspect before use
- ✓ Locate overhead power lines and maintain safe clearance distances
- ✓ Set up exclusion zones around the crane's operating area (rigger/dogger)
- ✓ Operate the crane within its Safe Working Load (crane operator)
- ✓ Steady loads with 16mm tag lines and keep body parts away from the pinch /crush points
- ✓ Do not walk under a suspended load



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4. WORKING AT HEIGHTS



Definition

Any work activity where there is a potential risk of a person falling from a height greater than 2m.

Non-Negotiables

- ✓ Must have and follow Safe Work Method Statement
- ✓ Use a Working at Height permit if fall arrest equipment is used as the main safety control
- ✓ Do not access/use a scaffold without an approved scaffold tag or similar label attached
- ✓ Only operate boom-type Elevated Work Platforms (greater than 11m) if you have a valid licence to perform high risk work
- ✓ Operate Elevated Work Platform according to the manufacturer's requirements
- ✓ Wear a harness connected to an anchor point when using a boom-type Elevated Work Platform
- ✓ Set up height rescue equipment before work commencing
- ✓ Use anchor points installed and certified by a competent person
- ✓ Use tested and tagged fall prevention equipment and always inspect before use
- ✓ Only use fall prevention equipment (e.g. harness, lanyards) when trained in the selection, use and inspection of this equipment
- ✓ Use ladders that are rated and fit for the task and inspect before use
- ✓ Only work from straight or step ladders if you are trained as an electrical supply industry worker



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SAFETY NON-NEGOTIABLE



5. EXCAVATIONS & TRENCHES

Definition

A hole or cavity made by removing material – through methods such as boring or digging.

Non-Negotiables

- ✓ Must have and follow the Safe Work Method Statement
- ✓ Follow all issued permit requirements
- ✓ Check ground conditions and the stability of adjacent structures before starting work
- ✓ Bench, batter or shore any excavation or trench deeper than 1.5m where people may enter
- ✓ Use a competent/authorised person to install and inspect shoring
- ✓ Obtain written certification from a geotechnical engineer for benching and battering greater than 45 degrees
- ✓ Set up safe exit and entry points
- ✓ Place bulk materials and mobile plant outside the zone of influence – unless the Risk Assessment decides it is safe
- ✓ Set up warning signs and barricades



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SAFETY NON-NEGOTIABLE



6. WORKING WITH AND AROUND HIGH RISK PLANT

Definition

Any work activity performed near or using High Risk Plant including cranes (mobile, truck mounted, gantry), excavators, elevated work platforms (boom, scissor, knuckle), forklifts and other plant determined as 'high risk' following a Risk Assessment.

Non-Negotiables

- ✓ Must have and follow the Safe Work Method Statement
- ✓ Only operate high risk plant with the relevant licence
- ✓ Only operate high risk plant after verification of competency
- ✓ Keep the plant risk assessments, operator's manual and safe operating instructions with the high risk plant
- ✓ Operate high risk plant according to manufacturer's requirements
- ✓ Locate overhead power lines and maintain safe clearance distances
- ✓ Set up high risk plant operating exclusion zones, identify blind spots and communicate these locations to all site workers
- ✓ Conduct a daily Pre-start check
- ✓ Establish communication methods for operating high risk plant
- ✓ Only enter a high risk plant operating exclusion zone after approval from the operator or spotter/safety observer
- ✓ Do not use mobile phones in the high risk plant operating exclusion zone
- ✓ Wear a seat belt (where fitted)



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7. HAZARDOUS AREAS

Definition

An area where an explosive gas atmosphere is (or may be) present – in quantities that require special precautions for the construction, installation and use of equipment.

Non-Negotiables

- ✓ Must have and follow the Safe Work Method Statement
- ✓ Follow all asset owner permits and requirements
- ✓ Identify exclusion areas and set up barriers and warning signs
- ✓ Only enter the hazardous area when qualified, licensed and authorised, or accompanied by an authorised person
- ✓ Wear approved hazardous area Personal Protective Equipment (PPE)
- ✓ Use tested and certified safety equipment
- ✓ Remove all ignition sources in the hazardous area, unless authorised under a permit



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8. ELECTRICAL HAZARDS

Definition

Carrying out electrical work on an electrical installation or using portable electrical equipment.

Non-Negotiables

Installations/Equipment

- ✓ Must have and follow Safe Work Method Statement
- ✓ Only Perform work on electrical installations when licensed
- ✓ Tag electrical cables when installing temporary electrical systems
- ✓ Test all electrical installations in accordance with relevant standards
- ✓ Do not work on a live system without written authorisation
- ✓ Keep safe approach distances to all live electrical installations

Lock-Out-Tag-Out (LOTO)

- ✓ Tag, lock and test all isolations prior to starting work
- ✓ Place individual lock and tag on isolation points
- ✓ Only remove another person's lock or tag with written authorisation

Portable equipment

- ✓ Connect all electrical equipment to a Residual Current Device (RCD) and test the device before use
- ✓ Use portable electrical equipment that has a current test tag attached and has been visually inspected before use
- ✓ Tag out, and remove from use, any defective equipment
- ✓ Do not join electrical extension leads
- ✓ Keep all electrical leads that may be damaged off the ground



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SAFETY NON-NEGOTIABLE



9. WORKING NEAR UNDERGROUND SERVICES

Definition

Work conducted in the vicinity of potential services (e.g. electricity, water, gas and telecommunications) installed below ground.

Non-Negotiables

- ✓ Must have and follow Safe Work Method Statement
- ✓ Follow all issued permit conditions and asset owner requirements
- ✓ Only start work with asset owner/Dial Before You Dig plans
- ✓ Use a trained spotter
- ✓ Carry out a site survey to locate and mark the services
- ✓ Visually confirm and record the depth and location of services at regular interval using non-destructive digging methods when services are within the excavation area
- ✓ Provide all service location information to the site operator and spotter
- ✓ Protect all exposed high risk services with a physical protection when a damage may occur
- ✓ Follow the approved drilling profile during drilling works
- ✓ When using mechanical excavation methods maintain a minimum clearance of 300mm from services crossing the excavation
- ✓ Seek written approval from an authorized person before proceeding with any changes in the scope of works



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10. WORKING WITH LIVE ELECTRICITY

Definition

Carrying out electrical work on an live electrical installation.

Non-Negotiables

- ✓ Must have and follow Safe Work Method Statement
- ✓ Only work live if trained and authorised
- ✓ Only work live with a trained safety observer
- ✓ Wear insulated gloves and outers appropriate to the voltage and inspect before use
- ✓ Set up emergency rescue equipment and maintain agreed communication
- ✓ Use tested and certified plant and equipment and inspect before use
- ✓ Use insulated Elevated Work Platforms to the appropriate voltage
- ✓ Earth all mobile plant used in a live HV environment
- ✓ Set up non-conductive barriers to prevent accidental contact
- ✓ Install insulated mats and covers to stop secondary contact
- ✓ Use insulated tools when working on live switchboards or underground systems



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