Cryogenics SAFE WORK METHOD STATEMENT (SWMS)								
	TASK OR ACTIVITY: Cryogenics	5						
Business Name: [Company Name]		ABN: [ABN]	SWMS#					
Business Address: [Company Address]								
Contact Person:	Phone: [Phone]	E gil:						
THIS SAFE WORK METHOD	STATEMENT IS APPROVED BY	THE P OF THE PROJECT						
Under the Work Health and Safety Regulation (WHS Regulation), a person conductive proposed work starts.	icting a business or undertaking (K=3U) is	required to ture at a safe work method s	statement (SWMS) is prepared before					
Full Name:								
Signature:		Title:	Date:					
Details of the person(s) responsible for ensuring implementation, monitoring	compliance of the SWMS well as review	vs and modifications of the SWMS.						
Full Name:		Title:	Phone:					
ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS WMS. ST HAVE THE FOLLOWING COMMUNICATED		LL RELEVANT PERSONNEL WHO HAVE B OPMENT AND APPROVAL OF THIS SWMS	EEN CONSULTED AND					
Safety meetings or toolbox talks will be sched ed in accordance with regislative requirements to first identify any site hazards, conditioned in the incast those hazards and then to further take steps to either the steps to ei	NAME	SIGNATURE	DATE					
If an incident or a near miss occurs, all work must study unately. Depending on the severity of the incident, a meeting will be called with all workers to amend the SWMS if required. The meeting may also be an educational opportunity.								
Any changes made to the SWMS after an incident or a near miss must be approved by the Person Conducting Business or Undertaking and communicated to all relevant personnel.								
The SWMS must be kept and be available for inspection at least until the work is completed. Where a SWMS is revised, all versions should be kept. If a notifiable incident occurs in relation to which the SWMS relates, then the SWMS must be kept for at least two years from the occurrence of the notifiable incident.								



CLIENT OR PRINCIPAL CONTRACTOR DETAILS											
Client:					SCOPE OF WORKS						
Project Name:							rk being carried out (otherwise				
Project Address:				k	nown as scope of works).						
Project Manager:											
Contact Phone:											
Project Manager	Signature:										
Date SWMS supp	olied to Project Manag	er:									
		ANY HIG	H-RISK CON YUCI	N. JRK BEING	ARRIED OUT						
involves a risk of	a person falling more than	2 meters.		is carried out on or	near pressurised gas main	s or piping.					
is carried out on a	a telecommunication tower.			☐ is carried out on or near chemical, fuel or refrigerant lines.							
involves demolition	on of an element of a struct	ure that is load-be		☐ is carried out on or near energised electrical installations or services.							
involves demolition	on of an element related to	the physical integrit of a s	17 e.	is carried out in an area that may have a contaminated or flammable atmosphere.							
involves, or is like	ely to involve, disturbing a	estos.		involves tilt-up or precast concrete.							
involves structura	al alteration or repair that re	mporal upp to	prevent collapse.	is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor.							
is carried out in o	r near a confined space.			is carried out in an area of a workplace where there is any movement of powered mobile plant.							
is carried out in/n	ear a shaft or trench deepe	er than 1.5m or tunnel involv	ving use of explosives.	is carried out in areas with artificial extremes of temperature.							
is carried out in o	r near water or other liquid	that involves a risk of drow	ning.	involves diving wo	k.						
		ANY	HIGH-RISK MACHINE	RY OR EQUIPMENT	NEARBY						
Forklift	Crane/s	☐ Hoist/s	Excavator	Backhoe/Loader	Boom Lift	EWP	Genie Lift				
Trencher	Drilling Rig	Trucks	Formwork	Bobcat	Flammable Gas	Fuel	Dozer				
High Voltage	Mulcher	Tilt-up Panels	Roller	Scissor Lift	Tractor	Other -					







JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
1. Preparation	Improper storage, Inadequate safety equipment	3Н	 Training and Supervision: Ensure all employees involved in cryogenic operations receive thorough training and regular refreshers on one handling procedures, and are adequately supervised during the preparation vase. Proper Storage: Store cryogenic material modesignated, clearly marked, well-ventilated areas, away from incompatible subtances are gnition sources, to prevent accidents involving improper storage. Safety Equipment Compliance: Verify that all retrant safety onlipment—including gloves, face shields, and proticive clothing—is puided to surkers and complies with Australian Standards for o ungenic handling. Clearly Mark Containers to be a containers used for transporting or storing cryogenic materials be a containers used for transporting or storing cryogenic materials with appriate uzard workings, ensuring easy identification of contents and uzards associated with user. Emmancy Procedure: Develop a comprehensive emergency response plan that outline to necees the steps to be taken in case of spills, leaks, and other incidents involving or genics. Sonduct periodic drills to ensure workers are familiar with the procedures. Nespection and taintenance: Regularly inspect and maintain cryogenic storage works at equipment, promptly addressing any issues discovered to ensure proper function on and minimise potential hazards. Inspection and minimise potential hazards. Chemical Inventory Management: Implement a robust chemical inventory management system to track and monitor usage and storage of cryogenic materials, ensuring their safe management throughout the workplace. Safe Work Practices: Establish documented safe work practices and standard operating procedures (SOPs) for working with cryogenics, outlining step-by-step processes for preparing and handling these materials. Monitoring mad Review: Continuously monitor and review the effectiveness of control measures implemented to address cryogenic hazards, making modificat	2M	
2. Transportation	Cryogenic spills, Vehicular accidents	ЗН	 Proper Training and Licensing: Ensure that all personnel involved in the transportation of cryogenic materials are adequately trained and possess the appropriate licenses and certifications for handling hazardous substances. Pre-transport Inspection: Conduct a thorough pre-transport inspection of vehicles, containers, and equipment to identify any defects or maintenance issues that could lead to accidents or spills. 	2M	

order complete swms

JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
			- Secure Storage Containers: Utilise specifically designed and approved cryogenic storage containers that have been inspected and maintained to prevent leaks or ruptures during transportation.		
			- Appropriate Labeling: Clearly label all cryogene containers with relevant safety information, hazard warnings, and emergene contact details to ensure proper handling and quick response in case of emagencies.		
			- Route Planning: Plan the most direct and efficience oute for transportation to minimise travel time and potential exposure to he most such as used traffic areas or poor road conditions.		
			- Vehicle Maintenance equilar, ervice and mainta, cansport vehicles to ensure they are in optime vorkin, ondite reducing the risk of vehicular accidents due to mechanical frames.		
			- Emergency is ponse Fon: Develop comprehensive emergency response plan that comes the comprehensive emergency response plan accident, his show include procedures for spill containment, first aid, and coordination with enough ency services.		
			- Communication Protocols: Establish clear communication protocols among team ember involve sin the transportation process to ensure timely updates on process, azaro, and emergencies.		
			Person protective Equipment (PPE): Provide necessary PPE such as goggles, ves, and face shields to personnel handling cryogenic materials, reducing the risk of puries from spills and exposure.		
			Speed Limit Adherence: Strictly adhere to posted speed limits and adjust driving behaviours based on road conditions to minimise the risk of vehicular accidents.		
	5		 Incident Reporting: Implement a system for reporting incidents relating to cryogenic spills or vehicular accidents, allowing for prompt investigation and implementation of corrective actions to prevent future occurrences. 		
			- Continuous Improvement: Regularly review and update control measures, training programs, and emergency response plans to incorporate new technologies, industry best practices, and lessons learned from past incidents.		
			 Proper training and certification: Ensure that all personnel involved in the equipment setup are adequately trained and certified to handle cryogenic materials, as well as familiar with the specific equipment being used. 		
3. Equipment setup	Incorrect installation, Leaks	2M	 Pre-setup inspection: Conduct a thorough inspection of all equipment components before installation to identify any damaged or faulty parts that might cause incorrect installation or leaks. 	1L	
			- Manufacturer's guidelines: Follow manufacturer's recommendations and guidelines for equipment setup and assembly to ensure safe and accurate installation.		



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SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
			- Use of appropriate tools: Utilise only approved and suitable tools for the installation and setup process to minimise the chances of incorrect installation or damage to equipment components.		
			- Leak detection systems: Incorporate leak detection systems, such as pressure testing or helium mass spectrometry, at criter points during the installation process to identify potential leaks early on.		
			- Double-check connections: After assembling and appendix dipment, double-check all connections and fittings to ensure a secure and the secure		
			 Pressure relief devices: Instan oppropriate pressure relief devices in accordance with the relevant guide and and and and the prevention of the pressure repressure and potential leaks free occurs. Protective gener: All personal should be repropriate personal protective 		
			- Protective on: All personal should team propriate personal protective equipment (Producing cuipment seconduluting gloves, face shields, and safety glassing primitic performs associated with handling cryogenic materials.		
			- Regular in the second		
	1		every fit procedures: Establish clear emergency response procedures in the every fit prrect installation or leaks, including immediate isolation of the area, safe hutdow, the equipment, and notification of the appropriate authorities.		
	S				
4. Cryogen dispensing	Overexposure, Chemical burns	3H		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
5. Maintenance	Electrical hazards, Faulty machinery	2М		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
6. Monitoring	Inadequate ventilation, Oxygen deficiency	ЗН		1L	

Version 2.5

Date of Issue:



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
7. Emergency Response	Ineffective action plans, Inadequate training	2M		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
	S				
8. Shutdown	Accidental release, Failure to follow procedures	2M		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
9. Decanting	Splashes or spills, Pressure buildup	ЗН		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
10. Waste disposal	Unsecured waste, Environmental damage			1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
11. Inventory management	Mislabeling, Exposure to expired chemicals			1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
12. Training and supervision	Inexperience, Lack of knowledge	2		1L	



JOB STEP	POTENTIAL HAZARDS	IR	CONTROL MEASURES	RR	RESPONSIBLE PERSON
SPECIFIC WORK STEPS	HAZARDS THAT MAY ARISE	INITIAL RISK	SPECIFIC MEASURES TO BE PUT IN PLACE TO ELIMINATE OR CONTROL THE RISKS	RESIDUAL RISK	NAME OF PERSON
	S				



EMERGENCY RESPONSE – CALL 000 FOR EMERGENCIES

Ensure to have an Emergency Management Plan in place as well as adequate numbers of trained first aid staff with easy access to fully stocked first aid kits, rescue equipment, material safety data sheets, adequate access to emergency communication equipment and fire-fighting equipment suitable for all classes of fire and ignition sources.

LEGISLATIVE F	REFERENCES
RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEG	GISLATIVE REFERENCES ANY STATE AT ARE NOT APPLICABLE
Queensland & Australian Capital Territory Work Health and Safety Act 2011 Work Health and Safety Regulations 2011 Legislation QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/work-health-and-safety-laws Codes of Practice QLD: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice Legislation ACT: https://www.worksafe.qld.gov.au/laws-and-compliance/codes-of-practice Legislation ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice Codes of Practice ACT: https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice	Victoria Octopational Health an Safety Action 04 Octopational Health and unfeture gulations 2017 Legismon VIC: <u>https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and- gulaters</u> Undes of mactice VICe <u>attps://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice</u>
New South Wales Work Health and Safety Act 2011 Work Health and Safety Regulations 2017 Legislation NSW: https://www.safework.nsw.gov.au/legal-obligations/legislative Codes of Practice NSW: https://www.safework.nsw.gov.au/legal-obligations/legislative	Western Australia Work Health and Safety Act 2020 Work Health and Safety Regulations 2022 Legislation Western Australia: <u>https://www.commerce.wa.gov.au/worksafe/legislation</u> Codes of Practice WA: <u>https://www.commerce.wa.gov.au/worksafe/codes-practice</u>
Northern Territory Work Health and Safety (National Uniform Legislation) Act 2011 Work Health and Safety (National Uniform Legislation) Regulation 201 Legislation NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-serve-laws Codes of Practice NT: https://worksafe.nt.gov.au/laws-and-compliance/workplace-serve-laws	Safe Work Australia Links Law and Regulation (All States): https://www.safeworkaustralia.gov.au/law-and-regulation Model Codes of Practice: https://www.safeworkaustralia.gov.au/resources-publications/model- codes-of-practice
South Australia Work Health and Safety Act 2012 (SA) Work Health and Safety Regulations 2012 (SA) Legislation for SA: <u>https://www.safework.sa.gov.au/resources/legislation</u> Codes of Practice for SA: <u>https://www.safework.sa.gov.au/worf_laces/codes-of-practice#COPs</u>	Model Codes of Practice - Managing noise and preventing hearing loss at work - Confined spaces - Labelling of workplace hazardous chemicals - Managing risks of hazardous chemicals in the workplace - Welding processes
Tasmania Work Health and Safety Act 2012 Work Health and Safety (Transitional and Consequential Provisions) Act 2012 Work Health and Safety Regulations 2012 Work Health and Safety (Transitional) Regulations 2012 Legislation for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice Codes of Practice for TAS: https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice	 First aid in the workplace Managing the risk of falls at workplaces Hazardous manual tasks Managing the risk of falls in housing construction Managing electrical risks in the workplace Demolition work Excavation work
Details of permits, licenses or access required by regulatory bodies (add or delete as required): - Permits from local council - Authorisation to commence work	 Work health and safety consultation, cooperation and coordination Managing the work environment and facilities How to manage work health and safety risks Managing risks of plant in the workplace Construction work

- Any required documents.



SIGNATORIES OF THE SAFE WORK METHOD STATEMENT

The signed and dated personnel listed below have cooperated in the consultation and development of this Safe Work Method Statement which has been approved by the Person/s Conducting a Business or Undertaking (PCBU). In signing this Safe Work Method Statement each individual acknowledges and confirms that they have read this SWMS in full, having raised any questions for items on this Safe Work Method Statement that require clarification, and confirms that they are competent, skilled and knowledgeable for the task assigned to them. Every person acknowledges that they have received the relevant training and qualifications where required, before carrying out any work contained in this Safe Work Method Statement. By signing this Safe Work Method Statement each individual agrees to work safely, to follow any safe work instructions which are provided, and agrees to use all Personal Protective Equipment where appropriate.

Worker Name	Position	Signature	Date	Time	Supervisor
			Date:		
			Dat		
			t te:		
			Date:		

SAL WO A STHUD STATEMENT MONITORING AND REVIEW

The SWMS must be reviewed regularly to review the sure it remains revised if necessary) if relevant control measure are a conconsultation with workers (including contractors are subcontract of the SWMS and their health and safety representatives who re workplace.

ke sure it remains effective and must be reviewed (and are a reverse v process should be carried out in s an subcontract s) who may be affected by the operation sentatives who recessented that work group at the

When the SWMS has been revised the PCBU must ensure that all persons involved with the work are advised that a revision has been made and how they can access the revised SWMS, including all persons who will need to change a work procedure or system as a result of the review are advised of the changes in a way that will enable them to implement their duties consistently with the revised SWMS. All workers that will be involved in the work must be provided with the relevant information and instruction that will assist them to understand and implement the revised SWMS.

The SWMS must be monitored regularly for the effectiveness of ensuring hazard controls are effective in reducing the risk of incidents, keeping the workplace safe for all personnel. The person responsible for monitoring the effectiveness of the Safe Work Method Statement should employ a multi-faceted approach which includes but is not limited to:

- 1. Spot Checks.
- 2. Consultation with workers, contractors and sub-contractors.
- 3. Internal audits on a continual basis.

An approach of continuous improvement, promptly recording inconsistencies or deficiencies, followed up by immediate corrective action and consultation with all relevant personnel ensures that the PCBU is consistently developing ever-improving systems of safe work principles.

REVIEW NUMBER	1	2	3	4	5	6	7
NAME							
INITIALS							
DATE							

SAFE WORK METHOD STATEMENT REVIEW CHECKLIST

This Safe Work Method Statement Review Checklist is to be followed and used upon initial development of the SWMS to help ensure that all steps have been adequately taken before work commences. Think of this document as an internal audit review checklist before commencing work, and may form part of a Toolbox Talk (safety meeting) and may be used as an opportunity for education and training.

ITEMS WHICH MUST BE INCLUDED IN THE SWMS	COMPLETED	TO BE DONE	COMMENTS
The company details have been entered, including the project name and address.			
Names and signatures of all relevant personnel consulted during the development of the SWMS.		P	
Name, signature, position and date signed of the person approving the SWMS.			
Specific personnel and qualifications, experience is noted in the SWMS.			
Provides a step-by-step process of tasks required to carry out the activity or task.			
Adequate risk assessment of any identified hazards has been completed.			
Foreseeable hazards are identified and documented for each step.			
Any hazards listed in any site risk assessments have been added to the SWN			
SWMS initial risk (IR) column as well as residual risk (RR) columns completed.			
Check control measures added to the SWMS are the most effecting sections.			
Responsible person is assigned and listed on the SWMS for the imement of cont, measures.			
Permit requirements specified, such as Hot Wey, Electrical Work, Verat Heights etc.			
SWMS identifies plant and equipment to be up t.			
Details of inspection checks required for any equipment listed approved on the SWMS.			
Describes any mandatory qualifications, experience raining skills required to perform the work.			
Applicable personal protective equipment is selected on the SWMS.			
Lists any required permits or licenses.			
Reflects and documents any legislative references and/or Australian Standards.			
Identifies any hazardous substances used with specific control measures in line with any SDS.			
REVIEWED BY	DATE RI	EVIEWED	
SIGNATURE	DATE CO	MPLETED	