

Nitrogen Gas Rig for Aircraft Maintenance | SAFE WORK METHOD STATEMENT (SWMS)

TASK OR ACTIVITY: Nitrogen Gas Rig for Aircraft Maintenance

Business Name: [Company Name]	ABN: [ABN]	SWMS#
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Business Address: [Company Address]

Contact Person:	Phone: [Phone]	Email:
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THIS SAFE WORK METHOD STATEMENT IS APPROVED BY THE PROJECT MANAGER OF THE PROJECT

Under the Work Health and Safety Regulation (WHS Regulation), a person conducting a business or undertaking (PCBU) is required to ensure that a safe work method statement (SWMS) is prepared before the proposed work starts.

Full Name:

Signature:	Title:	Date:
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Details of the person(s) responsible for ensuring implementation, monitoring and compliance of the SWMS, as well as reviews and modifications of the SWMS.

Full Name:	Title:	Phone:
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ALL PERSONNEL PARTICIPATING IN ANY ACTIVITY ON THIS SWMS MUST HAVE THE FOLLOWING COMMUNICATED | **NAME AND DATED SIGNATURE OF ALL RELEVANT PERSONNEL WHO HAVE BEEN CONSULTED AND COMMUNICATED TO IN THE DEVELOPMENT AND APPROVAL OF THIS SWMS**

	NAME	SIGNATURE	DATE
Safety meetings or toolbox talks will be scheduled in accordance with legislative requirements to first identify any site hazards, to conduct a risk assessment of those hazards and then to further take steps to either eliminate or control each hazard.			
If an incident or a near miss occurs, all work must stop immediately. 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 Provide a detailed description of the specific work being carried out (otherwise known as scope of works).
Project Name:	
Project Address:	
Project Manager:	
Contact Phone:	
Project Manager Signature:	
Date SWMS supplied to Project Manager:	

ANY HIGH-RISK CONSTRUCTION WORK BEING CARRIED OUT

<input type="checkbox"/> involves a risk of a person falling more than 2 meters.	<input type="checkbox"/> is carried out on or near pressurised gas mains or piping.
<input type="checkbox"/> is carried out on a telecommunication tower.	<input type="checkbox"/> is carried out on or near chemical, fuel or refrigerant lines.
<input type="checkbox"/> involves demolition of an element of a structure that is load-bearing.	<input type="checkbox"/> is carried out on or near energised electrical installations or services.
<input type="checkbox"/> involves demolition of an element related to the physical integrity of a structure.	<input type="checkbox"/> is carried out in an area that may have a contaminated or flammable atmosphere.
<input type="checkbox"/> involves, or is likely to involve, disturbing asbestos.	<input type="checkbox"/> involves tilt-up or precast concrete.
<input type="checkbox"/> involves structural alteration or repair that requires temporary supports to prevent collapse.	<input type="checkbox"/> is carried out on, in or adjacent to a road, railway, shipping lane or other traffic corridor.
<input type="checkbox"/> is carried out in or near a confined space.	<input type="checkbox"/> is carried out in an area of a workplace where there is any movement of powered mobile plant.
<input type="checkbox"/> is carried out in/near a shaft or trench deeper than 1.5m or tunnel involving use of explosives.	<input type="checkbox"/> is carried out in areas with artificial extremes of temperature.
<input type="checkbox"/> is carried out in or near water or other liquid that involves a risk of drowning.	<input type="checkbox"/> involves diving work.

ANY HIGH-RISK MACHINERY OR EQUIPMENT NEARBY

<input type="checkbox"/> Forklift	<input type="checkbox"/> Crane/s	<input type="checkbox"/> Hoist/s	<input type="checkbox"/> Excavator	<input type="checkbox"/> Backhoe/Loader	<input type="checkbox"/> Boom Lift	<input type="checkbox"/> EWP	<input type="checkbox"/> Genie Lift
<input type="checkbox"/> Trencher	<input type="checkbox"/> Drilling Rig	<input type="checkbox"/> Trucks	<input type="checkbox"/> Formwork	<input type="checkbox"/> Bobcat	<input type="checkbox"/> Flammable Gas	<input type="checkbox"/> Fuel	<input type="checkbox"/> Dozer
<input type="checkbox"/> High Voltage	<input type="checkbox"/> Mulcher	<input type="checkbox"/> Tilt-up Panels	<input type="checkbox"/> Roller	<input type="checkbox"/> Scissor Lift	<input type="checkbox"/> Tractor	<input type="checkbox"/> Other -	

RISK MATRIX										
LIKELIHOOD	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC	SCORE	ACTION	HEIRARCHY OF CONTROLS		
ALMOST CERTAIN	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4 ACUTE			Elimination Remove the hazard.		
LIKELY	2 MODERATE	3 HIGH	3 HIGH	4 ACUTE	4 ACUTE	4A ACUTE	DO NOT PROCEED	Substitution Replace the hazard.		
POSSIBLE	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	4 ACUTE	3H HIGH	Review before work starts.	Isolation Isolate People from the hazard		
UNLIKELY	1 LOW	1 LOW	2 MODERATE	3 HIGH	4 ACUTE	2M MODERATE	Ensure control measures in place.	Engineering Isolate the hazard.		
RARE	1 LOW	1 LOW	2 MODERATE	3 HIGH	3 HIGH	1L LOW	Monitor and keep records	Administrative Change the work.		
								PPE		

Notes on Hierarchy of Controls: Elimination methods are the most effective and preferred when controlling a hazard. Substitution is the second most effective method of controlling a hazard. Engineering by isolation is the third most effective, while Administrative Controls by changing the work is the fourth most effective method. PPE (Personal Protective Equipment) is the least effective method.

PERSONAL PROTECTIVE EQUIPMENT (PPE)											
FOOT PROTECTION	HAND PROTECTION	HEAD PROTECTION	HEARING PROTECTION	EYE/FACE PROTECTION	RESPIRATORY PROTECTION	FACE PROTECTION	HIGH-VIS CLOTHING	PROTECTIVE CLOTHING	FALL PROTECTION	SUN PROTECTION	HAIR/JEWELLERY SECURED
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Select the appropriate PPE above suitable for the equipment used or the job task being performed (if applicable).

Note: A SWMS must be reviewed regularly to make sure it remains effective. A SWMS must be reviewed (and revised if necessary) if relevant control measures are revised. The review process should be carried out in consultation with workers (including contractors and subcontractors) who may be affected by the operation of the SWMS and their health and safety representatives who represented that work group at the workplace.

When a SWMS has been revised, the person conducting a business or undertaking must ensure all:

1. persons involved in the work are advised that a revision has been made and how they can access the revised SWMS;
2. 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; and,
3. workers that will be involved in the work are provided with the relevant information and instruction that will assist them to understand and implement the revised 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
1. Preparation	Inhalation of nitrogen gas, Tripping over equipment	2M	<ul style="list-style-type: none"> - Proper training: Ensure all workers involved in the nitrogen gas rig operation are adequately trained and briefed about the hazards, safety protocols, and emergency procedures. - Identify hazardous areas: Clearly mark areas where nitrogen gas is being used or stored to alert workers of potential hazards and maintain safe distances from equipment. - Personal Protective Equipment (PPE): Make sure workers are wearing appropriate PPE, such as safety goggles, gloves, and respiratory when handling nitrogen gas cylinders or working within the vicinity. - Equipment inspection: Regularly inspect equipment, hoses, connections, and valves for any signs of wear, damage, or leaks. Schedule routine maintenance checks and replace any damaged equipment as necessary. - Cylinder storage and handling: Store nitrogen gas cylinders securely in a well-ventilated area away from heat sources, fire hazards, or areas with high foot traffic. Utilise proper cylinder racks or restraints to prevent accidents. - Signage and labeling: Label all nitrogen gas cylinders clearly according to regulator requirements and prominently display warning signs about the dangers of the gas and tripping hazards. - Housekeeping: Keep the work area clean and orderly, free from clutter and debris that could cause tripping or obstruct access to emergency exits. - Cable and hose management: Use cable/hose organizers and covers to secure and route hoses neatly, reducing the risk of tripping over equipment. - Ventilation: Provide adequate ventilation in the working area to reduce the risk of nitrogen gas buildup and the potential for asphyxiation. - Emergency plan: Develop and communicate an emergency response plan that includes procedures for first aid, evacuation, and reporting incidents involving nitrogen gas exposure or other workplace accidents. - Leak detection: Install gas detectors or alarms close to areas with stored nitrogen gas cylinders and the gas rig to provide early warning of any leaks. - Supervision: Ensure that there's constant supervision of workers handling nitrogen gas or working in the hazardous area to promptly identify and address any unsafe conditions or behaviours. 	1L	
2. Inspection	Pressurised gas leaks, Eye injury from debris	3H	<ul style="list-style-type: none"> - Regular equipment inspection: Ensure that all components of the nitrogen gas rig, such as hoses and connections, are checked for signs of wear, damage, or leaks before each use. - Leak detection procedures: Implement standard operating procedures for detecting and locating pressurised gas leaks using specialised equipment, like gas leak detectors, to prevent accidental release. 	2M	

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
			<ul style="list-style-type: none"> - Proper personal protective equipment (PPE): All personnel involved in the inspection process should wear appropriate PPE, including safety goggles to protect against eye injury from debris, gloves, and long-sleeved shirts. - Training and awareness: Conduct regular training and safety briefings for personnel involved in aircraft maintenance, emphasising the importance of following established SWMS requirements and best practices for handling nitrogen gas rigs. - Use of safety guards and barriers: Install safety guards or barriers around the work area to minimise the risk of injury due to accidental releases of pressurised gas or flying debris during inspection. - Emergency shut-off mechanism: Equip the nitrogen gas rig with automatic or manually operated emergency shut-off valves for immediate isolation in case of a leak or other issue. - Periodic maintenance and servicing: Schedule routine maintenance and servicing for the nitrogen gas rigs to ensure it remains in good working condition, identifying and addressing any potential issues early. - Secure storage: Store nitrogen gas cylinders in a safe and secure manner, away from sources of heat or potential impact risks, ensuring necessary measures are taken to minimise the chances of a cylinder falling or being punctured. - Correct handling procedures: Train personnel on correct techniques for manoeuvring pressurised gas cylinders to minimise the risk of injury and leaks during inspection procedures. - Clear signage and labeling: Clearly mark the work area, equipment, and hazardous materials with appropriate signage and labels, informing personnel of any potential dangers and steps to address them. - Access restrictions: Limit access to the work site to only those individuals who have been trained and authorised to perform tasks involving the nitrogen gas rig. - Incident reporting and response: Develop a swift incident reporting and response system to ensure that any issues with pressurised gas leaks or eye injuries are addressed as soon as possible. - Continuous improvement and feedback loop: Regularly review and update SWMS procedures based on industry best practices, lessons learned from incidents, and input from workers to ensure the ongoing effectiveness of control measures. 		
3. Setup Equipment	Manual handling injuries, Electrical hazards	3H	<ul style="list-style-type: none"> - Proper training: Ensure that all workers involved in the setup of equipment have received appropriate training and are familiar with the correct procedures associated with handling nitrogen gas rigs and electrical components. - Use of mechanical lifting aids: Minimise manual handling by utilising suitable mechanical lifting aids (e.g., trolleys, winches) when moving heavy parts or equipment. 	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
			<ul style="list-style-type: none"> - Team lifting: Implement team lifting techniques and encourage clear communication among workers while engaging in tasks that require manual handling of equipment or materials. - Ergonomics: Maintain good ergonomic practices by adjusting workstations, equipment, and tools to minimise physical strain on workers. - Personal Protective Equipment (PPE): Ensure that workers wear appropriate PPE, such as gloves for manual handling tasks and non-conductive footwear to protect against electrical hazards. - Pre-use equipment checks: Conduct routine pre-use checks on all equipment to ensure its proper functioning and safety features, and address any issues before beginning work. - Safe electrical practices: Implement safe electrical practices, such as using insulated tools and de-energising circuits when required, to reduce risks associated with electrical hazards. - Work area organisation: Keep the work area organised to avoid clutter and reduce tripping hazards. Store tools and equipment properly when not in use. - Risk assessment: Carry out a risk assessment before starting work to identify potential hazards and establish effective control measures. - Clear signage: Display clear signage in the work area to communicate potential hazards, emergency procedures, and relevant safety information. - Emergency response plans: Establish and regularly review emergency response plans, including evacuation routes, first aid availability, and contacts for reporting incidents. Train workers to be familiar with these plans and be prepared to act in the event of an emergency. 		
4. Connect Nitrogen Rig	Gas leaks, Connection failures	2M	<p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p> <p>[REDACTED]</p>	1L	

SAMPLE

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 REFERENCES

RELEVANT LEGISLATION AND CODES OF PRACTICE. DELETE THE LEGISLATIVE REFERENCES FOR ANY STATE THAT 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.act.gov.au/laws-and-compliance/acts-and-regulations>
 Codes of Practice ACT: <https://www.worksafe.act.gov.au/laws-and-compliance/codes-of-practice>

Victoria

Occupational Health and Safety Act 2004
 Occupational Health and Safety Regulations 2017
 Legislation VIC: <https://www.worksafe.vic.gov.au/occupational-health-and-safety-act-and-regulations>
 Codes of Practice VIC: <https://www.worksafe.vic.gov.au/compliance-codes-and-codes-practice>

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/legislation>
 Codes of Practice NSW: <https://www.safework.nsw.gov.au/resource-library/list-of-codes-of-practice>

Western Australia

Work Health and Safety Act 2020
 Work Health and Safety Regulations 2022
 Legislation Western Australia: <https://www.commerce.wa.gov.au/worksafe/legislation>
 Codes of Practice WA: <https://www.commerce.wa.gov.au/worksafe/codes-practice>

Northern Territory

Work Health and Safety (National Uniform Legislation) Act 2011
 Work Health and Safety (National Uniform Legislation) Regulations 2011
 Legislation NT: <https://worksafe.nt.gov.au/laws-and-compliance/workplaces-and-laws>
 Codes of Practice NT: <https://worksafe.nt.gov.au/laws-and-compliance/codes-of-practice>

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: <https://www.safework.sa.gov.au/resources/legislation>
 Codes of Practice for SA: <https://www.safework.sa.gov.au/workplaces/codes-of-practice#COPs>

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
- 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
- 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

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/acts-and-regulations>
 Codes of Practice for TAS: <https://worksafe.tas.gov.au/topics/laws-and-compliance/codes-of-practice>

Details of permits, licenses or access required by regulatory bodies (add or delete as required):

- Permits from local council
- Authorisation to commence 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:		
			Date:		
			Date:		
			Date:		
			Date:		
			Date:		
			Date:		

SAFE WORK METHOD STATEMENT MONITORING AND REVIEW

The SWMS must be reviewed regularly to make sure it remains effective and must be reviewed (and revised if necessary) if relevant control measures are needed. The review process should be carried out in consultation with workers (including contractors and subcontractors) who may be affected by the operation of the SWMS and their health and safety representatives who represented that work group at the workplace.

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	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 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.	<input type="checkbox"/>	<input type="checkbox"/>	
Names and signatures of all relevant personnel consulted during the development of the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
Name, signature, position and date signed of the person approving the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
Specific personnel and qualifications, experience is noted in the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
Provides a step-by-step process of tasks required to carry out the activity or task.	<input type="checkbox"/>	<input type="checkbox"/>	
Adequate risk assessment of any identified hazards has been completed.	<input type="checkbox"/>	<input type="checkbox"/>	
Foreseeable hazards are identified and documented for each step.	<input type="checkbox"/>	<input type="checkbox"/>	
Any hazards listed in any site risk assessments have been added to the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
SWMS initial risk (IR) column as well as residual risk (RR) columns completed.	<input type="checkbox"/>	<input type="checkbox"/>	
Check control measures added to the SWMS are the most effective solutions.	<input type="checkbox"/>	<input type="checkbox"/>	
Responsible person is assigned and listed on the SWMS for the implementation of control measures.	<input type="checkbox"/>	<input type="checkbox"/>	
Permit requirements specified, such as Hot Work, Electrical Work, Work at Heights etc.	<input type="checkbox"/>	<input type="checkbox"/>	
SWMS identifies plant and equipment to be used.	<input type="checkbox"/>	<input type="checkbox"/>	
Details of inspection checks required for any equipment listed are noted on the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
Describes any mandatory qualifications, experience, training, skills required to perform the work.	<input type="checkbox"/>	<input type="checkbox"/>	
Applicable personal protective equipment is selected on the SWMS.	<input type="checkbox"/>	<input type="checkbox"/>	
Lists any required permits or licenses.	<input type="checkbox"/>	<input type="checkbox"/>	
Reflects and documents any legislative references and/or Australian Standards.	<input type="checkbox"/>	<input type="checkbox"/>	
Identifies any hazardous substances used with specific control measures in line with any SDS.	<input type="checkbox"/>	<input type="checkbox"/>	
REVIEWED BY		DATE REVIEWED	
SIGNATURE		DATE COMPLETED	