

# Naval Shipbuilding and Sustainment Workforce Taxonomy

## What is the NSS Industrial Workforce Taxonomy

The Naval Shipbuilding and Sustainment Industrial Workforce Taxonomy (the Taxonomy) describes the maritime enterprise industrial workforce, detailing roles and skills.

The Taxonomy was developed in collaboration with naval shipbuilding and sustainment Workforce Planning and Intelligence Service (WPIS) Industry Participants, and is a continually evolving tool that enables the mapping of demand to supply for the NSS industry.

## How to Use the NSS Industrial Workforce Taxonomy

Each NSS job role is a member of a job function, which, in-turn, is a member of a job family. There are five job families, 57 job functions and 178 job roles. Most job roles are linked to one or more Australian and New Zealand Standard Classification of Occupations (ANZSCO) occupations with the remaining job roles not having an explicitly linked occupation.

43 job roles have been identified as a priority for the NSS Enterprise. These 43 priority job roles have been linked directly to qualifications as identified by WPIS Industry Participants. Qualifications are used as the base unit of analysis, which models new graduates in addition to the stock of workers with the qualifications required for each job role.

This document contains the following attachments:

- [Attachment A](#): Job Family & Job Function Definitions
- [Attachment B](#): ANZSCO Mapping to 178 NSS Job Roles
- [Attachment C](#): ASCED Mapping to 43 Priority Job Roles

## Continuous Improvement

The Taxonomy's continued improvement has been supported through co-design activities with NSS Industry Participants, who provide input into its design and function. The industry participants have a deep knowledge of the nature of NSS workforce and the industry's skill requirements, and their input is invaluable. These consultations have provided value in multiple ways, notably through:

- Reviewing the accuracy and currency of the Taxonomy.

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- Reviewing the proposed mapping of skills/qualification with occupations and job roles.
- Coordinating proposed changes to the Taxonomy among the NSS Industry Participants.

### **Proposing amendments**

Updates to the Taxonomy will continue to be made on a regular basis, in consultation with key stakeholders.

Amendments to the Taxonomy should only be undertaken by the University of Adelaide who is the WPIS service provider.

Proposed amendments should be directed to [nssg.wpis@defence.gov.au](mailto:nssg.wpis@defence.gov.au) or [nss@adelaide.edu.au](mailto:nss@adelaide.edu.au).

It is important that those who access the Taxonomy do not amend it in any way.

## Attachment A - Job Family & Job Function Definitions

Job family is the first level of distinction in the NSS Workforce Taxonomy. All 178 job roles fall under one of the five job families. They are;

1. Engineering
2. Operations
3. Program Management
4. Supply Chain
5. Support.

Job function is the second level of distinction, and describes the activities a worker completes at a broader level of specificity than the individual's particular job role. There are 57 job functions used throughout the taxonomy. The table below provides a definition for each one.

Job Family	Job Function	Description
Engineering	Combat System Engineering	This Job Function focuses on engineering the architecture, modelling and integration of systems employed during combat, including above water and underwater sensor systems, weapon systems and their ammunition including embarking, disembarking, testing, storage and loading, navigation systems, communication systems, command and control systems, data-processing systems, tactical picture formation and electronic warfare systems. This Job Function is also responsible for creating and performing complex test scenarios for mechanical and electrical combat systems to ensure correct specification, implementation, and verification of products.
Engineering	Configuration Management	This Job Function encompasses the technical and administrative activities concerned with the creation, maintenance, controlled change and quality control of a scope of work. It involves establishing and maintaining consistency of a product's performance; its functional and physical attributes; and its requirements, design, and operational information throughout its life. This also includes the implementation of policies, procedures, techniques, and tools that manage and evaluate proposed changes; tracking the status of changes; and maintaining an inventory of system and support documents as the system changes.
Engineering	Design	This Job Function uses computer-aided design software and 3D modelling tools to design or modify technical drawings and diagrams of naval ships, components, and systems. This Job Function may also create layout schematics to illustrate engineering and operations workflows; gather product and structural requirements and specifications from engineering team members; identify potential operational issues and redesign products to improve functionality; prepare and review conceptual drawings; ensure final designs comply with regulation and quality standards; and create manuals that describe shipbuilding products, operation, features, and maintenance.

Engineering	Electrical Engineering	This Job Function designs, develops, tests, and supervises the manufacture of electrical equipment such as power distribution, electric motors, sensors and navigation systems, communications systems, and power generation equipment. It includes preparing and interpreting specifications, drawings, and regulations for the use of electric power equipment and producing drawings of electrical systems using computer-aided design. This Job Function also engages with industrial designers and architects while supervising construction plans and specifications to ensure work meets safety and operational standards.
Engineering	Electronics Engineering	This Job Function designs, implements, maintains, and improves electronic instruments, equipment, facilities, components, products, and systems on board naval vessels including solid-state physics, radio engineering, telecommunications, control systems, signal processing, systems engineering, computer engineering, instrumentation engineering, and electric power control.
Engineering	Engineering Assurance	This Job Function designs, monitors and maintains the quality of processes, applications and systems within a shipbuilding enterprise to ensure that products and services are manufactured according to specifications and customer expectations and requirements. This includes intelligent and automated quality assurance processes.
Engineering	Engineering Management	This Job Function involves providing engineering expertise and technical leadership to a range of engineering disciplines, guiding and mentoring less experienced personnel, organising and managing engineering teams, defining and executing large multi-discipline engineering tasks in line with work breakdown structure (WBS) schedule elements, contributing to resource organisation and control, and reporting on earned value (EV) measures/variance. This Job Function must perform professional engineering work involving considerable independence in approach, including undertaking a multitude of people and product management tasks ranging from routine to complex, using interdisciplinary or technically challenging engineering applications.
Engineering	Integrated Logistics Support	This Job Function identifies and documents engineering, operating, maintenance, supply, and training resources for naval systems to improve reliability and lifespan while also reducing support requirements. Integrated Support Logistics roles engage with other engineering and operations personnel during ship design, build and sustainment to improve reliability at all stages of the vessel lifecycle.
Engineering	Maintenance Engineering	This Job Function qualifies, develops and improves maintenance processes and methodologies in order to maintain quality product standards. It involves drawing on production knowledge and working experience to interface between production and engineering, supporting the quality control of production materials and processes, resolving maintenance material design issues, and providing technical advice to supply chain to ensure appropriate provision of materials.
Engineering	Materials Engineering	This Job Function evaluates materials and develops machinery and processes to manufacture materials for use in products that must meet specialised design and performance specifications, develops new uses for known materials and, in the shipbuilding context, works with metal and metal alloys.

Engineering	Mechanical Engineering	This Job Function specialises in research and development, engineering design, production, operation, and maintenance of machinery. It requires knowledge of mechanics, thermodynamics, and materials science, with the ability to use computer-aided design programs and project management skills, to deliver products, analyse problems, design mechanical tools and equipment, develop and test prototypes, and supervise manufacturing processes.
Engineering	Naval Architecture	This Job Function is an engineering discipline involving basic and applied research, design, development, and evaluation of ship design calculations. Naval architecture spans preliminary and detailed design, construction, trials, operation, maintenance, launching and dry dockings. This Job Function is also responsible for formulation of safety regulations and damage control rules and the approval and certification of ship designs to meet statutory and non-statutory requirements.
Engineering	Production Engineering	This Job Function qualifies, develops, and improves production processes and methodologies in order to maintain quality product standards. It involves drawing on production knowledge and working experience to interface between production and engineering, supporting the quality control of production materials and processes, resolving production material design issues, and providing technical advice to supply chain to ensure appropriate provision of materials.
Engineering	Project Engineering	This Job Function supports engineering and technical projects including management of personnel, budget and schedule; pre-planning and resource forecasting; liaising between project management team and the engineering disciplines involved; performance management of vendors; and ensuring projects are completed in accordance with project plans.
Engineering	Reliability Engineering	This Job Function is concerned with ensuring and improving quality control in shipbuilding manufacturing processes to assure the continuing performance and dependability of engineered systems or components under operating conditions.
Engineering	Safety Engineering	This Job Function works across engineering disciplines to ensure the application of safety standards and processes in product design and manufacture. It involves controlling risk by reducing or eliminating it, deriving safety benefits from engineered systems and designs, reducing the rate of failures and, if failure does occur, ensuring it is not life-threatening. Consideration is given to a number of factors that may affect the safety of a situation or product, including design, technical safety, material reliability, legislation, and human factors.
Engineering	Signatures Engineering	This Job Function provides engineering and technical solutions that ensure a signatures advantage for naval vessels including structural and propulsion acoustics; noise, shock and vibration transmission; and electromagnetic sensor technology.
Engineering	Software Engineering	This Job Function involves researching, analysing, commissioning, and evaluating computer programs to ensure smooth and efficient operation, while identifying technological limitations and problems in existing systems, processes, procedures, or operating methods. This Job Function is accountable for designing and developing effective software solutions to meet requirements, tests, debugging, diagnosing and correcting errors and faults, writing program code, and meeting system requirements with designs and technical specification in accordance with quality accredited standards.

Engineering	Structural Engineering	Structural Engineering involves analysing, designing, planning, and researching structural components and structural systems to understand and calculate the stability, strength, and rigidity of naval vessel structures to achieve design goals. Structural Engineering designs are integrated with those of other designers, such as Naval Architects.
Engineering	Systems Engineering	This Job Function supports other engineering specialists to ensure system requirement definitions, design solutions, system integration, verification and validation approaches, and lifecycle processes are fully defined and documented, approved and traceable, delivered to specification and meet operational needs. Systems Engineering permeates design, manufacturing, test and evaluation, and support to influence the balance between functionality, performance, risk, cost, and schedule. Systems Engineering typically requires a background in mechanical, industrial, software or electrical engineering, with well-developed problem solving and risk-analysis skills, and knowledge of computer science, engineering, and mathematical analysis.
Engineering	Welding Engineering	This Job Function involves developing welding techniques, procedures, and application of welding equipment to problems involving fabrication of metals; conducting research and development investigations to develop and test new fabrication processes and procedures; improve existing or develop new welding equipment; develop new or modify current welding methods, techniques, and procedures; discover new patterns of welding phenomena, or to correlate and substantiate hypotheses; preparing technical reports as a result of research and development and preventive maintenance investigations; establishing welding procedures to guide production and welding personnel relating to specification restrictions; material processes; pre- and post-heating requirements which involve use of complex alloys, unusual fabrication methods, welding of critical joints, and complex post-heating requirements; evaluating new developments in welding field for possible application to current welding problems or production processes; directing and coordinating technical personnel in performing inspections to ensure workers' compliance with established welding procedures, restrictions, and standards; testing welds for conformance with national code requirements; testing welding personnel for certification; and performing experimental welding to evaluate new equipment, techniques, and materials.
Operations	Electrical Operations	This Job Function involves applying a range of electrical trade techniques to install, repair, replace and/or maintain wiring and control systems on board naval vessels and identify, test, and resolve electrical problems in accordance with trade processes and work instructions. This Job Function also supports Test and Activation personnel in the setting to work and integration of electrical systems.
Operations	Facilities	This Job Function ensures a corporate and cost-effective environment for the workforce to function. This involves maintaining work space and infrastructure; having in place maintenance, inspection, testing and upkeep procedures for buildings, safety equipment, hazardous materials and security hardware; identifying, analysing, evaluating, controlling and managing building safety issues through fire safety arrangements, lighting levels, signage, ventilation, temperature control, and welfare arrangements such as toilets and drinking water; helping end-users understand the potential impact of their decisions on the provision of space, services, cost and business risk; planning and executing office layout changes; management of site cleaning operations; and providing vending and catering.

Operations	Heavy Fabrication Operations	This Job Function applies a range of fabrication tools and techniques to fit and install plate and structural steel components of vessels by welding, bending, cutting, or shaping metals to specifications. This Job Function must undertake a wide range of fabrication work including metal and composite material fabrication, pressure vessel fabrication, structural steel erection, sheet metal work, and welding steel, stainless steel, aluminium, quenched and tempered steel, and other exotic materials.
Operations	Light Fabrication Operations	This Job Function involves performing a wide range of fabrication work including working with steel, stainless steel, aluminium, copper or brass; metal inert gas (MIG), tungsten inert gas (TIG) and spot welding; sheet metal fabrication; performing precision computer numerical control (CNC) bending; CNC punching; laser cutting; fastener insertion; and product assembly such as jigs and fixtures.
Operations	Mechanical Operations	This Job Function involves applying a range of mechanical trade practices and techniques in manufacturing, installing, testing, and maintaining ship components in accordance with trade processes and work instructions. Mechanical Operations will support Test and Activation personnel in the setting to work and integration of mechanical systems.
Operations	Operations Support	This Job Function involves the coordination and supervision of shipbuilding operations including defining the project scope, budget, goals and deliverables that support build strategy and key event schedule; ensuring work is being performed as scheduled within contract specifications and to acceptable quality standards; identifying and expediting the resolution of design, material, grouping, scheduling, manpower or other problems that could risk accomplishment of critical path work; liaising with trades' management to control cost performance; and performing periodic structural, material and yard inspections.
Operations	Operators	This Job Function performs a range of duties in the shipyard including erecting and dismantling scaffolding; performing dogging and rigging duties; operating cranes, scissor lifts and forklifts; grind preparation for welding; general workshop duties; supporting trade work; and cleaning and preparing access to confined space and other restricted shipyard areas.
Operations	Piping Operations	The Job Function predominantly involves using computer numerical control (CNC) machinery and performing template work to manufacture, measure, bend, shape, form, weld and install pipes and pipeline systems for a range of applications in naval vessels. Piping Operations are responsible for a variety of systems, which may involve storing, transporting, or sustaining materials under pressure.
Operations	Product Safety	This Job Function involves evaluating product designs for safety including potential health hazards or damage that could occur from product misuse, conducting research and carrying out tests and experiments to evaluate safety levels for products; developing recommendations and solutions for detection, prevention, and elimination of physical, chemical, or other product hazards; investigating causes of accidents, injuries, or illnesses related to product usage to develop solutions to minimise or prevent recurrence; reporting accident investigation findings; and developing industry standards of product safety.
Operations	Production Planning	This Job Function involves producing production work orders outlining scope of work, material and quality requirements and estimated man-hours; tracking work order progress and closing out on completion; and managing inputs and outputs to the planning process through liaison with production, scheduling, engineering, supply chain and quality departments.

Operations	Quality Assurance	This Job Function involves managing corporate compliance across quality management systems (QMS), asset management, companywide policies, procedures and document structure; conducting supplier system and process audits including addressing any identified issues and performing proactive risk assessments; carrying out goods inward inspections; and conducting National Association of Testing Authorities (NATA) certified testing and checking calibration due dates on support and test equipment.
Operations	Quality Control	This Job Function involves testing and calibrating non-destructive testing (NDT) equipment, detecting and reporting deviations from specifications, taking corrective actions to achieve set standards, and advocating quality consciousness within an organisation. Key objectives are to produce optimal quality at reduced price, conduct prompt inspections to ensure quality control, and reduce company cost through reduction of losses due to defects.
Operations	Safety and Certification	This Job Function involves providing technical certification engineering services and regulatory compliance including assessing each system's functionality in isolation and all systems combined, reporting against certification requirements commensurate with Australian Defence Force (ADF) Technical Regulatory Framework and relevant Australian and International Standards, ensuring anyone who operates on a platform has the skills to manage its systems, facilitating simulator testing and training, designing documents and specialist engineering plans and reports, conducting set to work (STW) procedures, conducting certification verification and validation (V&V), hazard analysis, and certification of supplier products/services.
Operations	Test and Activation	This Job Function involves developing and undertaking high-quality testing for a wide range of mechanical and electrical ship-related systems, products, and enhancement updates to identify any defects, bugs, errors, or configuration issues. Test and Activation personnel typically produce and execute test plans and scripts that determine optimal application performance.
Operations	Welding Operations	This Job Function specialises in light metal, heavy metal and pressure welding (TIG, MIG, manual metal arc welding, etc.) to put together naval components and main steel structures or parts with a great deal of precision.
Program Management	Commercial	This Job Function involves the identification and development of business opportunities and the profitable management of projects and contracts. This generally entails creating plans for business growth and tracking business performance, developing pricing structures and risk assessments, developing relationships with clients to negotiate and establish new contracts, addressing commercial issues relating to project deliverables and project risks, supporting subcontractor oversight, and managing stakeholder adherence to contractual obligations.
Program Management	Program Office	This Job Function involves managing enterprise-level projects, programs, portfolios and improving the organisation's overall performance. This entails coordinating and prioritising resources across projects, managing links between the projects and monitoring the overall costs and risks of the program; leading organisational changes in promoting, implementing and institutionalising project management processes and methodology; and achieving the organisation's financial and strategic goals.



Program Management	Project Cost and Scheduling	This Job Function involves setting and reviewing work breakdown structures, planning project schedules, calculating cost estimates through earned value analysis, defining task relationships, tracking critical paths and resource utilisation, and ensuring projects are delivered on time and within budget.
Program Management	Project Estimating	This Job Function is responsible for forecasting costs, managing budgets and overseeing all expenses associated with a project. Project Estimators prepare a cost analysis for a project to determine value and feasibility, establish the order of project tasks for cost efficiency, negotiate and confirm pricing from sub-contractors and suppliers, and identify the types and amounts of materials required to complete a project.
Program Management	Project Management	This Job Function manages and oversees all aspects of shipbuilding-related projects of simple to medium complexity, ensuring projects are completed on time and within budget. This includes having overall responsibility for managing scope, cost, schedule, internal staffing, outside vendors, contractual deliverables, and preparing project status reports for upper management.
<b>Supply Chain</b>	AIC Industrialisation	This Job Function involves working with internal stakeholders, Australian small to medium enterprises (SMEs) and Original Equipment Manufacturers (OEMs) to increase and maximise Australian Industry Capability (AIC). This includes reviewing AIC and determining where industry enhancements are required to increase the sovereign shipbuilding capability, developing AIC strategy, assisting overseas suppliers in identifying AIC solutions in Australia, assessing those OEM business cases which demonstrate value for money to the Commonwealth and determining if they meet AIC requirements, working with Australian industry to align their business for future shipbuilding opportunities, enhancing their systems and business processes to align with the specific requirements of potential OEMs and the future shipbuilding requirements, developing and improving AIC solutions over time, and establishing AIC / technology transfer delivery plans.
Supply Chain	Inventory, Warehousing and Logistics	This Job Function is responsible for the storage of property including reserving space allocation for property and items; the physical upkeep of the stockroom by ensuring labels for property are posted and property is stored in the correct location; the distribution of property from warehouse to warehouse or depot through requests outlining items quantities, details, nomenclature and stock numbers; the management of inventory including identifying items in stock, reporting and correcting stock discrepancies; and the detailed and accurate recording of new items into the logistics system for identification during the logistical process. Records maintenance details typically include establishing stock levels and order quantities with correct information for order management, order requests, shipment of property, receipt of property and distribution of property.
Supply Chain	Purchasing and Subcontracts	This Job Function involves evaluating suppliers and their products before making purchasing decisions, negotiating contracts and implementing supplier agreements, coordinating receipt of goods once purchase has been made, maintaining purchase records and tracking orders, liaising with warehouse inventory to maintain items, and building rapport with existing and potential suppliers. Strategic responsibilities include monitoring supply base issues to minimise risk; protecting continuity of supply and utilising emerging opportunities; delivering regular spend reports; and analysing category, market and industry trends and advances in sourcing. .

<b>Support</b>	Administration	This Job Function exists to provide essential support to the organisation, at all levels. Responsibilities are likely to include preparing regular reports, managing office supplies, maintaining databases, organising and maintaining filing systems, answering customer and employee queries, maintaining individual and team calendars, scheduling appointments, preparing and formatting documents, developing and implementing administrative policies, planning and coordinating office meetings and functions, and sensitive document handling.
<b>Support</b>	Business Development	This Job Function exists to bring new customers into a company. In naval shipbuilding, this is likely to include business to business relationships as well as business to government relationships. Responsibilities are likely to include developing growth strategies and plans, identifying and mapping business strengths and customer needs, managing relationships with customers and suppliers, competitor analysis, attending networking events, staffing stands at exhibitions and conferences, researching business leads, writing business proposals and tender responses, presenting plans to potential customers, providing advice on products and services, negotiating contracts, and drafting and reviewing contracts.
<b>Support</b>	Business Improvement	This Job Function aims to plan and execute continuous improvement processes across organisations and within individual teams. This requires collaboration with colleagues and teams, engaging strongly with stakeholders, and communicating well with diverse audiences. Jobs are likely to include process improvement, Lean, Agile, Six Sigma or other recognised process improvement methodologies; analysis and research; assessing and forming recommendations to teams and leadership; use of business information systems; development of plans and strategy; change management; risk management; monitoring progress against plans; and leadership of peers and small teams.
Support	Communications	This Job Function exists to ensure communication from the organisation is constructed and presented to maximum effect, both internally and externally. Responsibilities include acting as media spokesperson; making and maintaining relationships with media contacts; responding to media enquiries; developing and executing communications plans and strategies; developing, writing, editing, proof-reading and formatting key messages; organising or facilitating media training; finding and disseminating good news stories; speech writing and writing scripts for videos; managing social media channels and websites; and organising and managing events.
Support	Corporate Executive	This Job Function exists to provide strategic direction and corporate leadership to the organisation. Responsibilities include developing and implementing strategic plans for the business, managing the operations and resources of the business, communicating on behalf of the company with government and media, working to a board, communicating with shareholders, developing the organisation's vision and mission, evaluating the work of other senior leaders in the business, maintaining awareness of the business environment for threats and opportunities, and assessing and managing risks.
Support	Finance	This Job Function exists to ensure organisations remain financially viable and compliant with regulation, and to assist management in making informed financial decisions. Responsibilities include reporting and analysis of financial results, forecasting, contract reviews, risk and opportunity reports; cash flow projections; working with projects on financial performance against targets; project compliance; financial compliance; financial support services; accounts receivable and payable; credit

		card administration; supporting internal and external audits; and coaching colleagues tasked with preparing financial information.
Support	Human Resources	This Job Function exists to ensure both employees and companies comply with HR and IR legislation and policy. Responsibilities include providing HR advice to business units; working closely with line and unit managers; developing HR policy and processes; providing general advice and support to employees; interpreting policy; addressing industrial relations issues; reporting, seeking and analysing applicable HR data; recruiting, interviewing and onboarding; coordinating organisational change with leadership; and planning and conducting training.
Support	Information Technology	This Job Function exists to support the organisation's operational requirements through the provision of technology resources. Responsibilities include end-to-end service delivery applications; IT infrastructure implementation and management, IT support, problem solving, system integration, enterprise resource planning, custom application development, maintaining internal and external relationships with customers and service providers, researching strategies and technical solutions, managing servers, removing old hardware, maintaining cyber security, maintaining IT policies and procedures, ensuring network access for staff and contractors, configuring software and hardware, and coaching and training users.
Support	Legal	This Job Function exists to provide in-house commercial and legal advice to managers across the organisation. Responsibilities include providing legal advice, administration of contracts, preparing and maintaining contract documentation, reviewing communication and official correspondence, preparing and reviewing contract change proposals, reviewing and approving bids and proposals, preparing export licenses and technical assistance agreements, and preparing confidentiality agreements.
Support	Risk and Insurance	This Job Function involves developing and maintaining a corporate risk framework; supporting the business to effectively support the identification, assessment, evaluation and treatment of risk; establishing monitoring and reporting processes to inform strategic and operational decision making; managing compliance through informing staff, provision of compliant systems and work practices, conducting assurance activities; and managing the internal audit function to provide assurance on critical business activities and critical risk controls.
Support	Security	This Job Function exists to provide physical and cyber-security for the organisation and its employees, and maintain organisational compliance with Defence Security Principles Framework. Responsibilities include maintaining security policies and plans, conducting business security risk assessments, completing annual assurance activities, reporting and managing security incidents and foreign contacts, issuing security passes; patrolling facilities, maintaining communication within teams and civil services, and advising on security specifications for facilities.

Support	Training Services	This Job Function exists to develop and deliver training in the workplace to employees of the organisation and other invited students. Responsibilities may include preparing and delivering training; developing and implementing individual training plans; conduct verification of competency, workplace assessment against training standards; workplace assessment for high risk licenses; completing and maintaining training records; managing apprentices and trainees; liaising with training providers and group training organisations; maintaining currency of training and qualification records; developing and using training aides; and facilitating online learning packages.
Support	Workplace Health, Safety and Environment	This Job Function is responsible for ensuring organisations operate safely and in compliance with Work Health, Safety and Environmental (WHS&E) legislation. Responsibilities include identifying hazards, assessing and managing risks to health and safety, developing and implementing process changes to avoid accidents, promoting healthy and safe working practices in the workplace, ensuring safety and environmental compliance across the organisation, working with project teams to develop safe methods of achieving operational outcomes, recording and reporting hazards and incidents, investigation in to incidents and injuries, conducting training for colleagues, assisting with rehabilitation and return to work of employees, planning and coordinating emergency response procedures, developing WHS&E plans and monitoring compliance, and inspections and internal audits.

## Attachment B – ANZSCO Mapping to NSS Job Roles

The ANZSCO Code is a 6 digit identifier that groups job roles together into "occupations" that have similar tasks and responsibilities.

**178 Job Roles with ANZSCO Mapping Codes** - Further information on ANZSCO codes can be found here: [ANZSCO - Australian and New Zealand Standard Classification of Occupations](#)

[illegible]

NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Engineering	Mechanical Engineering	Mechanical Engineering Technical Officer	312512																				
Engineering	Naval Architecture	Naval Architect	233911	233916																			
Engineering	Naval Architecture	Naval Architecture Technical Officer	233916																				
Engineering	Production Engineering	Production Engineer	231215	233513																			
Engineering	Production Engineering	Production Engineering Technical Officer	233513	312312	312512	341112																	
Engineering	Project Engineering	Project Engineer	133111	233211																			
Engineering	Project Engineering	Project Engineering Technical Officer	133111	511112																			
Engineering	Reliability Engineering	Reliability Engineer	233511	263211																			
Engineering	Reliability Engineering	Reliability Engineering Technical Officer	839311																				
Engineering	Safety Engineering	Safety Engineering Technical Officer	NIL																				
Engineering	Safety Engineering	Shipbuilding Safety Engineer	NIL																				
Engineering	Signatures Engineering	Signatures Engineer	233311	233411																			
Engineering	Signatures Engineering	Signatures Engineering Technical Officer	NIL																				
Engineering	Software Engineering	Software Engineer	261313																				
Engineering	Software Engineering	Software Engineering Technical Officer	261314																				
Engineering	Structural Engineering	Structural Engineer	233211	233214	233911																		
Engineering	Structural Engineering	Structural Engineering Technical Officer	233214																				
Engineering	Systems Engineering	Systems Engineer	233311	263213																			
Engineering	Systems Engineering	Systems Engineering Technical Officer	NIL																				
Engineering	Welding Engineering	Welding Engineer	233112	233214																			
Engineering	Welding Engineering	Welding Engineering Technical Officer	322312	322313																			
Operations	Electrical Operations	Electrical Operations Manager	133512	341112																			
Operations	Electrical Operations	Electrical Operations Superintendent	341112																				
Operations	Electrical Operations	Electrical Operations Team Lead	341112																				
Operations	Electrical Operations	Electrician	341111	341112	342211	342411																	
Operations	Facilities	Facilities Engineer	233511	233512	233513																		

NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Operations	Facilities	Facilities Manager	149913																				
Operations	Facilities	Facilities Operator	323211	331212	331213	341111	712911	821712															
Operations	Facilities	Facilities Supervisor/Team Lead	149913	341112																			
Operations	Facilities	Facilities Tradesperson	323211	341111																			
Operations	Heavy Fabrication Operations	Heavy Fabrication Manager	322311	322312	322313	323213																	
Operations	Heavy Fabrication Operations	Heavy Fabrication Superintendent	322311	322312	322313	323213																	
Operations	Heavy Fabrication Operations	Heavy Fabrication Team Lead	322311	322312	322313	323213																	
Operations	Heavy Fabrication Operations	Heavy Fabrication Tradesperson	322311	322312	322313	323213																	
Operations	Light Fabrication Operations	Light Fabrication Manager	322211	322311	322312	322313	323213	323214	323299														
Operations	Light Fabrication Operations	Light Fabrication Superintendent	322211	322311	322312	322313	323213	323214															
Operations	Light Fabrication Operations	Light Fabrication Team Lead	322211	322311	322312	322313	323213	323214	323299														
Operations	Light Fabrication Operations	Light Fabrication Tradesperson	322211	322311	322312	322313	323213	323214	323299														
Operations	Mechanical Operations	Mechanical Operations Manager	321211	321212	323211	323212																	
Operations	Mechanical Operations	Mechanical Operations Superintendent	321212	323211	323212																		
Operations	Mechanical Operations	Mechanical Operations Team Lead	321211	321212	323211	323212																	
Operations	Mechanical Operations	Mechanical Tradesperson	321211	321212	323211	323212																	
Operations	Operations Support	Ship Manager	133111	133512	133513																		
Operations	Operations Support	Shipbuilding Operations Manager	133111	133512	133513																		
Operations	Operations Support	Shipyards Area Manager	133111	133512	133513																		
Operations	Operations Support	Shipyards Production Controller	133111	133512	133513																		
Operations	Operators	Blast and Painter	332211	399112	711211	711913	712911																
Operations	Operators	Operators Team Lead	133512	399112	712111	712311	821711																
Operations	Operators	Shipbuilding General Operator	331211	331212	331213	332211	399112	711211	711913	712111	712311	712911	712999	721999	821711	821712	821713	821714	821911	821913			
Operations	Operators	Shipbuilding Operator Manager	133512	133513	399112	712311																	
Operations	Operators	Shipbuilding Operator Superintendent	133512	399112	712111	712311	821711																
Operations	Operators	Shipbuilding Outfitting Operator	331211	331212	331213	332211	399112	711211	711913	712111	712311	712911	712999	721999	821711	821712	821713	821714	821911	821913			
Operations	Operators	Shipbuilding Technical Operator	331211	331212	331213	332211	399112	711211	711913	712111	712311	712911	712999	721999	821711	821712	821713	821714	821911	821913			

NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Operations	Piping Operations	Piping Manager	334112	334114																			
Operations	Piping Operations	Piping Superintendent	334112	334114																			
Operations	Piping Operations	Piping Team Lead	334112	334114																			
Operations	Piping Operations	Piping Tradesperson	334112	334114																			
Operations	Product Safety	Product Safety Authority	312611																				
Operations	Product Safety	Product Safety Engineer	232312																				
Operations	Product Safety	Product Safety Manager	312611																				
Operations	Product Safety	Product Safety Officer	839311																				
Operations	Production Planning	Shipbuilding Production Planner	312911	591112																			
Operations	Production Planning	Shipbuilding Production Planning Manager	132411																				
Operations	Quality Assurance	Quality Assurance Engineer	263211																				
Operations	Quality Assurance	Quality Assurance Manager	139914																				
Operations	Quality Assurance	Quality Assurance Officer	839311																				
Operations	Quality Assurance	Quality Assurance Team Lead	839311																				
Operations	Quality Control	Quality Control Inspector/Surveyor	232212	312115	312611	312912	839311																
Operations	Quality Control	Quality Control Manager	312115	312611	312912	839311																	
Operations	Quality Control	Quality Control/NDT Technician	312115	312611	312912	839311																	
Operations	Quality Control	Shipbuilding Dimensional Control Manager	312115	312611	312912	839311																	
Operations	Safety and Certification	Safety and Certification Engineer	312611																				
Operations	Safety and Certification	Safety and Certification Manager	312611																				
Operations	Safety and Certification	Safety and Certification Technical Officer	312611																				
Operations	Test and Activation	Test and Activation Engineer	NIL																				
Operations	Test and Activation	Test and Activation Manager	NIL																				
Operations	Test and Activation	Test and Activation Technical Officer	NIL																				
Operations	Welding Operations	Shipbuilding Welder	322312	322313	323213																		
Operations	Welding Operations	Welding Operations Manager	322312	322313	323213																		



NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Operations	Welding Operations	Welding Operations Superintendent	322312	322313	323213																		
Operations	Welding Operations	Welding Operations Team Lead	322312	322313	323213																		
Program Management	Commercial	Commercial Advisor	511111																				
Program Management	Commercial	Commercial Contracts Administrator	511111																				
Program Management	Commercial	Commercial Manager	599112																				
Program Management	Program Office	Program Office Manager	133111																				
Program Management	Program Office	Program Planner	312911																				
Program Management	Program Office	Shipbuilding Program Manager	NIL																				
Program Management	Project Cost and Scheduling	Cost Analyst	312114	551112																			
Program Management	Project Cost and Scheduling	Project Scheduler	312114	312911																			
Program Management	Project Estimating	Project Estimator	312114																				
Program Management	Project Management	Project Management Coordinator	511112																				
Program Management	Project Management	Project Manager	133111	511112																			
Program Management	Project Management	Project Planner	312911	511112																			
Supply Chain	AIC Industrialisation	AIC Industrialisation Manager	133611																				
Supply Chain	AIC Industrialisation	AIC Industrialisation Officer	591113																				
Supply Chain	AIC Industrialisation	AIC Quality Specialist	591113																				
Supply Chain	Inventory, Warehousing and Logistics	Inventory Controller	591112	591115	591116	591211	712912	741111															
Supply Chain	Inventory, Warehousing and Logistics	Inventory, Warehousing and Logistics Manager	133611																				
Supply Chain	Inventory, Warehousing and Logistics	Inventory, Warehousing and Logistics Quality Control Technician	591112	591115	591116	591211	712912	741111															
Supply Chain	Inventory, Warehousing and Logistics	Warehouse Operator	591112	591115	591116	591211	712912	741111															
Supply Chain	Purchasing and Subcontracts	Purchasing and Subcontracts Administrator	511111	591113																			
Supply Chain	Purchasing and Subcontracts	Purchasing and Subcontracts Manager	133611																				
Supply Chain	Purchasing and Subcontracts	Purchasing and Subcontracts Officer	511111	591113																			
Supply Chain	Purchasing and Subcontracts	Purchasing and Subcontracts Specialist	133611	511111	591113																		

NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Support	Administration	Administration Manager	132111	149212	512111	521111	521211	521212	542111	599916													
Support	Administration	Administrator	132111	149212	512111	521111	521211	521212	531111	542111	599916												
Support	Business Development	Business Development Advisor	224711																				
Support	Business Development	Business Development Manager	131112	132511	225212																		
Support	Business Improvement	Asset Manager	224511																				
Support	Business Improvement	Business Improvement Manager	NIL																				
Support	Business Improvement	Business Improvement Specialist	224711	224712																			
Support	Communications	Communications Advisor	131113	131114	149311	225111	225112	225113	225311														
Support	Communications	Communications Manager	131113	131114	149311	225111	225113	225311															
Support	Corporate Executive	Chief Executive Officer	111111	111211																			
Support	Corporate Executive	Director	111111	111211																			
Support	Corporate Executive	General Manager	111111	111211																			
Support	Finance	Accountant	132211	221111	221112	221113	221211	221212	551211														
Support	Finance	Chief Financial Officer	132211	221111	221112	221113	221211	221212															
Support	Finance	Finance Manager	132211	221111	221112	221113	221211	221212	551211														
Support	Finance	Finance Officer	221111	221211	551111	551112	551211	551311															
Support	Finance	Financial Accounts Administrator	551111	551112	551311																		
Support	Finance	Payroll Officer	551111	551112	551311																		
Support	Human Resources	Human Resources Advisor	223111	223112	223113	599411																	
Support	Human Resources	Human Resources Manager	132311	223111	223112	223113																	
Support	Human Resources	Human Resources Specialist	132311	223111	223112	223113																	
Support	Information Technology	Chief Information Officer	135111	135112	135199	225212	261111	261112	261311	261312	261313	262112	263111	263212	263213	263299	313199						
Support	Information Technology	Database Administrator	261311	261312	262111	263112	263113	313111	313112	313199													
Support	Information Technology	IT Business Analyst	261111	261112	261311	261313	261399	263111	263112	263113	263212	263213	313199										
Support	Information Technology	IT Developer	261311	261312	261399	263299																	
Support	Information Technology	IT Enterprise Architect	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199
Support	Information Technology	IT Manager	135112	135199	225212	261111	261112	261311	261312	261313	261399	262112	263111	263112	263113	263212	263213	263299	313111	313199			
Support	Information Technology	IT Network Administrator	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199
Support	Information Technology	IT Project Manager	135112	135199	225212	261111	261112	261311	261312	261313	261399	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199		
Support	Information Technology	IT Security Specialist	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199
Support	Information Technology	IT Solutions Architect	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199

NSS Workforce Taxonomy			ANZSCO Mapping																				
Job Family	Job Function	Job Role	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Support	Information Technology	IT Support Technician	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199
Support	Information Technology	IT Systems Administrator	135111	135112	135199	225212	261111	261112	261311	261312	261313	261399	262111	262112	263111	263112	263113	263212	263213	263299	313111	313112	313199
Support	Legal	Lawyer	271311	591212	599112	599211	599214																
Support	Legal	Legal Export Controls Officer	271311	591212	599112	599211	599214																
Support	Legal	Legal Manager	271311	591212	599112	599211	599214																
Support	Legal	Legal Support	271311	591212	599112	599211	599214																
Support	Legal	Legal Workers Compensation and Claims Advisor	271311	591212	599112	599211	599214																
Support	Risk and Insurance	Internal Auditor	221213	221214	552312	599613																	
Support	Risk and Insurance	Risk and Insurance Manager	221213	221214	552312	599613																	
Support	Risk and Insurance	Risk and Insurance Officer	221213	221214	552312	599613																	
Support	Security	Chief Security Officer	442216	442217	442299																		
Support	Security	Security Officer	442216	442217	442299																		
Support	Training Services	Training Developer	223311																				
Support	Training Services	Training Instructor	223311																				
Support	Training Services	Training Services Advisor	223311																				
Support	Training Services	Training Services Manager	223311																				
Support	Workplace Health, Safety and Environment	Occupational Health Nurse	139912	251312	254418	254499	312611	411411															
Support	Workplace Health, Safety and Environment	WHSE Advisor	139912	251312	254418	254499	312611	411411															
Support	Workplace Health, Safety and Environment	WHSE Manager	139912	251312	254418	254499	312611	411411															
Support	Workplace Health, Safety and Environment	WHSE Rehabilitation Coordinator	139912	251312	254418	254499	312611	411411															

## Attachment C - ASCED Mapping to Priority Job Roles

The Australian Standard Classification of Education (ASCED) are mapped to the NSS Taxonomy 43 priority job roles to provide further insight into post-school qualifications relevant to the NSS and employment pathway risks and intervention analysis. The ASCED coding system has three levels of distinction to illustrate the level of qualification. They are:

- CER - Certificate
- DIP - Diploma
- BD - Bachelor Degree

**43 Priority NSS Job Roles with ASCED Qualification Mapping** - Further information on ASCED codes can be found here: [Australian Standard Classification of Education \(ASCED\)](#)

NSS Workforce Taxonomy			Qualification 1		Qualification 2		Qualification 3	
Job Family	Job Function	Job Role	ASCED	Description	ASCED	Description	ASCED	Description
Engineering	Combat System Engineering	Combat System Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD313	Bachelor of Electrical & Electronic Engineering & Technology		
Engineering	Combat System Engineering	Combat System Technical Officer	DIP307	Diploma of Mechanical & Industrial Engineering & Technology	DIP313	Diploma of Electrical & Electronic Engineering & Technology		
Engineering	Design	Shipbuilding Designer	DIP307	Diploma of Mechanical & Industrial Engineering & Technology				
Engineering	Design	Shipbuilding Draftsperson	DIP307	Diploma of Mechanical & Industrial Engineering & Technology				
Engineering	Electrical Engineering	Electrical Engineer	BD313	Bachelor of Electrical & Electronic Engineering & Technology				
Engineering	Electrical Engineering	Electrical Engineering Technical Officer	DIP313	Diploma of Electrical & Electronic Engineering & Technology				
Engineering	Electronics Engineering	Electronics Engineer	BD313	Bachelor of Electrical & Electronic Engineering & Technology				
Engineering	Engineering Management	Engineering Manager	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD313	Bachelor of Electrical & Electronic Engineering & Technology		
Engineering	Integrated Logistics Support	Integrated Logistics Support Analyst	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER313	Certificate III or IV of Electrical & Electronic Engineering & Technology		
Engineering	Integrated Logistics Support	Integrated Logistics Support Engineer	BD303	Bachelor of Process & Resources Engineering				
Engineering	Maintenance Engineering	Maintenance Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD309	Bachelor of Civil Engineering	BD313	Bachelor of Electrical & Electronic Engineering & Technology
Engineering	Mechanical Engineering	Mechanical Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology				
Engineering	Mechanical Engineering	Mechanical Engineering Technical Officer	DIP307	Diploma of Mechanical & Industrial Engineering & Technology				
Engineering	Naval Architecture	Naval Architect	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD309	Bachelor of Civil Engineering	BD317	Bachelor of Maritime Engineering & Technology
Engineering	Production Engineering	Production Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD313	Bachelor of Electrical & Electronic Engineering & Technology		
Engineering	Production Engineering	Production Engineering Technical Officer	CER301	Certificate III or IV of Manufacturing Engineering & Related Technology	CER317	Certificate III or IV of Maritime Engineering & Technology	DIP313	Diploma of Electrical & Electronic Engineering & Technology
Engineering	Project Engineering	Project Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD803	Bachelor of Business & Management		
Engineering	Software Engineering	Software Engineer	BD201	Bachelor of Computer Science	BD203	Bachelor of Information Systems	BD313	Bachelor of Electrical & Electronic Engineering & Technology
Engineering	Structural Engineering	Structural Engineer	BD307	Bachelor of Mechanical & Industrial Engineering & Technology	BD309	Bachelor of Civil Engineering	BD317	Bachelor of Maritime Engineering & Technology
Engineering	Systems Engineering	Systems Engineer	BD201	Bachelor of Computer Science	BD313	Bachelor of Electrical & Electronic Engineering & Technology		
Operations	Electrical Operations	Electrical Operations Team Lead	CER313	Certificate III or IV of Electrical & Electronic Engineering & Technology				
Operations	Electrical Operations	Electrician	CER313	Certificate III or IV of Electrical & Electronic Engineering & Technology				
Operations	Facilities	Facilities Tradesperson	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER313	Certificate III or IV of Electrical & Electronic Engineering & Technology		
Operations	Heavy Fabrication Operations	Heavy Fabrication Superintendent	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		

<b>Operations</b>	Heavy Fabrication Operations	Heavy Fabrication Team Lead	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Heavy Fabrication Operations	Heavy Fabrication Tradesperson	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Light Fabrication Operations	Light Fabrication Team Lead	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Light Fabrication Operations	Light Fabrication Tradesperson	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Mechanical Operations	Mechanical Operations Superintendent	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Mechanical Operations	Mechanical Operations Team Lead	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Mechanical Operations	Mechanical Tradesperson	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Operations Support	Ship Manager	DIP803	Diploma of Business & Management				
<b>Operations</b>	Operations Support	Shipbuilding Operations Manager	DIP803	Diploma of Business & Management				
<b>Operations</b>	Operations Support	Shipyard Area Manager	DIP803	Diploma of Business & Management				
<b>Operations</b>	Operations Support	Shipyard Production Controller	DIP803	Diploma of Business & Management				
<b>Operations</b>	Operators	Shipbuilding General Operator	CER317	Certificate III or IV of Maritime Engineering & Technology				
<b>Operations</b>	Operators	Shipbuilding Outfitting Operator	CER317	Certificate III or IV of Maritime Engineering & Technology				
<b>Operations</b>	Piping Operations	Piping Tradesperson	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Production Planning	Shipbuilding Production Planner	DIP803	Diploma of Business & Management				
<b>Operations</b>	Quality Control	Quality Control Inspector/Surveyor	DIP311	Diploma of Geomatic Engineering				
<b>Operations</b>	Welding Operations	Shipbuilding Welder	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Operations</b>	Welding Operations	Welding Operations Team Lead	CER307	Certificate III or IV of Mechanical & Industrial Engineering & Technology	CER317	Certificate III or IV of Maritime Engineering & Technology		
<b>Program Management</b>	Project Management	Project Manager	DIP803	Diploma of Business & Management		Bachelor of Electrical & Electronic Engineering & Technology		