



GREEN
CLIMATE
FUND

MNSDA



Ministry of Environment
Climate Change & Technology

LOG BOOK



NATIONAL CERTIFICATE III WATER SUPPLY SYSTEM OPERATION & MAINTENANCE

STUDENT'S DETAILS

Passport Size
3.5cm x 4.5 cm

Student Name

Std ID No.

Mobile

Address

Email

Date

Course

Centre

Batch

Signature

Authorized Signature

Stamp

PEDGE OF THE PARTICIPANTS

As a participant I recognize my roles and responsibilities as follows and I promise that:

1. I am undertaking this Course / Program to learn with confidence and enthusiasm and will strive to keep my level best to apply what I learn in my workplace.
2. I will learn my theory/concept lessons with much care, confidence and enthusiasm.
3. I will not disturb my participants within the classroom and workplaces.
4. I will understand and uphold, in letter and spirit, my behaviors, my attitudes and my perceptions of life and experiences with an open and sincere heart and mind seeking to learn to be a leader tomorrow.
5. I will refrain from bad-mouthing unfairness and disgracing my Employer, my Supervisors, my Trainers and other participants.
6. I will protect and preserve the rights of my family, my Employer, my Trainers, my Society and dignity of others and I will oppose discrimination, exploitation and unfairness.
7. I will report the performance, outcome and problems accurately, honestly with figures, reasons and logics that I face in applying the knowledge and skills I learn from the Course/Program.
8. I will share my knowledge, skills in developing myself and others and help my Employer, my Trainers to develop and improve success of my Employer and my Trainers.
9. I will attend all classes and activities that require attendance

In exercising my Pledge of Participation to the above-mentioned specific points, I recognize that my attitude, behavior and communication must set an example of confidence and enthusiasm and positive attitude. I will remain accountable to my own self, my Employer, my Trainer and my Society for my attitudes, actions and communications with confidence and enthusiasm to uphold these specific 9 points of my Pledge of Participation

.....
(Student Signature)

INFORMATION ABOUT THE QUALIFICATION

1. Endorsement Application for Qualification 01		
2. NATIONAL CERTIFICATE III IN WATER SYSTEM OPERATION AND MAINTENANCE		
3. Qualification code:	Total Number of Credits: 57	
4. Purpose of the qualification		
<p>The Certificate III in Water System Operation and Maintenance is to train and empower water plant operators to effectively manage and operate in water plant be installed and operated across various islands in the Maldives.</p>		
5. Regulations for the qualification		
6. Schedule of Units		
Unit No	Unit Title	Code
Common Competencies		
01	Apply Occupational Health and Safety Requirements	
02	Apply work ethics and optimize professionalism	
03	Practice effective workplace communication	
04	Provide effective customer care	
05	Perform computer operations	
06	Provide first aid	
07	Respond to fire	
Core Competencies		
08	Apply Science and Engineering Measurements	
09	Perform Workshop Practice	
10	Apply industrial electrical knowledge and skills	
11	Operate chemical separation equipment	
12	Operate and maintain water Treatment Plant	
13	Monitor systems and equipment	
14	Collect samples and perform basic water tests	
15	Monitor and operate power generation system	
16	Trouble shooting of control systems	
7. Accreditation requirements		
8. Recommended sequencing of units		

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-1: Apply Occupational Health and Safety Requirements

#	Activities	Mark "√" if completed	Date completed
1	Clean Work Preparation Areas		
1.1	Clean preparation areas using appropriate cleaning agents and equipment according to workplace procedures		
1.2	Remove spillages using appropriate agents, personal protective equipment (PPE) and workplace procedures		
1.3	Collect and segregate wastes in accordance with workplace procedures, relevant codes and regulations		
2	Clean and Store equipment		
2.1	Collect used equipment, inspect for faults and, where necessary, remove from service		
2.2	Use appropriate agents, apparatus and techniques to clean equipment		
2.3	Store clean equipment in the designated locations and manner		
3	Monitor Stocks of materials and equipment		
3.1	Perform stock checks and maintain records of usage as directed		
3.2	Store labelled stocks for safe and efficient retrieval		
3.3	Inform appropriate personnel of impending stock shortages to maintain continuity of supply		
4	Maintain a safe work environment		
4.1	Participate in OHS activities within scope of responsibilities		
4.2	Use established safe work practices and PPE to ensure personal safety and that of other personnel		
4.3	Report potential hazards and/or maintenance issues in own work area to designated personnel		
4.4	Minimise the generation of waste and environmental impacts		
4.5	Dispose of waste in accordance with workplace procedures, relevant codes and regulations		
5	Follow incident and emergency		
5.1	Identify incident and emergency situations		
5.2	Report and record incident and emergency situations according to workplace procedures		
5.3	Follow incident and emergency procedures as appropriate to the nature of emergency using emergency equipment according to workplace procedures		
6	Determine Occupational Health and safety (OH&S) issues relating to immediate work environment		
6.1	Occupational Health and Safety issues in the immediate workplace are assessed and action to rectify the problem is taken or reported to supervisor		
6.2	Understand the aspects of First aid		
6.3	Understand the aspects of Fire Respond		
6.4	Workplace and OH&S procedures are followed to ensure safe working environment		
6.5	Occupational Health and Safety documents are provided to all work stations, this should include a list of personal safety items based on the line of work.		

I declare that theory and practical of the above unit and its elements have been taught

Date:.....

Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-2: Apply Work Ethics and Optimize Professionalism

#	Activities	Mark “√” if completed	Date completed
1	Define the purpose of work		
1.1	One’s unique sense of purpose for working and the whys of work are identified, reflected on and clearly defined for one’s development as a person and as a member of society.		
1.2	Personal mission is in harmony with company’s values.		
2	Apply work values/ethics		
2.1	Work values/ethics/concepts are identified and classified in accordance with company’s ethical standard guidelines.		
2.2	Work policies are undertaken in accordance with company’s policies, guidelines on work ethical standard.		
2.3	Resources are used in accordance with company’s policies and guidelines.		
2.4	Punctuality, absence from work, sick, family and annual leave is maintained alignment to the Employment Act of the Maldives		
3	Deal with ethical problems		
3.1	Company ethical standards, organizational policy and guidelines on the prevention and reporting of unethical conduct/behavior are followed.		
3.2	Work incidents/situations are reported according to company protocol/guidelines.		
3.3	Resolution and/or referral of ethical problems identified are reported/documented based on standard operating procedure		
4	Maintain integrity of conduct in the workplace		
4.1	Personal behavior and relationships with coworkers and/or clients are demonstrated consistent with ethical standards, policy and guidelines.		
4.2	Work practices are satisfactorily demonstrated and consistent with industry work ethical standards, organizational policy and guidelines.		
4.3	Instructions to co-workers are provided based on ethical lawful and reasonable directives		
5	Contribute to workplace efficiency and delivery of quality service		
5.1	Prioritize work load according to level of responsibility		
5.2	Advise supervisor if additional resources or support are required to improve performance		
5.3	Undertake duties in a positive manner to enhance workplace cooperation and efficiency		
5.4	Monitor and adjust work practices to ensure that quality of outputs is maintained		
5.5	Identify and report opportunities for improvements in procedures, processes and equipment in work area		

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ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-3: Practice effective workplace communication

#	Activities	Mark “√” if completed	Date completed
1	Obtain and convey workplace information		
1.1	Specific and relevant information is accessed from appropriate sources		
1.2	Effective questioning, active listening and speaking skills are used to gather and convey information		
1.3	Appropriate medium is used to transfer information and ideas		
1.4	Appropriate non- verbal communication is used		
1.5	Appropriate lines of communication with supervisors and colleagues are identified and followed		
1.6	Defined workplace procedures for the location and storage of information are used		
1.7	Personal interaction is carried out clearly and concisely		
2	Speak English and Dhivehi at an operational level		
2.1	Workplace interactions with colleagues appropriately made		
2.2	Verbal instructions or requests are responded to at an operational level		
2.3	Appropriate non-verbal communication used		
2.4	Simple requests are made		
2.5	Routine procedures are described		
2.6	Different forms of expression in English and Dhivehi is identified and used as appropriate		
3	Participate in workplace meetings and discussions		
3.1	Team meetings are attended on time		
3.2	Own opinions are clearly expressed and those of others are listened to without interruption		
3.3	Contact with local communities is maintained		
3.4	Workplace interactions are conducted in a courteous manner		
3.5	Questions about simple routine workplace procedures and matters concerning working conditions of employment are asked and responded to		
3.6	Meetings outcomes are interpreted and implemented correctly		
4	Complete relevant work-related documents		
4.1	Conditions of employment are clear and understood properly		
4.2	Relevant information accessed from appropriate sources		
4.3	Relevant data on workplace forms and other documents filled correctly		
4.4	Instructions and guidelines understood and followed properly		
4.5	Reporting requirements completed properly		
5	Manage workplace calls and messages		
5.1	Operate workplace phones		
5.2	Attend and manage phone calls		
5.3	Read and respond to texts and messages		
5.4	Perform communication in both English and Dhivehi		

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-4: Provide effective customer care

#	Activities	Mark "√" if completed	Date completed
1	Greet customers and colleagues		
1.1	Customers and colleagues greeted according to standard procedures and social norms		
1.2	Sensitivity to cultural and social differences demonstrated		
2	Identify and attend to customer needs		
2.1	Appropriate interpersonal skills are used to ensure that customer needs are accurately identified		
2.2	Customer needs are assessed for urgency so that priority for service delivery can be identified		
2.3	Personal limitation in addressing customer needs is identified and where appropriate, assistance is sought from supervisor		
2.4	Customers informed correctly		
2.5	Personal limitation identified and assistance from proper sources sought when required		
3	Deliver service to customers		
3.1	Customer needs are promptly attended to in line with organizational procedure		
3.2	Appropriate rapport is maintained with customer to enable high quality service delivery		
3.3	Opportunity to enhance the quality of service and products are taken wherever possible		
4	Handle inquiries		
4.1	Customer queries handled promptly and properly		
4.2	Personal limitations identified and assistance from proper sources sought when required		
5	Handle complaints		
5.1	Responsibility for handling complaints taken within limit of responsibility		
5.2	Personal limitations identified and assistance from proper sources sought when required		
5.3	Operational procedures to handling irate or difficult customers followed correctly		
5.4	Details of complaints and comments from customers properly recorded		
6	Handle and manage angry customers		
6.1	Apply principles related to anger management		
6.2	Meet with angry customers and console them accordingly		
6.3	Maintain a log book for recording customer service incidents.		

I declare that theory and practical of the above unit and its elements have been taught

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-5: Perform Computer operations

#	Activities	Mark "√" " if completed	Date completed
1	Start computer, system information and features		
1.1	Adjust workspace, furniture and equipment to suit user ergonomic requirements		
1.2	Ensure work organization meets organizational and occupational health and safety (OHS) requirements for computer operation		
1.3	Start computer or log on according to user procedures		
1.4	Identify basic functions and features using system information		
1.5	Customize desktop configuration, if necessary, with assistance from appropriate persons		
1.6	Use help functions as required		
2	Organize files using basic directory and folder structures		
2.1	Create folders/subfolders with suitable names		
2.2	Save files with suitable names in appropriate folders		
2.3	Rename and move folders/subfolders and files as required		
2.4	Identify folder/subfolder and file attributes		
2.5	Move folders/subfolders and files using cut and paste, and drag and drop techniques		
2.6	Save folders/subfolders and files to appropriate media where necessary		
2.7	Search for folders/subfolders and files using appropriate software tools		
2.8	Restore deleted folder/subfolders and files as necessary		
3	Print information		
3.1	Print information from installed printer		
3.2	View progress of print jobs and delete as required		
3.3	Change default printer if installed and required		
4	Apply web browsing skills		
4.1	Introduction to WWW		
4.2	Acknowledge to gather relevant information from reliable sources		
4.3	Use of search engines		
4.4	Basic interaction of browser		
4.5	Creating bookmarks in browser		
4.6	Upload and download files		
4.7	Navigation of hyperlink		
5	Shut down Computer		
5.1	Close all open applications		
5.2	Shut-down computer according to user procedures		
6	Basic Microsoft word and excel skills		
6.1	Ensure data is entered, checked and amended in accordance with organizational and task requirements, to maintain consistency of design and layout		
6.2	Format spreadsheet using software functions; to adjust page and cell layout to meet information requirements, in accordance with organizational style and presentation requirements		
6.3	Ensure formulae are used and tested to confirm output meets task requirements, in consultation with appropriate personnel as required		
6.4	Use manuals, user documentation and online help to overcome problems with spreadsheet design and production		
6.5	Format document using appropriate software functions to adjust page layout to meet information requirements, in accordance with organizational style and presentation requirements		
6.6	Use system features to identify and manipulate screen display options and controls		

6.7	Use manuals, user documentation and online help to overcome problems with document presentation and production		
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I declare that theory and practical of the above unit and its elements have been taught

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-6: Provide First aid

#	Activities	Mark "√" " if completed	Date completed
1	Assess the situation		
1.1	Physical hazards and risks to self and others' health and safety identified		
1.2	Immediate risks to self and casualty's health and safety minimized by controlling hazards in accordance with occupational health and safety requirements		
1.3	The situation assessed and prompt decision taken on actions required		
1.4	Assistance sought from relevant persons/authority, as required and at the appropriate time		
2	Apply basic first aid techniques		
2.1	Casualty's physical condition assessed by visible vital signs		
2.2	First aid provided to stabilize the patient's physical and mental condition in accordance with enterprise policy on provision of first aid and recognized first aid procedures		
2.3	Available first aid equipment used as appropriate		
3	Monitor the situation		
3.1	Back-up services appropriate to the situation identified and notified promptly		
3.2	Information about the patient's condition reported accurately and clearly to emergency services personnel or health professionals		
4	Prepare required documentation		
4.1	Documented emergency situations according to enterprise procedures		
4.2	Clear and accurate reports are provided within required time frames		

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-7: Respond to Fire

#	Activities	Mark "√" " if completed	Date completed
1	Prepare for fire		
1.1	Procedures related to a fire emergency are accessed, interpreted and rehearsed		
1.2	Location of firefighting equipment is identified and the equipment is checked in accordance with organizational procedures and referred for maintenance/replacement as required		
2	Carry out initial notification and assessment		
2.1	Nature and scope of the fire is identified, confirmed and reported to appropriate personnel		
2.2	Fire situation is assessed and appropriate course of action is determined in keeping with requirements for personal safety		
2.3	Notification of fire threat is undertaken in accordance with authorized procedures		
2.4	Emergency evacuation procedures are followed, where appropriate, and in accordance with organizational procedures		
3	Extinguish fires		
3.1	Fires are extinguished using the appropriate equipment, materials and procedures		
3.2	Extinguisher is applied to ensure fast knockdown of fire		
3.3	Extinguisher is used at the appropriate range and time		
3.4	Extinguisher is used to minimize damage to equipment and facilities and to minimize risk of injury to personnel		

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-8: Apply science and Engineering measurements

#	Activities	Mark "√" if completed	Date completed
1	Apply basic mathematics		
1.1	Perform simple calculations on: fractions and decimals, calculations to a number of significant figures, decimal places		
1.2	Identify and use the multiples and sub-multiples of units		
1.3	Perform calculations on: perimeter and area of plane figures (i.e. square and rectangle, triangle, circle), volume and surface area (i.e. cube, rectangular prism, cylinder), mass of containers and their contents (i.e. cube, rectangular prism, cylinder)		
1.4	Perform mathematical calculations involving formulas, angles, triangles and geometric construction		
1.5	Identify and use formulas for SI quantities: length, area, volume, mass, density		
1.6	Identify the elements of a circle Parts: radius, diameter, circumference, chord, sector, segment, arc, tangent		
1.7	Identify and use the ratio of sides of 45° and 60° right angled triangles.		
1.8	Identify and use the rules of 3:4:5 and 5:12:13 for the sides of right-angled triangles.		
1.9	Solve simple workshop problems involving Pythagoras and right-angled triangles.		
1.10	Evaluate and transpose simple formulae associated with workshop problems.		
1.11	Convert minutes and seconds to decimal fractions of a degree.		
2	Apply fundamental of science		
2.1	Systems of measurements, Motion in one dimension and two dimensions		
2.2	Newton's Laws I & II		
2.3	Gravity		
2.3	Mechanics of solids and fluids		
3	Demonstrate simple drawing		
3.1	Identify angles, plane figures and types of drawing		
3.2	Identify first and third angle orthographic projections of isometric or oblique views.		
3.3	Identify single plane sectional views of simple components.		
3.4	Perform basic drafting		
3.5	Read and interpret drawings		
3.6	Introduce basics of AUTOCAD		
4	Undertake relevant measurement		
4.1	Identify measuring devices		
4.2	Follow appropriate measuring procedures		
4.3	Keep record of the measurements		

I declare that theory and practical of the above unit and its elements have been taught

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-9: Perform workshop practice

#	Activities	Mark "√" " if completed	Date completed
1	Identify and explain functions tools used in mechanical workshop		
1.1	Sketch and name tools used in the mechanical workshop		
1.2	Explain functions of the identified tools and scope of their use		
2	Identify and explain properties of various pipes and their applications		
2.1	Identify types of pipes used in plumbing and sewerage services		
2.2	Interpret functions and their application within plumbing services and sewerage operations		
2.3	Demonstrate joining methods of the pipes		
2.4	Familiarize with fitting used on these different pipes		
3	Use measuring instruments properly		
3.1	Identify names and functions of various measuring instruments used in mechanical workshop		
3.2	Demonstrate use of various measuring instruments		
4	Undertake basic arc welding		
4.1	Apply general and electrical safety related to welding		
4.2	Observe safe connection of welding plants to electrical networks		
5	Perform basic workshop practices		
5.1	Undertake marking out on metals		
5.2	Perform metal cutting using hack-saw		
5.3	Perform drilling holes on metal pieces		
5.4	Perform filing on metal pieces		

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-10: Apply industrial electrical knowledge and skills

#	Activities	Mark "√" " if completed	Date completed
1	Apply basic electrical knowledge		
1.1	Apply the Concepts and Knowledge of the following <ul style="list-style-type: none"> ✓ Voltage ✓ Current ✓ Resistant ✓ Ohms Laws ✓ Electrical Circuit 		
2	Lay and fix electrical conduits / trunking / ducts etc.,		
2.1	Locations of the electrical points identified and marked according to layout plan		
2.2	Locations and directions of conduit/ trunking/ ducts etc marked according to the layout plan		
2.3	Walls chipped where necessary, for the burying of conduit according to its sizes and number of runs		
2.4	Steel conduits, trunking/ducts etc selected, prepared and fixed in pre-identified locations, clamped firmly, paying attention to the sizes and number of cables/wires to be accommodated according to the wiring diagrams/ regulations/ standards		
2.5	Conduit accessories firmly buried/ mounted at pre-identified locations, according to layout plan, at specified depths and heights for each electrical point in conformity with regulations/ standards		
3	Install and wire main electrical control and protective switch gear		
3.1	Main power control switch gear fixed/ mounted at preidentified locations, according to the layout plan / diagram		
3.2	Stand by power supply equipment and change-over switchgear installed as per manufacturer's specifications		
3.3	Cables from the main power control switchgear to the main power supply/ transformers laid and terminated as specified/ detailed in the layout plan/ regulations/ standards		
3.4	Earth electrodes installed and terminated at the pre-identified locations, in accordance with layout plan and conforming with regulations and standards		
3.5	Installations tested for safe and optimum performance according to standards and MEA regulations		
4	Wire electrical final circuits		
4.1	Type and size of wires and cables selected for each final circuit referring to the wiring diagram/ standards		
4.2	Wiring carried out in accordance with the wiring diagram/ layout plan and in conformity with standards and MEA regulations		
4.3	Electrical accessories in the final circuits mounted and wires terminated as per wiring diagrams		
4.4	Special wiring for construction sites, temporary buildings, agricultural and historical sites carried out according to regulations and standards		
4.5	Electrical installations in hazardous areas carried out according to regulations and standards		
4.6	Electrical appliances, equipment in final circuits fixed according to the wiring diagram/ standards		
5	Install wiring for standby power supplies		
5.1	Trucking/ conduit/ ducts etc. for laying of power cables installed according to wiring diagrams		

5.2	Earth electrodes for the stand by power supply installed and connected as per manufacturer's specifications/ regulations and standards		
5.3	Power changeover switchgear/ control and protective switchgear required for the stand by power supply installed and cables laid and terminated as per manufacturer's specifications/ regulations/ standards		
5.4	Power changing over systems checked for correct phase sequence and performance		

I declare that theory and practical of the above unit and its elements have been taught

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ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-11: Operate chemical separation equipment

#	Activities	Mark "√" " if completed	Date completed
1	Prepare for work		
1.1	Identify work requirements		
1.2	Identify and control hazards		
1.3	Coordinate with appropriate personnel		
2	Operate chemical separation equipment		
2.1	Identify the type of chemical separation equipment		
2.2	Start up and shut down chemical separation equipment according to type and duty		
2.3	Monitor plant frequently and critically throughout shift using measured/indicated data and senses (e.g. sight and hearing), as appropriate		
2.4	Adjust flow and pressure as appropriate to type of separation equipment		
2.5	Complete routine checks, logs and paperwork, taking action on unexpected readings and trends		
3	Isolate and de-isolate plant		
3.1	Isolate plant		
3.2	Make safe for required work		
3.3	Check plant is ready to be returned to service		
3.4	Prepare plant for return to service		

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ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-12: Operate and maintain water treatment plant

#	Activities	Mark "√" " if completed	Date completed
1	Prepare for work		
1.1	Receive and give shift handover		
1.2	Identify work requirements		
1.3	Identify and control hazards		
1.4	Coordinate with appropriate personnel		
1.5	Check for recent work undertaken on filter		
1.6	Note any outstanding/incomplete work		
1.7	Check operational status of plants		
2	Operate water treatment plant		
2.1	Identify the types of filter and its duty		
2.2	Apply theoretical knowledge related to water treatment plant operation		
2.3	Complete routine checks, logs and paperwork taking action in accordance with procedures on unexpected readings		
2.4	Handling materials and substances		
3	Operate distribution system		
3.1	Maintain set pressure		
3.2	Complete routine checks, logs and paperwork taking action in accordance with procedures on unexpected readings		
4	Recognise and take action on abnormal situations in accordance with procedures		
4.1	Monitor plant frequently and critically throughout shift using measured/indicated data and senses		
4.2	Identify impacts of any changes upstream and downstream		
4.3	Recognise situations which may require action		
4.4	Resolve routine problems		
4.5	Take actions on other abnormal situations to make safe and have the situation resolved		
5	Isolate and de-isolate plant		
5.1	Complete any required pre-start checks		
5.2	Startup/shut down/changeover plant according to the plant type and duty in liaison with other personnel		
5.3	Isolate Plant		
5.4	Make safe for required work		
5.5	Check Plant is ready to be returned to service		
5.6	De-isolate and prepare Plant for return to service		
6	Perform log taking and document management		
6.1	Identify types and function of logs and documents required		
6.2	Undertake recording of logs and management of documents		

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ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-13: Monitor systems and equipment

#	Activities	Mark "√" if completed	Date completed
1	Prepare for work		
1.1	Identify work requirements		
1.2	Identify and control hazards		
1.3	Coordinate with appropriate personnel		
2	Startup systems / equipment		
2.1	Perform pre-start-up checks		
2.2	Check the status of the system/equipment prior to commencing start-up process		
2.3	Check all required auxiliary systems, including oil and water, to confirm their operational condition		
2.4	Startup individual items of equipment and the entire system as required		
2.5	Bring the system to required operating condition		
3	Control and monitor the system		
3.1	Initiate load-up through the selection of appropriate speed or cycle		
3.2	Monitor and adjust downstream equipment as required		
3.3	Monitor the operational condition and safety status of the unit/system and take appropriate action		
3.4	Adjust operational speeds and operating cycles as required		
3.5	Monitor or activate safety systems to ensure that any system shutdowns are controlled and conducted safely and effectively		
4	Shut down systems/equipment		
4.1	Confirm shutdown cause with other personnel and plant operators before commencing to isolate or shut down the equipment/system		
4.2	Implement control measures to minimise damage and hazards		
4.3	Shut down system according to procedures		
4.4	Inspect the system/equipment as required by procedures		
4.5	Isolate and purge systems/equipment and prepare plant for maintenance as required.		
5	Maintain plant effectiveness		
5.1	Frequently and critically monitor all plant throughout shift		
5.2	Use measured/indicated data and smell, sight, sound and feel as appropriate to monitor plant		
5.3	Identify critical equipment/processes and tune their performance		
5.4	Identify issues likely to impact on plant performance and take appropriate action		
5.5	Predict impact of a change in one unit/area on other plant units/areas and communicate this to relevant people		
5.6	Test trips and alarms as required		

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Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-14: Collect samples and perform basic water tests

#	Activities	Mark "√" " if completed	Date completed
1	Prepare for sampling		
1.1	Confirm the purpose, priority and scope of the sampling request		
1.2	Liaise with relevant personnel to arrange site access and all necessary clearances/permits		
1.3	Identify site hazards and review workplace safety procedures		
1.4	Confirm what samples are to be collected, from where, how and when		
1.5	Assemble all specified sampling equipment, safety equipment, materials and containers		
1.6	Conduct pre-use and cleanliness checks of all items to ensure they are fit for purpose		
1.7	Check all items against given inventory and stow them to ensure safe transport		
2	Collect sampling		
2.1	Locate sampling points and services at the site		
2.2	Remove security devices, such as locks and covers as required		
2.3	Seek advice if the required samples cannot be collected or if procedures require modification		
2.4	Select and use required sampling equipment in accordance with given procedures		
2.5	Closely follow sampling procedures to obtain required samples and maintain their integrity		
2.6	Record all labelling information in accordance with workplace/legal traceability requirements		
2.7	Record sample appearance, environmental conditions and any other factors that may impact on sample integrity		
2.8	Replace security devices, such as locks and covers as required		
3	Perform basic water test		
3.1	Identify daily water tests to be performed aligned to EPA standard.		
3.2	Perform basis water tests		
4	Update documentation		
4.1	Record log of the tests performed including their results.		
4.2	Communicate the log to relevant stakeholders		

I declare that theory and practical of the above unit and its elements have been taught

Date:.....

Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-15: Monitor and Operate power generation system

#	Activities	Mark "√" " if completed	Date completed
1	Confirm operational status		
1.1	Check production requirements at start of shift and plan daily work activities in line with organisational safety and standard operating procedures.		
1.2	Confirm power generation processes are within operational specifications by observation and inspection.		
1.3	Maintain process supplies to meet production requirements.		
1.4	Communicate operational status to relevant personnel		
2	Monitor and control power generation plant operation		
2.1	Confirm operational status by inspection and routine observation.		
2.2	Monitor and maintain continuing process supplies to meet production requirements.		
2.3	Monitor and maintain power output demand and distribution system to meet production requirements.		
2.4	Handling materials and substances		
3	Record and report power generation performance		
3.1	Record pressures, temperatures and flows.		
3.2	Record power generation processes and data in operating log.		
3.3	Record and report maintenance requirements		

I declare that theory and practical of the above unit and its elements have been taught

Date:.....

Signature:.....

ACKNOWLEDGEMENT OF TRAINING DELIVERY

Unit-16: Trouble shooting of control systems

#	Activities	Mark "√" " if completed	Date completed
1	Prepare to find and rectify faults		
1.1	OHS procedures for a given work area are identified, obtained and understood		
1.2	OHS risk control measures and procedures are followed in preparation for the work.		
1.3	The nature of the fault is obtained from documentation or from work supervisor to establish the scope of work to be undertaken.		
1.4	Advice is sought from the work supervisor to ensure the work is coordinated effectively with others.		
1.5	Sources of materials that may be required for the work are established in accordance with established procedures.		
1.6	Tools, equipment and testing devices needed to carry out the work are obtained in accordance with established procedures and checked for correct operation and safety		
2	Find faults		
2.1	OHS risk control measures and procedures for carrying out the work are followed.		
2.2	The need to test or measure live is determined in strict accordance with OHS requirements and when necessary conducted within established safety procedures		
2.3	Apparatus is checked as being isolated where necessary in strict accordance OHS requirements and procedures		
2.4	Fault finding is approached methodically drawing on knowledge of industrial processes and control apparatus and systems using measured and calculated values of system parameters.		
2.5	Apparatus components are dismantled where necessary and parts stored to protect them against loss or damage		
2.6	Faulty components are rechecked and their fault status confirmed.		
2.7	Unexpected situations are dealt with safely and with the approval of an authorised person.		
2.8	Fault finding activities are carried out without damage to apparatus, circuits, the surrounding environment or services and using sustainable energy principles.		
3	Rectify fault		
3.1	OHS risk control measures and procedures for carrying out the work are followed.		
3.2	Apparatus is checked as being isolated where necessary in strict accordance OHS requirements and procedures		
3.3	Materials required to rectify faults are sourced and obtained in accordance with established procedures.		
3.4	Repairs are affected efficiently without damage to other components or apparatus and using sustainable energy principles.		
3.5	Effectiveness of the repair is tested in accordance with established procedures.		
3.6	Apparatus is reassembled, finally tested and prepared for return to customer		
4	Completion and report fault finding and rectification activities		
4.1	OHS work completion risk control measures and procedures are followed.		
4.2	Work area is cleaned and made safe in accordance with established procedures.		
4.3	Written justification is made for repairs to apparatus.		

4.4	Work completion is documented and appropriate person(s) notified in accordance with established procedures		
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I declare that theory and practical of the above unit and its elements have been taught

Date:.....

Signature:.....

DETAILS OF WORK UNDERTAKEN AT WORK SITE/TRAINING LAB

Relevant
Competency
Unit (s):

Date:

Work / Function / Task / Activity Performed

Employer / Supervisor's/Trainer Signature/Stamp

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WATER SUPPLY
SYSTEM