



TRAINING BROCHURE



Our Vision

We provide accredited training to increase the skills and knowledge of our clients so that the local human resources talent is fully utilised in the communities we operate in.

Our mission

Our training to construction employees ensures they meet the challenges and demands of the construction sector in a world class and safe manner.

The Aim of Training

The CSTA Training Academy ensures customised training per client requirement so that we are able to positively impact on both the operational requirements as well as the employee development challenges to make a meaningful socio-economic impact in communities around our client operations.



Technical training and Health and Safety training plays a vital role in all Sector and it is critical that the significance of this is recognised.

Why CSTA Training Academy is your best choice for high quality training:

Our knowledge of local conditions coupled with on-going site operations and our expertise in our core technical skills gives us the unique ability to be able to provide both on the job technical training as well as formal theoretical training. We seamlessly integrate training and site operations in that we use both accredited formal training material and trainers as well as our site technical experts to supplement our theoretical training with on-the-job practical exposure. No other training providers can do this as seamlessly as we can.

Our clients benefit tremendously from this in that they can show the meaningful integration of local skills and the reduction in requirements for expatriate specialized skills. This has a tremendous impact on our client's costs and reputation with local authorities and communities



Accreditation

To ensure that we are providing the latest and best practice theoretical and practical training we undergo the rigorous accreditation processes of the relevant South African Sector Educational Training Authorities, (SETA). This robust accreditation processes involves demonstrating our programs are professional and meet the unit standard requirements in the South African context. Having done this for South African requirements it also ensures the training we provide to our clients in the rest of Africa is of the highest standard available. Our courses are currently accredited at the: Construction Education and Training Authority.

By staying abreast of all the requirements of the SETA's we ensure that our programs constantly evolve to meet the ever changing requirements of adult training and education.



Scope of training offered

OHS Safety

➤ **First Aid level 1 – U/S 120496**

- *Demonstrate the principles of primary emergency care.*
- *Assess and control a single injury emergency scene in the workplace.*
- *Demonstrate primary emergency life support for adults, children and infants.*
- *Explain and manage shock.*
- *Carry out secondary assessment of the sick or injured person and provide appropriate primary emergency care at the scene.*
- *Keep records of the incident/accident.*



➤ **Fire Fighting – U/S 110075**

- *Types of fires*
- *Fire prevention*
- *Firefighting equipment*
- *Fire Fighting Tactics*

➤ **Hazardous Identification and Risk Assessment (HIRA) – U/S 244287**

- *Explain the specified requirements pertaining to continuous hazard identification and risk assessment.*
- *Prepare for hazard identification.*
- *Identify hazards and assess risks.*
- *Initiate remedial and follow-up action*

➤ **Working at Heights – U/S 229998**

- *Explaining the use and limitations of a limited range of fall arrest equipment and fall arrest plan.*
- *Inspecting, assembling and storing fall arrest equipment.*
- *Selecting suitable anchor points.*
- *Using fall arrest systems with a double lanyard.*
- *Using pre-installed vertical and horizontal life-lines.*

➤ **Hand Tools – U/S 12877**

- *Portable electrical hand tools*
- *Grinding wheel safety*
- *Register and checklist*

➤ **Power Hand Tools – U/S 12878**

- *Select and identify tools*
- *Safety*
- *Maintenance tools*



➤ **Scaffold Erector – U/S 263245**

- *Interpreting basic drawings and instructions for the erection of access scaffolding.*
- *Coordinating resources for the erection of access scaffolding.*
- *Erecting and using access scaffolding.*
- *Dismantling access scaffolding.*

➤ **Scaffold Inspector – U/S 263205**

- *Demonstrating an understanding of different types of access scaffolding, applications and compliance.*
- *Explaining the role and responsibilities of the inspector.*
- *Reading and interpreting drawings, client requirements and other specifications.*
- *Inspecting and handing over access scaffolding.*



- **Flagman – U/S 13622**
 - *Select and set up temporary road signs and barriers at road works to ensure the safety of pedestrians, motorists and workers, when any work has to be done in a road or next to a road on the pavement.*
- **Stacking and Storage – U/S 117898**
 - *Identify appropriate areas for packing stock.*
- **Hazardous Material Handling (HazChem) – U/S 115093**
 - *Hazard, Risk and exposure*
 - *The workplace environment*
 - *The seven step haztap*
- **Basic Height Rescue – U/S 229995**
 - *Explaining the use of a range of fall arrest equipment and knowledge of applicable regulations.*
 - *Explaining and using basic rope knots.*
 - *Installing and using fall arrest systems.*
 - *Inspecting and assembling fall arrest equipment and systems.*
 - *Interpreting and implementing a fall protection plan.*
 - *Performing basic fall arrest rescues to bring a casualty down to safety.*
- **Confined Spaces – U/S 15034**
 - *Learners who are assessed as competent against this unit standard will be able to identify the hazard of confined spaces and the precautions required for the safety of the workers and public.*
- **Apply Health and safety to a work area (SHE REP) – U/S 9964**
 - *Potential hazards are correctly identified and removed, reduced or reported.*
 - *A health and safety plan is drawn up.*
 - *Protective clothing requirements are identified and protective clothing is used.*
 - *Different fire extinguishers are identified and used correctly.*
 - *Procedures for the identification of emergencies are known and followed promptly and correctly.*
- **Construction Regulation – U/S 120344**
 - *Learners found competent in this unit standard will be able to explain the basic principles of relevant current health and safety legislation and the consequences of non-compliance.*
- **Handle, transport, store and utilize hazardous materials on a civil construction site – U/S 14560**
 - *Learners who are assessed as competent against this unit standard will be able to handle, transport, store and utilize cement, lime, bitumen, tar and flammable gas on Construction Site.*
- **Incident and Accident Investigation – U/S 259617**
 - *Describing requirements for workplace safety, health and environment incident investigation.*
 - *Gathering information for workplace safety, health and environment incident investigations.*
 - *Conducting post-investigation activities.*

➤ **Legal Liability – U/S 242661**

- *Identifying legislation that potentially impacts on the management of risk.*
- *Explaining the risks associated with non-compliance.*
- *Demonstrating understanding of selected legal terminology.*
- *Applying legislation and codes of good practice to the management of risk in a specific entity.*

➤ **Supervisory – U/S 242821**

- *Explaining the role of a team leader.*
- *Explaining the purpose of a team.*
- *Contracting with a team to obtain commitment.*
- *Monitoring the achievement of team objectives.*





Construction

➤ **Basic bricklaying – U/S 93627**

- *Plan and prepare site, material, tools and equipment for the laying of bricks.*
- *Lay bricks (face and plaster), stone (natural and pre-cut) and block, to construct, repair and/or make alterations to substructures and superstructures.*
- *Conduct bricklaying finishing operations.*

➤ **Plastering – U/S 9969**

- *The purpose of this Unit Standard is to enable construction plasterers to set out their work, prepare all types of surface for plastering, and to mix plaster, screed and grano.*

➤ **Steel fixing – U/S 116573**

- *Assembling and tie-ing reinforcing cages and using the correct materials and method for fixing reinforcing in a safe and efficient manner. The learners will be able to demonstrate knowledge of types of tools, equipment and personal protective equipment, Steel fixing sequence and SABS requirements for the different types of ties.*

➤ **Operate a heavy duty vehicle – U/S 123253**

- *Preparing a rigid heavy vehicle for road transport trips according to specification.*
- *Driving a rigid heavy vehicle in accordance with specified requirements.*
- *Ensuring the maintenance of road transport service quality.*
- *Handling unexpected situations according to specified procedures.*
- *Reflecting on rigid heavy vehicle performance and own operation of vehicle against requirements.*
- *Parking rigid heavy vehicle in accordance with specified requirements.*

➤ **Operate a service truck – U/S 262790**

- *Demonstrating knowledge of the functions of a service truck.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down service truck.*
- *Operating service truck.*
- *Transporting service truck to and from site.*

➤ **Operate a Wacker – U/S 14567**

- *The technology of compacting material with a small self-propelling compactor.*
- *Optimum moisture content.*
- *Density.*
- *The concept of determining density by sand replacement or hydro- density meter.*
- *The identification and use of protective clothing.*
- *The identification of hazards in the work environment.*
- *The purpose of checklists.*
- *The application of pre-operational machine checklist and manufacturer's checklist.*
- *The preparation of the area and material to be compacted.*
- *Operator's manual and operational requirements.*

Lifting Machines



➤ **Operating an Overhead Crane – U/S 116235**

- *Demonstrating an integrated practical and theoretical grounding in Crane Operations according to safe handling and maintenance practices in compliance with crane manufacturers and legislated standards.*

➤ **Operating a Counter Balanced Lift Truck (Forklift) – U/S 242974**

- *Applying the recognised methods for inspecting and recording the operational fitness of all components of the lift truck with reference to safety procedures in the workplace.*
- *Identifying and classifying freight/loads taking into account documentation, packaging and labelling associated with the specific freight.*
- *Handling, loading and storing freight in accordance with industry standards environmental requirements, and with due consideration to inter alia the commodities and their properties, storage area and placement of load.*
- *Achieving maximum work performance of lifting equipment and attachments, by applying knowledge of equipment dimensions, controls, principles of operation and capacities, manufacturing specifications and circumstances in the working environment.*
- *Operating equipment in accordance with laid down organisational and legislative standards and procedures as well as manufacturer's guidelines.*
- *Accessing available emergency support system and services in case of incidents and accidents.*

➤ **Operating a Mobile elevating work platform (MEWP) – U/S 243272**

- *Identifying applications to decide on the appropriate Mobile Elevating Work Platform to be used.*
- *Assessing risks in the work environment to prevent and eliminate safety hazards.*
- *Conducting pre-operation inspection of Mobile Elevating Work Platform.*
- *Making use of safe operating procedures and practices for a Mobile Elevating Work Platform.*
- *Placing people, tools and equipment correctly and safely on Mobile Elevating Work Platform.*
- *Conducting shut-down procedures and stow Mobile Elevating Work Platform safely.*

➤ **Operate a mobile crane – U/S 116254**

- *Demonstrating an integrated practical and theoretical grounding in crane operations according to safe handling and maintenance practices in compliance with crane manufacturers and legislated standards.*

➤ **Operate truck mounted cranes – U/S 242978**

- Demonstrating knowledge of the functions of a truck mounted crane.
- Identifying the safety and suitability of the crane.
- Inspecting and recording the operational fitness of the components of the truck and crane.
- Operating a truck mounted crane.
- Accessing available support systems and emergency services in case of incidents and accidents.

➤ **Operate a Sideboom – U/S 262824**

- Demonstrating knowledge of the functions of a Sideboom.
- Planning for work activities and prepare work area.
- Starting and shutting down Sideboom.
- Operating Sideboom.
- Transporting Sideboom to and from site.

➤ **Operate a Tower Crane – U/S 116255**

- Demonstrating an integrated practical and theoretical grounding in Crane Operations according to safe handling and maintenance practices in compliance with crane manufacturers and legislated standards.

➤ **Operate heavy crane – U/S 242982**

- Identifying the safety and suitability of crane type prior to utilisation thereof, giving consideration to freight characteristics, equipment manufactures requirements and environmental conditions.
- Applying the recognised methods for inspecting and recording the operational fitness of all components of the crane with reference to safety procedures in the workplace.
- Operating the heavy crane in a safe and competent manner.
- Accessing available support and emergency services in the case of incidents and accidents.

➤ **Sling complex loads and communicate during crane operations – U/S 116986**

- Demonstrating an integrated practical and theoretical grounding in Crane Operations, inspecting and evaluating lifting gear, preparing and slinging complex loads, as well as communicating during crane operations.

➤ **Operate Telescopic Boom Handler – U/S 260781**

- Discussing and applying the regulatory framework for operating Telescopic boom handlers.
- Describing the telescopic boom handler to be operated.
- Demonstrating mechanical awareness of the telescopic boom handler.
- Inspecting the telescopic boom handler.
- Handling loads with a telescopic boom handler.
- Operating the telescopic boom handler.

➤ **Operate reach stacker – U/S 260761**

- Discussing and applying the regulatory framework for operating reach stackers.
- Describing the reach stacker to be operated.
- Demonstrating mechanical awareness of the selected machine.
- Inspecting the selected reach stacker.
- Handling loads with a reach stacker.
- Operating the reach stacker.

➤ **Perform basic rigging procedures – U/S 14706**

- Learners accredited with this unit standard will be able to conduct basic rigging practices in accordance with legislative safety standards and job requirements. This includes the inspection, selection and use of slings and lifting tackle to safely lift, move and stack loads.



Earthmoving Machines

➤ **Operate articulated dump truck – U/S 262745**

- *Demonstrating knowledge of the functions of an articulated dump truck.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down articulated dump truck.*
- *Operating articulated dump truck.*
- *Transporting articulated dump truck to and from site*

➤ **Operate Rigid body dump truck – U/S 262731**

- *Demonstrating knowledge of the functions of a rigid body dump truck.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down rigid body dump truck.*
- *Operating rigid body dump truck.*
- *Transporting rigid body dump truck to and from site.*



➤ **Operate a roller – U/S 262805**

- *Demonstrating knowledge of the functions of a roller.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down roller.*
- *Operating roller.*
- *Transporting roller to and from site.*

➤ **Operate a Skid Steer Loader – U/S 262712**

- *Demonstrating knowledge of the functions of a skid steer loader.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down skid steer loader.*
- *Operating skid steer loader.*
- *Transporting skid steer loader to and from site.*

➤ **Operate a tracked bulldozer – U/S 262729**

- *Demonstrating knowledge of the functions of a tracked dozer.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down tracked dozer.*
- *Operating tracked dozer.*
- *Transporting tracked dozer to and from site.*

➤ **Operate a tractor – U/S 262804**

- *Demonstrating knowledge of the functions of a tractor.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down tractor.*
- *Operating tractor.*
- *Transporting tractor to and from site.*



➤ **Operate a tractor / loader / backhoe (TLB) – U/S 262727**

- *Demonstrating knowledge of the functions of a backhoe/loader.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down backhoe/loader.*
- *Operating backhoe/loader.*
- *Transporting backhoe/loader to and from site.*

➤ **Operate a wheeled dozer – U/S 262713**

- *Demonstrating knowledge of the functions of a wheeled dozer.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down wheeled dozer.*
- *Operating wheeled dozer.*
- *Transporting wheeled dozer to and from site.*



➤ **Operate an excavator – U/S 262744**

- *Demonstrating knowledge of the functions of a excavator.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down excavator.*
- *Operating excavator.*
- *Transporting excavator to and from site.*

➤ **Operate a frontend loader – U/S 262747**

- *Demonstrating knowledge of the functions of a front end loader.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down front end loader.*
- *Operating front end loader.*
- *Transporting front end loader to and from site.*

➤ **Operate a water cart – U/S 262764**

- *Demonstrating knowledge of the functions of a water cart.*
- *Planning for work activities and prepare work area.*
- *Starting and shutting down water cart.*
- *Operating water cart.*
- *Transporting water cart to and from site.*



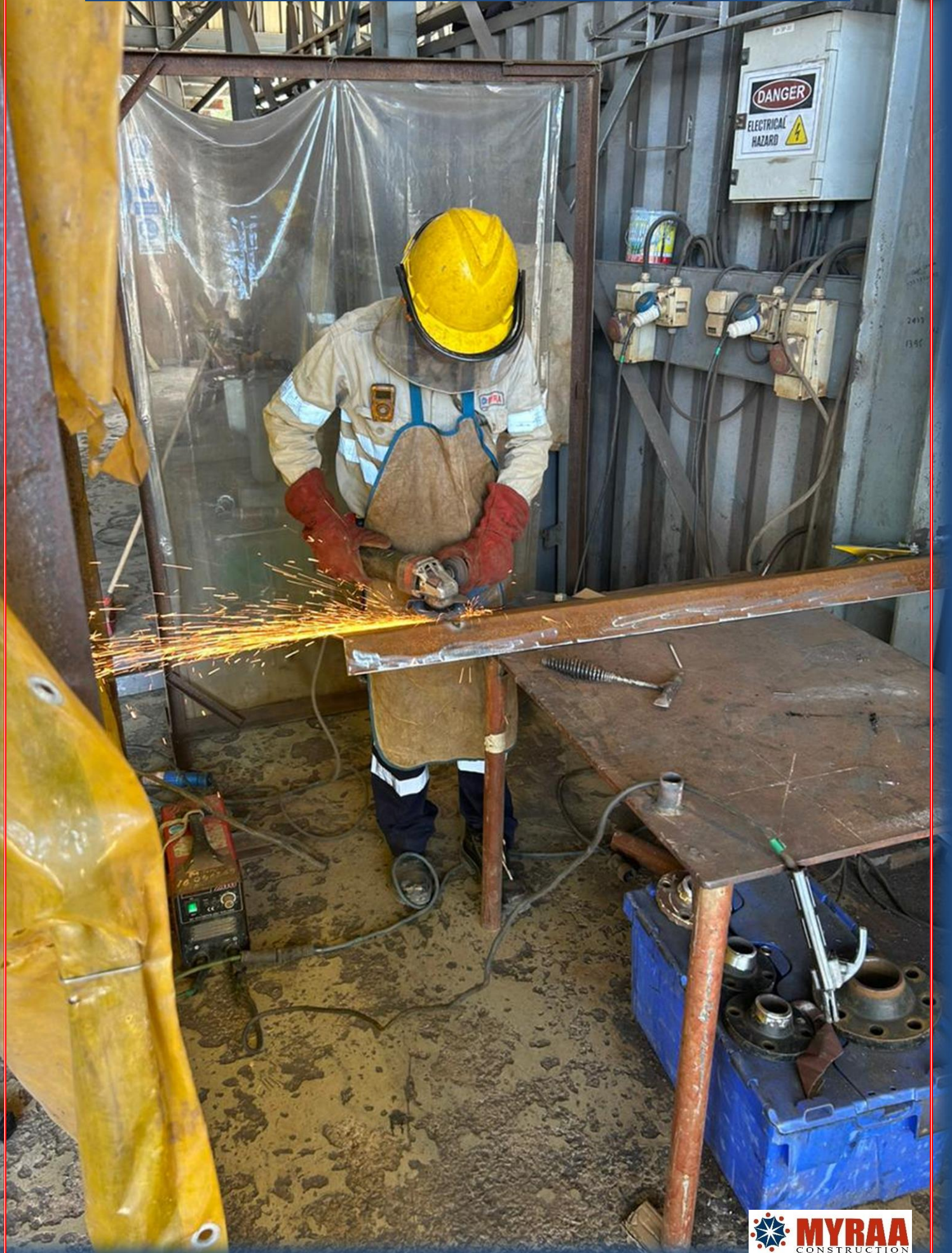
➤ **Operate a Road sweeper – U/S 243194**

- *Plan and prepare for sweeping floors.*
- *Sweep floors.*
- *Perform end of task duties after sweeping floors.*

➤ **Operate a smooth roller – U/S 117032**

- *Demonstrating knowledge of the functions of self-propelled rollers and of compaction by rolling; planning and preparing for roller operations; applying concepts of road anatomy; maneuvers and control roller on site; use roller to compact materials; and move roller from site to site.*

MYRAA GROUP TECHNICAL TRAINING





INTRODUCTION

The Myraa group “Good for Growth” strategy is underpinned by making a meaningful difference in the communities around our operations. One of the most powerful ways of achieving this is to train people in the Myraa group core skills which are Welding, Boilermaking and Pipefitting.

Towards achieving this objective, Myraa group have invested in Technical Training personnel, equipment and materials. We have embedded training within our routine construction and maintenance operations to the extent that our clients can now look forward to trained and certified local community members in the Myraa group core skills. One such site was in Madagascar where we provided Welding, Boilermaking and Pipefitting training.

TRAINING METHODOLOGY

The key thing about Myraa training is that we minimise classroom teaching to the absolute minimum required and maximise practical training on our sites. This has made our training so much more effective in that Trainees benefit from the years of experience of our skilled artisans and supervisors. The rate of uptake of the key principles and practices has proved to be a far more effective way of training in our core skills as opposed to traditional classroom based approaches.

We work closely with our clients to establish the training needs that will add most value to both the Trainees participating in the program as well as the recipients of the Trainees once qualified be it ourselves for our operations or our clients for their operations. On our Madagascar site we agreed with the Client to provide Welding, Boilermaking, Pipefitting and Safety Officer Training as those were the skills that we were able to develop and that suited the Clients skills requirements. We studied their processes and procedures and welding materials and optimised a program for each of the trades that best met the client’s requirements.

TRAINING FACILITIES

We integrate Training Facilities into our operations as far as possible. This is a critical factor in our success in that we are able to cycle the students between theory and practice seamlessly between the classroom and our operations. This enriches the learning no end as our trainees emerge having been sufficiently exposed to both the theory as well as the practice. Our training facilities are therefore within our workshop facilities as close to our site operations as possible.

We also equip our classrooms and workshop with all of the requirements to make the training successful. In Madagascar we ensured that the trainees were training on all of the equipment and materials that they will be exposed to on site. This makes the learning portable and immediately relevant on site.

SELECTION OF TRAINEES

The selection of the Trainees was critical in that we had to ensure that the trainees had the technical aptitude so that they could grasp the very technical and mathematical concepts as well as successfully apply it in the work situation. We therefore chose to only select people with a technical background for the Welding, Boilermaking and Pipefitting Training. We found keen applicants from the various workshops and welding facilities in Tamatave and gave the applicants a pre-selection test. This is how we arrived at our first 11 successful Technical Trainee intake.

For the Safety Officer intake, we decided to use English as a key requirement for selection as it is critical for our Safety Officers on site to be able to converse in English with our Supervisors and management. We worked with local authorities in Tamatave to find such candidates and were pleasantly surprised at how many of these there were. From this pool we selected 4 male and 2 female Safety Officer Trainees.



GENERAL LEVEL 1


1. Introduction to the trade and training program
2. Health and safety in the workplace
3. Ferrous and non-ferrous metal cutting processes
4. Using cutting and shaping equipment's
5. Trade math, drawing sketches and plan basics
6. Parts preparation
7. Metallurgical concepts application
8. Identifying welding defects
9. Application of the SMAW process
10. Welding of steel with the SMAW process
11. Basic Plan interpretation and specifications

Welding, Boilermaking & Pipefitting

TECHNICAL TRAINING

WELDER LEVEL 2

12. Application of the GTAW process
13. Welding steel with the GTAW process
14. Pipe preparation
15. Pipe welding with the GTAW and SMAW processes (2)
16. Welding stainless steel pipes with the GTAW process

A photograph of two female workers in a workshop. They are both wearing yellow hard hats and dark blue work jackets with orange and green reflective stripes. The worker on the left is wearing a blue scarf and a black belt. The worker on the right is wearing safety glasses. They are standing behind a workbench that is covered with wood shavings and various tools. In the background, there are stacks of wood and a white wall.

BOILERMAKER LEVEL 2

- 17. Basic assembly realisation
- 18. Pressure vessel plans interpretation
- 19. Complex assembly realisations

PIPE FITTER LEVEL 2

- 20. Pipes and fittings classification and plan interpretation
- 21. Spool components assembly

Safety Officer

SAFETY TRAINING

PHASE 1 (UNSKILLED)

1.1 CLIENT INDUCTION

- ❖ Emergency preparedness
- ❖ Respiratory Protection
- ❖ Permit User
- ❖ Take 5
- ❖ Permit Acceptor
- ❖ JSEA
- ❖ Confined space entry
- ❖ Working at heights
- ❖ Utilities induction
- ❖ PAL Induction
- ❖ TMF Induction

1.2 MYRAA GROUP INDUCTION

- ❖ Employee responsibilities - Myraa group Employee Manual including company rules
- ❖ Myraa group Way values - Red Card Rules and Fit For Future

1.3 ROLES AND RESPONSIBILITIES OF SAFETY OFFICER

- ❖ Introduction to the role and responsibilities of a Safety Officer –Key Performance Indications (Job profile)
- ❖ Philosophy of accident prevention
- ❖ Madagascar Health, Safety and Environment legislation and the duties of a SHE Officer

PHASE 2 (SEMI-SKILLED 1)

2.1 SAFETY FUNCTION SKILLS

- ❖ Hazard Identification and risk assessment
- ❖ Job Safety Analysis
- ❖ Behaviour Monitoring
- ❖ Permit to work
- ❖ Incident investigation and non-conformance reporting
- ❖ Incident Investigation

PHASE 3 (SEMI-SKILLED 2)

3.1 PRACTICAL SITE SPECIFIC-TRAINING

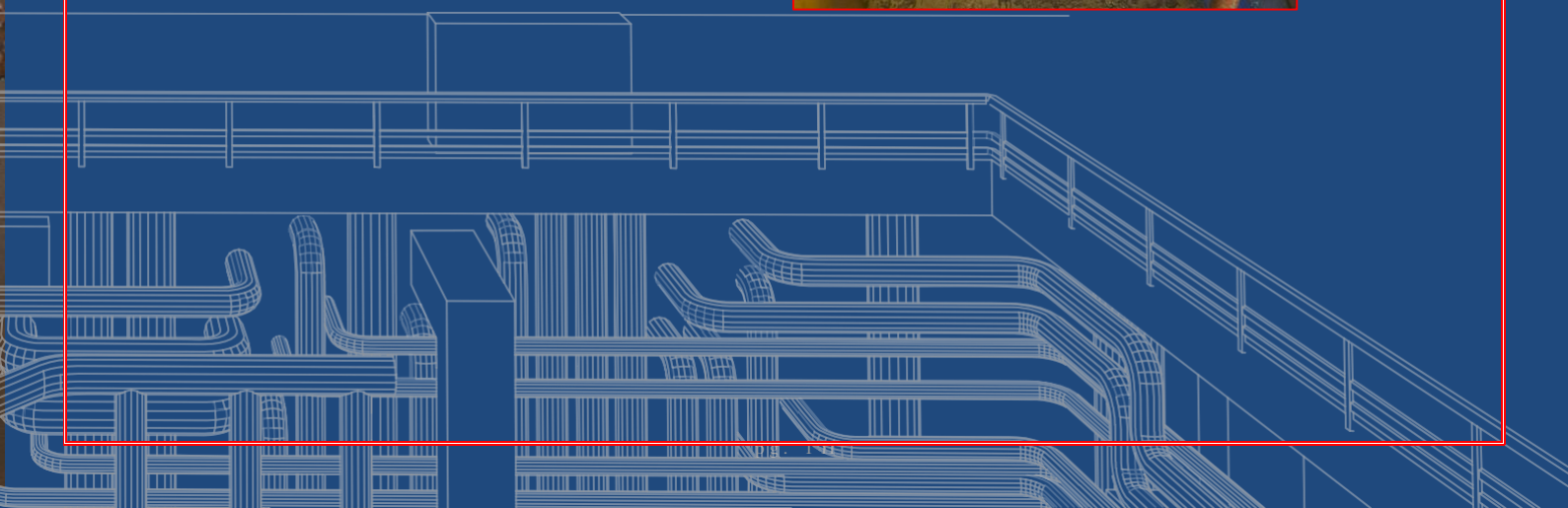
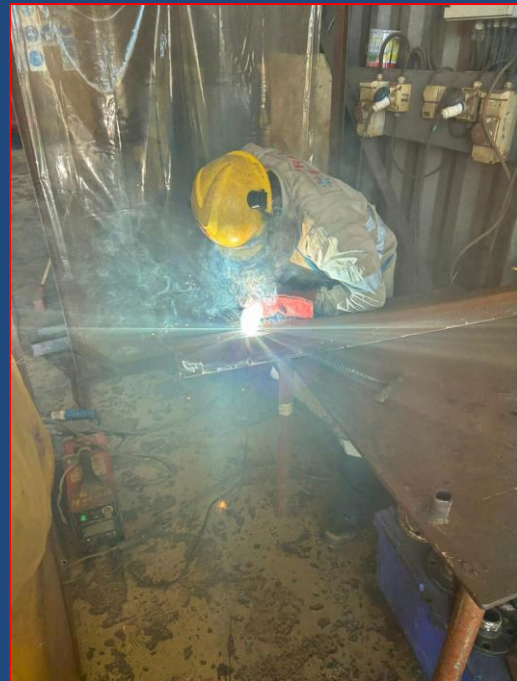
- ❖ Practical site-specific training
- ❖ Equipment inspection
- ❖ Gas Safety and Gas equipment inspection
- ❖ Barricades
- ❖ Scaffold Basic Inspection
- ❖ Grating Installation and removing
- ❖ Confined space entry
- ❖ Lock out - Tag out
- ❖ Rigging and slinging
- ❖ Working at Heights
- ❖ Manual Handling

PHASE 4 (SEMI-SKILLED 3)

On-site practical and on-going evaluation

PHASE 5-CERTIFICATION (SKILLED 1)

Draft recommendations for promotion (Learner to Jnr. Safety Officer) based on on-going evaluation.





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