

Indian Iron & Steel Sector Skill Council

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR IRON & STEEL INDUSTRY

What are Occupational Standards (OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding



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Introduction

Qualifications Pack – Iron & Steel – Assistant

SECTOR: Iron & Steel

SUB-SECTOR: Steel

REFERENCE ID: ISC/Q0410

ALIGNED TO: NCO-2004/NIL

Title of Job: The job is all about carrying tools and tackles to job site as per requirement, assisting for smooth and safe operation/repair/maintenance of the equipment at site, cleaning the assembly/equipment before dismantling and providing necessary help during dismantling/assembling operation of different manual valves. This also includes cleaning the work site after completion of the job and carrying back the tools and tackles to departments/stores.

Personal Attributes: This job requires the individual to concentrate on the job at hand and complete it efficiently and effectively without any accidents so diligence and hard-working are desired attributes for individuals in this role. He must also demonstrate strong work ethics, courteously with co-workers, and must be good with following instructions of the supervisor. He should be physically fit, not having colour blindness and willingness to work in a factory environment.



Job Details	Qualifications Pack Code	ISC/Q0410		
	Job Role	Iron & Steel - Assistant		
	Credits(NSQF)	TBD	Version number	1.0
	Industry	Iron & Steel	Drafted on	29/09/2014
	Sub-sector	Steel	Last reviewed on	25/03/2015
	Occupation	Iron Making	Next review date	25/03/2016
	NSQC Clearance on	20/07/2015		

Job Role	Iron & Steel - Assistant
Role Description	The role holder works as a helping hand to operator/fitter/welder/technicians/electrician/driver etc. for performing the job safely, smoothly and within given time frame. The job is all about carrying tools and tackles to job site as per requirement, assisting for smooth and safe operation/repair/maintenance of the equipment at site, cleaning the assembly/equipment before dismantling and providing necessary help during dismantling/assembling. This also includes cleaning the work site after completion of the job and carrying back the tools and tackles to departments/stores.
NSQF level	1
Minimum Educational Qualifications	Class 8 th Pass
Maximum Educational Qualifications	Class 10 th Pass
Training (Suggested but not mandatory)	<ul style="list-style-type: none"> • Technical knowledge on various tools and tackles • Identifying various work sites • Reading and writing report • 2 weeks on job training (mandatory)



	<ul style="list-style-type: none"> • 5S and safety practices
Minimum Job Entry Age	18 years
Experience	<ul style="list-style-type: none"> • 0-2 years of experience as general labour/helper • In lieu of minimum qualification the incumbent should have minimum 3 to 4 years' experience as trainee/general labour
Occupational Standards (OS)	<p>Compulsory:</p> <p>ISC/N0431: Receive tools and tackles from stores / department ISC/N0432: Assist for smooth operation at site ISC/N0433: Clean the equipments and work site ISC/N0008: Use basic health and safety practices at the workplace ISC/N0009: Work effectively with others</p> <p>Optional:</p> <p>N/A</p>
Performance Criteria	As described in the relevant NOS units



Definitions

Keywords /Terms	Description
Core Skills/Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the NOS, these include communication related skills that are applicable to most job roles.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of NOS.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Organisational Context	Organisational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.



Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Sub-functions	Sub-functions are sub-activities essential to fulfil the achieving the objectives of the function.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit Code is a unique identifier for a NOS unit, which can be denoted with an 'N'
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Keywords /Terms	Description
NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack
5 S	Technique of maintaining orderliness –Japanese terminology
CP	Control Plan
WI	Work Instructions

Acronyms



ISC/N0431: Receive tools and tackles from stores / department



National Occupational Standards

Overview

This unit is about receiving various tools and tackles from departments / stores.



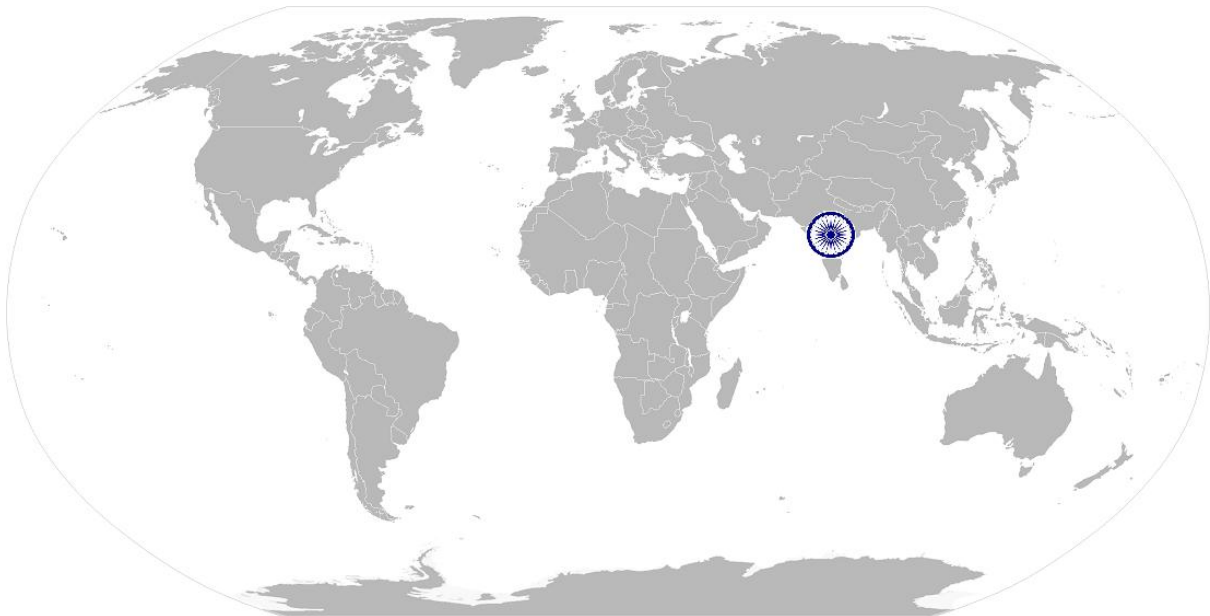
Unit Code	ISC/N0431
Unit Title (Task)	Receive tools and tackles from stores/department
Description	This unit is about receiving tools and tackles from stores/department that need to be carried to the work site.
Scope	This OS unit/task covers the following: <ul style="list-style-type: none"> Receive tools and tackles from stores/department as per job requirement at site Carry tools and tackles at various job site
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Receive tools and tackles from stores/department as per job requirement at site	To be competent, the user/individual on the job must be able to: <p>PC1. Adhere to time limits given by supervisor</p> <p>PC2. Identify in consultation with supervisor the required tools, tackles, equipments and necessary hardware for the job to be carried out</p> <p>PC3. Ensure the required tools, tackles, equipments and necessary hardware are in proper working condition and match specification as per the job requirement and the list being provided by the supervisor</p> <p>PC4. Coordinate within department/ store to obtain the identified tools and tackles to be carried to the job site</p>
Carry tools and tackles at various job site	To be competent, the user/individual on the job must be able to: <p>PC5. Carry the tools, tackles, equipments and hardware to the job site without damage</p> <p>PC6. Inspect work site and extend necessary help for executing the job as per suggestion of the supervisor</p>
Element	Knowledge and Understanding
A. Organisational Context (Knowledge of the Company/ Organisation and its processes)	The user/individual on the job needs to know and understand: <p>KA1. Safety policy of the company</p> <p>KA2. Emergency organisation of the specific work site</p> <p>KA3. Risk and impact of not following defined procedures/work instructions</p> <p>KA4. Escalation matrix for reporting identified problems</p> <p>KA5. Damage of equipment and direct / indirect cost of accidents</p> <p>KA6. Implications of delays in process to the company</p>
B. Technical Knowledge	The user/individual on the job needs to know and understand: <p>KB1. Different types of tools, tackles, equipments and hardware required for carrying out jobs pertaining to various departments e.g. mechanical, electrical, steel making, iron making, material handling, cold/hot roll mills, agglomeration, refractory, coke</p>



	<p>making, sinter plant etc. KB2. Specific layout of various work sites KB3. Different types of tools, tackles and hardware required for particular job e.g. spanners, hammer, chisel, chain blocks, steam jointing, asbestos rope, red lead powder, electrodes, gas cutting sets, regulator, pipe fittings, testing lamps, ampere meter, volt meter, tong tester, megger, screw drivers etc. KB4. Sequence of various dismantling /assembling of equipment at job site KB5. How to identify damage, defects, cracks or leaks beforehand KB6. Safety procedure for various work sites and while handling tools, tackles, equipments KB7/ The hazardous areas with respect to heat and gas prone areas</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing skills and reading Skills
	The user/ individual on the job needs to know and understand how to: SA1. Read work instructions and standard operation procedures (SOP) SA2. Create small notes/ work documents for supervisor related to operation SA3. Read business correspondence e.g. internal memos, circular etc. SA4. Read equipment manuals and process documents given by the equipment supplier to understand the equipment and working processes
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. Effectively understand about operational requirements SA6. Answer the queries raised by the operative team as well as others SA7. Effectively communicate with the supervisor related to work expectations, timelines and schedule for completion of the assigned job SA8. Attentively listen with full attention the queries and grievances raised by the operative team and comprehend the information given by the speaker
	Integrity
	The user/individual on the job needs to know and understand how to: SA9. Maintain integrity with respect to company property and time SA10. Communicate with people in a polite manner using respectful language SA11. Resolve difficulties in relationships with colleagues amicably
	Reliability
	The user/individual on the job needs to know and understand how to: SB12. Avoid absenteeism and maintain quality of work SB13. Work in a disciplined environment and adhere to working norms of the



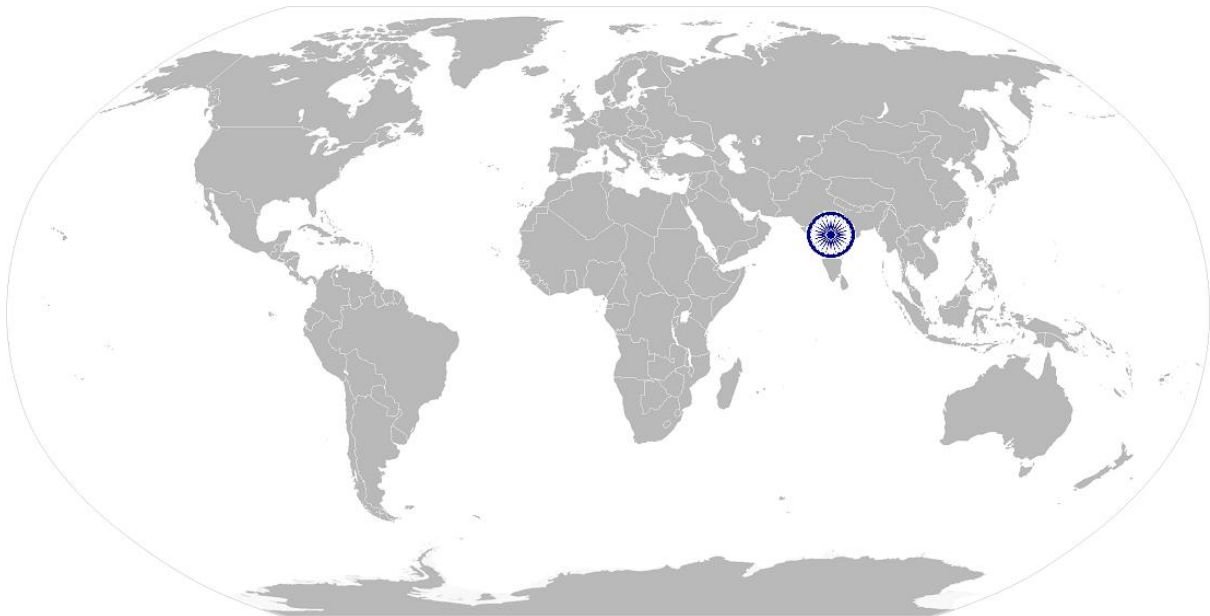
	organisation SB14. Be punctual and adhere to timelines
B. Professional Skills	Time Management
	The user/individual on the job needs to know and understand how to: SB1. Prioritize and execute tasks within the scheduled time limits





NOS Version Control

NOS Code	ISC/N0431		
Credits(NSQF)	TBD	Version number	1.0
Industry	Iron and Steel	Drafted on	29/09/2014
Industry Sub-sector	Steel	Last reviewed on	25/03/2015
Occupation	Iron Making	Next review date	25/03/2016





ISC/N0432: Assist for smooth operation at site



National Occupational Standards

Overview

This unit is about assisting supervisor/operators for smooth operation at site.



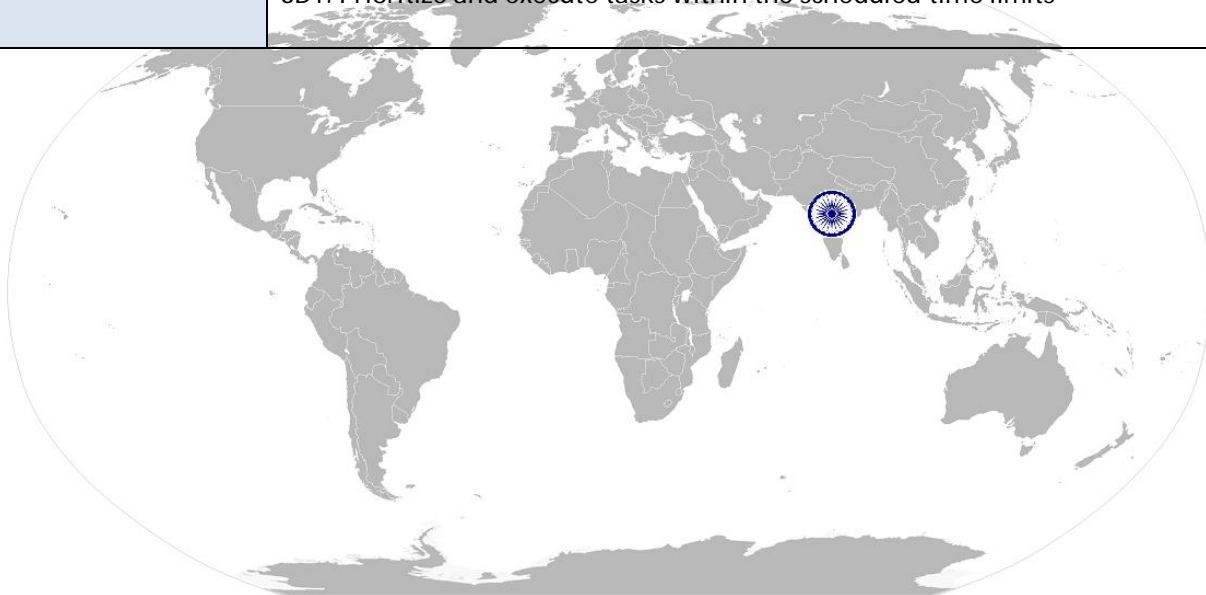
Unit Code	ISC/N0432
Unit Title (Task)	Assist for smooth operation at site
Description	This unit is about assisting supervisors/operators for smooth operation at various job sites.
Scope	This OS unit/task covers the following: <ul style="list-style-type: none"> • Provide necessary help for performing the job at site with respect to tools, tackles, equipments and hardware • Extend the necessary help before starting the activity till job completion of the job
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Provide necessary help for performing the job at site with respect to tools, tackles, equipments and hardware	To be competent, the user/individual on the job must be able to: <p>PC1. Inspect the worksite to identify types of tools, tackles and hardware required for the job and the work site is clear from all obstructions</p> <p>PC2. Ensure availability of tools, tackles and hardware required for the job</p> <p>PC3. Ensure tools, tackles and hardware required for the job are fit and ready to use</p> <p>PC4. Identify the required tools, tackles and hardware required for any particular job</p>
Extend the necessary help before starting the activity till job completion of the job	To be competent, the user/individual on the job must be able to: <p>PC5. Extend necessary help for smooth and timely completion of the job</p> <p>PC6. Ensure the work place is properly illuminated</p> <p>PC7. Ensure that the equipment is free from dust, oil, grease etc.</p> <p>PC8. Ensure the work site is clean before starting the job</p> <p>PC9. Extend help to dismantle, assemble and carry out maintenance activities required at the site</p> <p>PC10. Ensure to oil and grease the parts of the equipments post completion of the job</p> <p>PC11. Extend necessary help to welder, gas cutter, fitter, electrician, rigger, technician, operator, scaffolder etc. for various nature of activities/jobs</p> <p>PC12. Ensure on completion of the job the tools, tackles and hardware to be carried back to department/store</p> <p>PC13. Inform supervisor on completion of the assigned job</p>
Element	Knowledge and Understanding
A. Organisational Context (Knowledge of the Company/ Organisation and	The user/individual on the job needs to know and understand: <p>KA1. Safety policy of the company</p> <p>KA2. Emergency organisation of the specific work site</p> <p>KA3. Risk and impact of not following defined procedures/work instructions</p>



its processes)	KA4. Escalation matrix for reporting identified problems KA5. Damage of equipment and direct / indirect cost of accidents KA6. Implications of delays in process to the company
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different types of tools, tackles, equipments and hardware required for carrying out jobs pertaining to various departments e.g. mechanical, electrical, steel making, iron making, material handling, cold/hot roll mills, agglomeration, refractory, coke making, sinter plant etc. KB2. Specific layout of various work sites KB3. Different types of tools, tackles and hardware required for particular job e.g. spanners, hammer, chisel, chain blocks, steam jointing, asbestos rope, red lead powder, electrodes, gas cutting sets, regulator, pipe fittings, testing lamps, ampere meter, volt meter, tong tester, megger, screw drivers etc. KB4. Sequence of various dismantling /assembling of equipment at job site KB5. Visual checks to identify damage, defects, cracks or leaks beforehand KB6. Safety procedure for various work sites and while handling tools, tackles, equipments KB7. Hazardous areas with respect to heat and gas prone zones
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing skills and reading Skills
	The user/ individual on the job needs to know and understand how to: SA1. Read work instructions and standard operation procedures (SOP) SA2. Create small notes/ work documents for supervisor related to operation SA3. Read business correspondence e.g. internal memos, circular etc. SA4. Read equipment manuals and process documents given by the equipment supplier to understand the equipment and working processes
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA5. Effectively understand about operational requirements SA6. Answer the queries raised by the operative team as well as others SA7. Effectively communicate with the supervisor related to work expectations, timelines and schedule for completion of the assigned job SA8. Attentively listen with full attention the queries and grievances raised by the operative team and comprehend the information given by the speaker
	Integrity
	The user/individual on the job needs to know and understand how to: SA9. Maintain integrity with respect to company property and time



	SA10. Communicate with people in a polite manner using respectful language SA11. Resolve difficulties in relationships with colleagues amicably
	Reliability
	The user/individual on the job needs to know and understand how to: SB12. Avoid absenteeism and maintain quality of work SB13. Work in a disciplined environment and adhere to working norms of the organisation SB14. Be punctual and adhere to timelines
B. Professional Skills	Time Management
	The user/individual on the job needs to know and understand how to: SB1. Prioritize and execute tasks within the scheduled time limits





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Industry	Iron and steel	Drafted on	29/09/2014
Industry Sub-sector	Steel	Last reviewed on	25/03/2015
Occupation	Iron Making	Next review date	25/03/2016





ISC/N0433: Clean the equipments and work site



Overview

This unit is about cleaning of equipments and work site.



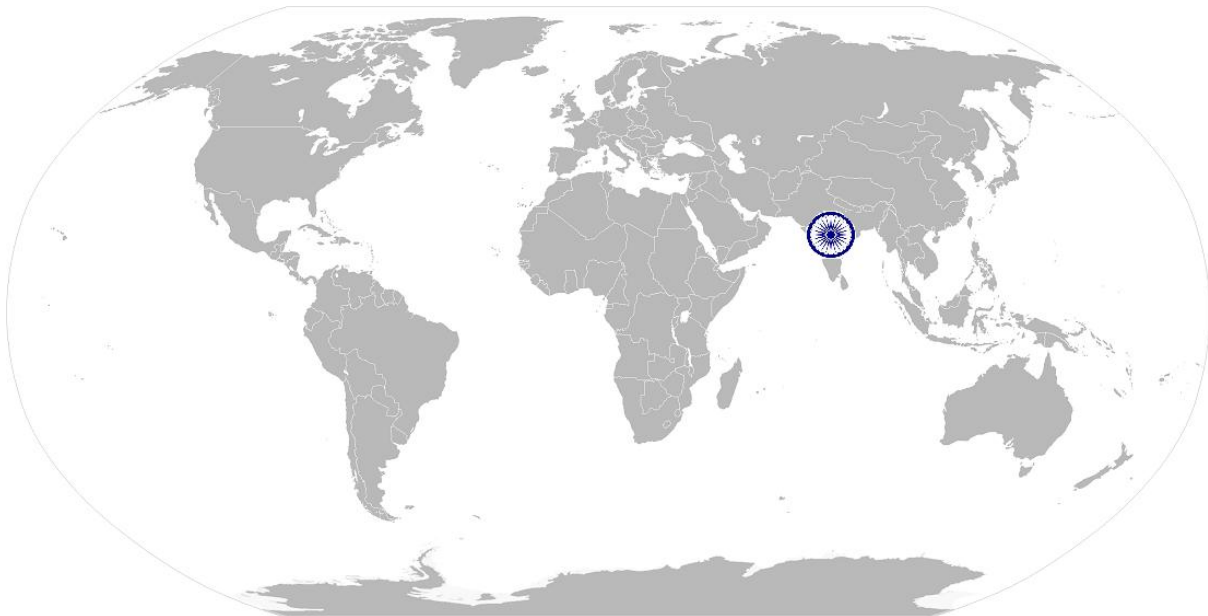
Unit Code	ISC/N0433
Unit Title (Task)	Clean the equipments and work site
Description	This unit is about performing cleaning activities of various tools, tackles, equipments and work site before and after completion of the job
Scope	This OS unit/task covers the following: <ul style="list-style-type: none"> Clean various tools, tackles and equipments before and after job completion Clean the work site before and after job completion
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Clean various tools, tackles and equipments before and after job completion	To be a competent the individual on the job must also be able to: PC1. Ensure the tolls and tackles are cleaned before starting the job PC2. Clean the equipment before dismantling/assembling PC3. Ensure the tools and tackles are cleaned (removing oil, dust, grease etc.) after completion of the job PC4. Ensure to carry back the unused hardware's, materials etc. (with proper tagging if required) post completion of the job
Clean the work site before and after job completion	To be a competent the individual on the job must also be able to: PC5. Ensure the work place is free from dust, oil, grease, scraps etc. before starting the job PC6. Ensure the work site is free from all obstacles PC7. Clean the work site post job completion PC8. Ensure all tools, tackles, scraps and hardware are removed from the work place and returned to the department/stores as per company procedure PC9. Inform supervisor on completion of the assigned job
Element	Knowledge and Understanding
A. Organisational Context (Knowledge of the Company/ Organisation and its processes)	The user/individual on the job needs to know and understand: KA1. Safety policy of the company KA2. Emergency organisation of the specific work site KA3. Risk and impact of not following defined procedures/work instructions KA4. Escalation matrix for reporting identified problems KA5. Damage of equipment and direct / indirect cost of accidents KA6. Implications of delays in process to the company
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different types of tools, tackles, equipments and hardware required for carrying out jobs pertaining to various departments e.g. mechanical, electrical, steel making, iron making, material handling, cold/hot roll mills, agglomeration, refractory, coke



	<p>making, sinter plant etc. KB2. Specific layout of various work sites KB3. Different types of tools, tackles and hardware required for particular job e.g. spanners, hammer, chisel, chain blocks, steam jointing, asbestos rope, red lead powder, electrodes, gas cutting sets, regulator, pipe fittings, testing lamps, ampere meter, volt meter, tong tester, megger, screw drivers etc. KB4. Sequence of various dismantling /assembling of equipment at job site KB5. Visual checks to identify damage, defects, cracks or leaks beforehand KB6. The safety procedure for various work sites and while handling tools, tackles, equipments KB7. The hazardous areas with respect to heat and gas prone areas</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing skills and reading Skills
	The user/ individual on the job needs to know and understand how to:
	SA1. Read work instructions and standard operation procedures (SOP) SA2. Create small notes/ work documents for supervisor related to operation SA3. Read business correspondence e.g. internal memos, circular etc. SA4. Read equipment manuals and process documents given by the equipment supplier to understand the equipment and working processes
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	Integrity
The user/individual on the job needs to know and understand how to:	
SA9. Maintain integrity with respect to company property and time SA10. Communicate with people in a polite manner using respectful language SA11. Resolve difficulties in relationships with colleagues amicably	
Reliability	
The user/individual on the job needs to know and understand how to:	
SB12. Avoid absenteeism and maintain quality of work SB13. Work in a disciplined environment and adhere to working norms of the	



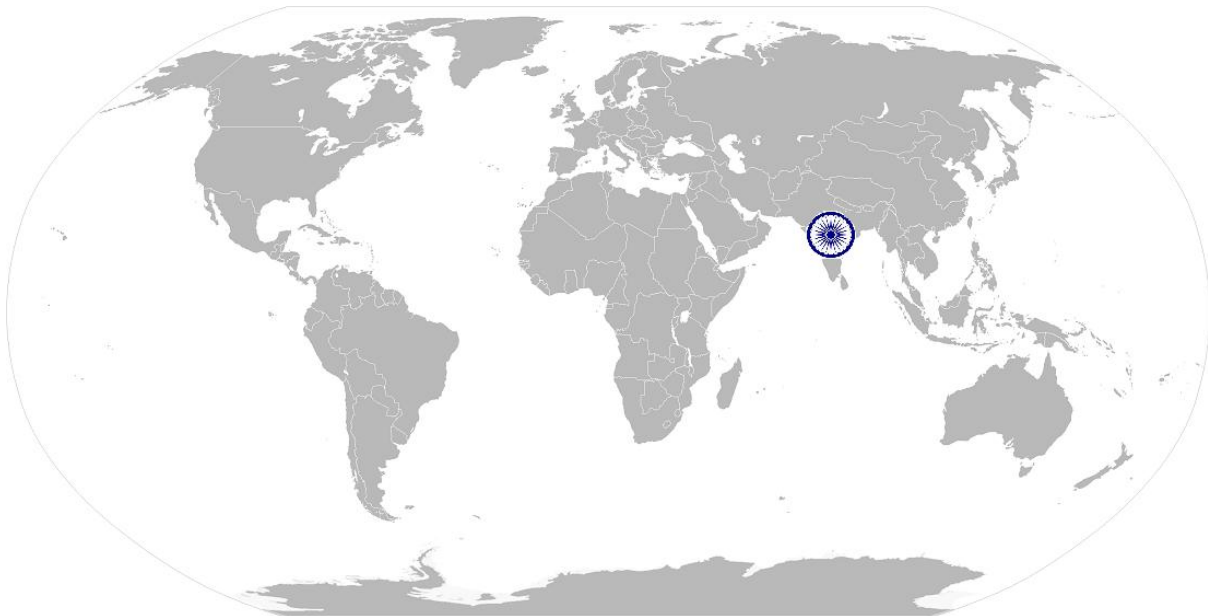
	organisation SB14. Be punctual and adhere to timelines
B. Professional Skills	Time Management
	The user/individual on the job needs to know and understand how to: SB1. Prioritize and execute tasks within the scheduled time limits





NOS Version Control

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Industry Sub-sector	Steel	Last reviewed on	25/03/2015
Occupation	Iron Making	Next review date	25/03/2016





ISC/N0008: Use basic health and safety practices at the workplace



National Occupational Standards

Overview

This unit covers health, safety and security at the workplace. This includes procedures and practices that candidates need to follow to help maintain a healthy, safe and secure work environment.



Unit Code	ISC/N0008
Unit Title (Task)	Use basic health and safety practices at the work place
Description	<p>This OS unit is about knowledge and practices relating to health, safety and security that candidates need to use in the workplace. It covers responsibilities towards self, others, assets and the environment.</p> <p>It includes understanding of risks and hazards in the workplace, along with common techniques to minimize risk, deal with accidents, emergencies, etc.</p>
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Health and safety procedures • Fire safety procedures • Emergencies, rescue and first aid procedures
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Health and safety procedures	<p>The user/individual on the job should be able to:</p> <p>PC1. Use protective clothing/equipment for specific tasks and work conditions</p> <p>Protective clothing includes:</p> <ul style="list-style-type: none"> • Leather or asbestos gloves • Flame proof aprons • Flame proof overalls buttoned to neck • Cuff less (without folds) trousers • Reinforced footwear • Helmets/hard hats • Cap and shoulder covers • Ear defenders/plugs • Safety boots • Knee pads • Particle masks • Glasses/gloves/visors <p>Equipment includes:</p> <ul style="list-style-type: none"> • Hand shields • Machine guards • Residual current devices • Shields • Dust sheets • Respirator <p>PC2. State the name and location of people responsible for health and safety in the</p>



workplace

Various areas are listed below:

- On chemical containers
- Equipment
- Packages
- Inside buildings
- Open areas, public places etc.

PC3. State the names and location of documents that refer to health and safety in the workplace

PC4. Identify job-site hazardous work and state possible causes of risk or accident in the workplace

Hazards include:

- Working with electrical and thermal tools and equipment
- Sharp edged and heavy tools
- Heated metals
- Oxyfuel and gas cylinders
- Welding radiation
- Surfaces: sharp, slippery, uneven, chipped, broken, etc.
- Substances: chemicals, gas, oxy-fuel, fumes, dust, etc.
- Physical: working at heights, large and heavy objects and machines, sharp and piercing objects, tools and machines, intense light, load noise, obstructions in corridors, by doors, blind turns, noise, over stacked shelves and packages, etc.
- Electrical: power supply and points, loose and naked cables and wires, electrical machines and appliances, etc.

PC5. Carry out safe working practices while dealing with hazards to ensure the safety of self and others state methods of accident prevention in the work environment of the job role

Safe working practices include:

- Using protective clothing and equipment
- Putting up and reading safety signs
- Handle tools in the correct manner and store and maintain them properly
- Keep work area clear of clutter, spillage and unsafe object lying casually
- While working with electricity take all electrical precautions like insulated clothing, adequate equipment insulation, use of control equipment, dry work area, switch off the power supply when not required, etc.
- Safe lifting and carrying practices
- Use equipment that is working properly and is well maintained
- Take due measures for safety while working in confined places, trenches or at heights, etc. Including safety harness, fall arrestors etc.

Methods are:

- Training in health and safety procedures
- Using health and safety procedures
- Use of equipment and working practices (such as safe carrying procedures)
- Safety notices, advice



	<ul style="list-style-type: none"> • Instruction from colleagues and supervisors <p>PC6. State location of general health and safety equipment in the workplace</p> <p>PC7. Inspect for faults, set up and safely use steps and ladders in general use</p> <p>Faults :</p> <ul style="list-style-type: none"> • Corrosion of metal components • Deterioration • Splits and cracks timber components • Imbalance • Loose rungs • Nuts or bolts, etc. <p>Set up:</p> <ul style="list-style-type: none"> • Firm/level base • Clip/lash down • Leaning at the correct angle, etc. <p>PC8. Work safely in and around trenches, elevated places and confined areas</p> <p>PC9. Lift heavy objects safely using correct procedures</p> <p>PC10. Apply good housekeeping practices at all times. Good housekeeping practices:</p> <ul style="list-style-type: none"> • Clean/tidy work areas • Removal/disposal of waste products • Protect surfaces <p>PC11. Identify common hazard signs displayed in various areas</p> <p>PC12. Retrieve and/or point out documents that refer to health and safety in the workplace</p>
<p>Fire safety procedures</p>	<p>The user/individual on the job should be able to:</p> <p>PC13. Use the various appropriate fire extinguishers on different types of fires correctly.</p> <p>Fire extinguishers:</p> <ul style="list-style-type: none"> • Sand • Water • Foam • Co2 • Dry powder <p>Fires:</p> <ul style="list-style-type: none"> • Class A: Ordinary solid combustibles, e.g. wood, paper, cloth, plastic, charcoal etc. • Class B: Flammable liquids and gases, e.g. gasoline, propane, diesel fuel, tar, cooking oil and similar substances • Class C: Electrical equipment e.g. appliances, wiring, breaker panels etc. (these categories of fires become Class A, B, and D fires when the electrical equipment that initiated the fire is no longer receiving electricity) • Class D: Combustible metals such as magnesium, titanium, and sodium (these fires burn at extremely high temperatures and require special suppression agents) <p>Causes of fires:</p>



	<ul style="list-style-type: none"> • Heating of metal • Spontaneous ignition • Sparking, • Electrical heating • Loose fires (e.g. Smoking, welding, etc.) • Chemical fires, etc. <p>PC14. Demonstrate rescue techniques applied during fire hazard PC15. Demonstrate good housekeeping in order to prevent fire hazards PC16. Demonstrate the correct use of a fire extinguisher</p>
<p>Emergencies, rescue and first-aid procedures</p>	<p>The user/individual on the job should be able to:</p> <p>PC17. Demonstrate how to free a person from electrocution PC18. Administer appropriate first aid to victims as required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc. PC19. Demonstrate basic techniques of bandaging PC20. Respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments . few General health and safety equipment are mentioned below :</p> <ul style="list-style-type: none"> • Fire extinguishers • First aid equipment • Safety instruments and clothing • Safety installations, e.g. Fire exits, exhaust fans etc. <p>PC21. Perform and organize loss minimization or rescue activity during an accident in real or simulated environments PC22. Administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases PC23. Demonstrate the artificial respiration and the CPR Process PC24. Participate in emergency procedures. Emergency procedures are:</p> <ul style="list-style-type: none"> • Raising alarm • Safe/efficient evacuation • Correct means of escape • Correct assembly point • Roll call • Correct return to work <p>PC25. Complete a written accident/incident report or dictate a report to another person, and send report to person responsible Incident Report should capture:</p> <ul style="list-style-type: none"> • Name • Date/time of incident • Date/time of report, • Location • Environment conditions • Persons involved • Sequence of events • Injuries sustained • Damage sustained • Actions taken



	<ul style="list-style-type: none"> • Witnesses • Supervisor/manager notified <p>Documents:</p> <ul style="list-style-type: none"> • Fire notices • Accident reports • Safety instructions for equipment and procedures • Company notices and documents • Legal documents (e.g. Government notices) <p>Job titles:</p> <ul style="list-style-type: none"> • Health and safety officer • First aid officer • Fire officer <p>PC26. Demonstrate correct method to move injured people and others during an emergency</p>
Element	Knowledge and Understanding
<p>A. Organisational Context (Knowledge of the Company/ Organisation and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. State the names (and job titles if applicable), and describe where to find, all the people responsible for health and safety in a workplace KA2. State the names and location of documents that refer to health and safety in the workplace</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB3. Meaning of “hazards” and “risks” KB4. Health and safety hazards commonly present in the work environment and related precautions KB5. Possible causes of risk, hazard or accident in the workplace and why risk and/or accidents are possible KB6. Activities and causes of risk and accident KB7. Methods of accident prevention KB8. Safe working practices when working with tools and machines KB9. Safe working practices while working at various hazardous sites KB10. Where to find all the general health and safety equipment in the workplace KB11. Various dangers associated with the use of electrical equipment KB12. Preventative and remedial actions to be taken in the case of exposure to toxic materials.</p> <ul style="list-style-type: none"> • Exposure: ingested, contact with skin, inhaled • Preventative action: ventilation, masks, protective clothing/equipment • Remedial action: immediate first aid, report to supervisor • Materials: solvents, flux, lead <p>KB13. Importance of using protective clothing/equipment while working KB14. Precautionary activities to prevent the fire accident</p> <p>Activities and causes:</p> <ul style="list-style-type: none"> • Physical actions • Reading



	<ul style="list-style-type: none"> • Listening to and giving instructions • Inattention • Sickness and incapacity (e.g. Drunkenness) • Health hazards (e.g. Untreated injuries and contagious illness) <p>KB15. Various causes of fire KB16. Techniques of using the different fire extinguishers KB17. Different methods of extinguishing fire KB18. Rescue techniques applied during a fire hazard KB19. Various types of safety signs and what they mean KB20. Appropriate basic first aid treatment relevant to the condition e.g. Shock, electrical shock, bleeding, breaks to bones, minor burns, resuscitation, poisoning, eye injuries KB21. Content of written accident report KB22. Potential injuries and ill health associated with incorrect manual handling KB23. Safe lifting and carrying practices KB24. Personal safety, health and dignity issues relating to the movement of a person by others KB25. Potential impact to a person who is moved incorrectly</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Reading and Writing Skills
	The user/individual on the job needs to know and understand how to: SA1. Read and comprehend basic content to read labels, charts, signages SA2. Read and comprehend basic English to read manuals of operations SA3. Read and write an accident/incident report in local language or English
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. Question co-workers appropriately in order to clarify instructions and other issues SA5. Give clear instructions to co-workers, subordinates others
	Decision Making
	The user/individual on the job needs to know and understand how to: SA6. Make appropriate decisions pertaining to the concerned area of work with respect to intended work objective, span of authority, responsibility, laid down procedure and guidelines
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand: SB1. Plan and organize their own work schedule, work area, tools, equipment and materials to maintain decorum and for improved productivity

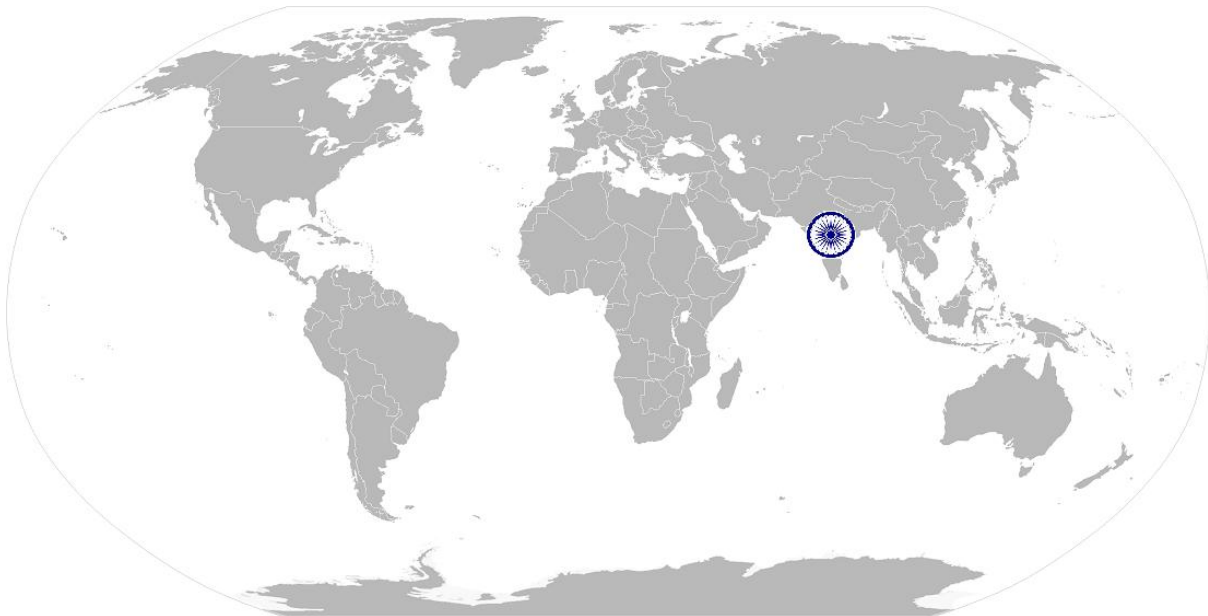


	Working with others
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. Remain congenial while discussing and debating issues with co-workers SB3. Follow appropriate protocols for communication based on situation, hierarchy, organizational culture and practice SB4. Ask for, provide and receive required assistance where possible to ensure achievement of work related objectives SB5. Thank co-workers for any assistance received SB6. Offer appropriate respect based on mutuality and respect for fellow workmanship and authority</p>
	Problem Solving
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB8. Identify immediate or temporary solutions to resolve delays SB9. Identify sources of support that can be availed of for problem solving for various kind of problems SB10. Seek appropriate assistance from other sources to resolve problems SB11. Report problems that you cannot resolve to appropriate authority</p>
	Analytical Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB12. Identify cause and effect relations in their area of work SB13. Use cause and effect relations to anticipate potential problems and their solution</p>



NOS Version Control

NOS Code	ISC/N0008		
Credits(NSQF)	TBD	Version number	1.0
Industry	Iron and Steel	Drafted on	23/07/2014
Industry Sub-sector	All Departments	Last reviewed on	30/12/2014
Occupation	Iron Making	Next review date	30/12/2015





ISC/N0009: Work effectively with others



National Occupational Standards

Overview

This unit covers basic practices that improve effectiveness of working with others in an organisational set-up.



Unit Code	ISC/N0009
Unit Title (Task)	Work effectively with others
Description	This unit covers basic etiquette and competencies that a candidate is required to possess and demonstrate in their behaviour and interactions with others at the workplace.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Ensure appropriate communication with superiors, peers and others as applicable at work place • Demonstrate appropriate behaviour and etiquette at work place
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Ensure appropriate communication with superiors, peers and others as applicable at work place	The user/individual on the job should be able to: PC1. Accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required PC2. Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt PC3. Provide information to others clearly, at a pace and in a manner that helps them to understand
Demonstrate appropriate behaviour and etiquette at work place	The user/individual on the job should be able to: PC4. Display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible PC5. Consult with and assist others to maximize effectiveness and efficiency in carrying out tasks PC6. Display appropriate communication etiquette while working PC7. Display active listening skills while interacting with others at work PC8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism PC9. Demonstrate responsible and disciplined behaviours at the workplace PC10. Escalate grievances and problems to
Element	Knowledge and Understanding
A. Organisational Context (Knowledge of the Company/ Organisation and its processes)	The user/individual on the job needs to know and understand: KA1. Legislation, standards, policies, and procedures followed in the company relevant to own employment and performance conditions KA2. Reporting structure, inter-dependent functions, lines and procedures in the work area KA3. Relevant people and their responsibilities within the work area KA4. Escalation matrix and procedures for reporting work and employment related



	issues
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Various categories of people that one is required to communicate and co-ordinate with in the organization</p> <p>KB2. Importance of effective communication in the workplace</p> <p>KB3. Importance of teamwork in organizational and individual success</p> <p>KB4. Various components of effective communication</p> <p>KB5. Key elements of active listening</p> <p>KB6. Value and importance of active listening and assertive communication</p> <p>KB7. Barriers to effective communication</p> <p>KB8. Importance of tone and pitch in effective communication</p> <p>KB9. Importance of avoiding casual expletives and unpleasant terms while communicating professional circles</p> <p>KB10. How poor communication practices can disturb people, environment and cause problems for the employee, the employer and the customer</p> <p>KB11. Importance of ethics for professional success</p> <p>KB12. Importance of discipline for professional success</p> <p>KB13. What constitutes disciplined behaviour for a working professional</p> <p>KB14. Common reasons for interpersonal conflict</p> <p>KB15. Importance of developing effective working relationships for professional success</p> <p>KB16. Expressing and addressing grievances appropriately and effectively</p> <p>KB17. Importance and ways of managing interpersonal conflict effectively</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Reading and Writing Skills
	The user/individual on the job needs to know and understand how to:
	SA1. Read and comprehend basic content to read labels, charts, signage's SA2. Read and comprehend basic English to read manuals of operations SA3. Read and write an accident/incident report in local language or English
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA4. Question co-workers appropriately in order to clarify instructions and other issues SA5. Provide clear instructions to co-workers, subordinates others
	Decision Making
	The user/individual on the job needs to know and understand how to:
	SA6. Make appropriate decisions pertaining to the concerned area of work with

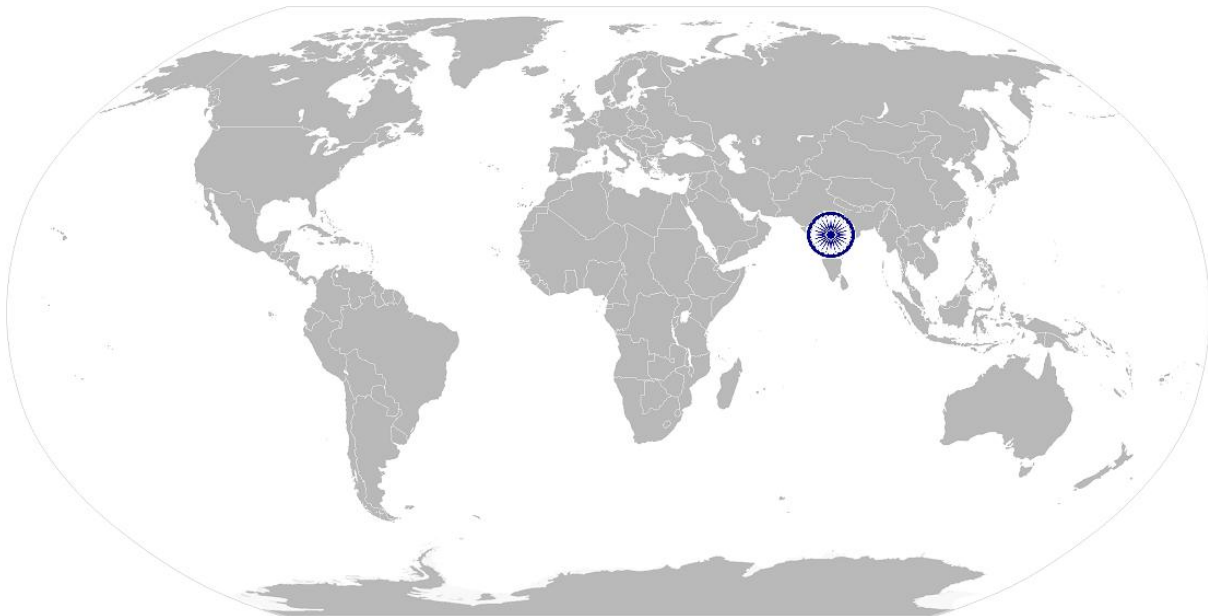


	respect to intended work objective, span of authority, responsibility, laid down procedure and guidelines
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand: SB1. Plan and organize their own work schedule, work area, tools, equipment and materials to maintain decorum and for improved productivity
	Working with others
	The user/individual on the job needs to know and understand how to: SB2. Remain congenial while discussing and debating issues with co-workers SB3. Follow appropriate protocols for communication based on situation, hierarchy, organizational culture and practice SB4. Ask for, provide and receive required assistance where possible to ensure achievement of work related objectives SB5. Thank co-workers for any assistance received SB6. Offer appropriate respect based on mutuality and respect for fellow workmanship and authority
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB7. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s) SB8. Identify immediate or temporary solutions to resolve delays SB9. Identify sources of support that can be availed of for problem solving for various kind of problems SB10. Seek appropriate assistance from other sources to resolve problems SB11. Report problems that you cannot resolve to appropriate authority
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB12. Identify cause and effect relations in their area of work SB13. Use cause and effect relations to anticipate potential problems and their solution



NOS Version Control

NOS Code	ISC/N0009		
Credits(NSQF)	TBD	Version number	1.0
Industry	Iron and Steel	Drafted on	23/07/2014
Industry Sub-sector	All Departments	Last reviewed on	30/12/2014
Occupation	Iron Making	Next review date	30/12/2015





CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role: Iron & Steel Assistant

Qualification Pack: ISC/Q0410

Sector Skill Council: Indian Iron & Steel Sector Skill Council

Guidelines for Assessment:

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria.
5. To pass the Qualification Pack , every trainee should score a minimum of 60% in every NOS.
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

NOSs	PCs	Marks Allocated			
		Total Marks 1000	Out Of	Theory	Practical
ISC/N0431: Receive tools and tackles from stores / department	PC1. Adhere to time limits given by supervisor	200	30	10	20
	PC2. Identify in consultation with supervisor the required tools, tackles, equipments and necessary hardware for the job to be carried out		35	10	25
	PC3. Ensure the required tools, tackles, equipments and necessary hardware are in proper working condition and match specification as per the job requirement and the list being provided by the supervisor		35	10	25



	PC4. Coordinate within department/ store to obtain the identified tools and tackles to be carried to the job site		35	10	25
	PC5. Carry the tools, tackles, equipments and hardware to the job site without damage		30	10	20
	PC6. Inspect work site and extend necessary help for executing the job as per suggestion of the supervisor		35	10	25
		Total	200	60	140
ISC/N0432: Assist for smooth operation at site	PC1. Inspect the worksite to identify types of tools, tackles and hardware required for the job and the work site is clear from all obstructions	300	20	5	15
	PC2. Ensure availability of tools, tackles and hardware required for the job		20	5	15
	PC3. Ensure tools, tackles and hardware required for the job are fit and ready to use		20	5	15
	PC4. Identify the required tools, tackles and hardware required for any particular job		20	5	15
	PC5. Extend necessary help for smooth and timely completion of the job		20	5	15
	PC6. Ensure the work place is properly illuminated		25	10	15
	PC7. Ensure that the equipment is free from dust, oil, grease etc.		25	10	15
	PC8. Ensure the work site is clean before starting the job		25	10	15
	PC9. Extend help to dismantle, assemble and carry out maintenance activities required at the site		25	10	15
	PC10. Ensure to oil and grease the parts of the equipments post completion of the job		25	10	15
	PC11. Extend necessary help to welder, gas cutter, fitter, electrician, rigger, technician, operator, scaffolder etc. for various nature of activities/jobs		25	10	15



	PC12. Ensure on completion of the job the tools, tackles and hardware to be carried back to department/store		25	10	15
	PC13. Inform supervisor on completion of the assigned job		25	10	15
		Total	300	105	195
ISC/N0433: Clean the equipments and work site	PC1. Ensure the tolls and tackles are cleaned before starting the job	250	25	5	20
	PC2. Clean the equipment before dismantling/assembling		30	10	20
	PC3. Ensure the tools and tackles are cleaned (removing oil, dust, grease etc.) after completion of the job		25	5	20
	PC4. Ensure to carry back the unused hardware's, materials etc. (with proper tagging if required) post completion of the job		30	5	25
	PC5. Ensure the work place is free from dust, oil, grease, scraps etc. before starting the job		30	10	20
	PC6. Ensure the work site is free from all obstacles		25	5	20
	PC7. Clean the work site post job completion		25	5	20
	PC8. Ensure all tools, tackles, scraps and hardware are removed from the work place and returned to the department/stores as per company procedure		30	5	25
	PC9. Inform supervisor on completion of the assigned job		30	10	20
		Total	250	60	190
ISC/N0008: Use basic health and safety practices at the workplace	PC1. Use protective clothing/equipment for specific tasks and work conditions	150	10	5	5
	PC2. State the name and location of people responsible for health and safety in the workplace		5	0	5
	PC3. State the names and location of documents that refer to health and safety in the workplace		1	0	1



PC4. Identify job-site hazardous work and state possible causes of risk or accident in the workplace	9	5	4
PC5. Carry out safe working practices while dealing with hazards to ensure the safety of self and others state methods of accident prevention in the work environment of the job role	10	5	5
PC6. State location of general health and safety equipment in the workplace	5	0	5
PC7. Inspect for faults, set up and safely use steps and ladders in general use	5	0	5
PC8. Work safely in and around trenches, elevated places and confined areas	5	0	5
PC9. Lift heavy objects safely using correct procedures	5	0	5
PC10. Apply good housekeeping practices at all times	1	0	1
PC11. Identify common hazard signs displayed in various areas	6	5	1
PC12. Retrieve and/or point out documents that refer to health and safety in the workplace	4	0	4
PC13. Use the various appropriate fire extinguishers on different types of fires correctly	9	5	4
PC14. Demonstrate rescue techniques applied during fire hazard	10	5	5
PC15. Demonstrate good housekeeping in order to prevent fire hazards	1	0	1
PC16. Demonstrate the correct use of a fire extinguisher	4	0	4
PC17. Demonstrate how to free a person from electrocution	5	0	5
PC18. Administer appropriate first aid to victims as required e.g. in case of bleeding, burns, choking, electric shock, poisoning etc.	10	5	5
PC19. Demonstrate basic techniques of bandaging	5	0	5



	PC20. Respond promptly and appropriately to an accident situation or medical emergency in real or simulated environments		10	5	5
	PC21. Perform and organize loss minimization or rescue activity during an accident in real or simulated environments		5	0	5
	PC22. Administer first aid to victims in case of a heart attack or cardiac arrest due to electric shock, before the arrival of emergency services in real or simulated cases		5	0	5
	PC23. Demonstrate the artificial respiration and the CPR Process		5	0	5
	PC24. Participate in emergency procedures		5	0	5
	PC25. Complete a written accident/incident report or dictate a report to another person, and send report to person responsible		9	5	4
	PC26. Demonstrate correct method to move injured people and others during an emergency		1	0	1
		Total	150	45	105
ISC/N0009: Work effectively with others	PC1. Accurately receive information and instructions from the supervisor and fellow workers, getting clarification where required	100	10	5	5
	PC2. Accurately pass on information to authorized persons who require it and within agreed timescale and confirm its receipt		10	5	5
	PC3. Provide information to others clearly, at a pace and in a manner that helps them to understand		10	0	10
	PC4. Display helpful behaviour by assisting others in performing tasks in a positive manner, where required and possible		10	5	5



PC5. Consult with and assist others to maximize effectiveness and efficiency in carrying out tasks	10	5	5
PC6. Display appropriate communication etiquette while working	10	0	10
PC7. Display active listening skills while interacting with others at work	10	0	10
PC8. Use appropriate tone, pitch and language to convey politeness, assertiveness, care and professionalism	10	5	5
PC9. Demonstrate responsible and disciplined behaviours at the workplace	15	5	10
PC10. Escalate grievances and problems to supervisor	5	0	5
Total	100	30	70

