Operator - Fluid Controls

QP Code: ISC/Q0703

Version: 2.0

NSQF Level: 4

Indian Iron and Steel Sector Skill Council || Karigari Bhawan 5th Floor, Room No-509
Plot No- B/7, Action Area III, Newtown,
Kolkata, West Bengal 700160

Contents

ISC/Q0703: Operator - Fluid Controls

Brief Job Description

The individual in this role prepare, supply, collect, evaluate and operate flow of all fluids connected with rolling operation in a steel plant.

Personal Attributes

The person should be patient, organized, team-oriented and have the ability to work for long hours in adverse conditions. They must be able to plan and prioritise tasks effectively and have an eye for detail and quality.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. ISC/N0008: Use basic health and safety practices at the workplace
2. ISC/N0009: Work effectively with others
3. ISC/N0701: Carry out laboratory activities
4. ISC/N0702: Carry out fluid system maintenance & management
5. ISC/N0703: Carry out fluid inventory management

Qualification Pack (QP) Parameters

Sector	Iron & Steel
Sub-Sector	Steel, Re-Rollers
Occupation	Cold Rolling Mill
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/NIL
Minimum Educational Qualification & Experience	10th Class pass with 2 years of relevant experience OR 10th Class Pass + ITI (Fitter/Mechanical trade or in related trade) OR 12th Class Pass with 1 year of relevant experience

Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 Years
Last Reviewed On	NA
Next Review Date	NA
NSQC Approval Date	
Version	2.0

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

Description

This OS unit is about following safety and adopting sustainable practices for optimizing use of resources.

Scope

The scope covers the following:

- Maintain safe and secure working environment
- Emergencies, rescue and first aid procedures
- Health and hygiene
- Housekeeping and waste management
- Material and energy conservation

Elements and Performance Criteria

Maintain safe and secure working environment

To be competent, the user/individual on the job must be able to:

PC1. identify hazardous activities and the possible causes of risks or accidents in the workplace

PC2. follow safe working practices while dealing with hazards to ensure safety of self and others

PC3. use appropriate protective clothing/equipment for specific tasks and work

PC4. follow appropriate safety practices while working in and around trenches, elevated places and confined areas

PC5. lift heavy objects safely using correct procedures

PC6. carry out routine check of the machine for identifying potential hazards

PC7. report any identified breaches in health, safety and security policies and procedures to the designated person

Emergencies, rescue and first aid procedures

To be competent, the user/individual on the job must be able to:

PC8. use appropriate type of fire extinguisher

PC9. apply appropriate rescue techniques during fire hazard

PC10. provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc.

PC11. follow emergency procedures such as raising alarm, safe evacuation etc.

PC12. attend safety training and fire drills to respond promptly during an emergency

Health and hygiene

To be competent, the user/individual on the job must be able to:

PC13. follow regular cleaning and disinfection practices at work place using appropriate techniques and materials

PC14. follow hand hygiene practices at work place using appropriate techniques and materials
PC15. report regarding the contagious illness of self or people in close contact
PC16. avoid contact with ill people and self-isolate in a similar situation

Housekeeping and waste management

To be competent, the user/individual on the job must be able to:

PC17. follow the fundamentals of 5S for housekeeping
PC18. ensure good housekeeping in order to prevent hazards and accidents
PC19. store the material, tools and equipment in the correct location and in good condition
PC20. segregate waste into different categories
PC21. identify recyclable, non-recyclable and hazardous waste
PC22. dispose non-recyclable, recyclable and reusable waste appropriately at identified location

Material and energy conservation

To be competent, the user/individual on the job must be able to:

PC23. identify ways to optimize usage of material in various tasks/activities/processes
PC24. check for spills/leakages in various tasks/activities/processes
PC25. plug spills/leakages and escalate to appropriate authority if unable to rectify
PC26. check if the equipment/machine is functioning normally before commencing work and rectify wherever required
PC27. ensure electrical equipment and appliances are properly connected and turned off when not in use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. organisation procedures for health, safety and security, individual role and responsibilities in this context
KU2. the organisation's emergency procedures for different emergency situations and the importance of following the same
KU3. evacuation procedures for workers and visitors
KU4. how and when to report hazards
KU5. potential hazards, risks and threats based on the nature of work
KU6. preventative and remedial actions to be taken in case of exposure to toxic material
KU7. various types of fire extinguisher
KU8. various types of safety signs and their meaning
KU9. appropriate first aid treatment relevant to different condition e.g. bleeding, minor burns, eye injuries etc.
KU10. relevant standards, procedures and policies related to 5S followed in the company
KU11. the various materials used and their storage norms
KU12. efficient utilisation of material and water

KU13. basics of electricity and prevalent energy efficient devices
KU14. common practices of conserving electricity
KU15. categorisation of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
KU16. usage of different colors of dustbins
KU17. waste management techniques

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read safety instructions/guidelines
GS2. modify work practices to improve them
GS3. ask for clarifications from superior about the job requirement
GS4. work with supervisors/team members to carry out work related tasks
GS5. complete tasks efficiently and accurately within stipulated time
GS6. inform/report to concerned person in case of any problem
GS7. make timely decisions for efficient utilization of resources
GS8. write reports such as accident report, in at least English/regional language
GS9. be punctual and utilize time efficiently

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Maintain safe and secure working environment	10	14	-	6
PC1. identify hazardous activities and the possible causes of risks or accidents in the workplace	2	2	-	1
PC2. follow safe working practices while dealing with hazards to ensure safety of self and others	2	3	-	1
PC3. use appropriate protective clothing/ equipment for specific tasks and work	1	2	-	1
PC4. follow appropriate safety practices while working in and around trenches, elevated places and confined areas	2	1	-	-
PC5. lift heavy objects safely using correct procedures	1	2	-	1
PC6. carry out routine check of the machine for identifying potential hazards	1	2	-	1
PC7. report any identified breaches in health, safety and security policies and procedures to the designated person	1	2	-	1
Emergencies, rescue and first aid procedures	6	9	-	5
PC8. use appropriate type of fire extinguisher	1	1	-	1
PC9. apply appropriate rescue techniques during fire hazard	1	2	-	1
PC10. provide appropriate first aid procedure to victims wherever required eg.in case of bleeding, burns, choking, electric shock etc.	2	2	-	1
PC11. follow emergency procedures such as raising alarm, safe evacuation etc.	1	2	-	1
PC12. attend safety training and fire drills to respond promptly during an emergency	1	2	-	1
Health and hygiene	2	6	-	2
PC13. follow regular cleaning and disinfection practices at work place using appropriate techniques and materials	1	2	-	1

PC14. follow hand hygiene practices at workplace using appropriate techniques and materials	1	2	-	1
PC15. report regarding the contagious illness of self or people in close contact	-	1	-	-
PC16. avoid contact with ill people and self-isolate in a similar situation	-	1	-	-
Housekeeping and waste management	**7**	**12**	**-**	**5**
PC17. follow the fundamentals of 5S for housekeeping	2	3	-	2
PC18. ensure good housekeeping to prevent hazards and accidents	1	2	-	-
PC19. store the material, tools and equipment in the correct location and in good condition	1	2	-	-
PC20. segregate waste into different categories	1	2	-	1
PC21. identify recyclable, non-recyclable and hazardous waste	1	1	-	1
PC22. dispose non-recyclable, recyclable and reusable waste appropriately at identified location	1	2	-	1
Material and energy conservation	**5**	**9**	**-**	**2**
PC23. identify ways to optimize usage of material in various tasks/activities/processes	1	2	-	-
PC24. check for spills/leakages in various tasks/ activities/processes	1	2	-	1
PC25. plug spills/leakages and escalate to appropriate authority if unable to rectify	1	2	-	1
PC26. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	1	2	-	-
PC27. ensure electrical equipment and appliances are properly connected and turned off when not in use	1	1	-	-
NOS Total	**30**	**50**	**-**	**20**

National Occupational Standards (NOS) Parameters

NOS Code	ISC/N0008
NOS Name	Use basic health and safety practices at the work place
Sector	Iron & Steel
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

ISC/N0009: Work effectively with others

Description

This OS unit is about communicating with colleagues/superiors and others, either in own work group or in other work groups within organisation.

Scope

The scope covers the following :

- Communicate effectively with colleagues and others
- Interact with supervisor
- Follow appropriate behaviour at workplace

Elements and Performance Criteria

Communicate effectively with colleagues and others

To be competent, the user/individual on the job must be able to:

PC1. coordinate with colleagues to share work, as per the workload in order to achieve team goals

PC2. maintain clear communication with colleagues and others, wherever needed, through all means i.e. face-to-face, telephonic or written

PC3. adjust communication styles to reflect gender and persons with disability (PwD) sensitivity

PC4. respect all colleagues and co-workers

PC5. resolve conflicts by communicating with colleagues and other departments

Interact with supervisor

To be competent, the user/individual on the job must be able to:

PC6. identify work requirements by receiving instructions from reporting supervisor

PC7. escalate problems to supervisors that cannot be handled

PC8. report the completed work

PC9. interact with the reporting supervisor about any possible hazards and safety concerns

Follow appropriate behaviour at work place

To be competent, the user/individual on the job must be able to:

PC10. extend help to people with Disability (PwD) at workplace, if required

PC11. empathize with people with disability

PC12. adopt a gender neutral behavior

PC13. adopt responsible and disciplined behaviour at the workplace

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the importance of effective communication and establishing good working relationships with colleagues and supervisor
KU2. different methods of communication as per the circumstances
KU3. importance of teamwork in organization and individual success
KU4. various components of effective communication
KU5. barriers to effective communication
KU6. common reasons for interpersonal conflict
KU7. what constitutes disciplined behaviour for a working professional
KU8. gender concepts, issues & legislation
KU9. organisational policies and procedures related to gender equality
KU10. challenges faced by PWD and the ways to help them overcome the same

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read instructions/guidelines/procedures
GS2. listen effectively and orally communicate information
GS3. ask for clarification and advice from the concerned person
GS4. maintain positive and effective relationships with colleagues
GS5. evaluate the possible solution(s) to the problem
GS6. spot and communicate potential areas of disruptions in the work process and report the same
GS7. complete written work with attention to detail
GS8. check that the work meets customer requirements

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Communicate effectively with colleagues and others	13	20	-	9
PC1. coordinate with colleagues to share work, as per the workload in order to achieve team goals	3	5	-	2
PC2. maintain clear communication with colleagues and others, wherever needed, through all means i.e. face-to-face, telephonic or written	5	7	-	3
PC3. adjust communication styles to reflect gender and persons with disability (PwD) sensitivity	3	4	-	2
PC4. respect all colleagues and co-workers	1	2	-	1
PC5. resolve conflicts by communicating with colleagues and other departments	1	2	-	1
Interact with supervisor	8	14	-	6
PC6. identify work requirements by receiving instructions from reporting supervisor	2	3	-	1
PC7. escalate problems to supervisors that cannot be handled	2	3	-	2
PC8. report the completed work	2	3	-	1
PC9. interact with the reporting supervisor about any possible hazards and safety concerns	2	5	-	2
Follow appropriate behaviour at work place	9	16	-	5
PC10. extend help to people with Disability (PwD) at workplace, if required	2	4	-	2
PC11. empathize with people with disability	2	4	-	1
PC12. adopt a gender neutral behavior	2	4	-	1
PC13. adopt responsible and disciplined behaviours at the workplace	3	4	-	1
NOS Total	**30**	**50**	**-**	**20**

National Occupational Standards (NOS) Parameters

NOS Code	ISC/N0009
NOS Name	Work effectively with others
Sector	Iron & Steel
Sub-Sector	Generic
Occupation	Generic
NSQF Level	3
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

ISC/N0701: Carry out laboratory activities

Description

This OS unit is about collecting samples of both process fluids & product in order to assess mill performance & stability of the process along within process product quality.

Scope

The scope covers the following:

- Prepare for testing process
- Perform testing of samples

Elements and Performance Criteria

Prepare for testing process

To be competent, the user/individual on the job must be able to:

PC1. identify the work to be done from the instructions received from supervisor

PC2. use appropriate Personal Protective Equipment (PPE) for safe working in work area

PC3. identify and arrange the testing equipment, measuring instruments, gauges etc. required during the testing process

PC4. check the tools, gauges and testing apparatus for defects and calibration status before use

PC5. collect fluid samples from designated points following all safety requirement and adhering to time schedules

PC6. collect in-process steel samples by following SOP and adhering to time schedules

PC7. submit the samples to the laboratory for actual testing

Perform testing of samples

To be competent, the user/individual on the job must be able to:

PC8. set the test apparatus as per the selected testing process and SOPs/WI

PC9. prepare samples for the relevant tests (like pH, Conductivity, Emulsion stability, Iron content, Oil concentration etc.)

PC10. conduct the appropriate tests and upload and/or record the results in system

PC11. report any issues that may be out of his/her scope to supervisor

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. relevant standards and procedures followed in the company

KU2. SOP recommended by the manufacturer for using testing equipment, measuring instruments, gauges etc. required during the testing process

KU3. characteristics of the fluids and their physical & chemical properties

KU4. testing techniques for sample analysis (like pH, Conductivity, Emulsion stability, Iron content,

Oil concentration, Soot deposition etc.)

KU5. flow diagram of fluid system for the individual processes

KU6. safety requirements during the work

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read work instructions, equipment manuals and process documents

GS2. communicate the process requirements to the supervisor and co-workers

GS3. attentively listen and comprehend the information given by the supervisor/team members

GS4. write work related information in English/regional language

GS5. recognise a workplace problem and take suitable action

GS6. plan and organise work according to the work requirements

GS7. complete the assigned tasks with minimum supervision

GS8. report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Prepare for testing process	18	26	-	12
PC1. identify the work to be done from the instructions received from supervisor	1	2	-	1
PC2. use appropriate Personal Protective Equipment (PPE) for safe working in work area	1	2	-	1
PC3. identify and arrange the testing equipment, measuring instruments, gauges etc. required during the testing process	5	4	-	3
PC4. check the tools, gauges and testing apparatus for defects and calibration status before use	3	5	-	2
PC5. collect fluid samples from designated points following all safety requirement and adhering to time schedules	3	5	-	2
PC6. collect in-process steel samples by following SOP and adhering to time schedules	3	5	-	2
PC7. submit the samples to the laboratory for actual testing	2	3	-	1
Perform testing of samples	12	24	-	8
PC8. set the test apparatus as per the selected testing process and SOPs/WI	3	5	-	2
PC9. prepare samples for the relevant tests (like pH, Conductivity, Emulsion stability, Iron content, Oil concentration etc.)	3	5	-	2
PC10. conduct the appropriate tests and upload and/or record the results in system	5	12	-	3
PC11. report any issues that may be out of his/her scope to supervisor	1	2	-	1
NOS Total	**30**	**50**	**-**	**20**

National Occupational Standards (NOS) Parameters

NOS Code	ISC/N0701
NOS Name	Carry out laboratory activities
Sector	Iron & Steel
Sub-Sector	Steel, Re-Rollers
Occupation	Cold Rolling Mill
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

ISC/N0702: Carry out fluid system maintenance & management

Description

This OS unit is about managing the entire fluid system in rolling mills, including its maintenance, monitoring of relevant parameters and recirculation of fluids.

Scope

The scope covers the following:

- Monitor physical parameters of fluid system
- Operate the fluid system
- Perform maintenance of fluid system

Elements and Performance Criteria

Monitor physical parameters of fluid system

To be competent, the user/individual on the job must be able to:

PC1. identify and arrange the equipment, gauges and accessories required for the job

PC2. check the gauges, equipment and accessories for any defects and proper functioning

PC3. check and calibrate the gauges and equipment before use

PC4. read the gauges and measure all relevant parameters like temperature, level, flow & tank volume of fluid periodically

PC5. take corrective actions to restore the system health, if readings of gauges are not within the prescribed range

Operate the fluid system

To be competent, the user/individual on the job must be able to:

PC6. transfer right quality and quantity of fluid from the stock to working tanks by following SOP/WI

PC7. add water of right quality & quantity in the tanks as per SOP

PC8. top up/transfer the fluid to the working tanks based on tank volume, if required

PC9. operate the magnetic separators, filtration units and all other equipment in the fluid system like steam valve, catch pans, heat exchanger etc. by following SOP/WI

PC10. report any issues to the supervisor that may be beyond his/her scope

Perform maintenance of fluid system

To be competent, the user/individual on the job must be able to:

PC11. read maintenance schedule and checklist and plan the time and schedule for conducting the maintenance

PC12. identify and arrange the tools, consumables and spare parts required during the task

PC13. perform basic health check-up of fluid system as specified in the maintenance checklist

PC14. repair, replace or change the spare parts and consumables of the system as per the schedule

PC15. replenish lubricants and fluids as per SOP

PC16. clean tanks, headers, nozzles, mixers during scheduled shut down, mill stoppage etc. by following SOPs

PC17. dispose off waste materials as per organisation's policies

PC18. record all repairs carried out, time taken and unplanned tasks encountered during the maintenance activities

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. relevant standards and procedures followed in the company

KU2. Safe Operating Procedure as well as SPI (Standard Practice Instructions) relating to the fluids In use for lubrication, rust prevention, tempering etc.

KU3. specifications of the different fluids in terms of quality, composition, temperature, pressure, flow-rate etc.

KU4. how to read gauges, handle all relevant machines, valves and equipment according to the process chart &/or Control Plan

KU5. hazards associated with the fluids (like rust preventive oil, tempering agent, rolling oil, grinding fluid), equipment and the chemicals associated with the processes safety requirements during the work

KU6. how to read maintenance schedules and checklists recommended by the manufacturer

KU7. Standard Operating Procedures (SOP) recommended by OEM for using tools and equipment required

KU8. corrective actions for common faults and failures in fluid system

KU9. documentation required regarding repair, maintenance and service performed

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read work instructions, equipment manuals and process documents

GS2. communicate the process requirements to the supervisor and co-workers

GS3. attentively listen and comprehend the information given by the supervisor/team members

GS4. write work related information in English/regional language

GS5. recognise a workplace problem and take suitable action

GS6. plan and organise work according to the work requirements

GS7. complete the assigned tasks with minimum supervision

GS8. report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Monitor physical parameters of fluid system	10	14	-	5
PC1. identify and arrange the equipment, gauges and accessories required for the job	3	2	-	1
PC2. check the gauges, equipment and accessories for any defects and proper functioning	2	3	-	1
PC3. check and calibrate the gauges and equipment before use	1	3	-	1
PC4. read the gauges and measure all relevant parameters like temperature, level, flow & tank volume of fluid periodically	2	3	-	1
PC5. take corrective actions to restore the system health, if readings of gauges are not within the prescribed range	2	3	-	1
Operate the fluid system	7	13	-	5
PC6. transfer right quality and quantity of fluid from the stock to working tanks by following SOP/WI	1	2	-	1
PC7. add water of right quality & quantity in the tanks as per SOP	1	2	-	1
PC8. top up/transfer the fluid to the working tanks based on tank volume, if required	1	2	-	-
PC9. operate the magnetic separators, filtration units and all other equipment in the fluid system like steam valve, catch pans, heat exchanger etc. by following SOP/WI	3	5	-	2
PC10. report any issues to the supervisor that may be beyond his/her scope	1	2	-	1
Perform maintenance of fluid system	13	23	-	10
PC11. read maintenance schedule and checklist and plan the time and schedule for conducting the maintenance	1	2	-	1
PC12. identify and arrange the tools, consumables and spare parts required during the task	2	2	-	2
PC13. perform basic health check-up of fluid system as specified in the maintenance checklist	3	5	-	2
PC14. repair, replace or change the spare parts and consumables of the system as per the	2	5	-	2

schedule				
PC15. replenish lubricants and fluids as per SOP	1	2	-	1
PC16. clean tanks, headers, nozzles, mixers during scheduled shut down, mill stoppage etc. by following SOPs	2	3	-	1
PC17. dispose off waste materials as per organisation's policies	1	2	-	-
PC18. record all repairs carried out, time taken and unplanned tasks encountered during the maintenance activities	1	2	-	1
NOS Total	**30**	**50**	**-**	**20**

National Occupational Standards (NOS) Parameters

NOS Code	ISC/N0702
NOS Name	Carry out fluid system maintenance & management
Sector	Iron & Steel
Sub-Sector	Steel, Re-Rollers
Occupation	Cold Rolling Mill
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

ISC/N0703: Carry out fluid inventory Management

Description

This OS unit is about managing the incoming supply of fluid & disposal of waste fluid for treatment.

Scope

The scope covers the following:

- Manage fluid inventory
- Collection of fluid for treatment

Elements and Performance Criteria

Manage fluid inventory

To be competent, the user/individual on the job must be able to:

PC1. interpret the incoming documents (weighbridge records, permission from appropriate authority for unloading, compliance to delivery schedule etc.) to identify the details of fluid stock

PC2. follow SOP for proper collection, labelling of samples and sending them to laboratory for compliance checking

PC3. record levels of fluid in storage tank and then match it with daily receipts & consumption

PC4. flag alert for replacement of fluid in time

Collection of fluid for treatment

To be competent, the user/individual on the job must be able to:

PC5. use steam heating system for liquefying the solid waste during winter for proper pumping

PC6. collect used fluid from points such as discharge from mag-separators, waste filter papers & transfer to the designated storage area

PC7. transfer waste fluid in sump pits to treatment facility by using slurry pump

PC8. flag alert for timely removal of the waste fluid collected to respective agency

PC9. report any issues to the supervisor that may be beyond his/her scope

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. relevant standards and procedures followed in the company

KU2. implications of delays in process to the company

KU3. how to flag alert in cases of depletion of stock, non-compliance with specs etc.

KU4. Safe Operating Procedure as well as SPI (Standard Practice Instructions) relating to the roll coolant /emulsion handling system

KU5. specifications of the roll coolant system in terms of quality, temperature, pressure etc.

KU6. how to read gauges, handle all relevant machines, valves and equipment according to the

process chart &/or Control Plan

KU7. hazards associated with the fluids (like rust preventive oil, tempering agent, rolling oil, chromating solution), equipment and the materials handled like coils, sheets, molten zinc, & all chemicals associated with the processes

KU8. how to manage inventory of fluids

KU9. methods for collection of waste fluid safely

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. read work instructions, equipment manuals and process documents

GS2. communicate the process requirements to the supervisor and co-workers

GS3. attentively listen and comprehend the information given by the supervisor/team members

GS4. write work related information in English/regional language

GS5. recognise a workplace problem and take suitable action

GS6. plan and organise work according to the work requirements

GS7. complete the assigned tasks with minimum supervision

GS8. report to the supervisor or deal with a colleague individually, depending on the type of concern

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
Manage fluid inventory	16	28	-	11
PC1. interpret the incoming documents (weighbridge records, permission from appropriate authority for unloading, compliance to delivery schedule etc.) to identify the details of fluid stock	5	5	-	3
PC2. follow SOP for proper collection, labelling of samples and sending them to laboratory for compliance checking	5	12	-	4
PC3. record levels of fluid in storage tank and then match it with daily receipts & consumption	4	7	-	3
PC4. flag alert for replacement of fluid in time	2	4	-	1
Collection of fluid for treatment	14	22	-	9
PC5. use steam heating system for liquefying the solid waste during winter for proper pumping	4	6	-	3
PC6. collect used fluid from points such as discharge from mag-separators, waste filter papers & transfer to the designated storage area	4	6	-	3
PC7. transfer waste fluid in sump pits to treatment facility by using slurry pump	3	5	-	1
PC8. flag alert for timely removal of the waste fluid collected to respective agency	2	3	-	1
PC9. report any issues to the supervisor that may be beyond his/her scope	1	2	-	1
NOS Total	**30**	**50**	**-**	**20**

National Occupational Standards (NOS) Parameters

NOS Code	ISC/N0703
NOS Name	Carry out fluid inventory Management
Sector	Iron & Steel
Sub-Sector	Steel, Re-Rollers
Occupation	Cold Rolling Mill
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (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 these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Minimum Aggregate Passing % at QP Level: 70

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ISC/N0008. Use basic health and safety practices at the work place	30	50	0	20	100	15
ISC/N0009. Work effectively with others	30	50	0	20	100	15
ISC/N0701. Carry out laboratory activities	30	50	0	20	100	20
ISC/N0702. Carry out fluid system maintenance & management	30	50	0	20	100	25
ISC/N0703. Carry out fluid inventory Management	30	50	0	20	100	25
Total	**150**	**250**	**0**	**100**	**500**	**100**

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training

Glossary

Sector	Sector is a conglomeration of different business operations having similar business 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.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a 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 quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.