

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR GEMS & JEWELLERY 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-Gemstone Pre-shaper

SECTOR: GEMS & JEWELLERY

SUB-SECTOR: Gemstone Processing

OCCUPATION: Pre-shaping or Preforming

REFERENCE ID: G&J/Q6602

ALIGNED TO: NCO-2004/7313.55

Gemstone Pre-shaper: Also called 'Pre-former', the Pre-shaper gives a base shape to a gemstone for further faceting and polishing as per the customer's requirement. Shaping, sizing and calibrating the rough cut gemstone are an essential part of pre-shaper's role.

Brief Job Description: The individual works with high-speed rotating scaife machines with diamond or steel laps in order to give the rough cut gemstone the shape as per plan. Pre-shaping determines the shape, size and weight of the processed final stone.

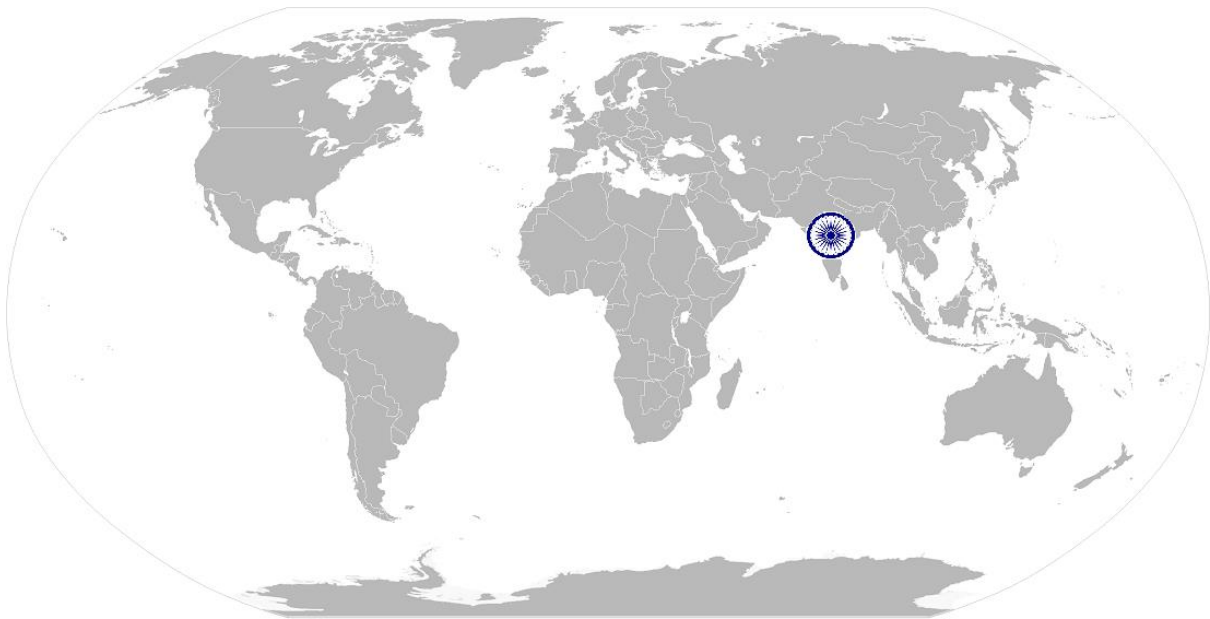
Personal Attributes: The job requires the individual to have: attention to details, good eyesight, steady hands, ability to work in a process driven team and for long hours in sitting position with a lot of patience and in a high-decibel machine-generated noise environment. The individual must also use problem solving skills to avert machine failures, errors and hazards.

Job Details

Qualifications Pack Code	G&J/Q6602		
Job Role	Gemstone Pre-shaper		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Sector	Gems & Jewellery	Drafted on	31/05/13
Sub-sector	Gemstone Processing	Last reviewed on	30/07/13
Occupation	Gemstone Pre-shaping	Next review date	15/07/15

Job Role	Gemstone Pre-shaper Also called 'Pre-former'
Role Description	Grinding basic shape of the rough-cut gemstone as per plan, for further polishing or faceting
NVEQF/NVQF level	3
Minimum Educational Qualifications	Preferably 10 th standard passed
Maximum Educational Qualifications	
Training	Not applicable
Experience	Not applicable
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> G&J/N6601 Dop the gemstone G&J/N6602 Pre-shape or pre-form gemstone G&J/N6603 Operate tumble shaping machine G&J/N9920 Maintain IPR at work G&J/N9921 Coordinate with colleagues G&J/N9924 Maintain safety at work <p>Optional: Not applicable</p>
Performance Criteria	As described in the relevant OS units

National Occupational Standard



Overview

This unit is about fixing the stone securely on a dop stick, metal or wooden, in order to prepare it for pre-shaping, faceting or polishing.

G&J/N6601

Dop the gemstone

National Occupational Standard

Unit Code	G&J/N6601
Unit Title (Task)	Dop the gemstone
Description	This OS unit is about fixing the rough-cut or pre-shaped gemstone securely on the dop for pre-shaping, faceting or polishing
Scope	<p>This unit/task covers the following:</p> <p>Receive the bagged stones from supervisor</p> <ul style="list-style-type: none"> • match the stone type, weight and number as mentioned on the bag • check the assortment of stones for shape, size, softness • understand the plan for the stone as per job sheet for stone to be aligned <p>Fix the stone on dop as per job sheet</p> <ul style="list-style-type: none"> • decide on the side of the stone to be placed on dop such as crown, pavilion, table or girdle • decide on whether to use lac or wax for fixing • decide on the type of dop to be used, metal or wooden • place the stone at an angle as per plan • centre the base of the stone • align the stone with the dop • attach the dop with the stone by heating the lac or wax <p>Return prepared dop to supervisor</p> <ul style="list-style-type: none"> • ensure timely delivery • return damaged gemstone <p>Report problems related to</p> <ul style="list-style-type: none"> • dops and tools shortage • reasons for anticipated delays that may adversely affect delivery <p>Interact with superior or facet maker or pre-shaper to</p> <ul style="list-style-type: none"> • receive instructions and materials from reporting supervisor • discuss alignment and work process with facet maker, polisher or pre-shaper
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Fixing stone on dop	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. accurately align the stone PC2. make correct selection of appropriate dop and material for fixing PC3. maintain appropriate level of heating so that stone does not change colour PC4. achieve scratch-free doping PC5. achieve secure setting
Productivity	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC6. make timely delivery to facet maker or shaper PC7. achieve number of dops prepared per day as per target given

G&J/N6601

Dop the gemstone

	PC8. deliver damage-free output with minimum hazards
Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on: acceptable limits of stone loss, incentives, delivery standards, safety and hazards, integrity and IPR, and personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. different types of stones, the family of stone and their properties, particularly, with respect to heat and pressure sensitivity KB2. uses of different qualities of wax and lac for fixing, their merits and demerits KB3. potential work hazards, particularly, when using heating lamps
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Basic reading and writing skills
	The user/ individual on the job needs to know and understand how to: SA1. read notes, signs and instructions on job sheet SA2. read company rules and compliance documents required to complete the work
	Geometry skills
	The user/individual on the job needs to know and understand: SA3. how to assess accuracy of alignment and measure symmetry SA4. importance of accurately aligned doping for faceting or shaping
	Teamwork and multitasking
	The user/individual on the job needs to know and understand how to: SA5. share work load when multiple deliverables are required SA6. deliver the dop to next work process on time
B. Professional Skills	Understanding gemstones
	The user/individual on the job needs to know and understand how to: SB1. read the stone type, the family it belongs to and its properties SB2. assess the required thickness and spread SB3. visualise and map the final form of the stone
	Using tools and machines
	The user/individual on the job needs to know and understand how: SB4. to use the correct type of dop, e.g., metal or wooden for the process involved SB5. to use the heating lamp for secure fixing and without damaging the stone SB6. to work in a safe environment, i.e., without injuries

G&J/N6601

Dop the gemstone

	Reflective thinking
	The user/individual on the job needs to know and understand how to: SB7. improve work processes or greater productivity SB8. maintain good posture while working in sitting position for long hours
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB9. anticipate process disruption and reasons for delay

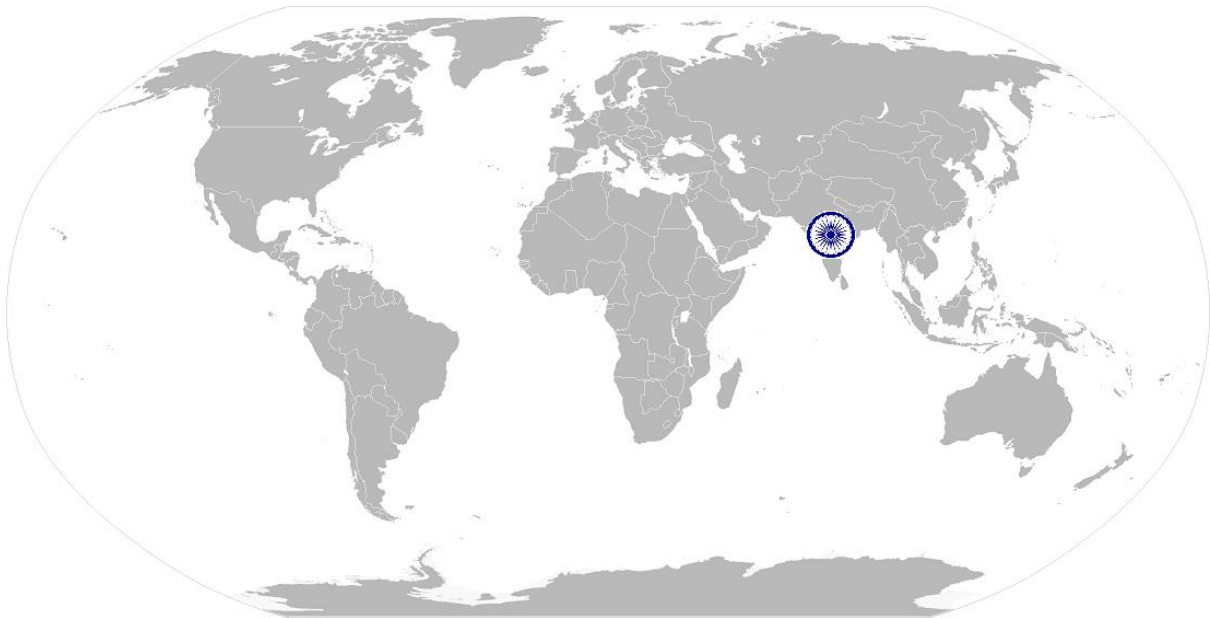
G&J/N6601

Dop the gemstone

NOS Version Control

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Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	30/07/13
		Next review date	15/07/15

National Occupational Standard



Overview

This unit is about grinding the basic shape of the gemstone as per plan to meet the base level shape, size and weight requirements of the stone. The pre-shaped or preformed and calibrated stone is then ready for either polishing or for faceting and then polishing. Pre-shaping is important because it defines the final parameters of the stone that can be achieved.

G&J/N6602

Pre-shape or preform gemstone

Unit Code	G&J/N6602
Unit Title (Task)	Preform and calibrate the rough-cut gemstone
Description	This OS unit is about giving the base shape to the rough-cut gemstone and set the base shape, size and weight of the stone for further processing
Scope	<p>This unit/task covers the following:</p> <p>Receive bag of gemstones from supervisor</p> <ul style="list-style-type: none"> match the stone type, weight and number as mentioned on the bag understand pre-shaping requirement as per plan understand the permitted level of stone loss depending on inclusions and type of stone such as precious or semi-precious <p>Give shape to the gemstone</p> <ul style="list-style-type: none"> understand the type of stone to be pre-shaped such as soft or hard, transparent or translucent or opaque, for cabochon or faceting assess the angles at which the doped stones have to be pre-shaped to achieve the type of shape such as round brilliant, marquise, square, princess oval, heart, baguette, emerald, briolette, pear, trilliant, octagon select the scaife and powdered lap to be used for the stone type such as steel, diamond level the scaife or grinding mill or fix vertical laps securely for vibrations-free rotation use dop and grinding mill for giving shape to stone use water jet to reduce adverse effect of overheating of stone, such as change of colour or breakage <p>Calibrate the pre-shaped or preformed gemstone</p> <ul style="list-style-type: none"> check size and diameter of gemstone using vernier calipers during pre-shaping to keep them within planned parameters and with minimum stone loss, for precious and high-value semi-precious stones use calibrating machines with master preforms to calibrate semiprecious and synthetic gemstones <p>Return pre-shaped stone to supervisor</p> <ul style="list-style-type: none"> return the pre-shaped and counted stones for quality check return any damaged stones <p>Report problems related to:</p> <ul style="list-style-type: none"> machine failure shortage of dops, powder or lap reasons for anticipated delays that may adversely affect delivery <p>Interact with superior or polisher or QC department</p> <ul style="list-style-type: none"> receive instructions and materials from reporting supervisor

G&J/N6602

Pre-shape or preform gemstone

	<ul style="list-style-type: none"> • give feedback to supervisor or polisher on any specific stone handling requirement • rework based on feedback from Quality Control department
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Pre-shaping and calibrating	To be competent, the user/ individual on the job must be able to: PC1. pre-shape number of preforms generated with shape as planned PC2. accurately calibrate: size, dimensions and weight as per plan PC3. identify correct lap and powder to use PC4. achieve maximum number of QC okayed stones PC5. deliver hazard-free output
Productivity	To be competent, the user/ individual on the job must be able to: PC6. deliver the number and carats of stones preformed per day against target given PC7. maintain stone loss within prescribed limits, particularly, in precious stones
Handling problems	To be competent, the user/ individual on the job must be able to: PC11. deliver pre-shaped stone in time by reporting problems faced or anticipated well in advance
Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on: acceptable limits of stone loss, incentives, delivery standards, safety and hazards, integrity and IPR, and personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic Gemmology and properties of different types of stones, the families they belong to KB2. different types of gemstones such as precious, semi-precious, synthetic KB3. market value of stone to understand the rationale for different acceptable levels of stone loss KB4. origin of the stone, i.e., which mine, particularly, precious stones to read the softness/ hardness as developed from precedence of use KB5. market demand, i.e., popular shapes in demand
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Basic reading and writing skills
	The user/ individual on the job needs to know and understand how to: SA1. read height, weight, dimensions of the stones to pre-shape as given on job sheets SA2. read company rules and compliance documents required to complete the work

G&J/N6602

Pre-shape or preform gemstone

	Calculation and geometry skills
	The user/individual on the job needs to know and understand: SA3. how to assess the angle for pre-shaping SA4. final dimensions achievable from processing the pre-shaped gemstone
	Teamwork and multitasking
	The user/individual on the job needs to know and understand how to: SA5. share work load when multiple deliverables are required SA6. deliver the pre-shaped gemstone to next work process on time
B. Professional Skills	Reading the design or plan for the stone
	The user/individual on the job needs to know and understand how to: SB1. convert shape on paper into pre-shaped SB2. spot difficulties with respect to practicality of plan or shape to be created
	Using tools and machines
	The user/individual on the job needs to know and understand how: SB3. to pre-shape stones using scaifes and laps SB4. different types of laps are available in terms of material such as diamond or steel or the grits SB5. the faceting mill works SB6. to use water jet and keep the stone cool SB7. to work in a safe environment, i.e., without injuries
	Reducing stone loss
	The user/individual on the job needs to know and understand how: SB8. to report stone losses via documentation as per company policy SB9. to minimise stone loss below the prescribed limits SB10. to report any incidents of high stone loss SB11. to follow company's policies on stone fragments SB12. to suggest improvements in order to reduce stone loss limits
	Reflective thinking
	The user/individual on the job needs to know and understand how to: SB13. improve work processes for greater productivity SB14. take care of posture while working in sitting position for long hours
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB15. spot process disruption and reasons for delay

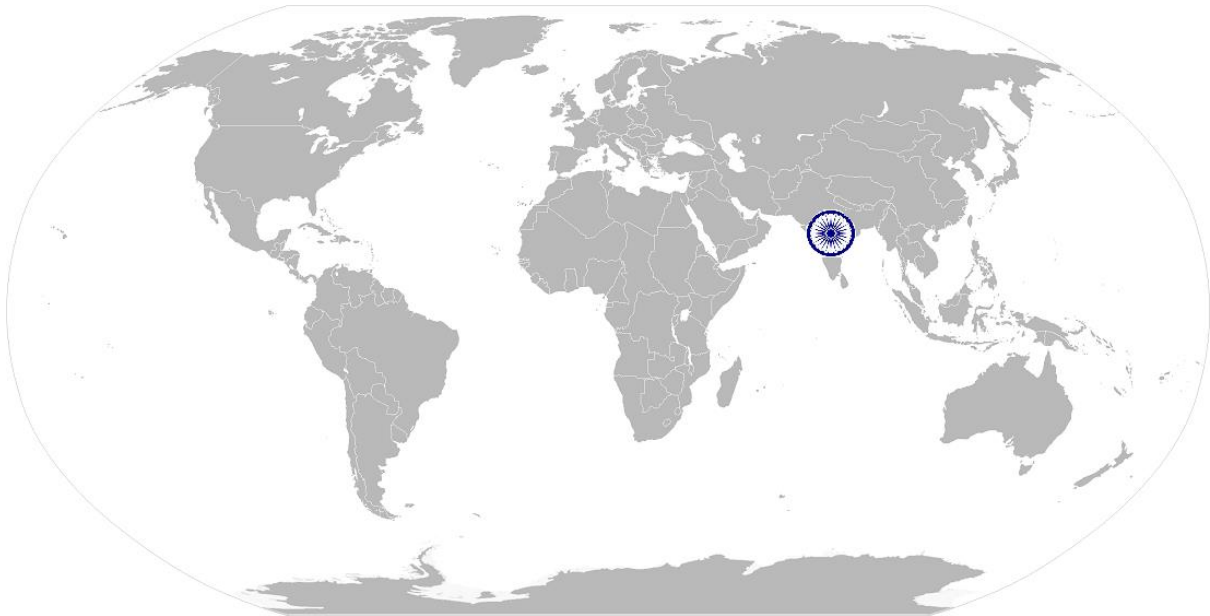
G&J/N6602

Pre-shape or preform gemstone

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National Occupational Standard



Overview

This unit is about giving pre-shapes to gemstone using the tumble shaping machine. It is useful for grinding low value semi-precious gemstones in mass volume, although is less precise than manual pre-shaping.

G&J/N6603

Operate tumble shaping machine

National Occupational Standard	Unit Code	G&J /N 6603
	Unit Title (Task)	Preform and calibrate the rough-cut gemstones using tumble machine
	Description	This OS unit is about giving the base shape to the rough-cut gemstone by using the tumble machine, for further processing
	Scope	<p>This unit/task covers the following:</p> <p>Receive gemstones from supervisor</p> <ul style="list-style-type: none"> match the stone type, weight and quantity on receipt understand the type of stones to be shaped in terms of hardness <p>Operate the tumble shaping machine</p> <ul style="list-style-type: none"> add the rough stones to the revolving drum of the tumble machine add abrasives for shaping, gradually using finer abrasives turn on the machine for the required number of days monitor machine operations from time to time <p>Return pre-shaped stone to supervisor</p> <ul style="list-style-type: none"> return the pre-shaped and counted stones once machine is stopped return any damaged stones <p>Report problems related to:</p> <ul style="list-style-type: none"> machine failure reasons for anticipated delays that may adversely affect delivery <p>Interact with superior or polisher or QC department</p> <ul style="list-style-type: none"> receive instructions and materials from reporting supervisor give feedback to supervisor on any specific stone handling requirement
Performance Criteria(PC) w.r.t. the Scope		
Element	Performance Criteria	
Tumble machine operations	<p>To be competent, the user/ individual on the job must be able to:</p> <p>PC1. run target number of tumble cycles run</p> <p>PC2. maintain quality of stones using appropriate quantity and types of abrasives</p>	
Handling problems	<p>To be competent, the user/ individual on the job must be able to:</p> <p>PC3. deliver pre-shaped stone in time by reporting problems faced or anticipated well in advance</p>	

G&J/N6603

Operate tumble shaping machine

Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on: acceptable limits of stone loss, incentives, delivery standards, safety and hazards, integrity and IPR, and personnel management KA2. work flow involved in gemstone processing of company KA3. Importance of the individual's role in the workflow KA4. Reporting structure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic Gemmology and properties of different types of stones, the families they belong to KB2. different types of gemstones such as precious, semi-precious, synthetic KB3. tumble machine operation technique and consumables required
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Reading and writing skills
	The user/ individual on the job needs to know and understand how to: SA1. read machine manual and job sheets SA2. read company rules and compliance documents required to complete the work
B. Professional Skills	Operating tumble machine
	The user/individual on the job needs to know and understand how to: SB1. start and stop the machine SB2. add gemstones and abrasives for minimum damage to stones SB3. monitor and remove gemstones from machine when done
	Reflective thinking
	The user/individual on the job needs to know and understand how to: SB4. improve work processes for greater productivity SB5. maintain upkeep of the tumble shaping machine
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB6. spot process disruption and reasons for delay

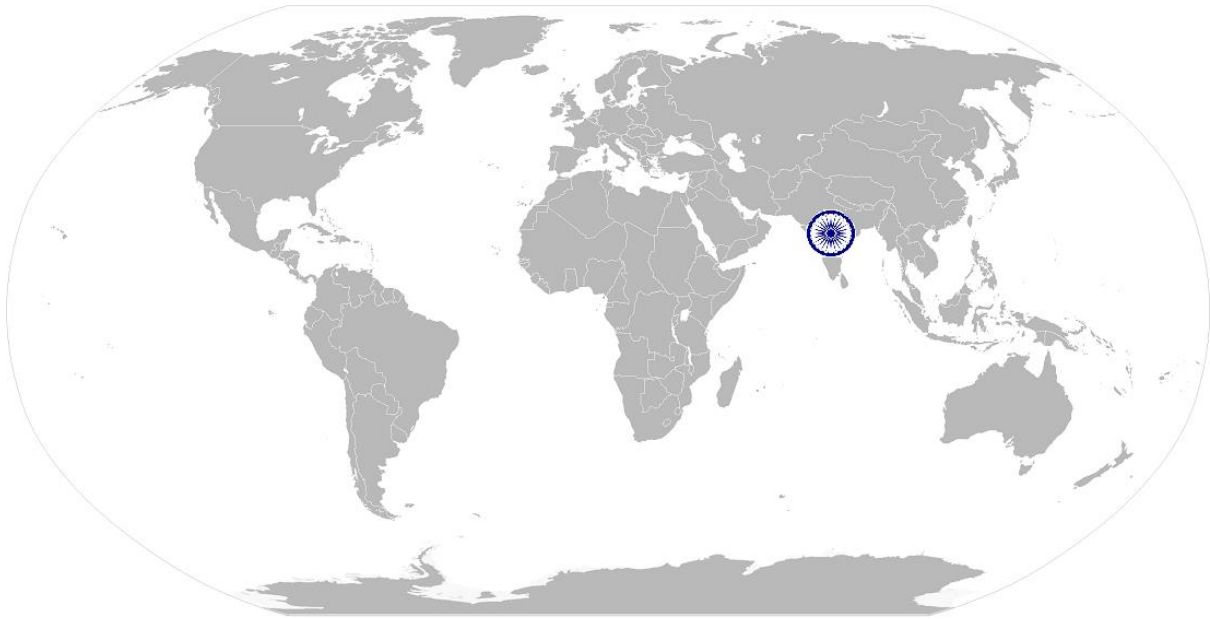
G&J/N6603

Operate tumble shaping machine

NOS Version Control

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National Occupational Standard



Overview

This unit is about respecting intellectual property rights of the company's products and designs.

G&J/N9920

Maintain IPR at work

National Occupational Standard

Unit Code	G&J/N9920
Unit Title (Task)	Maintain IPR of company
Description	This OS unit is about protecting company's Intellectual Property Rights
Scope	<p>This unit/task covers the following:</p> <p>Protect company's Intellectual Property Rights (IPR)</p> <ul style="list-style-type: none"> to prevent leak of new designs/ plans to competitors by reporting on time to be aware of any of company's product, process or design patents to report IPR violations observed in the market, to supervisor or company heads
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Reducing stone loss and maintaining IPR	<p>To be competent, the user/individual on the job must:</p> <p>PC1. be aware of patents and IPR</p> <p>PC2. not be involved in IPR violations</p>
Knowledge and Understanding (K)	
A. Organizational Context	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. company's policies on: integrity, IPR and personnel management</p> <p>KA2. work flow involved in gemstone processing of company</p> <p>KA3. importance of the individual's role in the organisation</p> <p>KA4. reporting structure</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. patents and IPR laws</p> <p>KB2. how IPR protection is important for competitiveness of a company</p> <p>KB3. market trends</p>
Skills (S) [Optional]	
C. Core Skills/ Generic Skills	Communication skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. effectively communicate any observed IPR violations or order leaks</p>
D. Professional Skills	Decision making
	<p>The user/individual on the job needs to know and understand:</p> <p>SB1. when and how to report potential sources of violations</p>
	Reflective thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. learn from past mistakes and report IPR violations on time</p>

G&J/N9920

Maintain IPR at work

	Critical thinking
	The user/individual on the job needs to know and understand how to: SB3. spot signs of violations and alert authorities in time

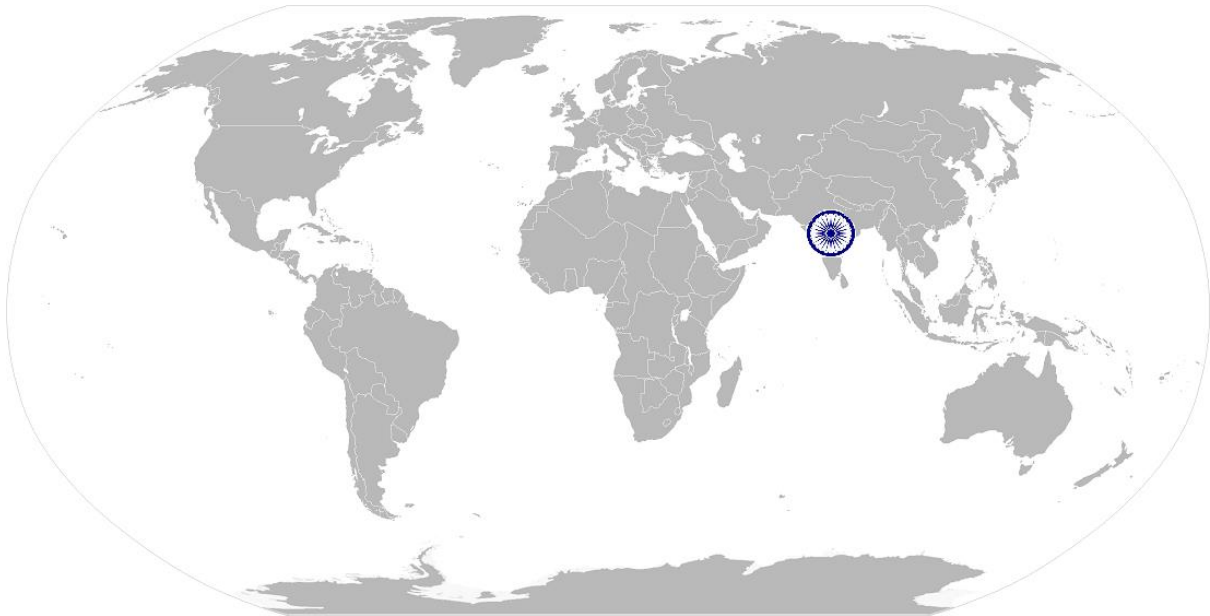
G&J/N9920

Maintain IPR at work

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National Occupational Standard



Overview

This unit is about team work and level of communication with colleagues or clients. It determines the ability to work as a team member, share work and multi-task in order to achieve the required deliverables on schedule.

G&J/N9921

Coordinate with colleagues

National Occupational Standard

Unit Code	G&J/N9921
Unit Title (Task)	Coordinate with colleagues and seniors
Description	This OS unit is about communicating with colleagues and seniors in order to achieve smooth and hazard-free work flow
Scope	<p>This unit/task covers the following:</p> <p>Interact with supervisor to:</p> <ul style="list-style-type: none"> • receive work instructions and raw materials from reporting supervisor • communicate to reporting supervisor about process-flow improvements, product defects received from previous process, repairs and maintenance of tools and machinery as required • communicate any potential hazards or expected process disruptions • handover completed work to supervisor <p>Interact with colleagues within and outside the department to:</p> <ul style="list-style-type: none"> • work as a team with colleagues and share work as per their or own work load and skills • work with colleagues of other departments • communicate and discuss work flow related difficulties in order to find solutions with mutual agreement • receive feedback from QC and rework in order to complete work on time
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Interaction with supervisor	To be competent, the user/individual on the job must: PC1. understand the work output requirements PC2. comply with company policy and rule PC3. deliver quality work on time as required by reporting any anticipated reasons for delays
Interactions with colleagues and other departments	To be competent, the user/individual on the job must: PC4. put team over individual goals PC5. resolve conflicts and multi-task
Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure

G&J/N9921

Coordinate with colleagues

<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand how to:</p> <p>KB1. communicate effectively KB2. build team coordination</p>
<p>Skills (S) [Optional]</p>	
<p>A. Core Skills/ Generic Skills</p>	<p>Teamwork and multitasking</p> <p>The individual on the job needs to know and understand:</p> <p>SA1. importance of sharing work load as required SA2. significance of delivering product to next work process on time</p>
<p>B. Professional Skills</p>	<p>Decision making</p> <p>The individual on the job needs to know and understand:</p> <p>SB1. potential areas of disruptions to work process and report the same SB2. when to report to supervisor and when to deal with a colleague individually, depending on the type of concern</p> <p>Reflective thinking</p> <p>The individual on the job needs to know and understand how to:</p> <p>SB3. improve work processes</p> <p>Critical thinking</p> <p>The individual on the job needs know and understand how to:</p> <p>SB4. spot process disruptions and delays</p>

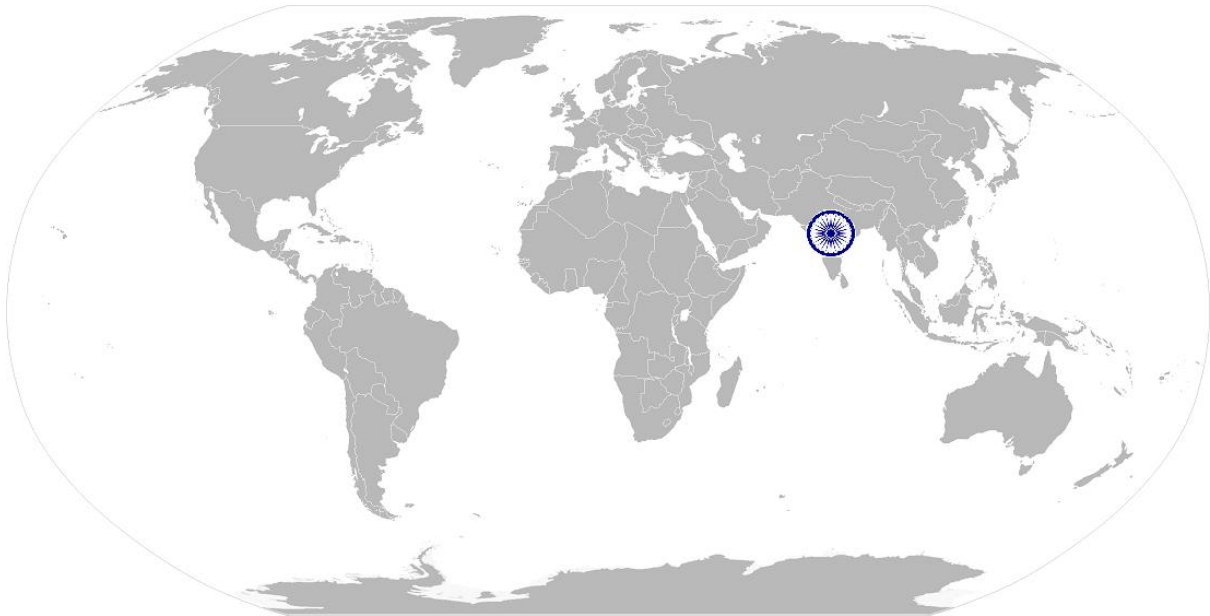
G&J/N9921

Coordinate with colleagues

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Industry Sub-sector	Gemstone Processing	Last reviewed on	30/07/13
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National Occupational Standard



Overview

This unit is about commitment towards reporting potential hazards, taking preventive measures to contain accidents in order to make the work environment safe for self and colleagues and maintaining a clean working environment.

G&J/N9924

Maintain safety at work

National Occupational Standard	Unit Code	G&J/N9924
	Unit Title (Task)	Maintain safety at work
	Description	This OS unit is about being aware of, communicating and taking steps towards minimizing potential hazards and dangers of accidents on the job and maintaining a clean work environment
	Scope	<p>This unit/task covers the following:</p> <p>Understand potential sources of accidents</p> <ul style="list-style-type: none"> to avoid accidents related to use of potentially dangerous chemicals, sharp tools, hazards from machines such as laser sawyer, heating lamps, rotating scaife and lap <p>Use safety gear to avoid accidents</p> <ul style="list-style-type: none"> wear safety gear such as goggles, mask, gloves, ear plugs <p>Keep the work environment clean and organised</p> <ul style="list-style-type: none"> keep the work station, machine, tools clean keep all the tools in an organised manner not litter or spit on work premises <p>Communicate to reporting supervisor about:</p> <ul style="list-style-type: none"> process flow improvements that can reduce anticipated or repetitive hazards mishandling of tools, machines or hazardous materials electrical problems that could result in accident
Performance Criteria(PC) w.r.t. the Scope		
	Element	Performance Criteria
	Communicating potential accident points	<p>To be competent, the user/individual on the job must:</p> <p>PC1. spot and report potential hazards on time</p> <p>PC2. follow company policy and rules regarding use of hazardous materials</p> <p>PC3. deliver quality work on time as required by reporting any anticipated reasons for delays</p>
	Using safety gear	<p>To be competent, the user/individual on the job must:</p> <p>PC4. use or wear safety gear as per the rules of the company</p>
	Cleanliness and hygiene	<p>To be competent, the user/individual on the job must:</p> <p>PC5. clean the work station</p> <p>PC6. organise tools and equipment in use</p>

G&J/N9924

Maintain safety at work

Knowledge and Understanding (K)	
A. Organizational Context	The user/individual on the job needs to know and understand: KA1. company's policies on: stone collection, safety and hazards and personnel management KA2. work flow involved in gemstone processing of company KA3. importance of the individual's role in the workflow KA4. reporting structure
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. how different chemicals react and the danger involved KB2. how to use machines and tools without suffering bodily harm
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	Communication skills
	The individual on the job needs to know and understand how to: SA1. effectively communicate the danger
	Organising skills
	The individual on the job needs to know and understand how to: SA2. keep all the tools in an organised manner so as to find them quickly SA3. keep the work environment clean
B. Professional Skills	Decision making
	The individual on the job needs to know and understand how to: SB1. report potential sources of danger SB2. follow prescribed procedure in the event of an accident SB3. avoid an accident by wearing appropriate safety gear
	Reflective thinking
	The individual on the job needs to know and understand how to: SB4. learn from past mistakes regarding use of hazardous machines or chemicals
	Critical thinking
	The individual on the job needs to know and understand how to: SB5. spot dangers SB6. organise tools so as the work process is smooth
	Decision making
The individual on the job needs to know and understand how to: SB7. report potential sources of danger SB8. follow prescribed procedure in the event of an accident	

G&J/N9924

Maintain safety at work

NOS Version Control

NOS Code	G&J/N9924		
Credits(NVEQF/NVQF/NSQF)	TBD	Version number	1.0
Industry	Gems & Jewellery	Drafted on	31/05/13
Industry Sub-sector	Gemstone Processing	Last reviewed on	30/07/13
		Next review date	15/07/15

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defied 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.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or an 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 OS.
Sub-function	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
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 they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (OS)	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	Knowledge and understanding 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	Core skills or generic skills are a group of skills that are the key to learning

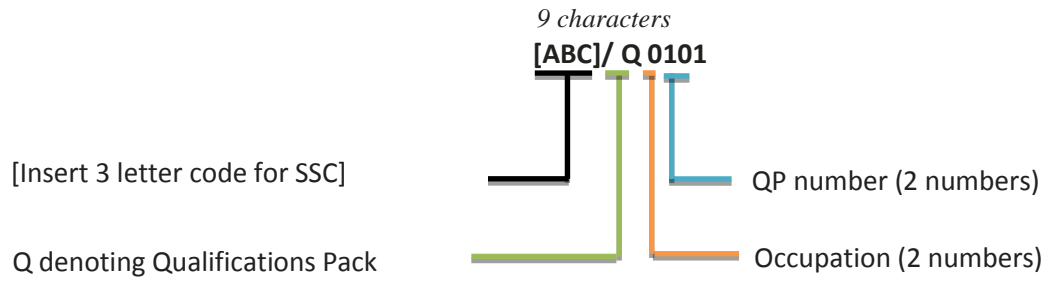
Acronyms

Skills	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.
Keywords /Terms	Description
IPR	Intellectual Property Rights
NOS	National Occupational Standard(s)
NVQF	National Vocational Qualifications Framework
NSQF	National Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
QP	Qualifications Pack

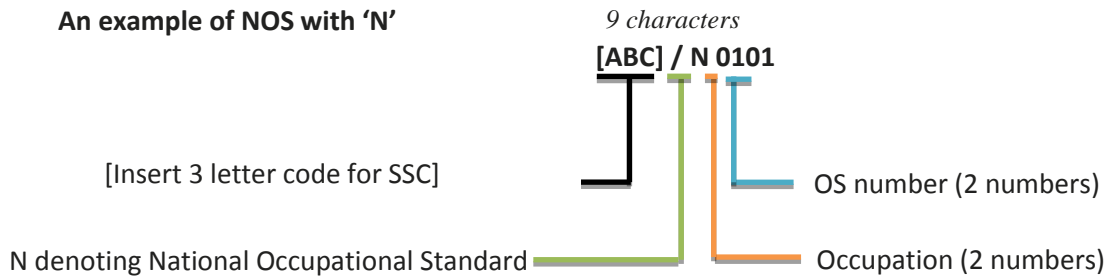
Annexure

Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard



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The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Handmade gold and gems-set jewellery	01-20
Cast and diamond-set jewellery	21-40
Diamond processing	41-60
Gemstone processing	61-80
Jewellery retailing	81-98

Sequence	Description	Example
Three letters	Industry name	G&J
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Gemstone Processing – Pre - Shaper

Qualification Pack G&J/Q6602

Sector Skill Council Gem & Jewellery

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 theory question papers for candidates at every examination/training centre. (as per assessment criteria below)
4. Individual assessment agencies will create practical tests for skill evaluation for candidates at every examination/training centre. (as per assessment criteria below)
5. To pass the Qualification Pack, every candidate should score a minimum of 50% in theory and 70% in practical to successfully clear the assessment.
6. In case of successfully passing only certain number of NOS's, the candidate is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.

		Marks Allocation			
		Total Marks (80+20)	Out Of	Theory	Skills Practical
1. G&J/N6601 Dop the gemstone	PC1. accurately align the stone	22	3	0	3
	PC2. make correct selection of appropriate dop and material for fixing		5	1	4
	PC3. maintain appropriate level of heating so that stone does not change colour		5	1	4
	PC4. achieve scratch-free doping		3	0	3
	PC5. achieve secure setting		3	0	3
	PC6. make timely delivery to facet maker or shaper		1	0	1
	PC7. achieve number of dops prepared per day as per target given		1	0	1
	PC8. deliver damage-free output with minimum hazards		1	0	1
		Total	22	2	20

2. G&J/N6602 Pre-shape or preform gemstone	PC1. pre-shape number of preforms generated with shape as planned	45	12	2	10
	PC2. accurately calibrate: size, dimensions and weight as per plan		12	2	10
	PC3. identify correct lap and powder to use		7	2	5
	PC4. achieve maximum number of QC okayed stones		2	0	2
	PC5. deliver hazard-free output		2	0	2
	PC6. deliver the number and carats of stones preformed per day against target given		2	0	2
	PC7. maintain stone loss within prescribed limits, particularly, in precious stones		6	1	5
	PC8. deliver pre-shaped stone in time by reporting problems faced or anticipate dwell in advance		2	0	2
		Total	45	7	38
3. G&J/N6603 Operate tumble shaping machine	PC1. run target number of tumble cycles run	8	2	0	2
	PC2. maintain quality of stones using appropriate quantity and types of abrasives		4	1	3
	PC3. deliver pre-shaped stone in time by reporting problems faced or anticipated well in advance		2	0	2
			8	1	7
4. G&J/N9920 Maintain IPR at work	PC1. be aware of patents and IPR	8	4	2	2
	PC2. not be involved in IPR violations		4	2	2
		Total	8	4	4

5. G&J/N9921 Coordinate with others	PC1. understand the work output requirements	8	2	1	1
	PC2. comply with company policy and rule		1	0	1
	PC3. deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. put team over individual goals		2	1	1
	PC5. resolve conflicts and multi-task		2	1	1
			Total	8	3
6. G&J/N9924 Maintain safe work environment	PC1. spot and report potential hazards on time	9	2	1	1
	PC2. follow company policy and rules regarding use of hazardous materials		1	0	1
	PC3. deliver quality work on time as required by reporting any anticipated reasons for delays		1	0	1
	PC4. use or wear safety gear as per the rules of the company		3	2	1
	PC5. clean the work station		1	0	1
	PC6. organise tools and equipment in use		1	0	1
		Total	9	3	6