

Automotive Skills Development Council





OUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE 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- QC Inspector Level 3

SECTOR: AUTOMOTIVE

SUB-SECTOR: MANUFACTURING SUPPORT

OCCUPATION: QUALITY ASSURANCE

JOB ROLE: QC INSPECTOR LEVEL 3

REFERENCE ID: ASC/Q6301

ALIGNED TO: NCO-2004/ Nil

Brief Job Description: Individuals at this job need to be responsible for the quality inspection of the manufactured products in order to deliver high quality to customers

Personal Attributes: This job requires the individual to be able to coordinate internally and externally within the organization. The individual should be result oriented, and possess strong quality management skills. The individual should also be able to demonstrate skills for mathematical reasoning, problem solving, relationship building and leadership.

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Qualifications Pack Code	ASC/Q 6301		
Job Role	QC Inspector- L3		
Credits(NSQF)	TBD	Version number	1.0
Sector	Automotive	Drafted on	13/08/13
Sub-sector	Manufacturing Support	Last reviewed on	27/08/13
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15
NSQC Clearance on	20/07/2015		

Job Role	QC Inspector- L3
Role Description	inspecting the manufactured products as per the quality standards
NSQF level	3
Minimum Educational Qualifications*	ITI in Mechanical/Electrical/Electronic Engineering (Product
	content based)
Maximum Educational Qualifications*	Not Applicable
Training (Suggested but not mandatory)	 Compulsory: APQP/CP, pre-delivery inspection techniques, handling Basic inspection equipment, Introduction to MSA / SPC, PFMEA etc. Voluntary:7 QC tools, , problem solving techniques, Decision making hierarchy in organization
Minimum Job Entry Age	1 ASDC recommends that candidates should seek full employment not before attaining an age of 18 years. 2 However, as per Factories Act1948: No one can be employed before attaining the age of 15- A person between the age of 15 – 18 (both inclusive) could be employed only with employers who follow safety and security systems & processes and also that the employee in this bracket will be working under supervision. 3 Please note that under the Factories Act 1948, different States may have slightly varying provision which need to be adhered to.
Experience	minimum 1-3 years in Quality/ Manufacturing department
Applicable National Occupational Standards (NOS)	Compulsory: ASC/N6301: Inspect and maintain the product quality ASC/N0021: Maintain 5S at the work premises ASC/N 0006: Maintain a safe and healthy working environment
Performance Criteria	As described in the relevant OS units







Keywords /Term	Description
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.
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 organization.
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 organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational 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.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills	Core skills or generic skills 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.
Keywords /Terms	Description
NOS	National Occupational Standard(s)
NSQF	National Standards Qualifications Framework
QP	Qualifications Pack
SAP- ERP	System Application and Products- Enterprise Resource Management software
PPC	Production Planning and Control
HSE	Health , Safety and Environment
PPAP	Production Part Approval Process
РО	Purchase Order
TS	TS 16949 system
APQP	Advanced Product Quality Planning
RCA	Root Cause Analysis
QMS	Quality Management System
MSA	Measurement System Analysis
PFMEA	Process failure Mode & Effects analysis
	Control Plan
СР	CONTROL Plan



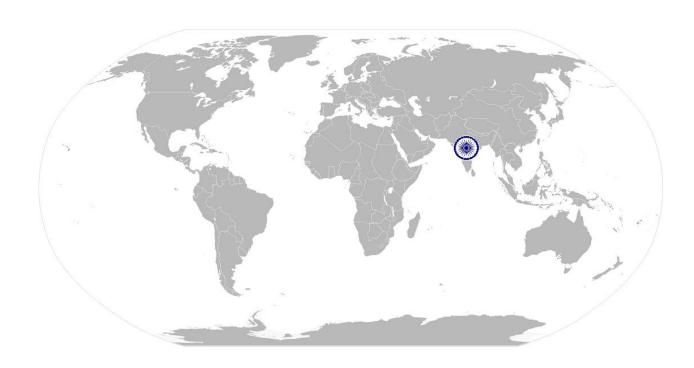






Inspect and maintain the product quality

National Occupational Standards



Overview

This unit is about inspection and maintenance of the quality standards for the products at various stages of Product Life









Inspect and maintain the product quality

Unit Code	ASC/N6301
Unit Title (Task)	Inspect and maintain the product quality
Description	This OS unit is about the individual monitoring and maintaining the quality of the products
Scope	The unit/ task covers the following for Receipt, In Process , Final Inspection: • pre- delivery inspection of the product • dock audit / Development batch of product • coordinate with R&D QA for failures, CAPA & CI issues
Performance Criteria(P	
Element	Performance Criteria
Inspection of final product	To be competent, the user/individual on the job must be able to: PC1. conduct the process of Inspection at the stages: • complete dimensional /Layout Inspection at development stage & later as per the periodicity such as annual for re- validation • in the Production phase as per the CP/ Quality plan/ sampling Plan/ stage inspection plans/ First off IR PC2. handle Inspection equipment and Instrument such as • vernier, micrometers • height Gauge & surface plate • acceptance/ Combination Gauges • simple gauges – bore, air, profile for safe storage, calibration at pre-decided frequency and have an acceptable level of R & R as per SOP of the organization PC3. conduct a inspection of the product covering the following checkpoints: • visual Inspection of the part for scratches, dents, damages, packing as per the norms etc. • special inspection co-ordinate with other agencies e.g. Lab: Material, Lab: Standards Room, assembly / performance trials etc. • identification sticker/number/label placed on the product • functioning of the product and its components • documentation pertaining to the Quality PC4. coordinate with the respective process owners / seniors in QA and implement CAPA for discrepancies in the parameters identified in the report on immediate basis PC5. participate in checking the effectiveness of implementation and repeat the process till the discrepancies are resolved PC6. IR, ERP-System record and special process capability index calculation/









Inspect and maintain the product quality

	charting as per the SOP raise a scrap note and dispose of the scrapped product in the scrap yard as per the defined procedure maintaining the HSE compliance PC8. As is the case i.e. New product/process development / Production phase, the reports and Part Submission Warrant, PPAP are to be prepared. PC9. based on the implementation of information flow system in organization like ERP/SAP, upload the reports
Dock audit of the	To be competent, the user/individual on the job must be able to:
sample batch	PC10. conduct a dock audit of a sample batch from the production lot of the ready
	to dispatch final products covering the following checkpoints:
	product in good shape with no visible damage presence of sharp edges in the product
	presence of sharp edges in the productwear and tear of the product
	presence of any physical defects
	 packaging of product according to customer specification packaging boxes as per the requirement for preservation customer PO Number on the shipping labels boxes labeled correctly with packer name count on the Bill of Lading match the count on the pallet
	 boxes stacked neatly in case of pallet arrangement Damages of the pallet like nails sticking out, broken boards, etc. PC11. coordinate with the respective process owners/Stores and implement CAPA for discrepancies identified in the dock audit on immediate basis PC12. review the effectiveness of implementation and repeat the process till the discrepancies are resolved PC13. document the observations of dock audit and maintain records PC14. based on the implementation of information flow system in organization like ERP/SAP, upload the reports
Coordination with	To be competent, the user/individual on the job must be able to:
R&D / Quality Manager CAPA , CI	PC15. work as a CFT member of the team formed for solving a problem pertaining to the products handled .Collect data regarding the problem as decided in the team discussions
	PC16. participate for preparation of Fault tree, conducting simulation and implementation of actions PC17. participate for updating relevant documentation
	PC18. assist the NPD department in efficient development of the new product by
	sharing all the problems related to QCD observed in the existing products
Knowledge and Unders	tanding (K)
A. Organizational Context (Knowledge of the company /	The user/individual on the job needs to know and understand: KA1. product portfolio of organization KA2. the manufacturing processes of organization KA3. material classification criteria followed by organization









Inspect and maintain the product quality

organization and	KA4. policies and procedures for storage and preservation of materials		
its processes)	KA5. policies , compliances and systems followed for HSE		
	KA6. TS-16949/any other QMS system guidelines followed in the organization		
	KA7. New Process/Product development protocol and methodology		
B. Technical	The individual on the job needs to have elementary knowledge of the following so as		
Knowledge	to interpret the Quality Requirements :		
	KB1. manufacturing process being followed for each product		
	KB2. inspection checkpoints NPD, Production, Dock Audit etc.		
	KB3. APQP procedures		
	KB4. problem solving & analysis tools like 8Ds, five why analysis etc.		
	KB5. RCA analysis techniques		
	KB6. requirements for PPAP-PFMEA,CP		
	KB7. requirements for TS-16949/QMS system followed		
	KB8. rejection / Inspection reports		
	KB9. testing equipments operational knowledge		
CI :II. /C)	KB10. resource &information systems like SAP, ERP etc.		
Skills (S)			
A. Core Skills/	Reading and Writing skills		
Generic Skills	The user/individual on the job needs to know and understand how to:		
	SA1. document the observations in the inspection format using precise terms for		
	description of the defects , phenomenon etc.		
	SA2. understand the contents mentioned on the identification sticker		
	SA3. prepare reports/excel sheet/MIS for review of quality manager and senior		
	management		
	Communication skills		
	The user/ individual on the job needs to know and understand how to communicate		
	with:		
	SA4. the concerned departments for failures/any issues		
	SA5. NPD department for new product development		
	SA6. concerned departments for dock audit and resolution of the discrepancies		
	observed		
	SA7. senior management for updating the progress and seeking their support		
	SA8. team members for reviewing the progress of day to day activities		
	Teamwork and multitasking		
	The user/ individual on the job needs to know and understand how to:		
	SA9. work as an effective team members ensuring smooth execution of the		
	inspection of the product in an efficient and timely manner		
	SA10. coordinate with various departments like NPDCFT ,Marketing, R&D etc. based		
	on the requirement		
	SA11. share operation knowledge with colleagues		
B. Professional Skills	Critical thinking		
	The user/ individual on the job needs to know and understand how to:		
	SB1. coordinate with the process owners and devise countermeasures for effective		









Inspect and maintain the product quality

	handling of the non-conformities observed in IR and dock audit
SB2.	understand and analyze the inspection report for providing inputs to NPD
	department for new product development
SB3.	interpret the customer (Internal / external) feedback and translate it into the
	development of the new product in coordination with NPD department
SB4.	identify problems (technical and non-technical), disruptions and delays
Proble	m Solving
The use	er/individual on the job needs to know and understand how to:
	think through and devise the countermeasure for resolution for any quality
	related issue observed
SB6.	work on actions to be taken on immediate basis in case of frequent rejections
SB7.	devise and implement interim/permanent countermeasures for the non-
	conformities observed in the field failures/warranty issues using analysis tools
	like 4Ds , 8Ds etc.
Reflect	ive thinking
486	er/individual on the job needs to know how to:
SB8.	analyze the interim countermeasures taken for the resolution of non-
	conformities observed in the production section and dock audit to accordingly

devise the permanent countermeasures for prevention from re-occurrence





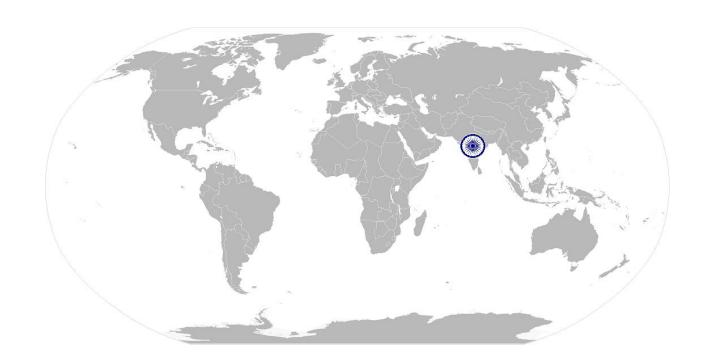




Inspect and maintain the product quality

NOS Version Control

NOS Code	ASC/N6301		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	13/08/13
Industry Sub-sector	Manufacturing Support	Last reviewed on	27/08/13
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15





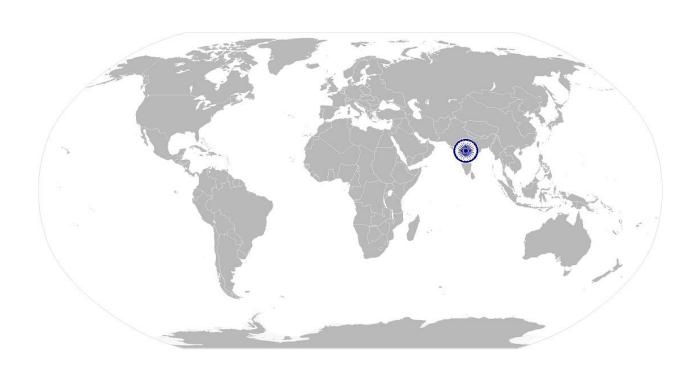






Maintain 5S at the work premises

National Occupational Standards



Overview

This unit is about establishing a Safe, Healthy and Environment friendly workplace at the organization and supplier's shop floor









Maintain 5S at the work premises

Unit Code	ASC/N 0021		
Unit Title (Task)	Maintain 5S at the work premises		
Description	This OS unit is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area of the organization and vendor's shop floor, following practices which are not impacting the environment in a negative manner		
Scope	This unit/task covers the following: Types of processes: • customer quality assurance		
	Types of products • individual child parts		
	part assemblies		
	• final products		
	iniai products		
Performance Criteria (PC) w.r.t.			
Element	Performance Criteria		
Identify and report the risks identified	PC1. identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise PC2. inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc PC3. inform the concerned authorities about damages which can potentially harm man/ machine during operations PC4. create awareness amongst other by sharing information on the identified risks		
Create and sustain a Safe, clean and environment friendly work place	PC5. follow the instructions given on the equipment manual describing the operating process of the equipments PC6. follow the Safety, Health and Environment related practices developed by the organization PC7. operate the machine using the recommended Personal Protective Equipments (PPE) PC8. maintain a clean and safe working environment near the workplace and ensure there is no spillage of chemicals, production waste, oil, solvents etc PC9. maintain high standards of personal hygiene at the work place PC10. ensure that the waste disposal takes place in the designated area as per organization SOP		









Maintain 5S at the work premises

	PC11. inform appropriately the medical officer/ HR in case of self or an employee's illness of contagious nature so that preventive actions can be planned for others
Knowledge and Understanding (•
Element	Knowledge and Understanding
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to Health, Safety and Environment followed in the company
A. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. basic knowledge of Safety procedures(fire fighting, first aid)within the organization KB2. basic knowledge of various types of PPEs and their usage KB3. basic knowledge of risks associated with each occupation in the organization KB4. knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment
Skills (S)w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills Writing Skills	
	The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations Reading Skills
	The user/individual on the job needs to know and understand how to: SA2. read safety instructions put up acrothe plant premises SA3. read safety precautions mentioned in equipment manuals and panels to understand the potential risks associate with the equipment Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA4. effectively communicate information to team members and Inform employees in the plant and concerned functions about potentials Safety, Health and Environment related risks observed SA5. question operator/ supervisor in order to understand the safety related issues SA6. attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
B. Professional Skills	Judgmental Thinking
	The user/individual on the job needs to know and understand how to: SB1. use common sense and make judgments during day to day basis







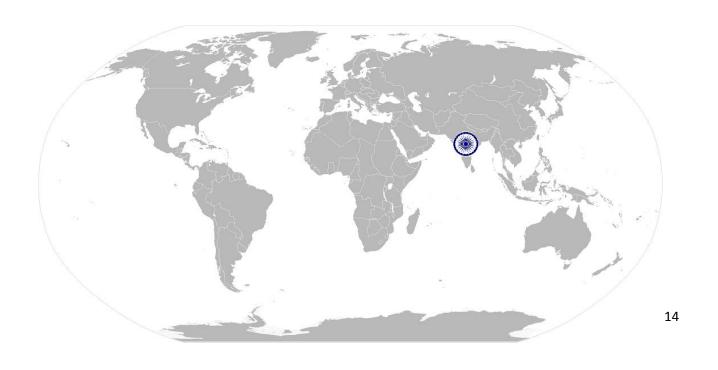


Maintain 5S at the work premises

CDO	use reasoning skills to identify	y and recolve bacic problems
JUZ.	use reasoning skins to lucitin	y aliu resolve basic problems

NOS Version Control

NOS Code	ASC/N0021			
Credits(NSQF)	TBD	Version number	1.0	
Industry	Automotive	Drafted on	13/08/13	
Industry Sub-sector	Manufacturing Support	Last reviewed on	27/08/13	
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15	





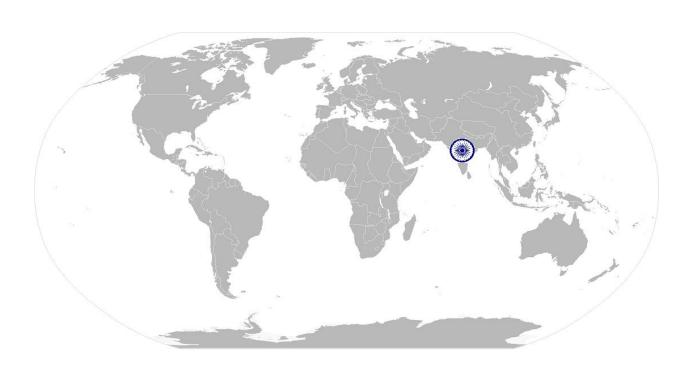






ASC/N0006 Maintain a safe and healthy working environment

National Occupational Standard



Overview

This unit is about the understanding all principles of 5S and follow the given guidelines to ensure a clean and efficient working environment in the organization









Unit Code	ASC/N 0006
Unit Title	
(Task)	
	Maintain a safe and healthy working environment
Description	This NOS is about ensuring all 5 S activities both at the shop floor and the
	office area to facilitate increase in work productivity
Scope	The individual needs to
	Ensure sorting, streamlining & organizing, storage and
	documentation, cleaning, standardization and sustenance across
	the plant and office premises of the organization
Performance Criteria (PC) w.	r.t. the Scope
Element	Performance Criteria
Ensure sorting	PC1. Follow the sorting process and check that the tools, fixtures & jigs
	that are lying on workstations are the ones in use and un-necessary
	items are not cluttering the workbenches or work surfaces.
	PC2. Ensure segregation of waste in hazardous/ non Hazardous waste as
	per the sorting work instructions
	PC3. Follow the technique of waste disposal and waste storage in the
	proper bins as per SOP PC4. Segregate the items which are labeled as red tag items for the
	process area and keep them in the correct places
	PC5. Sort the tools/ equipment/ fasteners/ spare parts as per
	specifications/ utility into proper trays, cabinets, lockers as
	mentioned in the 5S guidelines/ work instructions
	PC6. Ensure that areas of material storage areas are not overflowing
	PC7. Properly stack the various types of boxes and containers as per the
	size/ utility to avoid any fall of items/ breakage and also enable
	easy sorting when required
	PC8. Return the extra material and tools to the designated sections and
	make sure that no additional material/tool is lying near the work
	area
	PC9. Follow the floor markings/ area markings used for demarcating the
	various sections in the plant as per the prescribed instructions and standards
Ensura proper	PC10. Follow the proper labeling mechanism of instruments/ boxes/
Ensure proper documentation and storage	containers and maintaining reference files/ documents with the
(organizing , streamlining)	codes and the lists
(PC11. Check that the items in the respective areas have been identified as
	broken or damaged
	PC12. Follow the given instructions and check for labeling of fluids, oils.
	lubricants, solvents, chemicals etc. and proper storage of the same
	to avoid spillage, leakage, fire etc.
	PC13. Make sure that all material and tools are stored in the designated
	places and in the manner indicated in the 5S instructions









Ensure cleaning of self and	PC14. Check whether safety glasses are clean and in good condition
the work place	PC15. Keep all outside surfaces of recycling containers are clean
•	PC16. Ensure that the area has floors swept, machinery clean and
	generally clean. In case of cleaning, ensure that proper displays are
	maintained on the floor which indicate potential safety hazards
	PC17. Check whether all hoses, cabling & wires are clean, in good
	condition and clamped to avoid any mishap or mix up
	PC18. Ensure workbenches and work surfaces are clean and in good
	condition
	PC19. Follow the cleaning schedule for the lighting system to ensure
	proper illumination
	PC20. Store the cleaning material and equipment in the correct location
	and in good condition
	PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves,
	clean helmets, personal hygiene
Ensure sustenance	PC1. Follow the daily cleaning standards and schedules to create a
	clean working environment
	PC2. Attend all training programs for employees on 5 S
	PC3. Support the team during the audit of 5 S
	PC4. Participate actively in employee work groups on 5S and encourage
	team members for active participation
	PC5. Follow the guidelines for What to do What not to do to build sustainability in 5S as mentioned in the 5S check lists/ work
	Sustainability in 55 as mentioned in the 55 check lists/ work
Knowledge and Understandi	instructions
Knowledge and Understanding	instructions
Element	instructions ng (K) w.r.t. the scope
	instructions ng (K) w.r.t. the scope Knowledge and Understanding
A. Organizational Context (Knowledge of	instructions ng (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand:
A. Organizational Context (Knowledge of the company /	instructions ng (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S
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A. Organizational Context (Knowledge of the company / organization and its	instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company
A. Organizational Context (Knowledge of the company / organization and its processes)	instructions ng (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to:
A. Organizational Context (Knowledge of the company / organization and its processes)	instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team
A. Organizational Context (Knowledge of the company / organization and its processes)	instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items
A. Organizational Context (Knowledge of the company / organization and its processes)	Instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items KB5. have knowledge of labels , signs & colors used as indicators
A. Organizational Context (Knowledge of the company / organization and its processes)	Instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items KB5. have knowledge of labels, signs & colors used as indicators KB6. Have knowledge on how to sort and store various types of tools,
A. Organizational Context (Knowledge of the company / organization and its processes)	Instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items KB5. have knowledge of labels , signs & colors used as indicators KB6. Have knowledge on how to sort and store various types of tools, equipment, material etc.
A. Organizational Context (Knowledge of the company / organization and its processes)	Instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1, relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items KB5. have knowledge of labels , signs & colors used as indicators KB6. Have knowledge on how to sort and store various types of tools, equipment, material etc. KB7. know , how to identify various types of waste products
A. Organizational Context (Knowledge of the company / organization and its processes)	Instructions Ing (K) w.r.t. the scope Knowledge and Understanding The user/individual on the job needs to know and understand: KA1. relevant standards, procedures and policies related to 5S followed in the company The user/individual on the job needs to: KB1. have basic knowledge of 5S procedures KB2. know various types 5s practices followed in various areas KB3. understand the 5S checklists provided in the department/ team KB4. have skills to identify useful & non useful items KB5. have knowledge of labels , signs & colors used as indicators KB6. Have knowledge on how to sort and store various types of tools, equipment, material etc. KB7. know , how to identify various types of waste products KB8. understand the impact of waste/ dirt/ dust/unwanted substances
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Skills (S)w.r.t. the scope	KB11. understand the importance of sustainability in 5S KB12. have knowledge of TQM process KB13. have knowledge of various materials and storage norms KB14. understand visual controls, symbols, graphs etc. Skills
Element	
A. Core Skills/ Generic Skills	Writing Skills The user/ individual on the job needs to know and understand how to: SA1. write basic level notes and observations SA2. note down observations (if any) related to the process SA3. write information documents to internal departments/ internal teams
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA4. read 5S instructions put up across the plant premises
	Oral Communication (Listening and Speaking skills)
B. Professional Skills	The user/individual on the job needs to know and understand how to: SA5. effectively communicate information to team members inform employees in the plant and concerned functions about 5S SA6. question the process head in order understand the 5S related issues SA7. attentively listen with full attention and comprehend the information given by the speaker during 5S training programs Judgmental Thinking
	The user/individual on the job needs to know and understand how to: SB1. use common sense and make judgments during day to day basis SB2. use reasoning skills to identify and resolve basic problems using SS
	Persuasion
	The user/ individual on the jobs needs to know and understand how to: SB3. persuade co team members to follow 5 S SB4. ensure that the co team members understand the importance of using 5 S tool
	Creativity
	The user/individual on the job needs to know and understand how to: SB5. use innovative skills to perform and manage 5 S activities at the work desk and the shop floor SB6. exhibit inquisitive behavior to seek feedback and question on the existing set patterns of work
	Self –Discipline

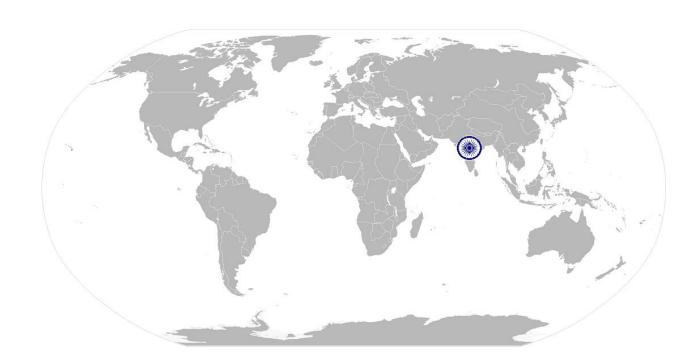








The user/individual on the job needs to know and understand how to:
SB7. do what is right, not what is a popular practices
SB8. follow shop floor rules& regulations and avoid deviations; make
5S an integral way of life
SB9. ensure self-cleanliness on a daily basis
SB10. demonstrate the will to keep the work area in a clean and orderly
manner







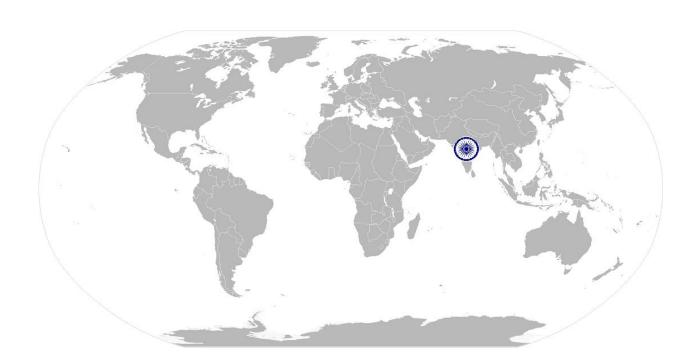




Maintain a safe and healthy working environment

NOS Version Control

NOS Code	ASC/N0006			
Credits(NSQF)	TBD	Version number	1.0	
Industry	Automotive	Drafted on	13/08/13	
Industry Sub-sector	Manufacturing/ R&D	Last reviewed on	27/08/13	
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15	









Criteria for assessment of Trainees

Job Role: - QC Inspector Level 3

Qualification Pack: - ASC/Q 6301

Sector Skill Council Automotive Skills Development

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. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
- 4. To pass the Qualification Pack, every trainee should score a minimum of 65% of aggregate marks to successfully clear the assessment.
- 5. In case of *unsuccessful completion*, the trainee may seek reassessment on the Qualification Pack.

Assessable Outcomes	Assessment Criteria of Outcomes	Total Marks	Out Of	Theory	Skills Pract ical
ASC/N6301(Inspect and maintain the product quality)- Inspection of final product	PC1. Conduct the process of Inspection at the stages: • complete dimensional /Layout Inspection at development stage & later as per the periodicity such as annual for re- validation • in the Production phase as per the CP/ Quality plan/ sampling Plan/ stage inspection plans/ First off IR	100	9	2	7
	PC2. Handle Inspection equipment and Instruments such as • vernier, micrometers • height Gauge & surface plate • acceptance/ Combination Gauges • simple gauges – bore, air, profile for safe storage, calibration at pre-decided frequency and have an acceptable level of R & R as per SOP of the organization		9	2	7
	PC3. Conduct a inspection of the product covering the following checkpoints: • visual Inspection of the part for scratches, dents , damages, packing as per the norms etc. • special inspection co-ordinated with other agencies e.g. Lab :Material, Lab: Standards Room, assembly / performance trials etc. • identification sticker/number/label placed on		9	2	7







	the product				
	 functioning of the product and its components 				
	 documentation pertaining to the Quality 				
	PC4. Coordinate with the respective process		7	2	5
	owners / seniors in qa and implement capa for				
	discrepancies in the parameters identified in the				
	report on immediate basis				
	PC5. Carticipate in checking the effectiveness of		7	2	5
	implementation and repeat the process till the				
	discrepancies are resolved				
	PC6. Cocument the observations of the		5	2	3
	inspection and maintain records of				
	PC7.Ir, erp-system record and special process		5	2	3
	capability index calculation/ charting as per the			_	
	sop raise a scrap note and dispose of the				
	scrapped product in the scrap yard as per the				
	defined procedure maintaining the hse				
	compliance				
	PC8. As is the case i.e. new product/process		5	2	3
	development / production phase, the reports and				
	part submission warrant, ppap are to be				
	prepared.				
	PC9. Based on the implementation of information		5	2	3
	flow system in organization like erp/sap , upload				
	the reports				
Dock audit of the	PC10. Conduct a dock audit of a sample batch		6	2	4
sample batch	from the production lot of the ready to dispatch				
	final products covering the following checkpoints:				
	• product in good shape with no visible damage				
	• presence of sharp edges in the product				
	wear and tear of the product				
	 presence of any physical defects 				
	 packaging of product according to customer 				
	specification				
	 packaging boxes as per the requirement for 				
	preservation				
	• customer PO Number on the shipping labels				
	boxes labeled correctly with packer name				
	count on the Bill of Lading match the count on				
	the pallet				
	boxes stacked neatly in case of pallet				
	arrangement				
	 damages of the pallet like nails sticking out, 				
	broken boards, etc				
	PC11. Coordinate with the respective process		6	2	4
	owners/stores and implement capa for				
	discrepancies identified in the dock audit on				
	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u> </u>	·	·	1







	immediate basis		. <u></u>		
		-			
	PC12. Review the effectiveness of		6	2	4
	implementation and repeat the process till the		ļ		
	discrepancies are resolved	-	2		
	PC13. Document the observations of dock audit		3	1	2
	and maintain records]			
	PC14. Based on the implementation of		3	1	2
	information flow system in organization like		 -		
	erp/sap, upload the reports]		<u> </u>	
Coordination with	PC15. Work as a cft member of the team formed		4	1	3
R&D / Quality	for solving a problem pertaining to the products		 -		
Manager CAPA, CI	handled .collect data regarding the problem as		 -		
	decided in the team discussions	<u> </u>			
	PC16. Participate for preparation of fault tree,		4	1	3
	conducting simulation and implementation of		 -		
	actions				
	PC17. Participate for updating relevant		3	1	2
	documentation		ļ		
	PC18. Assist the npd department in efficient		3	1	2
	development of the new product by sharing all		 -		
	the problems related to qcd observed in the		ļ		
	existing products		ļ		
			100	30	70
ASC/N0021(Maintain	PC1. Follow the sorting process and check that	100	4	1	3
5S at the work	the tools, fixtures & jigs that are lying on		ļ		
premises)-Ensure	workstations are the ones in use and unnecessary		 -		
sorting	items are not cluttering the workbenches or work		 -		
	surfaces.		ļ		
	PC2.Ensure segregation of waste in hazardous/	1	4	1	3
	non hazardous waste as per the sorting work		·		
	instructions		 -		
	PC3. Follow the technique of waste disposal and	1	4	1	3
	waste storage in the proper bins as per sop		·		
	PC4. Segregate the items which are labelled as	1	4	1	3
	red tag items for the process area and keep them		f	1	
	in the correct places				
	PC5. Sort the tools/ equipment/ fasteners/ spare	1	4	1	3
	parts as per specifications/ utility into proper		+	1	3
	trays, cabinets, lockers as mentioned in the 5s				
	guidelines/ work instructions	1	4	1	3
	PC6. Ensure that areas of material storage areas		4	1	3
	are not overflowing	-	4	1	3
	PC7. Properly stack the various types of boxes		4	1	3
	and containers as per the size/ utility to avoid any		ļ		
1	fall of items/ breakage and also enable easy			ı	1
	sorting when required	l	' 		







PC8. Return the extra material and tools to the designated sections and make sure that no additional material/ tool is lying near the work		4	1	3
PC9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and		4	1	3
PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists		4	1	3
PC11. Check that the items in the respective areas have been identified as broken or damaged	-	4	1	3
PC12. Follow the given instructions and check for labelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc		4	1	3
PC13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions		4	1	3
PC14. Check whether safety glasses are clean and in good condition		4	1	3
PC15. Keep all outside surfaces of recycling containers are clean		4	1	3
PC16. Ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential safety hazards		4	1	3
PC17. Check whether all hoses, cabling & wires are clean, in goodcondition and clamped to avoid any mishap or mix up		4	1	3
PC18. Ensure workbenches and work surfaces are clean and in good condition		4	1	3
PC19. Follow the cleaning schedule for the lighting system to ensure proper illumination		4	1	3
PC20. Store the cleaning material and equipment in the correct location and in good condition		4	1	3
PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene		4	1	3
PC22. follow the daily cleaning standards and schedules to create a clean working environment		4	1	3
PC23. attend all training programs for employees on 5 s		2.5	0.5	2
Case L Ksei r te e e e e e e e e e e e e e e e e e	designated sections and make sure that no additional material/ tool is lying near the work area PC9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists PC11. Check that the items in the respective areas have been identified as broken or damaged pc12. Follow the given instructions and check for abelling of fluids, oils. Iubricants, solvents, themicals etc. and proper storage of the same to avoid spillage, leakage, fire etc PC13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions PC14. Check whether safety glasses are clean and in good condition PC15. Keep all outside surfaces of recycling containers are clean PC16. Ensure that the area has floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential affecty hazards PC17. Check whether all hoses, cabling & wires are clean, in goodcondition and clamped to avoid any mishap or mix up PC18. Ensure workbenches and work surfaces are clean and in good condition PC19. Follow the cleaning schedule for the ighting system to ensure proper illumination PC20. Store the cleaning material and equipment in the correct location and in good condition PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal nygiene PC22. follow the daily cleaning standards and chedules to create a clean working environment process. Attend all training programs for employees	designated sections and make sure that no additional material/ tool is lying near the work area PC9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists PC11. Check that the items in the respective areas have been identified as broken or damaged areas in the given instructions and check for abelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc PC13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5s instructions PC14. Check whether safety glasses are clean and in good condition PC15. Keep all outside surfaces of recycling containers are clean PC16. 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Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and ditandards 2010. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists 2011. Check that the items in the respective areas have been identified as broken or damaged areas have broken identified as broken or damaged areas have broken and in the manner indicated in the 5s instructions 2014. Check whether safety glasses are clean and in good condition 2015. Keep all outside surfaces of recycling areas areas have floors swept, machinery clean and generally clean. in case of cleaning, ensure that proper displays are maintained on the floor which indicate potential lafety hazards 2017. Check whether all hoses, cabling & wires are clean, in good condition 2019. Follow the cleaning schedule for the ighting system to ensure proper illumination 2019. Follow the cleaning material and equipment in the correct location and in good condition 2019. Fol	designated sections and make sure that no additional material/ tool is lying near the work area 2C9. Follow the floor markings/ area markings used for demarcating the various sections in the obant as per the prescribed instructions and standards 2C10. Follow the proper labeling mechanism of effection following the various sections in the obant as per the prescribed instructions and standards 2C10. Follow the proper labeling mechanism of effection following the various sections in the obant as per the prescribed instructions and maintaining reference files/ documents with the codes and he lists 2C11. Check that the items in the respective areas have been identified as broken or damaged effects. Follow the given instructions and check for abelling of fluids, oils. lubricants, solvents, chemicals etc. and proper storage of the same to shoot spillage, leakage, fire etc. 2C13. 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Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene. 2C22. follow the daily cleaning standards and chedules to create a clean working environment.







	DCC4 suppose the teams during the guidit of Fig.		4	1	3
	PC24. support the team during the audit of 5 s			_	
	PC25. participate actively in employee work		2.5	0.5	2
	groups on 5s and encourage team members for				
	active participation				
	PC26. follow the guidelines for what to do and		3	1	2
	what not to do to build sustainability in 5s as				
	mentioned in the 5s check lists/ work instructions				
			100	25	75
ASC/N0006(Maintain	PC1.Identify activities which can cause potential	100	9	3	6
a safe and healthy	injury through sharp objects, burns, fall,				
working	electricity, gas leakages, radiation, poisonous				
environment)-	fumes, chemicals ,loud noise				
Identify and report	PC2. Inform the concerned authorities about the		8	2	6
the risks identified	potential risks identified in the processes,				
	workplace area/ layout, materials used etc				
	PC3. Inform the concerned authorities about		8	2	6
	machine breakdowns, damages which can				
	potentially harm man/ machine during				
	operations				
	PC4. Create awareness amongst other by sharing		6	1	5
	information on the identified risks				
Create and sustain a	PC5. Follow the instructions given on the		10	3	7
Safe, clean and	equipment manual describing the operating				
environment friendly	process of the equipments				
work place	PC6. Follow the Safety, Health and Environment		11	3	8
, ,	related practices developed by the organization				
	PC7. Operate the machine using the		11	3	8
	recommended Personal Protective Equipments				
	(PPE)				
	PC8. Maintain a clean and safe working		10	2	8
	environment near the work place and ensure				
	there is no spillage of chemicals, production				
	waste, oil, solvents etc				
	PC9. Maintain high standards of personal hygiene		9	2	7
	at the work place				
	PC10. Ensure that the waste disposal is done in		11	3	8
	the designated area and manner as per			-	
	organization SOP.				
	PC11. Inform appropriately the medical officer/		7	1	6
	HR in case of self or an employee's illness of				
	contagious nature so that preventive actions can				
	be planned for others				
			100	25	75