

QUALIFICATIONS 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 4

SECTOR: AUTOMOTIVE

SUB-SECTOR: MANUFACTURING SUPPORT

OCCUPATION: QUALITY ASSURANCE

JOB ROLE: QC INSPECTOR LEVEL 4

REFERENCE ID: ASC/Q6303

ALIGNED TO: NCO-2004/Nil

Brief Job Description: Individuals at this job need to be responsible for the quality control 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

Job Details	Qualifications Pack Code	ASC/Q 6303		
	Job Role	QC Inspector- L4		
	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	05/08/15		

Job Role	QC Inspector- L4
Role Description	inspecting the manufactured products as per the quality standards and implementation of corrective actions
NSQF level	4
Minimum Educational Qualifications*	ITI in Mechanical/Electrical/Electronic Engineering (Product content based)
Maximum Educational Qualifications*	Not Applicable
Training (Suggested but not mandatory)	<ul style="list-style-type: none"> 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	<p>1 ASDC recommends that candidates should seek full employment not before attaining an age of 18 years.</p> <p>2 However, as per Factories Act 1948 :</p> <ul style="list-style-type: none"> - 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. <p>3 Please note that under the Factories Act 1948, different States may have slightly varying provision which need to be adhered to.</p>
Experience	<ul style="list-style-type: none"> minimum 2-4years in Quality/ Manufacturing department or ASDC QC Inspector Level 3 certificate
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <ol style="list-style-type: none"> ASC/N 6301: Inspect and maintain the product quality and implement corrective action ASC/N 0021: 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

Definitions

Keywords /Terms	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

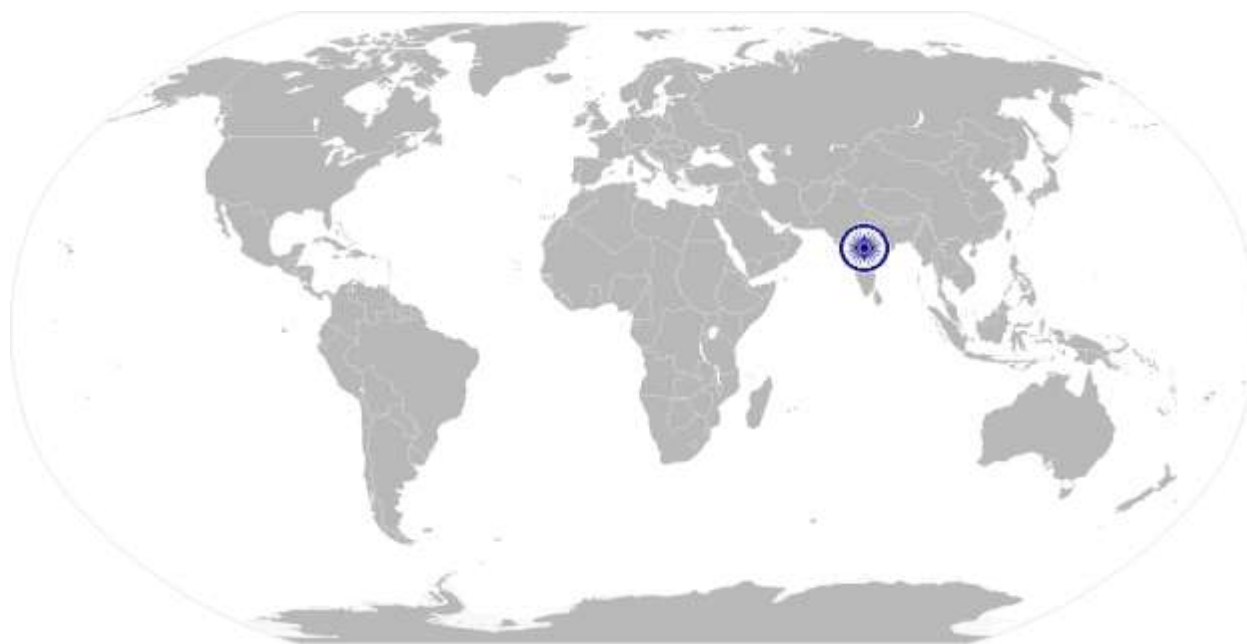
Acronyms

	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
PO	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
TOPS	Team Oriented Problem Solving

ASC/N6303

Inspect and maintain the product quality and implement corrective action

National Occupational Standards



Overview

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

ASC/N6303

Inspect and maintain the product quality and implement corrective action

National Occupational Standard

Unit Code	ASC/N6303
Unit Title (Task)	Inspect and maintain the product quality and implement corrective action
Description	This OS unit is about the individual monitoring and maintaining the quality of the products
Scope	<p>The unit/ task covers the following for Receipt, In Process , Final Inspection:</p> <ul style="list-style-type: none"> • pre- delivery inspection of the product • pre-PPAP audit of the pilot batch • coordinate with R&D QA for FMEA /CP , failures, CAPA & CI issues
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Inspection of final product	<p>To be competent, the user/individual on the job must be able to :</p> <p>PC1. maintain and preserve following samples for monitoring product quality</p> <ul style="list-style-type: none"> • master sample for PPAP • inspected batch samples • reference samples for the defect library <p>PC2. conduct the process of Inspection at the stages :</p> <ul style="list-style-type: none"> • 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 <p>PC3. have an acceptable level of R & R for handling inspection equipment and instruments such as</p> <ul style="list-style-type: none"> • vernier, micrometers • height Gauge & surface plate , slip gauges • acceptance/ Combination Gauges • gauges – Bore, Air , Profile , Dial • instruments/ equipments such as surface roughness tester, roundness etc. • co-ordinate measurement machine (CMM) <p>PC4. have an elementary understanding of Calibration system for the measuring instruments and ensure getting the equipment/ gauges etc calibrated with the support of QA Standards Room or external agency</p> <p>PC5. conduct an inspection of the product covering the following checkpoints:</p> <ul style="list-style-type: none"> • visual Inspection of the part for scratches, dents , damages, packing as per the norms etc. • special inspection using precision measuring equipment,

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	<p>performance trials etc.</p> <ul style="list-style-type: none"> • identification sticker/number/label placed on the product • functioning of the product and its components • review material inspection report from the lab to verify acceptance • documentation pertaining to the Quality <p>PC6. coordinate with the respective process owners and implement CAPA for discrepancies in the parameters identified in the IR on immediate basis</p> <p>PC7. review the effectiveness of implementation and repeat the process till the discrepancies are resolved</p> <p>PC8. document the observations of the Inspection and maintain records such as IR, ERP-System record and special process capability index calculation/ charting as per the SOP</p> <p>PC9. raise a scrap note and dispose off the scrapped product in the scrap yard as per the defined procedure maintaining the HSE compliance as is the case i.e. New product/process development / Production phase , the reports and Part Submission Warrant, PPAP are to be prepared</p> <p>based on the implementation of information flow system in organization like ERP/SAP , upload the reports</p>
<p>Pre PPAP Audit (as a team member)</p>	<p>To be competent , the user/individual on the job must be able to conduct a readiness audit of the production line as a team member by participating in the verification of</p> <p>PC10. First Off Inspection Report, CP for coverage of parameters</p> <p>PC11. stage Inspection & Process capability Charts</p> <p>PC12. availability of validated gauges,</p> <p>PC13. R & R</p> <p>PC14. training of Production Technicians to the CP</p> <p>PC15. documentation formats</p>
<p>Coordination with R&D / Quality Manager CP,FMEA CAPA , CI</p>	<p>To be competent , the user/individual on the job must be able to:</p> <p>PC16. work as a CFT member of the team formed for PFMEA,CP & solving a problem pertaining to the products handled .collect data regarding the problem as decided in the</p> <p>PC17. team discussions participate for preparation of Fault tree , conducting simulation and implementation of actions</p> <p>PC18. participate for updating relevant documentation</p> <p>PC19. assist the NPD department in efficient development of the new product by</p> <p>PC20. sharing all the problems related to QCD observed in the existing products</p> <p>PC21. identify opportunities for improvements in process based on trends or</p> <p>PC22. observations in PC -charts, tool Life , poka yoke, reduction in non value added (NVA) activities & put these up for consideration to senior management</p>
<p>Knowledge and Understanding (K)</p>	
<p>A. Organizational Context (Knowledge of the company /</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. product portfolio of organization</p> <p>KA2. the manufacturing processes of organization</p> <p>KA3. material classification criteria followed by organization</p> <p>KA4. policies and procedures for storage and preservation of materials</p>

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organization and its processes)	<p>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</p>
B. Technical Knowledge	<p>The individual on the job needs to have elementary knowledge of the following so as to interpret the Quality Requirements :</p> <p>KB1. manufacturing process being followed for each product KB2. Inspection check points for NPD, Production, Dock Audit etc. KB3. APQP , PFMEA, CP KB4. Problem solving & analysis tools like 8Ds, five why analysis etc. KB5. RCA analysis techniques KB6. requirements for PPAP KB7. requirements for TS-16949/QMS system followed KB8. NC report format KB9. testing equipments operational knowledge KB10. information systems like SAP, ERP etc.</p>
Skills (S)	
A. Core Skills/ Generic Skills	Reading and Writing skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. document the PDI 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</p>
	Communication skills
	<p>The user/ individual on the job needs to know and understand how to communicate with:</p> <p>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</p>
	Teamwork and multitasking
<p>The user/ individual on the job needs to know and understand how to:</p> <p>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</p>	
B. Professional Skills	Critical thinking
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SB1. coordinate with the process owners and devise countermeasures for effective handling of the issues and discrepancies</p>

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Inspect and maintain the product quality and implement corrective action

	<p>SB2. understand and analyze the inspection report for providing inputs to NPD department for new product development</p> <p>SB3. interpret the customer (Internal / external) feedback and translate it into the development of the new product in coordination with NPD department</p> <p>SB4. identify problems (technical and non-technical), disruptions and delays</p> <p>SB5. develop understanding of the process used in the manufacturing of the product & downstream application to graduate to the next /supervisory role</p>
	<p>Problem Solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. think through and devise the countermeasure for resolution for any quality related issue observed</p> <p>SB7. work on actions to be taken on immediate basis in case of frequent rejections</p> <p>SB8. devise and implement interim/permanent countermeasures for the non-conformities observed in the field failures/warranty issues using analysis tools viz. TOPS, 8Ds etc.</p>
	<p>Reflective thinking</p>
	<p>The user/individual on the job needs to know how to:</p> <p>SB9. analyze the interim countermeasures taken for the resolution of non-conformities observed in the product inspection and dock audit to accordingly devise the permanent countermeasures for prevention from re-occurrence</p>



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Inspect and maintain the product quality and implement corrective action

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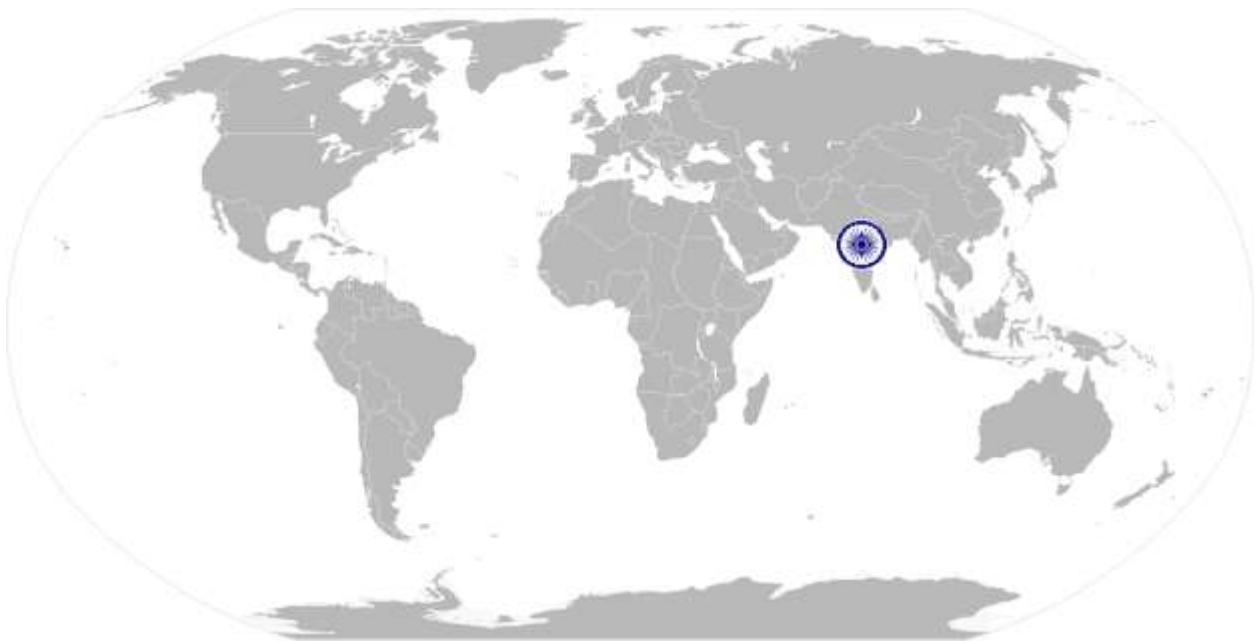
NOS Code	ASC/N6303		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	13/08/13
Industry Sub-sector	Manufacturing Support	Last reviewed on	27/08/13
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15



ASC/N0021

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

ASC/N0021

Maintain 5S at the work premises

National Occupational Standard	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: <ul style="list-style-type: none"> customer quality assurance Types of products <ul style="list-style-type: none"> individual child parts part assemblies final products
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Identify and report the risks identified	To be competent , the user/individual on the job must be able to : <ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 PC11. inform appropriately the medical officer/ HR in case of self or an

ASC/N0021

Maintain 5S at the work premises

	employee's illness of contagious nature so that preventive actions can be planned for others
Knowledge and Understanding (K)w.r.t. the scope	
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 across the 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 SB2. use reasoning skills to identify and resolve basic problems

ASC/N0021

Maintain 5S at the work premises

NOS Version Control

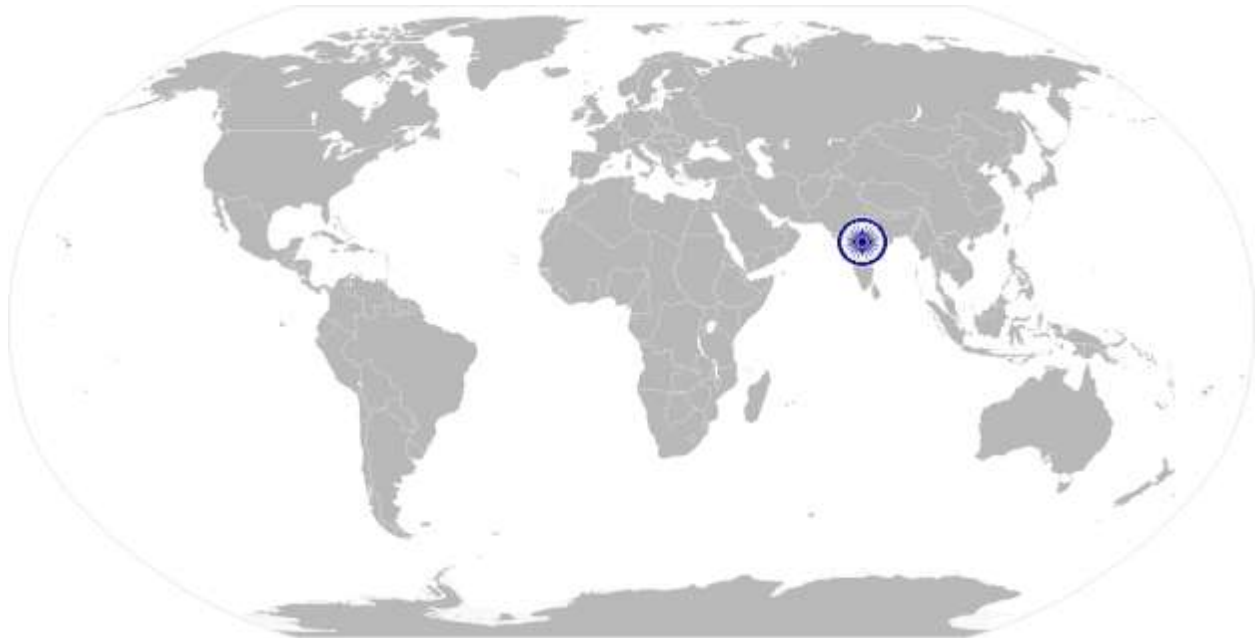
NOS Code	ASC/N0021		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	13/08/13
Industry Sub-sector	Manufacturing Support	Last reviewed on	27/08/13
Occupation	Quality Assurance	Next review date	Under revision expected date of revised version 31-Dec-15



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

ASC/N0006

Maintain a safe and healthy working environment

National Occupational Standard

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 <ul style="list-style-type: none"> 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	<p>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.</p> <p>PC2. Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions</p> <p>PC3. Follow the technique of waste disposal and waste storage in the proper bins as per SOP</p> <p>PC4. Segregate the items which are labeled as red tag items for the process area and keep them in the correct places</p> <p>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</p> <p>PC6. Ensure that areas of material storage areas are not overflowing</p> <p>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</p> <p>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</p> <p>PC9. Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards</p>
Ensure proper documentation and storage (organizing, streamlining)	<p>PC10. Follow the proper labeling mechanism of instruments/ boxes/ containers and maintaining reference files/ documents with the codes and the lists</p> <p>PC11. Check that the items in the respective areas have been identified as broken or damaged</p> <p>PC12. Follow the given instructions and check for labeling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same</p>

ASC/N0006

Maintain a safe and healthy working environment

	<p>to avoid spillage, leakage, fire etc.</p> <p>PC13. Make sure that all material and tools are stored in the designated places and in the manner indicated in the 5S instructions</p>
Ensure cleaning of self and the work place	<p>PC14. Check whether safety glasses are clean and in good condition</p> <p>PC15. Keep all outside surfaces of recycling containers are clean</p> <p>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</p> <p>PC17. Check whether all hoses, cabling & wires are clean, in good condition and clamped to avoid any mishap or mix up</p> <p>PC18. Ensure workbenches and work surfaces are clean and in good condition</p> <p>PC19. Follow the cleaning schedule for the lighting system to ensure proper illumination</p> <p>PC20. Store the cleaning material and equipment in the correct location and in good condition</p> <p>PC21. Ensure self-cleanliness - clean uniform, clean shoes, clean gloves, clean helmets, personal hygiene</p>
Ensure sustenance	<p>PC1. Follow the daily cleaning standards and schedules to create a clean working environment</p> <p>PC2. Attend all training programs for employees on 5 S</p> <p>PC3. Support the team during the audit of 5 S</p> <p>PC4. Participate actively in employee work groups on 5S and encourage team members for active participation</p> <p>PC5. Follow the guidelines for What to do and What not to do to build sustainability in 5S as mentioned in the 5S check lists/ work instructions</p>
Knowledge and Understanding (K) w.r.t. the scope	
Element	Knowledge and Understanding
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. relevant standards, procedures and policies related to 5S followed in the company</p>
B. Technical Knowledge	<p>The user/individual on the job needs to :</p> <p>KB5. have basic knowledge of 5S procedures</p> <p>KB6. know various types 5s practices followed in various areas</p> <p>KB7. understand the 5S checklists provided in the department/ team</p> <p>KB8. have skills to identify useful & non useful items</p> <p>KB9. have knowledge of labels , signs & colors used as indicators</p> <p>KB10. Have knowledge on how to sort and store various types of tools, equipment, material etc.</p> <p>KB11. know , how to identify various types of waste products</p>

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Maintain a safe and healthy working environment


	<p>KB12. understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body</p> <p>KB13. have knowledge of best ways of cleaning & waste disposal</p> <p>KB14. understand the importance of standardization in processes</p> <p>KB15. understand the importance of sustainability in 5S</p> <p>KB16. have knowledge of TQM process</p> <p>KB17. have knowledge of various materials and storage norms</p> <p>KB18. understand visual controls, symbols, graphs etc.</p>
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: SA7. write basic level notes and observations SA8. note down observations (if any) related to the process SA9. write information documents to internal departments/ internal teams
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA10. read 5S instructions put up across the plant premises
	Oral Communication (Listening and Speaking skills)
The user/individual on the job needs to know and understand how to: SA11. effectively communicate information to team members inform employees in the plant and concerned functions about 5S SA12. question the process head in order to understand the 5S related issues SA13. attentively listen with full attention and comprehend the information given by the speaker during 5S training programs	
B. Professional Skills	Judgmental Thinking
	The user/individual on the job needs to know and understand how to: SB3. use common sense and make judgments during day to day basis SB4. use reasoning skills to identify and resolve basic problems using 5S
	Persuasion
	The user/ individual on the jobs needs to know and understand how to: SB5. persuade co team members to follow 5 S SB6. ensure that the co team members understand the importance of using 5 S tool
	Creativity

ASC/N0006

Maintain a safe and healthy working environment

	<p>The user/individual on the job needs to know and understand how to :</p> <p>SB7. use innovative skills to perform and manage 5 S activities at the work desk and the shop floor</p> <p>SB8. exhibit inquisitive behavior to seek feedback and question on the existing set patterns of work</p>
	<p>Self –Discipline</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. do what is right, not what is a popular practices</p> <p>SB10. follow shop floor rules& regulations and avoid deviations; make 5S an integral way of life</p> <p>SB11. ensure self-cleanliness on a daily basis</p> <p>SB12. demonstrate the will to keep the work area in a clean and orderly manner</p>

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

Qualification Pack for QC Inspector L4

Criteria for assessment of Trainees

JOB ROLE	QC Inspector L4
Qualification Pack	ASC/Q 6303
No. Of NOS	1 Role specific ,2 generic

NOS Title/ NOS Elements	NOS & Performance Criterion Description	Theory	Marks allocation	
			Viva	Practical
ASC/N6303	Inspect and maintain the product quality and implement corrective action			
Inspection of final product	To be competent, the user/individual on the job must be able to : PC1. maintain and preserve following samples for monitoring product quality <ul style="list-style-type: none"> • master sample for PPAP • inspected batch samples • reference samples for the defect library 		10	30
	PC2. conduct the process of Inspection at the stages : <ul style="list-style-type: none"> • 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 		10	40
	PC3. have an acceptable level of R & R for handling inspection equipment and instruments such as <ul style="list-style-type: none"> • vernier, micrometers • height Gauge & surface plate , slip gauges • acceptance/ Combination Gauges • gauges – Bore, Air , Profile , Dial • instruments / equipments such as surface roughness tester, roundness etc. • co-ordinate measurement machine (CMM) 		20	-
	PC4. have an elementary understanding of Calibration system for the measuring instruments and ensure getting the equipment/ gauges etc calibrated with the support of QA Standards Room or external agency		10	30

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	<p>PC5. conduct an inspection of the product covering the following checkpoints:</p> <ul style="list-style-type: none"> • visual Inspection of the part for scratches, dents , damages, packing as per the norms etc. • special inspection using precision measuring equipment, performance trials etc. • identification sticker/number/label placed on the product • functioning of the product and its components • review material inspection report from the lab to verify acceptance • documentation pertaining to the Quality <p>PC6. coordinate with the respective process owners and implement CAPA for discrepancies in the parameters identified in the IR on immediate basis</p> <p>PC7. review the effectiveness of implementation and repeat the process till the discrepancies are resolved</p> <p>PC8. document the observations of the Inspection and maintain records such as IR, ERP-System record and special process capability index calculation/ charting as per the SOP</p> <p>PC9. raise a scrap note and dispose off the scrapped product in the scrap yard as per the defined procedure maintaining the HSE compliance as is the case i.e. New product/process development / Production phase , the reports and Part Submission Warrant, PPAP are to be prepared based on the implementation of information flow system in organization like ERP/SAP , upload the reports</p>		30	50
<p>Pre PPAP Audit (as a team member)</p>	<p>To be competent , the user/individual on the job must be able to conduct a readiness audit of the production line as a team member by participating in the verification of</p> <p>PC10. First Off Inspection Report, CP for coverage of parameters</p> <p>PC11. stage Inspection & Process capability Charts</p> <p>PC12. availability of validated gauges,</p>		40	80

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	<p>PC13. R & R</p> <p>PC14. training of Production Technicians to the CP</p> <p>PC15. documentation formats</p>			
<p>Coordination with R&D / Quality Manager CP,FMEA CAPA , CI</p>	<p>To be competent , the user/individual on the job must be able to:</p> <p>PC16. work as a CFT member of the team formed for PFMEA,CP & solving a problem pertaining to the products handled .collect data regarding the problem as decided in the</p> <p>PC17. team discussions participate for preparation of Fault tree , conducting simulation and implementation of actions</p> <p>PC18. participate for updating relevant documentation</p> <p>PC19. assist the NPD department in efficient development of the new product by</p> <p>PC20. sharing all the problems related to QCD observed in the existing products</p> <p>PC21. identify opportunities for improvements in process based on trends or</p> <p>PC22. observations in PC -charts, tool Life , poka yoke, reduction in non value added (NVA) activities & put these up for consideration to senior management</p>		30	10
			10	10
	subtotal		170	280
ASC/N 0021	Maintain 5S at the work premises	Theory	Viva	Practical
<p>Identify and report the risks identified</p>	<p>PC1. Identify activities which can cause potential injury through sharp objects, burns, fall, electricity, gas leakages, radiation, poisonous fumes, chemicals ,loud noise</p> <p>PC2. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc.</p> <p>PC3. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations</p> <p>PC4. Create awareness amongst other by sharing information on the identified risks</p>		20	50
<p>Create and sustain a Safe, clean and environment friendly work place</p>	<p>PC5. Follow the instructions given on the equipment manual describing the operating process of the equipment</p> <p>PC6. Follow the Safety, Health and Environment related practices developed by the</p>			

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	<p>organization</p> <p>PC7. Operate the machine using the recommended Personal Protective Equipment (PPE)</p> <p>PC8. Maintain a clean and safe working environment near the work place and ensure there is no spillage of chemicals, production waste, oil, solvents etc.</p> <p>PC9. Maintain high standards of personal hygiene at the work place</p> <p>PC10. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.</p> <p>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</p>		50	40
	subtotal		70	90
ASC/N 0006	Maintain a safe and healthy working environment	Theory	Viva	Practical
Ensure sorting	<p>PC1 Follow the sorting process and check that the tools, fixtures & jigs that are lying on workstations are the ones in use and unnecessary items are not cluttering the workbenches or work surfaces.</p> <p>PC2 Ensure segregation of waste in hazardous/ non Hazardous waste as per the sorting work instructions</p> <p>PC3 Follow the technique of waste disposal and waste storage in the proper bins as per SOP</p> <p>PC4 Segregate the items which are labeled as red tag items for the process area and keep them in the correct places</p> <p>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</p> <p>PC6 Ensure that areas of material storage areas are not overflowing</p> <p>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</p> <p>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</p>		10	20
			10	20

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	PC9 Follow the floor markings/ area markings used for demarcating the various sections in the plant as per the prescribed instructions and standards			
Ensure proper documentation and storage (organizing , streamlining)	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 labelling 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		10	20
Ensure sustenance	PC14 Follow the daily cleaning standards and schedules to create a clean working environment PC15 Attend all training programs for employees on 5 S PC16 Support the team during the audit of 5 S PC17 Participate actively in employee work groups on 5S and encourage team members for active participation PC18 Follow the guidelines for What to do and What not to do to build sustainability in 5S as mentioned in the 5S check lists/ work instructions		20	30
	Sub total		50	90
	Total	160	290	460