

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- Layout Engineer Level 5

SECTOR: AUTOMOTIVE

SUB-SECTOR: MANUFACTURING

OCCUPATION: INDUSTRIAL ENGINEERING

JOB ROLE : LAYOUT ENGINEER

REFERENCE ID: ASC/Q6403

ALIGNED TO: NCO-2004/ Nil

Brief Job Description: Individuals at this job need to design, develop and implement the integrated facility layouts for the organization by planning and positioning employees, materials, machines, equipments, and other manufacturing supports and facilities for minimization of waste and material handling cost; thereby providing smooth flow of work, material, and information throughout the organization

Personal Attributes: This job requires the individual to work independently and be judicious in making decisions pertaining to his/her area of work. The individual should be result oriented. The individual should also be able to demonstrate skills for information ordering, oral expression, mathematical and deductive reasoning, artistic and spatial skills along with comprehension. The individual should be willing to work at shop floor based job for long hours.

Qualifications Pack Code	ASC/Q 6403		
Job Role	Industrial Engineer –Layout Design		
Credits(NSQF) [OPTIONAL]	TBD	Version number	1.1
Sector	Automotive	Drafted on	13.08.13
Sub-sector	Manufacturing Support	Last reviewed on	23.09.13
Occupation	Industrial Engineering	Next review date	30.09.15

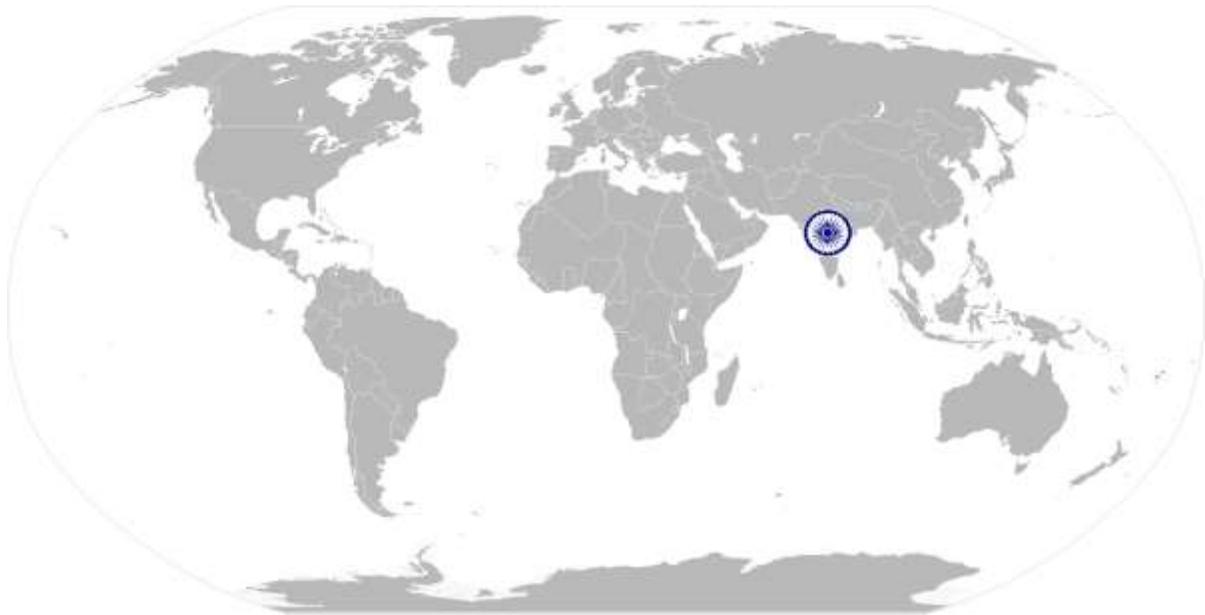
Job Role	Industrial Engineer – Layout Design
Role Description	Applying statistical methods and performing mathematical calculations to determine manufacturing processes, staff requirements, and production standards
NSQF level	5
Minimum Educational Qualifications*	B. Tech/ BE in Industrial / Production / Mechanical Engineer
Maximum Educational Qualifications*	Not Applicable
Training (Suggested but not mandatory)	Basic fundamentals training courses for engineering drawing Simulation tools usage for layout design and development
Experience	3-4 years
Applicable National Occupational Standards (NOS)	<p>Compulsory:</p> <p>ASC/N6407. Analyze the flow of men, machine, material and information in the process</p> <p>ASC/N6408. Design the model layout for the process and validate</p> <p>ASC/N6409. Plan for shifting of resources and implement the layout for the process</p> <p>ASC/N0006A Maintain a safe and healthy working environment at the workplace</p> <p>ASC/N0021 Maintaining 5S at the work premises</p> <p>Optional: N.A.</p>
Performance Criteria	As described in the relevant OS units

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 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 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)
NVQF	National Vocational Qualifications Framework
NSQF	National Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
QP	Qualifications Pack
BO	Bought Out (Parts)
BOM	Bills of Material
SCM	Supply Chain Management
SAP	System Application and Products
CRM	Customer Relationship Management
SRM	Supplier Relationship Management
MRP	Material Requirement Planning
PPC	Production Planning and Control
SS	Strategic Sourcing
RFQ	Request for Quotation
HSE	Health , Safety and Environment
ECN/PCN	Engineering Change Note/ Process Change Note
PPAP	Production Part Approval Process
PO	Purchase Order
HIRA	Hazard Identification and Risk Assessment
TS	TS 16949 Quality Management system
APQP	Advanced Product Quality Planning
MSA	Measurement System Analysis
SPC	Statistical Process Control
NPD	New Product Development

ASC/N6407. Analyze the flow of men, machine, material and information in the process

National Occupational Standards



Overview

This unit is about in depth analysis of the manpower, machines, equipments, materials and other manufacturing facilities for a specific process in order to develop the optimum facility layout for the process.

ASC/N6407. Analyze the flow of men, machine, material & information in the process

National Occupational Standard	Unit Code	ASC/N6407
	Unit Title (Task)	Analyze the flow of men, machine, material and information in the process
	Description	This OS unit is about the study and analysis of the various resources of a process like the materials ,manpower ,equipments etc. for designing the most economic and feasible layout for it
	Scope	<ul style="list-style-type: none"> • The unit/ task covers the following: • Analyzing the machinery and manpower allocation for the process in co-ordination with the respective process- design engineers • Studying the material movement within the process • Assessing the flow of information throughout the process
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Analysis of the machinery and manpower	<p>To be competent , the user/individual on the job must be able to:</p> <p>PC1. study the existing shop floor layout in-depth being used for the manufacturing process and gather inputs pertaining to the floor area, no of workstations, type of machinery used etc.</p> <p>PC2. measure the dimensions of the machinery and equipments and calculate the area occupied</p> <p>PC3. get similar details in respect of NPD (New Product Development)</p> <p>PC4. Study the manpower allocation plan thoroughly and collect key insights about the workforce requirements and the nature of work being done by them</p> <p>PC5. Record the observations for further analysis.</p> <p>PC6. Participate in the trials with Process Engineers for validation</p>
	Study of the material movement within the process	<p>PC7. Understand the complete material flow in the process starting from receipt of raw materials till delivery of finished product</p> <p>PC8. Analyze the conditions that would be required for storage of various process materials and also study the existing facility being used for it</p> <p>PC9. Collect all the information related to the material handling facilities that are/would be in use for the process</p> <p>PC10. Record all these observations for further analysis.</p>
	Assessment of information flow	<p>PC11. Interact with the shop floor workers and prepare a complete flow chart depicting the flow of information throughout the process and also gain knowledge about the media in use for it.</p> <p>PC12. Record all these observations for further analysis</p>

ASC/N6407. Analyze the flow of men, machine, material & information in the process

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Company manufacturing processes KA2. Existing layout for the processes KA3. Sequence of operations for each process KA4. Facility planning methodology being followed in the company KA5. Future capacity expansions plans (if any) of the company
B. Technical Knowledge	The individual on the job needs to have knowledge of: KB1. Complete knowledge of the process in consideration KB2. Dimensions and type of the existing facility being used for the process KB3. Engineering drawings of existing layout KB4. Operation of machinery and equipments being used for the process KB5. Manpower deployment plan for process KB6. Material and information flow of the process KB7. Capacity utilization levels and the cost of manufacturing being incurred KB8. Media of information flow like SAP , ERP etc.
Skills (S) [Optional]	
A. Core Skills/ Generic Skills	<div style="background-color: #d9e1f2; padding: 2px;">Basic reading and writing skills</div> The user/ individual on the job needs to know and understand how to: SB1. Read the information displayed at the workplace. SB2. Draft a pictorial representation of the existing layout for better comprehension SB3. Compile all the data related to study of existing facility in the form of presentations and reports
	<div style="background-color: #d9e1f2; padding: 2px;">Communication skills</div> The user/individual on the job needs to know and understand how to: SB4. Communicate with shop floor workers gathering inputs/requirements SB5. Spell out effectively the findings of the study to the higher management in meetings
	<div style="background-color: #d9e1f2; padding: 2px;">Teamwork and multitasking</div> The user/individual on the job needs to know and understand how to: SB6. Interact with workers and gather all the information related to process requirements SB7. Share operation knowledge with co-workers SB8. Coordinate with the facility planning department team and ensure timely analysis for layout designing SB9. Collate data from various third parties involved (if any) in existing facility design and development
B. Professional Skills	<div style="background-color: #d9e1f2; padding: 2px;">Plan and Organize</div> The user/individual on the job needs to know and understand how to:

ASC/N6407. Analyze the flow of men, machine, material & information in the process

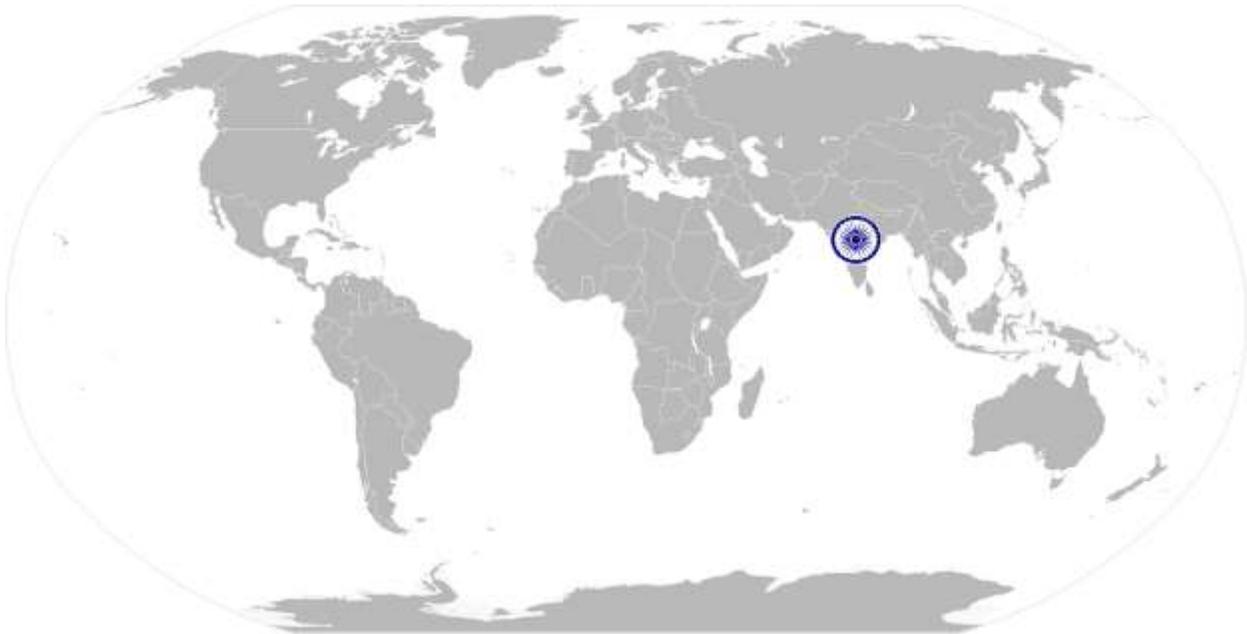
	SB1. Plan the execution of requirements study for layout design in an effective manner and on timely basis
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB2. Analyze the way in which the existing facility layout is in operation and think of more economic and feasible measures for existing layout modification/redesigning

ASC/N6407. Analyze the flow of men, machine, material & information in the process

NOS Code	ASC/N6407		
Credits(NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Automotive	Drafted on	13.08.13
Industry Sub-sector	Manufacturing Support	Last reviewed on	23.09.13
Occupation	Industrial Engineering	Next review date	30.09.15

ASC/N6408. Design the model layout for the process and validate

National Occupational Standards



Overview

This unit is about methods of facility layout modeling and planning used for integration of the needs of people (personnel and customers), materials (raw, finishes, and in process), and machinery in such a way that they create a single, well-functioning system.

ASC/N6408. Design the model layout for the process and validate

National Occupational Standard	Unit Code	ASC/N6408
	Unit Title (Task)	Design the model layout for the process and validate
	Description	This OS unit is about the industrial engineer drafting , designing and validating the model layout for the process in consideration ensuring integration of men , machine material and information leading to maximization of operation efficiency
	Scope	The unit/ task covers the following: <ul style="list-style-type: none"> • Preparing a blueprint of the proposed facility layout • Developing a model layout • Validating the model layout by simulation & Process trials
	Performance Criteria(PC) w.r.t. the Scope	
	Element	Performance Criteria
	Preparation of blueprint	PC1. Based on the inputs obtained from the study of existing facility layout , contemplate changes for new layout PC2. Prepare a blueprint of the new layout by measuring and studying available floor space and henceforth drawing plan of floor space to scale, using drafting tools
	Development of model layout	PC3. Coordinate all available knowledge and information into blueprint, showing most efficient location for each piece of equipment and necessary working area and prepare a master layout PC4. Draft a production process model ensuring minimization of the distance traveled, backtracking, cross traffic, and production costs PC5. Build the facility model ensuring addressing of factors like adequate number of workstations, correct work height, appropriate lighting, and enough operator space in co-ordination with process design engineers (NPD) PC6. Integrate the two and prepare the working model for new facility
	Simulation of model layout	PC7. Validate the model facility layout using the latest simulation techniques PC8. Identify the mistakes/areas of improvement in the layout and take appropriate rectification measures PC9. Implement the measures and re-simulate the modified layout PC10. Repeat the first three steps till the model layout is free from any discrepancies
	Compliance to design standards	PC11. Ensure that the guidelines mentioned in facility designing standards are strictly adhered to for preparation of the model layout
Knowledge and Understanding (K)		
A. Organizational Context (Knowledge of the company /	The user/individual on the job needs to know and understand: KA1. Company manufacturing processes KA2. Existing layout for the processes	

ASC/N6408. Design the model layout for the process and validate

organization and its processes)	KA3. Facility Designing standards followed in the organization KA4. Third parties (if any) involved in construction of facilities for the organization KA5. Facility planning methodology being followed in the company
B. Technical Knowledge	The individual on the job needs to have knowledge of: KB1. Complete knowledge of the process in consideration KB2. Type of the layout to be developed like product, process, U type etc. KB3. Engineering drawings of existing layout KB4. Operation of machinery and equipments being used for the process KB5. Complete knowledge of material and information flow for the process KB6. Latest simulation techniques used for validation of model layouts
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. Compile all the data related to layout design and development in form of reports and presentations SA2. Understand the drawings of layout
	Communication skills
	The user/individual on the job needs to know and understand how to: SA3. Communicate the new layout design and development to the higher management in meetings for their support
	Teamwork and multitasking
	The user/individual on the job needs to know and understand how to: SA4. Interact with workers and gather all the information related to process requirements SA5. Coordinate with the facility planning, process engineering department team and ensure model layout designing on timely basis SA6. Collate resources from various third parties involved (if any) for the facility layout implementation
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB1. Plan the execution of layout design and development in an effective manner and on timely basis
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB2. Analyze the results obtained after running simulation and identifying the measures for resolving the discrepancies arising out of it
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB3. Assess the problem, evaluate the possible solution(s) and use an optimum /best possible solution(s)



ASC/N6408. Design the model layout for the process and validate

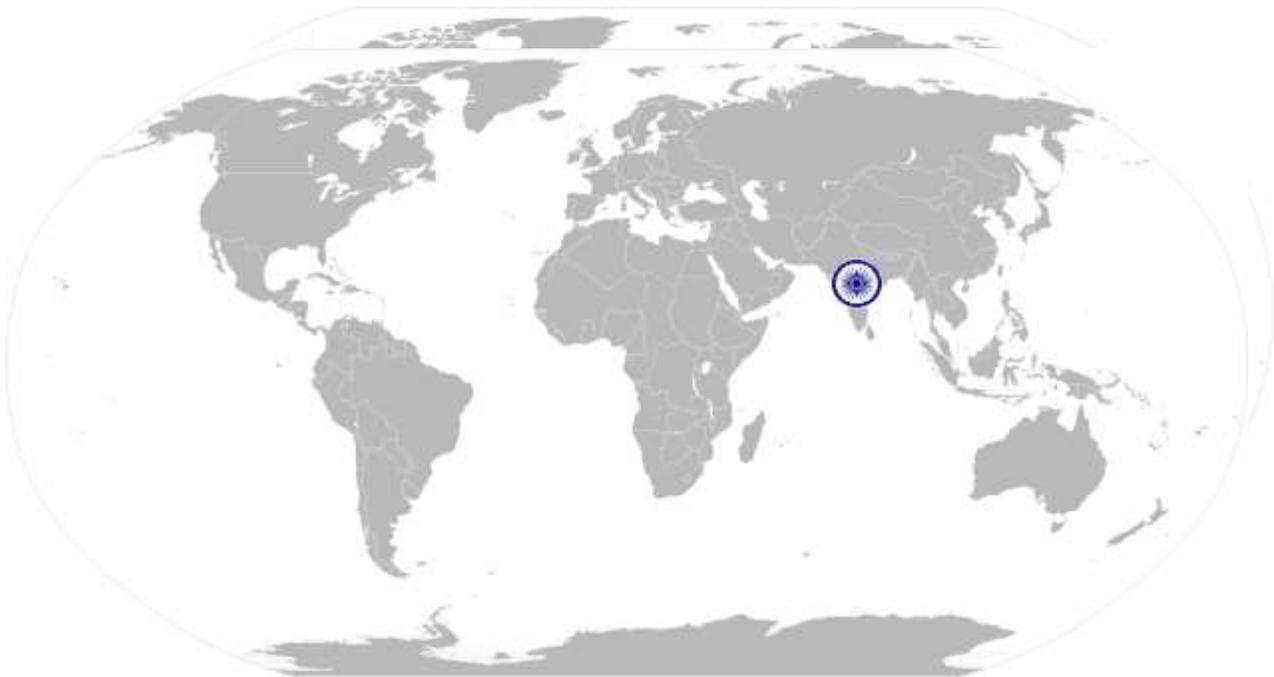
	SB4. Identify immediate or temporary solutions to resolve delays and crisis situations
	Reflective thinking
	The user/individual on the job needs to know and understand: SB1. How to learn from past mistakes to resolve technical and non-technical problems

ASC/N6408. Design the model layout for the process and validate

NOS Version Control

NOS Code	ASC/N6408		
Credits(NSQF) [OPTIONAL]	TBD	Version number	1.0
Industry	Automotive	Drafted on	13.08.13
Industry Sub-sector	Manufacturing Support	Last reviewed on	23.09.13
Occupation	Industrial Engineering	Next review date	30.09.15

National Occupational Standards



Overview

This unit is about the arrangement of manpower, equipments, machinery and other resources to facilitate the implementation of the newly designed layout for the process in consideration

ASC/N6409 Plan for shifting of resources and implement the layout for the process

National Occupational Standard	Unit Code	ASC/N6409
	Unit Title (Task)	Plan for shifting of resources and implement the layout for the process
	Description	This OS unit is about the shifting and arrangement of manpower , machinery , equipments and other facilities for implementation of the new finalized layout
	Scope	This unit/ task covers the following: <ul style="list-style-type: none"> • Arrangement and repositioning of resources in accordance to the new facility layout • Implementation of the new layout
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Arrangement of resources	PC1. As per the finalized model of facility layout for the process in consideration, arrange for shifting and repositioning of workforce , machinery , equipments, materials and other support facilities in consultation with Production .Have a fallback action plan in place. PC2. Carry out the shifting process as per the plan taking care that adequate safety stock has been built by Production for the lines affected by the layout change & timing plan is closely monitored. PC3. Check risks related to hazards , safety are mitigated adequately in the new layout . PC4. In case of any discrepancy/issues arising due to rearrangement , escalate the matter to higher management and ensure addressing of same on timely basis
	Implementation of new layout	PC5. After arrangement of resources , implement the new facility layout as per the finalized model PC6. Monitor the functioning of layout on a periodic basis and sort out the discrepancies arising during same
	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. Company manufacturing processes KA2. Existing layout for the processes KA3. Facility Designing standards followed in the organization KA4.Third parties (if any) involved in construction of facilities for the organization	
A. Technical Knowledge	The individual on the job needs to have knowledge of: KB1. Complete knowledge of the process in consideration KB2.Type of the layout to be developed like product, process, U type etc. KB3.Engineering drawings of existing layout KB4.Operation of machinery and equipments being used for the process KB5.Complete knowledge of material and information flow for the process KB6. Latest simulation techniques used for validation of model layouts	

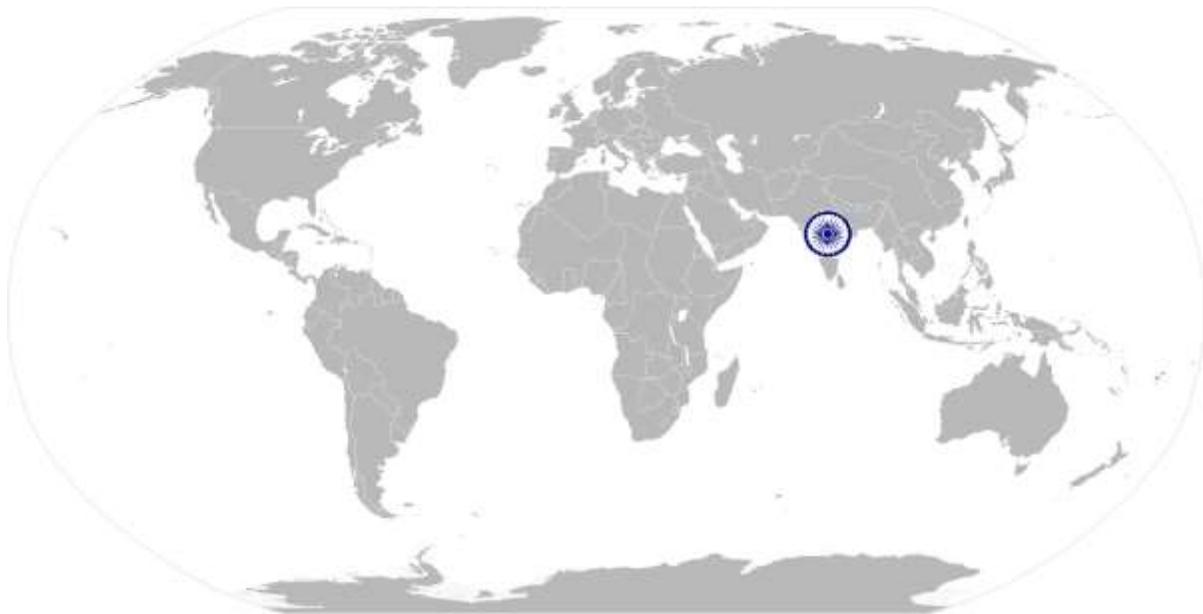
ASC/N6409 Plan for shifting of resources and implement the layout for the process

Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Reading and Writing skills
	The user/ individual on the job needs to know and understand how to: SA1. Compile all the data related to layout planning and implementation in form of reports and presentations SA2. Understand the drawings of layout
	Communication skills
	The user/individual on the job needs to know and understand how: SA3. Communicate the layout implementation status to higher management in form of presentations
	Team work and multi tasking
	The user/individual on the job needs to know and understand how to: SA4. Interact with workers and gather all the information related to process requirements SA5. Coordinate with the facility planning department team and ensure model layout designing on timely basis SA6. Collate resources from various third parties involved (if any) for the facility layout implementation
B. Professional Skills	Plan & Organize
	The user/individual on the job needs to know and understand how to: SB1. Plan the execution of time study so that he can finish compilation of the data activity wise in the stipulated time
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB2. Analyze the implementation of the finalized layout design and think of measures to resolve the issues arising after same
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB3. Assess the problem, evaluate the possible solution(s) and use an optimum /best possible solution(s) SB4. Identify immediate or temporary solutions to resolve delays and crisis situations
	Reflective thinking
The user/individual on the job needs to know and understand: SB5. How to learn from past mistakes to resolve technical and non-technical problems	

ASC/N6409 Plan for shifting of resources and implement the layout for the process

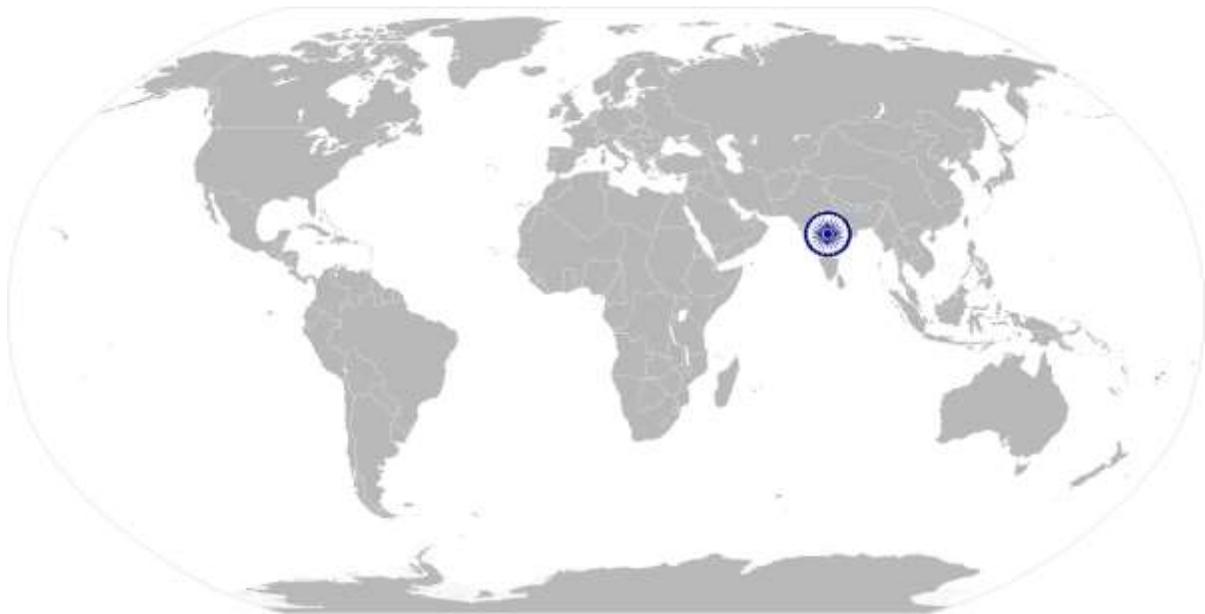
NOS Version Control

NOS Code	ASC/N6409		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	13.08.13
Industry Sub-sector	Manufacturing Support	Last reviewed on	23.09.13
Occupation	Industrial Engineering	Next review date	30.09.15



ASC/N 0006 Maintain a healthy, safe and secure environment at the workplace

National Occupational Standards



Overview

This unit is about establishing a Safe, Healthy and Environment friendly workplace

ASC/N 0006 Maintain a healthy, safe and secure environment at the workplace

National Occupational Standard	Unit Code	ASC/N0006A
	Unit Title (Task)	Maintain a safe and healthy working environment at the work place
	Description	This NOS unit is about creating a Safe and Healthy work place, adhering to the safety guidelines in the working area, following practices which are not impacting the environment in a negative manner
	Scope	<p>The role holder will be responsible for</p> <ul style="list-style-type: none"> identifying and reporting of risks creating and sustaining a safe, clean and environment friendly work place <p>This NOS will be applicable to all Automotive sector manufacturing job roles</p>
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Identify and report the risks identified	<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. Identify areas in the plant which are potentially hazardous/ unhygienic in nature</p> <p>PC3. Conduct regular checks with support of the maintenance team on machine health to identify potential hazards due to wear and tear of machine</p> <p>PC4. Inform the concerned authorities about the potential risks identified in the processes, workplace area/ layout, materials used etc</p> <p>PC5. Inform the concerned authorities about machine breakdowns, damages which can potentially harm man/ machine during operations</p> <p>PC6. Create awareness amongst other by sharing information on the identified risks</p>
	Create and sustain a Safe, clean and environment friendly work place	<p>PC7. Support the Safety team and the supervisor in creating the risk mitigation plan</p> <p>PC8. Follow the instructions given on the equipment manual describing the operating process of the equipment</p> <p>PC9. Follow the Safety, Health and Environment related practices developed by the organization</p> <p>PC10. Ensure relevant safety boards/ signs are placed on the shop floor</p> <p>PC11. Operate the machine using the recommended Personal Protective Equipment (PPE) and ensure team members also use the related PPEs at the workplace</p> <p>PC12. 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>PC13. Attend all safety and fire drills to be self-aware of safety hazards and preventive techniques</p>

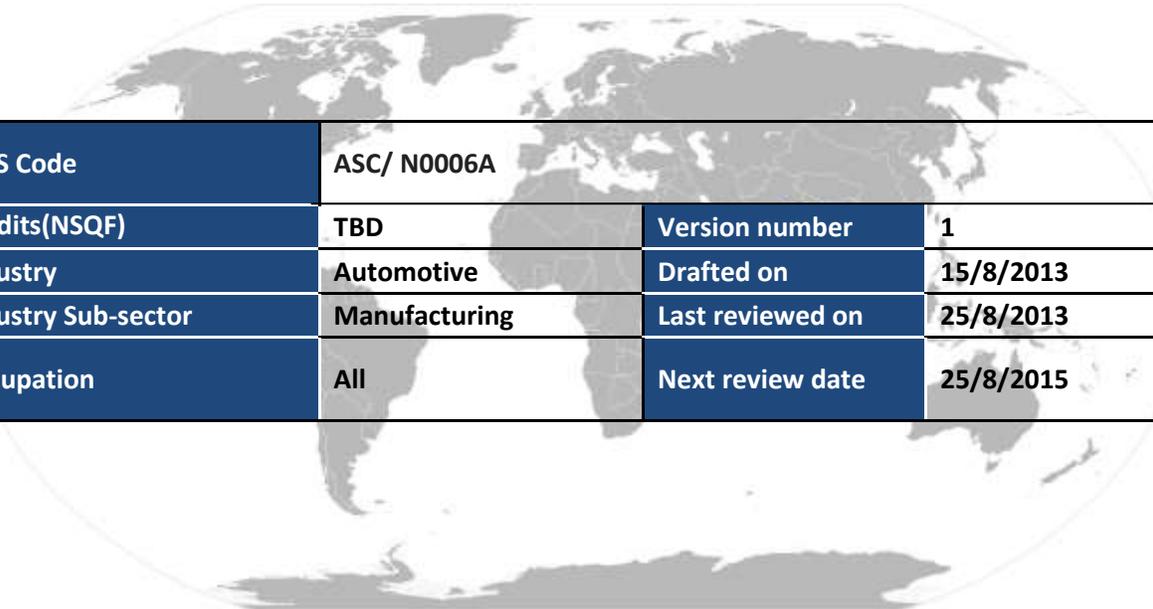
ASC/N 0006 Maintain a healthy, safe and secure environment at the workplace

	<p>PC14. Maintain high standards of personal hygiene at the work place</p> <p>PC15. Ensure that the waste disposal is done in the designated area and manner as per organization SOP.</p> <p>PC16. 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>
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 Health, Safety and Environment followed in the company</p> <p>KA2. emergency handling procedures & hierarchy for escalation</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. basic knowledge of Safety procedures(fire fighting, first aid) within the organization</p> <p>KB2. basic knowledge of various types of PPEs and their usage</p> <p>KB3. basic knowledge of risks/hazards associated with each occupation in the organization</p> <p>KB4. knowledge of personal hygiene and how an individual can contribute towards creating a highly safe and clean working environment</p>
Skills (S)w.r.t. the scope	
Element	Skills
C. 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 associated
	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 SA5. inform employees in the plant and concerned functions about events, incidents & potential risks observed related to Safety, Health and Environment. SA6. question operator/ supervisor in order to understand the safety related issues SA7. attentively listen with full attention and comprehend the information given by the speaker during safety drills and training programs
D. Professional Skills	Judgmental Thinking

ASC/N 0006 Maintain a healthy, safe and secure environment at the workplace

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. use common sense and make judgments during day to day basis</p> <p>SB2. use reasoning skills to identify and resolve basic problems</p>
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NOS Version Control



NOS Code	ASC/ N0006A		
Credits(NSQF)	TBD	Version number	1
Industry	Automotive	Drafted on	15/8/2013
Industry Sub-sector	Manufacturing	Last reviewed on	25/8/2013
Occupation	All	Next review date	25/8/2015

ASC/N 0021 Maintain 5 S activities in the work premises

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/N 0021 Maintain 5 S activities in the work premises

National Occupational Standard	Unit Code	ASC/N0021
	Unit Title (Task)	Maintaining 5S in the work premises
	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 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 labelled 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 labelling of fluids, oils, lubricants, solvents, chemicals etc. and proper storage of the same to avoid spillage, leakage, fire etc.</p> <p>PC13. Make sure that all material and tools are stored in the designated</p>

ASC/N 0021 Maintain 5 S activities in the work premises

	places and in the manner indicated in the 5S instructions
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)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA3. relevant standards, procedures and policies related to 5S followed in the company
B. Technical Knowledge	The user/individual on the job needs to : <ul style="list-style-type: none"> KB5. have basic knowledge of 5S procedures KB6. know various types 5s practices followed in various areas KB7. understand the 5S checklists provided in the department/ team KB8. have skills to identify useful & non useful items KB9. have knowledge of labels , signs & colours used as indicators KB10. Have knowledge on how to sort and store various types of tools, equipment, material etc. KB11. know , how to identify various types of waste products KB12. understand the impact of waste/ dirt/ dust/unwanted substances on the process/ environment/ machinery/ human body

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	<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
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA8. write basic level notes and observations</p> <p>SA9. note down observations (if any) related to the process</p> <p>SA10. write information documents to internal departments/ internal teams</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA11. read 5S instructions put up across the plant premises</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA12. effectively communicate information to team members inform employees in the plant and concerned functions about 5S</p> <p>SA13. question the process head in order to understand the 5S related issues</p> <p>SA14. attentively listen with full attention and comprehend the information given by the speaker during 5S training programs</p>
B. Professional Skills	Judgmental Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. use common sense and make judgments during day to day basis</p> <p>SB4. use reasoning skills to identify and resolve basic problems using 5S</p>
	Persuasion
	<p>The user/ individual on the jobs needs to know and understand how to:</p> <p>SB5. persuade co team members to follow 5 S</p> <p>SB6. ensure that the co team members understand the importance of using 5 S tool</p>
	Creativity
	<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 behaviour to seek feedback and question on the existing set patterns of work</p>

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	Self –Discipline
	The user/individual on the job needs to know and understand how to: SB9. do what is right, not what is a popular practices SB10. follow shop floor rules& regulations and avoid deviations; make 5S an integral way of life SB11. ensure self-cleanliness on a daily basis SB12. demonstrate the will to keep the work area in a clean and orderly manner

NOS Version Control

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Occupation	All	Next review date	15/03/2016