

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR MEDIA AND ENTERTAINMENT INDUSTRY

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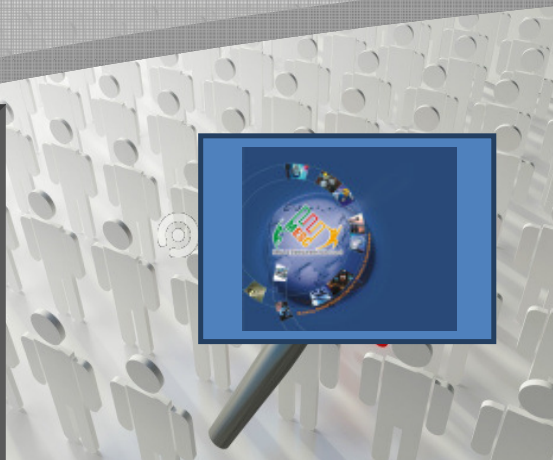
What are Occupational Standards(OS)?

- 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- OB Engineer

SECTOR: MEDIA AND ENTERTAINMENT

SUB-SECTOR: Television

OCCUPATION: Broadcast Operations/ Technology

REFERENCE ID: MES/ Q 0806

ALIGNED TO: NCO-2004/NIL

OB Engineer in the Media & Entertainment Industry is also known as an OB technician

Brief Job Description: Individuals at this job are responsible for setting up and operating the technical equipment for outdoor shoots

Personal Attributes: This job requires the individual to estimate the amount of equipment and cables required for outside broadcasts and ensure it is rigged properly ahead of broadcasts. The individual must be able to troubleshoot and resolve issues in on-air output, optimising the quality of output for broadcasting. The individual also must be able to carry out routine and emergency maintenance of OB vans and DG sets.

Job Details	Qualifications Pack Code	MES/ Q 0806		
	Job Role	OB Engineer This job role is applicable in both national and international scenarios		
	Credits(NSQF)	TBD	Version number	1.0
	Sector	Media and Entertainment	Drafted on	18/09/13
	Sub-sector	Television	Last reviewed on	25/03/15
	Occupation	Broadcast Operations / Technology	Next review date	24/03/17

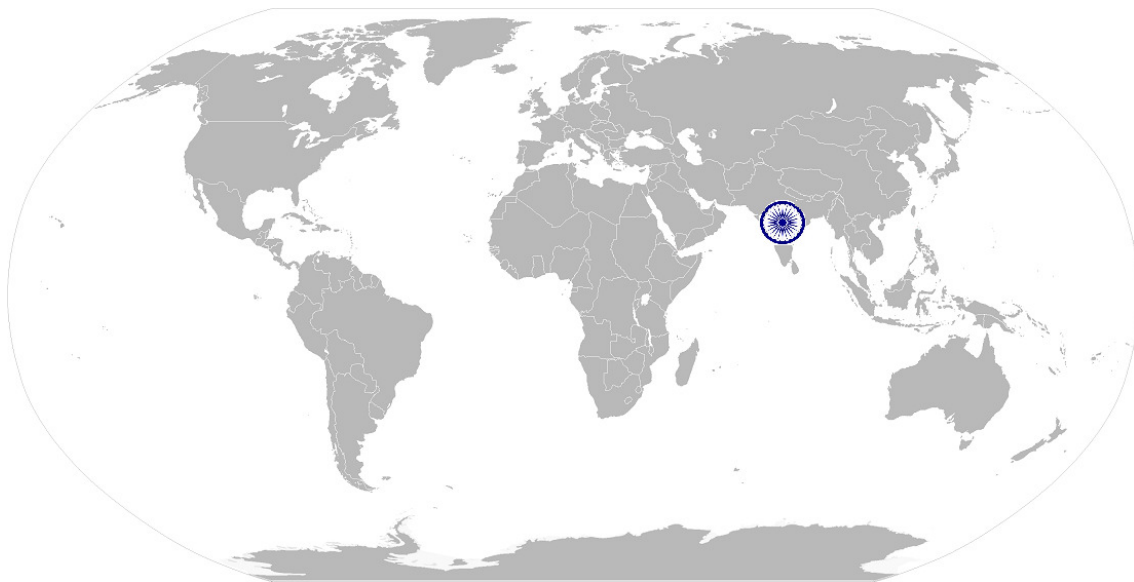
Job Role	OB Engineer
Role Description	Set up and operate the technical equipment for outdoor shoots
NSQF level	6
Minimum Educational Qualifications	Bachelor of Engineering (B.E.)/Bachelor of Technology (B.Tech)
Maximum Educational Qualifications	-
Training (Suggested but not mandatory)	Broadcast engineering technology, Electrical and Telecommunications
Experience	0+ years
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> MES / N 0807 (Manage external/ on location live broadcasts) MES / N 0808 (Maintain workplace health and safety) Optional: N.A.
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Archive	A repository where content produced is stored for further use
Ingest	Process of importing data into a digital storage system for future use
Leased Lines	A fiber connection used to connect, transfer and transmit data
Master Control Room	Central room from where broadcasting takes place
Meta tagging	Keywords describing content that can be used to search/find information from a website/server
Play-out systems	Equipment that transmits channels from the broadcaster's head end to subscribers
Satellite	Communications equipment used to receive/transmit audio and video signals
Server	A centralised computer that provides access to resources over a network
Signal	Radio waves carrying audio/video content to be dispersed to an audience
Switcher	A device used to combine or select audio/video signals for playout
Uplinking	A transmission path through which audio/video signals are sent for broadcasting
Waveform monitoring	An equipment used to measure the level and voltage of video signals
Target Audience	Set of individuals with similar characteristics that are prospective customers of the advertisers' product/service
Target Market	The geographic area over which the advertising campaign is focused
Sector	Sector is a conglomeration of different business operations having similar businesses 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.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
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 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-functions	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 (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.

Qualifications Pack(QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification 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 the 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 the 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 key to learning and working 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)
QP	Qualifications Pack
NSQF	National Skill Qualifications Framework
NVEQF	National Vocational Education Qualifications Framework
NVQF	National Vocational Qualifications Framework
TCP	Transmission Control
IP	Internet protocol
DSNG	Digital satellite news gathering
DG	Diesel generator
OB	Outside Broadcast

National Occupational Standard



Overview

This unit is about setting-up, managing and monitoring equipment for outside broadcasts and troubleshooting any issues during actual broadcasts

Unit Code	MES/ N 0807
Unit Title (Task)	Manage external/ on location live broadcasts
Description	This OS unit is about setting-up, managing and monitoring equipment for outside broadcasts and troubleshooting any issues during actual broadcasts
Scope	<p>An OB (Outside Broadcast) van is a mobile set-up for remote/ external/ on location broadcasts that uses satellite technology to transmit live footage to the broadcaster's base location. Flyaway kits (portable satellite kits) can also be used in place of/ to add a second feed to OB vans. OB vans require engineers to set up the external broadcasts and manage quality control and ensure seamless transmission. These days, 3G/4G kits – that aggregate multiple data connections for high bandwidth – are also being used for outside broadcasts. Over time, the role of OB engineers may evolve/ broaden to manage transmission from these kits as well.</p> <p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Estimating the equipment required for outside broadcasts and preparing a layout plan for cables and equipment • Rigging/de-rigging equipment and cables • Monitoring quality of broadcasts • Troubleshooting issues during broadcasts
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Estimating the equipment required for outside broadcasts	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Ensure that the required equipment is available and functioning properly ahead of the broadcast</p> <p>PC2. Record or transmit the broadcast ensuring that the audio and video outputs are synced properly</p>
Rigging/de-rigging equipment and cables	PC3. Rig and de-rig cables, equipment for broadcast
Monitoring quality of broadcasts	<p>PC4. Test digital satellite news gathering (DSNG) equipment by sending test signals at a predetermined frequency</p> <p>PC5. Perform routine and emergency maintenance of the OB van and equipment, including Diesel generator (DG) sets</p>
Troubleshooting issues during broadcasts	<p>PC6. Troubleshoot and resolve problems with signal strength and audio/video outputs ensuring optimum quality for broadcasting</p> <p>PC7. Identify suitable location and direction of satellite for uplinking</p>

MES/ N 0807

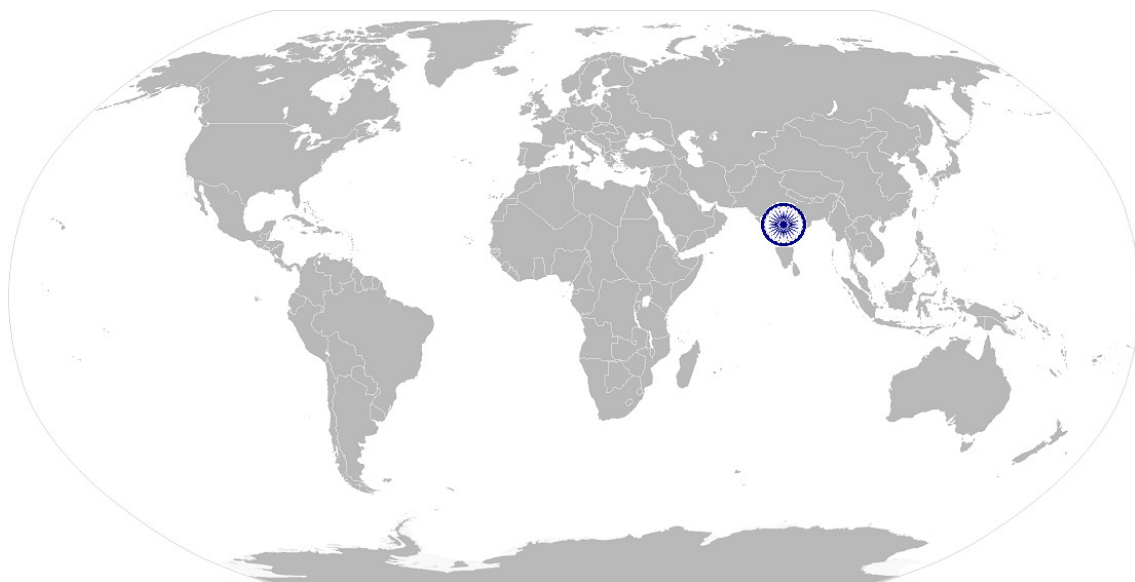
Manage external/ on location live broadcasts

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. The equipment such as cables, cameras, tripods, generator(s), flyways, microphones, lights etc. and systems such as audio, video, data, batteries, power, communications etc. available in the OB Van KA2. The date, time and duration of the event being covered KA3. The type and format of content being uplinked KA4. The roles and responsibilities of key departments that the engineer would have maximum interaction with including production, camera, engineering, ingest etc.
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KB1. The fundamentals of broadcasting and technology used for broadcast KB2. The fundamentals of networking and networking elements KB3. The principles of audio, video, radio frequency (rf) and digital signals KB4. How to operate and troubleshoot broadcast equipment KB5. How to estimate the type and length of cables that would be required KB6. How to estimate the time required for set-up including rigging, parking etc. KB7. How to locate access areas to rig and de-rig cables in a variety of places including buildings, homes, open spaces etc. KB8. The whereabouts and access routes to reach locations where broadcasts are planned KB9. Applicable health and safety guidelines
Skills (S) (Optional)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA1. Prepare a list of cables and equipment that would need to be carried during shoots SA2. Prepare a layout plan for cables etc. ahead of shoots
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA3. Read and interpret the shoot plan to understand requirements
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SA4. Liaise with the production teams to understand requirements for outside broadcast SA5. Communicate necessary instructions to presenters, artists, anchors etc. who will be using the equipment SA6. Communicate with the broadcast engineering staff at the office location (if required) to troubleshoot and resolve issues with signals, audio/video output, equipment etc.
B. Professional Skills	Plan and Organise
	<p>The user/individual on the job needs to know and understand how to:</p> <ul style="list-style-type: none"> SB1. Plan the layout of cables and equipment required ahead of shoots SB2. Plan the position/parking of vans in accordance to the length of cables SB3. Ensure that the equipment is prepared and functioning properly prior to shoots

MES/ N 0807

Manage external/ on location live broadcasts

	Plan and Organise
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. Apprehend any contingencies that might occur and take proactive measures to prepare for them</p>

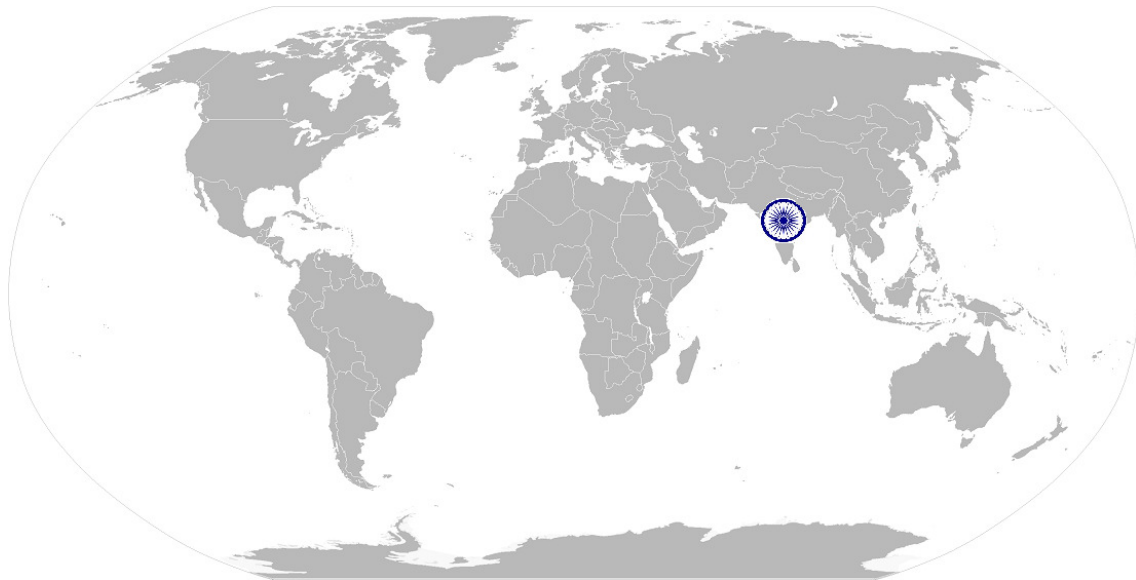


MES/ N 0807

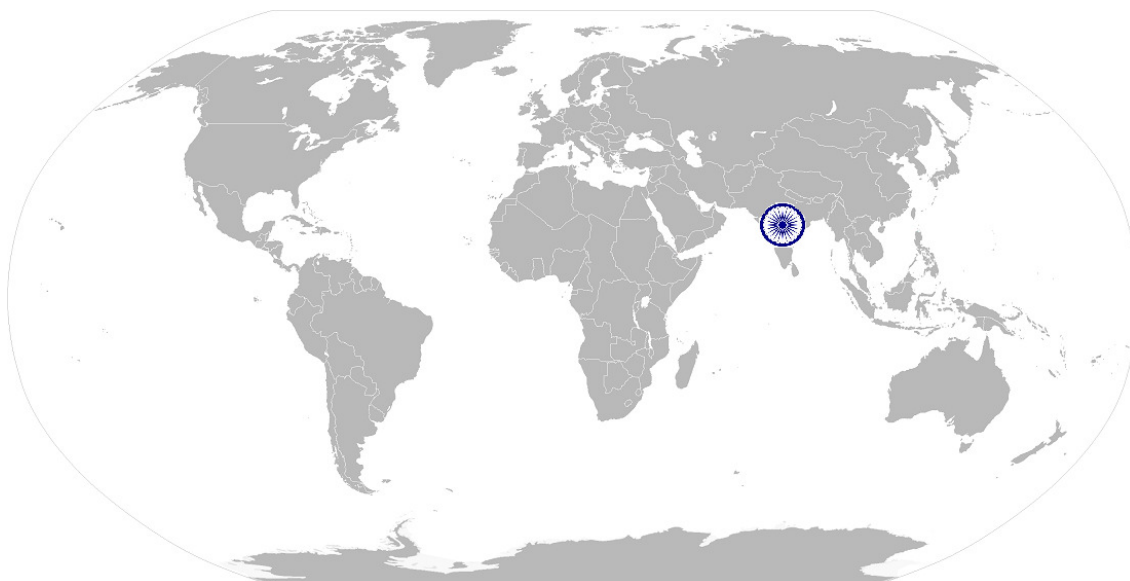
Manage external/ on location live broadcasts

NOS Version Control

NOS Code	MES / N 0807		
Credits(NSQF)	TBD	Version number	1.0
Sector	Media and Entertainment	Drafted on	18/09/13
Sub-sector	Television	Last reviewed on	25/03/15
Occupation	Broadcast Operations / Technology	Next review date	24/03/17



National Occupational Standard



Overview

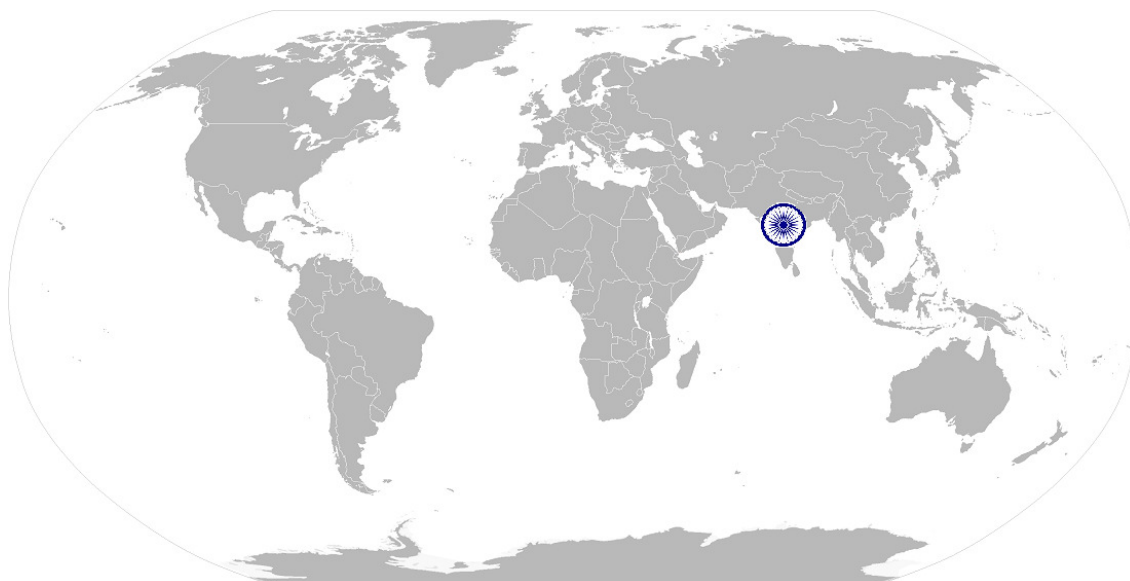
This unit is about contributing towards maintaining a healthy, safe and secure working environment

Unit Code	MES/ N 0808
Unit Title (Task)	Maintain workplace health and safety
Description	This OS unit is about contributing towards maintaining a healthy, safe and secure working environment
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> Understanding the health, safety and security risks prevalent in the workplace Knowing the people responsible for health and safety and the resources available Identifying and reporting risks Complying with procedures in the event of an emergency
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Understanding the risks prevalent in the workplace	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Understand and comply with the organisation's current health, safety and security policies and procedures</p> <p>PC2. Understand the safe working practices pertaining to own occupation</p> <p>PC3. Understand the government norms and policies relating to health and safety including emergency procedures for illness, accidents, fires or others which may involve evacuation of the premises</p> <p>PC4. Participate in organization health and safety knowledge sessions and drills</p>
Knowing the people responsible for health and safety and the resources available	<p>PC5. Identify the people responsible for health and safety in the workplace, including those to contact in case of an emergency</p> <p>PC6. Identify security signals e.g. fire alarms and places such as staircases, fire warden stations, first aid and medical rooms</p>
Identifying and reporting risks	<p>PC7. Identify aspects of your workplace that could cause potential risk to own and others health and safety</p> <p>PC8. Ensure own personal health and safety, and that of others in the workplace through precautionary measures</p> <p>PC9. Identify and recommend opportunities for improving health, safety, and security to the designated person</p> <p>PC10. Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected</p>
Complying with procedures in the event of an emergency	<p>PC11. Follow organisation's emergency procedures for accidents, fires or any other natural calamity in case of a hazard</p> <p>PC12. Identify and correct risks like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Organisation's norms and policies relating to health and safety</p> <p>KA2. Government norms and policies regarding health and safety and related emergency procedures</p> <p>KA3. Limits of authority while dealing with risks/ hazards</p> <p>KA4. The importance of maintaining high standards of health and safety at a</p>

its processes)	workplace
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The different types of health and safety hazards in a workplace</p> <p>KB2. Safe working practices for own job role</p> <p>KB3. Evacuation procedures and other arrangements for handling risks</p> <p>KB4. Names and contact numbers of people responsible for health and safety in a workplace</p> <p>KB5. How to summon medical assistance and the emergency services, where necessary</p> <p>KB6. Vendors' or manufacturers' instructions for maintaining health and safety while using equipments, systems and/or machines</p>
Skills (S) (Optional)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA1. How to write and provide feedback regarding health and safety to the concerned people</p> <p>SA2. How to write and highlight potential risks or report a hazard to the concerned people</p>
	Reading Skills
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA3. Read instructions, policies, procedures and norms relating to health and safety</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA4. Highlight potential risks and report hazards to the designated people</p> <p>SA5. Listen and communicate information with all anyone concerned or affected</p>
B. Professional Skills	Decision making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. Make decisions on a suitable course of action or plan</p>
	Plan and Organize
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB2. Plan and organize people and resources to deal with risks/ hazards that lie within the scope of one's individual authority</p>
	Problem Solving
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB3. Apply problem solving approaches in different situations</p>
	Critical Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. Understand hazards that fall within the scope of individual authority and report all hazards that may supersede one's authority</p> <p>SB5. Apply balanced judgements in different situations</p>

NOS Version Control

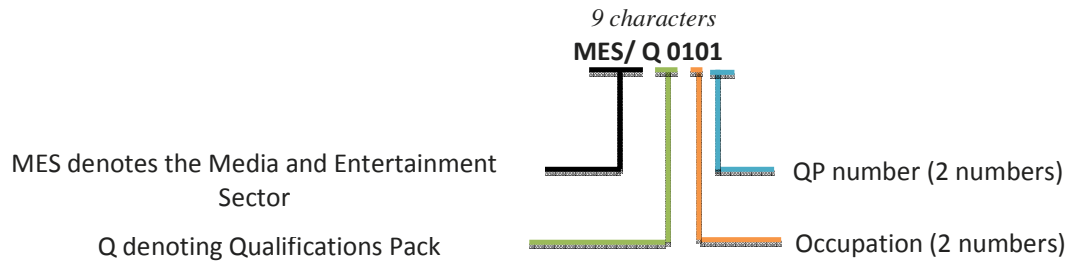
NOS Code	MES / N 0808		
Credits(NSQF)	TBD	Version number	1.0
Sector	Media and Entertainment	Drafted on	18/09/13
Sub-sector	Television	Last reviewed on	25/03/15
Occupation	Broadcast Operations / Technology	Next review date	24/03/17



Annexure

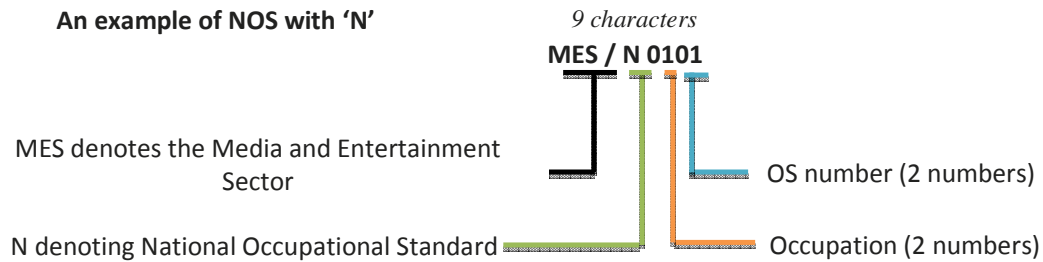
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



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

Sub-sector	Range of Occupation numbers
...	...

Sequence	Description	Example
Three letters	Media and Entertainment	MES
Slash	/	/
Next letter	Whether QP or NOS	Q
Next two numbers	Broadcast Operations/ Technology	05
Next two numbers	OB Engineer	06