

Standard Work

Standard Operations

Aims & Objectives

Target Audience

- Production staff, ME & Training personnel

Aim

- To give attendees the skill to write Standard Operations & deploy them

Objective

By the time you have completed this course you will be able to

- Understand what Standard Operations are
- The benefits of using them
- Observe and record work
- Write and Maintain Standard Operations
- Train your team to work to Standard Operations

Standard Operations

What is a Standard Operation?


DEFINITION

A STANDARD OPERATION IS CENTRED AROUND HUMAN MOVEMENTS, OUTLINING EFFICIENT, SAFE WORKING METHODS THAT ELIMINATE WASTE, WHILST ENSURING PROPER USE OF EQUIPMENT AND TOOLING

What is it used for?

- Training of staff
- A means of standardisation
- A platform for improvements
- Safe working practices
- A tool to help manage the workplace
- An audit document

Working Example

No	Issue	Date	PUM	ME	Standard Operation Sheet					Location: Mill		Sheet 1 of 4	
										Dept. 007		Date :06/11/02	
			Operation		Title of Operation			Ref	Prepared by: BT				
			WP Covers Work Packages 31-39	Operator/HR	HYDRAULIC BOLT PULLING			17.07	Authorisation				
									TL	TL	PUM	ME	
						Process Issue No	LG	JR	PH	BH			
						1							
No	Main Steps	No	Operating Description			Q	S	E	Key Points	Time	Explanation / Examples / Diagrams		
1	Obtain Puller	1.1	Obtain pulling equipment from calibration centres.			X	X		Specify which size of puller is required. ie:1/4 or 5/16		<div style="border: 1px solid black; padding: 5px; text-align: center;">FIG 1</div> 		
2	Operate power pack	2.1	Ensure footprinted area to operate the power pack is clean and free from swarf,etc...					X					
		2.2	Ensure power pack is within date of electrical calibration.			X	X	X	indicated on side of power pack.(see fig 3).				
		2.3	Place power pack in footprinted area with handle positioned at 180 degree's to the area to be worked on.				X	X					
		2.4	Confirm which diameter of bolts are to be pulled on the area.(ie1/4 or 5/16).			X			Check work package or drawing.				
		2.5	Ensure power pack is configured for the relevant operation.			X	X		See visual training aid placed in the standard op's pack and displayed at workstation.				
3	Connect hose connectors to Power pack couplings.	3.1	Pick up puller unit and offer male connector to female coupling on the power pack.						See fig 1.				
P.P.E.			Jigs/Tools (As per Eng Dwg):			Required Checks:				Training Comments:			
Safety Glasses,Cotton gloves,Hearing protection.						Deficiencies/Damage to be reported to TL							

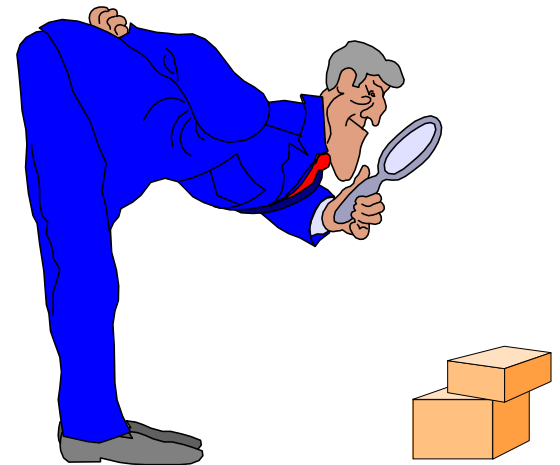
How we develop the Standard Operation

- Select Operation
- Record data of Operation
- Analyse the operation
- Develop the best current method
- Confirmation stage
- Identify Main Steps
- Identify Key Points
- Write the Standard Operation

Select Operation

Job Selection - Criteria to take into consideration

- Ease / Difficulty of Manufacture
- Inconsistencies manufacturing times
- Inconsistencies in Quality
- High Labour Turnover
- High accident rates
- Excessive handling of materials



Record Data of Operation

Recording

When recording the present situation, direct observation is the preferred method, but information can also be collected from :-

- Historical Records
- Interviews etc.

Useful methods of recording include :-

- Flow Process Charts
- Video etc.

.....the potential savings **MUST** justify the cost of investigation

Analyse the Operation

- Gather all the relevant paperwork
- Ensure all parts & tooling are at hand
- Watch operation being performed (across all shifts where possible)
- Ask for the operators inputs
- Is there a sequence
- Take rough notes



Develop the best method

- Question what we are doing & when
- If there are differences between shifts which one gives us more benefits?
- Consider applying the 4 principles of motion economy
 - Reduce motions
 - Perform motions simultaneously
 - Reduce distances/effort
 - Make motion easier
- Can the operators follow the Standard Operation safely?

Confirmation Stage

- Try to perform the task using the rough notes
- This should be carried out in the production environment where possible as a trial

Identify Main Steps

- A task title
- This will allow the task to be broken down into smaller sections

Identify Key Points

A Key point is a part of the operation, which if not adhered to could impact on

- **Quality**

- **Safety**

- **Delivery**

Writing a Standard Operation

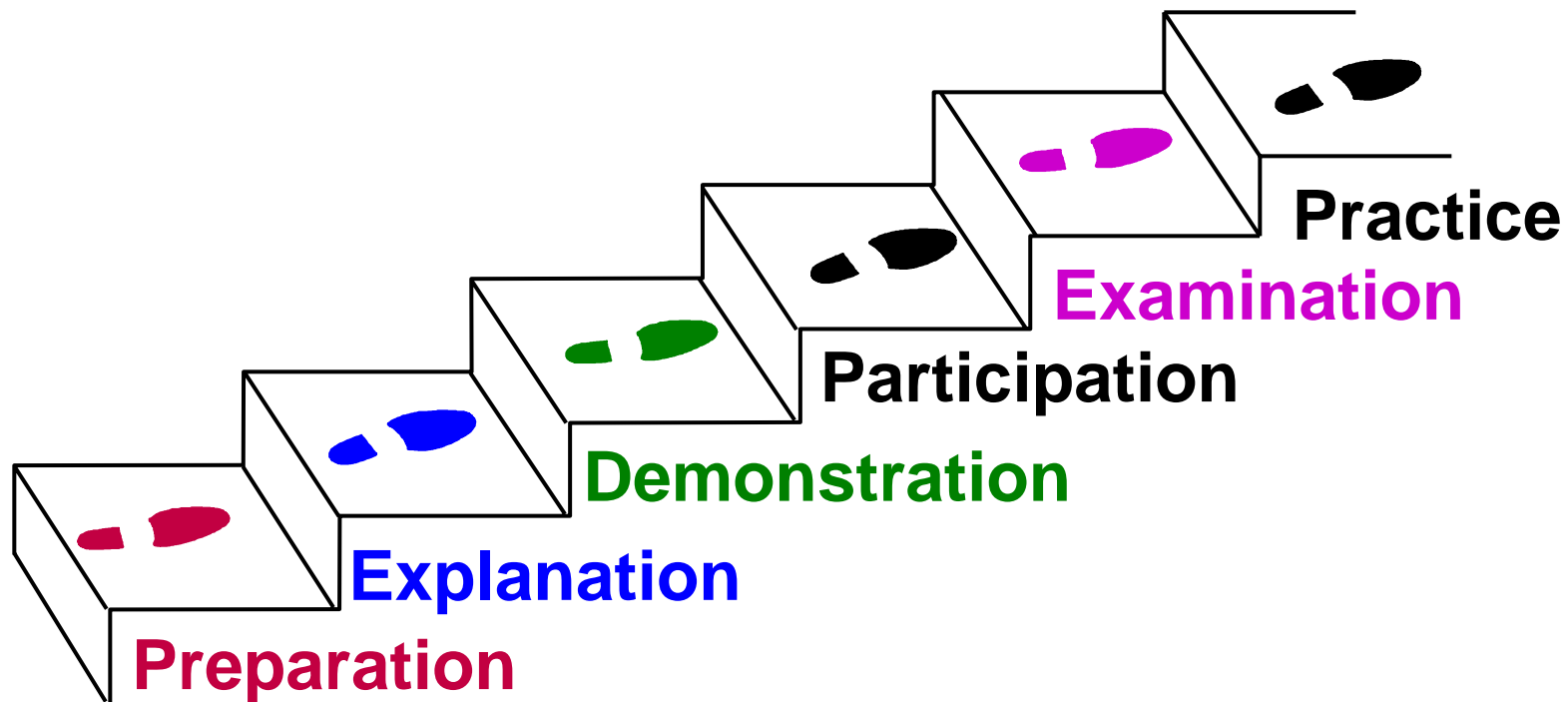
- Keep everything clear and concise
- Write in pen
- Avoid waffling
- Avoid using Technical terms
- Use recognised and agreed abbreviations
- Use sketches / photos
- Do not assume prior knowledge
- Make it as neat as possible

Why should we maintain Standard Operations?

- To ensure it is being followed
- To ensure it is still the best current method
- Are there any changes to the spec?

How to train others to Standard Operations

There are Six Steps to follow



Next Steps

- Write a Standard Operation for wiring a 3 pin plug
- Have it bought off
- Write an actual Standard Operation for your area

Standard Operations

Course Aim & Objectives

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Did we?