National Occupational Standards

Sector: Press Process: Offset Lithography

Occupation: Press Supervisor

MQF Level: 4

Units:

- PS401 Improve individual and organisational performance.
- PS402 Implement maintenance programmes of equipment.
- PS403 Possess expert knowledge of printing materials; pre-press and post-press processes.
- PS404 Possess expert knowledge on printing plates and inks.
- PS405 Control preparation of machines for printing.
- PS406 Control operations of press processes.
PS401 Improve individual and organisational performance

In order to compete successfully, printing companies need to be constantly vigilant on their quality as well as to keep up to date with technology and best practice. One of the ways in which organisations improve is by helping their people to acquire new skills and knowledge either individually or as part of a team.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Supervise and lead work colleagues in improving personal and team performance.
2. Work and communicate effectively with customers for their satisfaction.
3. Regularly plan, implement, review and evaluate the success of objectives designed to improve individual, team and organisation’s performance.

Required Knowledge

Level 4 Pre-press supervisor must know, demonstrate and explain:

1. The principles of personal and team development, planning and training.
2. The main features of quality assurance and quality control.
3. The different type of resources including labour, materials and machinery and how these can be used to maximise productivity.
4. The relationship between resource usage and profitability.
5. The relationship between productivity and competitiveness.
6. Customers’ requirements towards service and quality assurance.
7. The choice of processes and the reasons for selecting for any particular product.
8. The main features of quality assurance and quality control.
10. Problem solving techniques.
11. Ways of presenting and describing workplace activities.
**Required Skills**

**Level 4 Pre-press supervisor must be able to:**

1. Evaluate and develop individual skills and expertise:
   a. Objectively assess existing individual skills and expertise against current industry standards;
   b. Identify ways in which individual performance at work can be improved by improving skills and expertise;
   c. Seek constructive feedback from others on how individual performance at work could be improved;
   d. Identify with manager, areas for development to maintain and improve own skills and expertise;
   e. Set own improvement objectives which are specific and achievable;
   f. Agree an action plan with the manager that includes realistic timescales and measurable targets;
   g. Evaluate own progress and update the action plan regularly with the manager.

2. Evaluate and develop the team’s skills and expertise:
   a. Objectively assess the team’s existing skills and expertise against current industry standards;
   b. Identify ways in which the team’s performance at work can be improved by improving their skills and expertise;
   c. Seek constructive feedback from others on how their performance at work could be improved;
   d. Identify with the team, areas for development to maintain and improve their own skills and expertise;
   e. Set for the team improvement objectives which are specific and achievable;
   f. Plan, agree and implement an action plan with the team that includes realistic timescales and measurable targets;
   g. Evaluate the team's progress and update the action plan regularly.

3. Assess the resources available for producing work and manage same to maximise production and profitability;

4. Improve quality, productivity and team working within the organisation:
   a. Periodically identify possible improvements to the quality of the organisation’s products, services or productivity by improvements to the organisation’s systems or procedures;
individual skills or expertise; the organisation’s resources; team working within his organisation;

b. Discuss with the manager the improvements to quality, productivity and team working that have been identified;

c. Include in the personal development plan at least one target that might contribute to: improvements in the organisation’s productivity, quality of product/service and team working;

d. Provide evidence that the quality of product or service, productivity and team working within the organisation has been maintained or improved over time.

5. Improve customer service delivery:

a. Check that the given service meets the organisation’s and customers’ needs and expectations;

b. If applicable, identify how the service to the customer could have been improved;

c. Include in the personal and team action plan at least one target that should result in an improvement to individual and team’s service to customers;

d. Share relevant information with others in the team to improve the organisation’s customer service delivery;

e. Provide evidence that the service given to customers has improved over time.

6. Choose the right process and/or machine for the particular job and assure that quality in being monitored and controlled.

7. Set targets for production to meet jobs’ and customers’ demands.

8. Assist team to solve problems relating with resources and production.

9. Report on workplace activities as required by company.
PS402 Implement maintenance programmes of equipment

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

Performance Criteria

The candidate must have the necessary knowledge and skills to:
1. Ensure that the team carries working practices using the appropriate equipment.
2. Supervise the cleaning and maintenance of equipment.
3. Enforce the disposal of waste materials and cleaning agents in safe manner.
4. Regularly plan, implement, review and evaluate maintenance programmes of equipment in line with the requirements of production.

Required Knowledge

Level 4 Pre-press supervisor must know, demonstrate and explain:
1. Team’s responsibilities for cleaning machines - what the machine's team are allowed to do.
2. Current legal requirements and industry guidelines for the safe handling and use of hazardous substances.
3. Risks of handling cleaning materials and lubricants.
4. Awareness to check that the team understands the health and safety aspects of cleaning.
5. The production schedule, maintenance and cleaning plan for the plant.
6. Cleaning methods that are safe, avoid harming the environment and which meet manufacturers’ requirements.
7. Various cleaning agents and lubricants and their suitability for use.
8. Company’s procedures for the safe disposal of waste.
9. The proper use of personal protective equipment by the team, and the organisation’s legal responsibilities.
10. Risk assessment of handling machinery and replacing components.
11. The sourcing of information about solving machine faults.
12. The techniques the team are to use to assess machine faults and decide how to deal with them.
13. The tools and equipment to be used by the team to rectify the faults.
14. The types of fault that are likely to occur in the equipment, and what should be done about them.
15. Correct recording of faults and disruption to production.
# Required Skills

**Level 4 Pre-press supervisor must be able to:**

1. Implement the maintenance of equipment:
   a. Plan cleaning and maintenance operations to balance production requirements;
   b. Assure the availability of correct materials and equipment needed for cleaning and maintenance;
   c. Clearly direct the team to what they have to do:
   d. Assure that colleagues use cleaning materials and equipment in ways which minimise waste and pollution;
   e. Assure that used cleaning agents and waste materials are disposed of correctly.

2. Manage machine downtime:
   a. Obtain accurate information about problems with the machine;
   b. Analyse information about machine faults to identify their likely cause:
   c. Identify recurring faults which are caused by operator errors, and takes action to prevent them arising in the future;
   d. Record the details of machine faults and production downtime accurately.
Press Process: Offset Lithography - MQF Level 4

**PS403 Possess expert knowledge of printing materials; pre-press and post-press processes**

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

**Performance Criteria**

The candidate must have detailed knowledge and skills:

1. To explain the different types of modern printing technologies.
2. To demonstrate the work and communicate effectively with customers for their satisfaction.
3. The candidate must have detailed knowledge and skills of processing line from pre-press to post-press in the company.

**Required Knowledge**

Level 4 Pre-press supervisor must know, demonstrate and explain:

1. The technologies available to convey information.
2. Different printing technologies.
3. The different printing substrates available.
4. Paper specifications, paper surfaces and physical qualities.
5. Quality control instruments and methods of application.
6. The production processes available within the company and the sequence of work from pre-press and to post-press.
7. The problems arising from digital artworks created not according to printing production requirements.
8. The difference between the different materials available, the appropriate use of these materials according to the type of work and the proper specifications required to ensure compatibility between artwork brief and production possibilities.

**Required Skills**

Level 4 Pre-press supervisor must be able to:

1. Understand the different forms of communication technologies (print, electronic and multimedia).
2. Differentiate in technology between offset lithography and the other main printing processes.
3. Distinguish between the different types of print media used.
4. Distinguish between the range of printing substrates available for printing.
5. Specify and refer to the paper specifications according to international or industry’s units of measurement.

6. Understand the affect of paper surface quality to print gloss.

7. Identify problems that could arise in offset litho and post-press production from the quality pre-press work.

8. Use and direct the usage of quality control instruments and methods to measure and determine paper surface and physical qualities.

9. Relate to the processing line from pre-press to post-press in the company.

10. Communicate in press and post-press terms to be able to ensure plate colour and imposition outputs according to the requirements of these processes.

11. Ensure that outputted work is according to specifications for post-press processes.
PS404 Possess expert knowledge on printing plates and inks

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

Performance Criteria
The candidate is required to control the:
1. Requirements of plate storage, protection and know the difference in technology between conventional and thermal plates.
2. Storage, mixing and stock control of printing inks, solvents and varnishes.

Required Knowledge

Level 4 Offset litho supervisor must know, demonstrate and explain:
1. The types of printing plates for conventional and computer to plate technology.
2. Quality assurance and monitoring elements used during plate making.
3. The types of printing inks, varnishes, solvents and additives available.
4. The safe storage, handling, retrieval and use of printing plates, inks, varnishes, solvents and additives.
5. Company recording requirements and procedures.

Required Skills

Level 4 Offset litho supervisor must be able to:
1. Ensure that storage areas are kept safe to use, easy to access and that storage conditions are acceptable to minimise deterioration on plates, inks, solvents and varnishes.
2. Ensure that plates are stored in approved conditions to safeguard against light, heat, humidity and lack of cleanliness.
3. Regularly check that pre-press forward plates according to set quality standards.
4. Control that inks, solvents and varnishes are stored in approved containers and clearly and correctly marked.
5. Ensure that any stock no longer suitable for the purpose is disposed in an environment safe method.
6. Accurately record the stock control details required by the company.
PS405 Control preparation of machines for printing

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

Performance Criteria

The candidate must have the necessary skills and knowledge to control the preparation of sheet-fed offset-litho printing machines.

Required Knowledge

Level 4 Offset litho supervisor must know, demonstrate and explain:

1. Production scheduling procedures and methods.
2. The flow of work from pre-press to post-press in the company.
3. Communication and managerial techniques.
4. The principles of sheet transfer through the machine and the sequence of set-up procedures.
5. The principles of fitting plates, blankets and rollers and the testing and quality control measures to ensure proper pressures.
6. The functional use and setting up of inline auxiliary equipment.
7. The requirements of parts or consumables by the various printing machines.

Required Skills

Level 4 Offset litho supervisor must be able to:

1. Plan production schedule with time allotted for machines’ preparation.
2. Coordinate the availability of work from the pre-press section to meet production schedules.
3. Clearly tell the team what they have to do.
4. Communicate using the appropriate technical terms for the respective process.
5. Direct the team in solving problems associated with sheet transfer through the machine.
6. Direct the team in solving problems due to incorrect plate, blanket, rollers and pressure settings.
7. Direct the team in solving problems due to the incorrect setting or malfunction of inline auxiliary equipment.
8. Ensure that any parts or consumables identified as being required to be kept “in stock” are available at the requested time and quantities.
**PS406 Control operations of press processes**

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

### Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Understand the variety of press processes and the management techniques to schedule production.
2. Control quality and assurances of the availability of parts and consumables.

### Required Knowledge

**Level 4 Offset litho supervisor must know, demonstrate and explain:**

1. Production scheduling procedures and methods.
2. The flow of work from pre-press to post-press in his company.
3. Communication and managerial techniques.
4. The technical terms used in the varied press processes.
5. The requirements of materials, parts and consumables by the various press machines.
6. The principles of the press processes and the sequence of set-up and production tasks of the different press machines.
7. Quality standards and acceptable variations and how to solve/deal with unacceptable variations.
8. Function and use of auxiliary in-line equipment.
9. Company’s production records requirements.

### Required Skills

**Level 4: Offset litho supervisor must be able to:**

1. Plan production schedules.
2. Coordinate the availability of work from the pre-press section and the handing over of work to the post-press section to meet production and delivery schedules.
3. Clearly tell the team what they have to do and be able to co-operate, lead and liaise with production staff, maintenance staff and management team.
4. Communicate using the appropriate technical terms for the respective processes.
5. Ensure that any materials, parts or consumables identified as being required to be kept “in stock” are available at the requested time and quantities.
6. Accurately record the production and quality assurance details required according to company’s procedures.