

PR2 CONTRIBUTE TO THE EFFECTIVENESS OF LABORATORY ACTIVITIES

Introduction

This unit covers the monitoring of laboratory activities, routine equipment maintenance and what you have to do to work efficiently and effectively.

The term **laboratory activities** is used to cover film processing, paper processing and printing, including minilab processing and printing. The unit is written in general terms to cover all of these contexts.

Where the unit is used as part of NVQs and SVQs, it is a mandatory unit for the qualifications in Photo Processing at Level 2 (Minilab Processing) and Level 3 (Laboratory operations).

The unit consists of three elements:

Element Pr2.1 Monitor the performance of equipment and material

Element Pr2.2 Carry out routine maintenance

Element Pr2.3 Contribute to efficient and effective production

THIS IS WHAT THE UNIT COVERS

Monitoring the performance of equipment and material

You must be able to monitor the day-to-day performance of laboratory equipment and material as well as carrying out more formal checks.

Day-to-day activities include checking control panels and responding correctly to any messages, eg on chemical replenishment.

The frequency with which you make formal checks on the performance of equipment and material will vary with the nature of the equipment and material and your workplace standards.

In pro labs, for example, you might carry out formal process control checks several times a day; in minilabs, you might do so once a day or once every two or three days.

You must be able to detect any problems in the operation of equipment and material. You will be expected to deal with some of those as part of your job. However, when you come across problems you cannot solve, you must refer them to the correct person. Depending on your work situation, this may be an experienced colleague, a supervisor, the supplier or the manufacturer.

Maintenance

You must stick to the maintenance schedules required in your workplace. Within these limits, however, you must time your maintenance activities so that they cause minimum disruption to day-to-day production requirements.

Maintenance covers activities such as cleaning, lubrication and equipment adjustments.



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THIS IS WHAT THE UNIT COVERS (CONTINUED)

Components

The equipment components you have to deal with depend on the nature of the equipment.

For film and paper processors they may include rollers, cogs, racks, pumps, tanks, chemical lines and chemical filters.

For printers they might include lamps, lenses, filters, diffusers and mirrors.

You must be able to carry out routine component replacement yourself; for more complicated activities, however, you may have to call in specialist help.

ELEMENT PR2.1 MONITOR THE PERFORMANCE OF EQUIPMENT AND MATERIAL

This is what you have to do

1. a) Monitor the day-to-day performance of the laboratory equipment and material
b) Carry out correctly the routine operations necessary to keep the equipment and material in the required condition for production
2. a) Carry out checks, at the correct intervals, on the performance and condition of laboratory equipment and material
b) Compare the performance of the equipment and material with workplace standards and manufacturers' specifications
3. a) Recognise any problems in the operation of the laboratory equipment and material
b) Recognise any problems in the condition of the laboratory equipment and material
4. a) Do what you can, within the limits of your job, to solve the problems
b) Tell the correct people immediately if you cannot solve the problems
c) Follow their instructions on how to respond to the problems



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ELEMENT PR2.2 CARRY OUT ROUTINE MAINTENANCE

This is what you have to do

1. Wear any necessary protective clothing when carrying out equipment maintenance
2. a) Carry out routine maintenance at the correct intervals
b) Take account of production requirements in deciding the exact timing
3. In carrying out equipment maintenance, follow:
 - a) workplace requirements
 - b) legal requirements
 - c) health and safety requirements
 - d) manufacturers' instructions
4. a) Detect any worn, faulty and/or dirty components
b) Where necessary, replace any user-serviceable components
c) Tell the correct people about any problems you are not able to deal with
5. a) Carry out any cleaning correctly and safely
b) Dispose of cleaning waste correctly
6. If you are involved in film and/or paper processing:
 - a) Remove used chemicals from the processing equipment
 - b) Dispose of used chemicals in accordance with workplace and legal requirements
 - c) Deal correctly with any chemical spillages

ELEMENT PR2.3 CONTRIBUTE TO EFFICIENT AND EFFECTIVE PRODUCTION

This is what you have to do

1. Organise your work schedule to take account of the following:
 - a) customer requirements
 - b) workplace priorities
 - c) the efficient use of equipment and material
2. Where it proves impossible to complete your work within the agreed time:
 - a) tell the correct people
 - b) agree how to progress the work
3. Tell the correct people about any problems and questions raised by your work
4. Produce the required quantity and quality of work
5. Follow all workplace procedures designed to safeguard people, equipment and photographic material
6. Complete all work records clearly and accurately



PR2 CONTRIBUTE TO THE EFFECTIVENESS OF LABORATORY ACTIVITIES

THIS IS THE KNOWLEDGE AND UNDERSTANDING YOU NEED TO COMPLETE THIS UNIT SUCCESSFULLY

K3 Health and safety

Health and safety generally

- Hazards and risks in your own job, their assessment and the action to take to deal with them — including the safe handling of equipment and material
- Manufacturers' health and safety requirements relevant to your job

Additional requirements covering chemicals

- Legal and manufacturers' requirements, particularly the relevant COSHH regulations, on the storage and use of material
- Legal and workplace requirements, including the relevant legislation on environmental protection, on the disposal of equipment and material
- Safe handling methods for processing chemicals
- The nature and use of personal protective equipment

K6 Communication

- With colleagues
- With suppliers and/or manufacturers

K7 Workplace policy and practice

- Workplace objectives, priorities, standards and procedures
- The range of work carried out in the workplace
- The working practices existing in the workplace

K9 Time and resources

- The time required to carry out the work
- Resource wastage targets

K10 The operation of equipment, material and systems

- The set-up of film processing, paper processing and/or printing equipment
- The operation of film processing, paper processing and/or printing equipment
- User-permissible maintenance, fault-finding and minor repairs
- Sources of replacement and repair for broken and/or faulty components
- Basic cleaning methods

K12 Processing

- The properties of processing chemicals, including: their deterioration over time; the effects of evaporation; the effects of contamination
- Chemical mixing
- How to monitor and control the operation of photographic chemistry
- The nature and use of densitometry

K13 Printing

- Darkroom procedures
- How to control exposure
- How to control colour — use of filters
- The nature and use of densitometry
- The nature and use of lenses
- Properties of light sources

K17 Administrative procedures

- The nature and use of record-keeping systems

