**FEDERAL SUBSIDIARY LEGISLATION**

# FACTORIES AND MACHINERY ACT 1967 [ACT 139]
# P.U. (A) 112/1983
# FACTORIES AND MACHINERY (PERSON-IN-CHARGE) REGULATION 1970 (REVISED - 1983)

*Incorporating latest Amendment –Act 160*


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## ARRANGEMENT OF REGULATIONS

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**PART III - MISCELLANOUS**

**1. Citation**

These regulation may be cited as the **Factories and Machinery (Persons-in-Charge) Regulations, 1970.**

**2. Interpretation.**

In these Regulations the terms used shall, unless the context otherwise requires, have the same meanings as are respectively assigned to them by Part I of the Factories and Machinery Act, 1967, referred to in these Regulations as "the Act".

## PART I
## MACHINERY REQUIRED TO BE IN CHARGE OF PERSONS HOLDINGS CERTIFICATES OF COMPETENCY

**3. Machinery requiring certificated person in charge.**

Pursuant to section 29 (2) of the Act, a person in charge of any steam boiler, steam engine, internal combustion engine or dredge shall, except as provided hereafter, hold an appropriate certificate of competency prescribed by these Regulations.

**4. Person or engineer in charge of machinery.**

(1) A person in charge of a steam boiler or steam boilers shall for the purpose of these Regulations be deemed also to be in charge of any unfired pressure vessel supplied with steam therefrom.

(2) Where these Regulations prescribe that an engineer shall be in charge of any machinery such engineer shall be in charge also of the installation of which such machinery forms part.

(3) Where these Regulations do not prescribe that an engineer, dredgemaster or driver shall be in charge of any machinery, such machinery shall be in charge of such person or persons as a Senior Inspector in writing may direct.

**5. Steam boilers and engines not a dredge.**

(1) This regulation shall apply to steam boilers and steam engines not installed on a dredge and in this regulation-

"driver" means the holder of a driver's certificate of competency for steam boilers and steam engines;

"engineer" means the holder of an engineer's certificate of competency for steam boilers and steam engines;

"heating surface" means, in respect of any steam boiler, the total surface of all plates and tubes exposed to heat on one side and in contact with water on the other, measured on the water or fire side, whichever is the greater, and excluding the heating surface of any economiser and superheater connected thereto;

"visiting engineer" means the holder of an engineer's certificate of competency for steam boilers and steam engines who is employed by an owner to make periodical visits to and inspections of, his machinery.

(2) (i) Where the heating surface of a steam boiler, or the aggregate heating surface of steam boilers connected to a common range, is five hundred square feet or less, a first or second grade driver shall be in charge of such boiler or boilers during each shift; and

(ii) Where more than one steam boiler is connected to a common range or there is more than one associated steam engine, the driver in charge shall be assisted during each shift by other first or second grade drivers sufficient to ensure that including the driver in charge there shall not be more than two steam boilers or two steam engines or one combined steam boiler and steam engine to each driver.

(3) Where the heating surface of a steam boiler, or the aggregate heating surface of steam boilers connected to a common range, is greater than five hundred square feet but not greater than two thousand square feet, a first grade driver shall be in charge of such boiler or boilers during each shift, and the provisions of paragraph (2) (ii) shall apply.

(4) Where the heating surface of a steam boiler, or the aggregate heating surface of steam boilers connected to a common range is greater than two thousand square feet but not greater than five thousand square feet, a first grade driver shall be in charge of such boiler or boilers during each shift, and the provisions of paragraph (2) (ii) shall apply. In addition the owner shall employ a first or second grade visiting engineer who shall comply with the provisions of regulations 10, 11 and 12.

(5) (i) Where the heating surface of a steam boiler or the aggregate heating surface of steam boilers connected to a common range, is greater than five thousand square feet but not greater than ten thousand square feet, a first or second grade engineer shall be in charge of such boiler or boilers; and

(ii) where more than one steam boiler is connected to a common range or there is more than one associated steam engine, the engineer in charge shall be assisted during each shift by such first grade drivers as shall be sufficient to ensure that there shall not be more than two steam boilers or two steam engines or one combined steam boiler and steam engine to each driver.

(6) (i) Where the heating surface of a steam boiler, or the aggregate heating surface of steam boilers connected to a common range, is greater than ten thousand square feet but not greater than twenty-five thousand square feet; a first grade engineer shall be in charge of such boiler or boilers; and

(ii) Where more than one steam boiler is connected to a common range or there is more than one associated steam engine, the engineer in charge shall be assisted by a first or second grade engineer and during each shift by such first and second grade drivers as shall be sufficient to ensure that there shall not be more than two steam boilers or two steam engines or one combined steam boiler and steam engine to each driver.

(7) (i) Where the heating surface of a steam boiler or the aggregate heating surface of steam boilers connected to a common range, is greater than twenty-five thousand square feet, a first grade engineer shall be in charge of such boiler or boilers; and

(ii) Where more than one steam boiler is connected to a common range or there is more than one associated steam engine the engineer in charge shall be assisted by two first or second grade engineers and during each shift by such first and second grade drivers as shall be sufficient to ensure that there shall not be more than two steam boilers or two steam engines or one combined steam boiler and steam engine to each driver.

(8) (i) Where the heating surface of a steam boiler, or the aggregate heating surface of steam boilers connected to a common range is greater than fifty thousand square feet, a first grade engineer shall be in charge of such boiler or boilers; and

(ii) Where more than one steam boiler is connected to a common range or there is more than one associated steam engine, the engineer in charge shall be assisted during each shift by a first or second grade engineer together with such first and second grade drivers as shall be sufficient to ensure that there shall not be more than two steam boilers or two steam engines or one combined steam boiler and steam engine to each driver.

**Exemption.**

(9) Notwithstanding the provisions of this regulation a driver shall not be required to be in charge of a steam boiler of the following types-

(i) an electrode boiler;

(ii) a steam tube oven;

(iii) a steam tube hotplate;

(iv) an autoclave;

(v) any steam boiler in which the steam generated is retained inside the boiler.

**6. Internal combustion engines not on a dredge**

(1) This regulation shall apply to internal combustion engines not installed on a dredge and in this regulation-

"driver" means the holder of a driver's certificate of a competency for internal combustion engines;

"engineer" means the holder of an engineer's certificate of competency for internal combustion engines;

"horse power" means in respect of any prime mover the rated output of such prime mover in brake horse-power which it is able to develop for a period of twelve hours at its rated speed when working under such conditions as may be specified in any relevant British Standard Specification;

"visiting engineer" means the holder of an engineer's certificate of competency for internal combustion engines who is employed by an owner to make periodical visits to, and inspections of, his machinery.

(2) (i) Where the greatest horse-power of any one internal combustion engine in any one installation is not greater than one hundred, a first or second grade driver shall be in charge during each shift; and

(ii) Where there is more than one internal combustion engine in the installation, the driver in charge shall be assisted during each shift by such other first or second grade drivers as shall ensure that, including the driver in charge, there are not more than two engines to each driver.

(3) Where the greatest horse-power of any internal combustion engine in any one installation is greater than one hundred but not greater than five hundred, a first grade driver shall be in charge during each shift, and where there is more than one internal combustion engine in the installation the provisions of paragraph (2) (ii) shall apply.

(4) Where the greatest horse-power of any one internal combustion engine in any one installation is greater than five hundred but not greater than one thousand, a first grade driver shall be in charge during each shift and where there is more than one internal combustion engine in the installation, the driver in charge shall be assisted during each shift by such other first grade drivers as shall ensure that, including the driver in charge there are not more than two engines to each driver. In addition, the owner shall employ a first grade visiting engineer.

(5) Where the greatest horse-power of any one internal combustion engine in any one installation is greater than one thousand but does not exceed one thousand five hundred, a first or second grade engineer shall be in charge, and he shall be assisted during each shift by a first grade driver and where there is more than internal combustion engine in the installation such other first grade drivers shall be employed sufficient to ensure that there are not more two engines to each driver during each shift.

(6) Where the greatest horse-power of any one internal combustion engine in any one installation is greater than one thousand five hundred, a first grade engineer shall be in charge and he shall be assisted during each shift by a first grade driver and where there is more than one internal combustion engine in the installation, such other first grade drivers shall be employed sufficient to ensure that there are not more than two engines to each driver during each shift.

(7) Notwithstanding the provisions of this regulation where in any installation the aggregate horse-power of a number of internal combustion engines is greater than one thousand five hundred but not greater than two thousand, a first or second grade visiting engineer shall be employed; and where the aggregate horse-power is greater than two thousand but not greater than two thousand five hundred, a first grade visiting engineer shall be employed; and where the aggregate horse-power is greater than two thousand five hundred but not greater than three thousand, a second grade engineer shall be in charge; and where the aggregate horse-power is greater than three thousand, a first grade engineer shall be in charge.

(8) Any visiting engineer employed pursuant to the provisions of this regulation shall comply with the provisions of regulations 10, 11 and 12.

(9) Notwithstanding the provisions of this regulation, a driver shall not be required in respect of an internal combustion engine-

(i) installed in a hoisting machine;

(ii) of not more than forty horse-power;

(iii) inspiring fuel by means of a carburettor.

**7. Steam dredge.**

(1) A dredge driven by a steam power shall be in charge of a person who holds-

*(a)* an engineer's (steam) certificate of competency, such person having served for a period of not less than six months as an assistant in charge of a shift on a dredge and had such certificate endorsed accordingly, or

*(b)* a dredgemaster's (steam and electric) certificate of competency.

**Internal combustion engine dredge.**

(2) A dredge driven by electric power generated by internal combustion engines installed on the dredge or directly by internal combustion engines shall be under the charge of a person who holds-

*(a)* an engineer's (internal combustion engines) certificate of competency, such person having served for a period of not less than six months as an assistant in charge of a shift on a dredge, and had such certificate endorsed accordingly; or

*(b)* a dredgemaster's (internal combustion engines and electric) certificate of competency.

**Electric dredge.**

(3) A dredge driven by electric power from bulk supply shall be under the charge of a person who holds-

*(a)* an engineer's (steam) or an engineer's (internal combustion engines) certificate of competency, such person having served for a period of not less than six months as an assistant in charge of a shift on a dredge, and had such certificate endorsed accordingly; or

*(b)* a dredgemaster's certificate of competency.

(4) An engineer or dredgemaster in charge of a dredge shall be assisted during each shift by first or second grade drivers(steam) or first or second grade drivers (internal combustion engines) as appropriate in accordance with the provisions of regulation 5 or 6.

**8. Shifts.**

(1) For the purpose of these Regulations a shift shall be a period of continuous duty of eight hours:

Provided that the period of a shift may be extended but in no circumstances shall such a period exceed twelve hours except in the case of an emergency.

(2) No person shall, except in case of emergency or at the weekly rotation of shifts, be in charge of or operate or require or cause any driver or other person to be in charge of or to operate any machinery for a period exceeding twelve hours in any twenty-four hours.

**9. Change of shift.**

(1) A driver or other person in charge of machinery due to proceed off duty at the end of his shift shall not leave such machinery in operation unless and until a relieving driver or other person, as the case may be, has taken over from him.

(2) A driver or other person in charge of machinery shall not, except in the case of an emergency, leave his post during his shift unless and until he has been relieved by another driver or other person, as the case may be.

**10. Visiting engineers.**

(1) Every owner or occupier who employs a visiting engineer pursuant to these regulations in respect of machinery shall provide and maintain a register at or near the place where the machinery is situated, wherein shall be entered, by such visiting engineer at each visit, the information prescribed in regulation 11(ii).

(2) The owner or occupier shall countersign every entry by the visiting engineer and shall produce the register for examination at every regular inspection or at any other time an Inspector may require.

(3) The register shall be in such form as the Chief Inspector may require.

**11. Duties of visiting engineers.**

It shall be the duty of every visiting engineer in respect of the machinery for which he is responsible-

(i) to make visits of inspection at least once in every two weeks to every steam boiler and associated machinery and visits of inspection at least once in each month to every internal combustion engine and associated machinery;

(ii) to enter in the aforementioned register-

*(a)* a report on the condition of the machinery and of the effectiveness of any safety devices fitted thereto at the time of his visit;

*(b)* details of any repairs required to the machinery and subsequently the dates when repairs have been executed;

*(c)* details of any breakdown of the machinery which may have occurred since his last visit and of the repairs effected;

(iii) to submit to the Inspector not later than the tenth day of every month, a report on his inspections during the preceding month in such form as the Chief Inspector may require;

(iv) to be present at every regular inspection of the machinery and at such other inspections thereof as an Inspector may require;

(v) to assist an Inspector in any investigation he may make of any accident connected with the machinery reported under the provisions of section 31 of the Act.

**12. Limitation of visiting engineer's responsibility.**

The Chief Inspector may, in his discretion limit the number of boilers, internal combustion engines and other machinery in respect of which a visiting engineer is employed.

**13. Assessment of drivers.**

For the purpose of assessing the number and grade of drivers required under these regulations, an Inspector may ignore any steam boiler, steam engine or internal combustion engine which-

(i) is required for standby purposes only;

(ii) of itself does not require a driver under these Regulations;

(iii) is required to drive plant auxiliaries only.

**14. Inspector's powers to increase the number of drivers.**

Where an Inspector is of the opinion that, by reason of the size, arrangement or amount of ancillary machinery, in the installation or factory the number and grade of the drivers prescribed in these Regulations is insufficient to ensure the safe operation of the installation or factory he may, in his discretion, require an occupier or owner to employ drivers in excess of the number prescribed.

**15. Owner to notify changes in certificated persons employed.**

Every owner or occupier of machinery who in pursuance of these Regulations employs any person holding a certificate of competency shall, when such person leaves his employ, give notice thereof in writing to an Inspector. Such notice shall give the name, the grade and number of the certificate of

competency, of the engineer, dredgemaster or driver who is to replace the said person and be accompanied where appropriate by the current certificate of fitness of the machinery concerned for the Inspector's endorsement and return.

**16. Death, sickness and leave of absence of person in charge.**

In the case of death, sickness or leave of absence of the person prescribed to be in charge of a machinery, or for any good and sufficient cause, the Chief inspector may, notwithstanding the provisions of these Regulations, authorize the owner or occupier by a certificate in writing (which certificate may be revoked at the discretion of the Chief Inspector) to operate the machinery for a period not exceeding one calendar month without the person in charge thereof subject to such conditions as may be specified in the certificate.

**17. Automatic plant.**

Where any steam boiler or internal combustion engine is fitted with fully automatic controls, the Chief Inspector may, notwithstanding the provisions of these Regulations, reduce the grading or the number of drivers required under these regulations or both such grading and number by a certificate in writing (which certificate may be revoked at the discretion of the Chief Inspector) and subject to such conditions as may be specified in the certificate.

**18. Chief Inspector may vary requirements.**

Notwithstanding the provisions of these Regulations relating to the grade and the number of engineers and drivers for any steam boiler, steam engine, or internal combustion engine the Chief Inspector may increase or reduce the grade or the number or both such grade and number by a certificate in writing (which certificate may be revoked at the discretion of the Chief Inspector) and subject to such conditions as may be specified in the certificate.

## PART II
## TRAINING OF OPERATORS OF MACHINERY

**19. Instructions to be given to persons working on machinery.**

An owner or occupier shall not require or permit any person to work on any machinery unless he has caused such person to be instructed-

(i) in the precautions to be taken against any danger to health which may arise from work on the machinery; and

(ii) in the use and where necessary the adjustment of the safety appliances provided; and

(iii) in the precautions to be observed in the operation, cleaning and maintenance of the machinery;

Provided that the holder of a certificate of competency need not be so instructed in respect of machinery to which the certificate relates.

**20. Training to be given to operators of certain machinery.**

(1) An owner or occupier shall not require or permit any person to operate or to work on any machinery set out in the Schedule to these Regulations unless such person has had a course of instruction in the working of the machinery and for a period of not less than ten days thereafter is under the supervision and in the immediate company of an operator with not less than six months experience of the operation of such machinery.

(2) The Minister may at any time by notification in the *Gazette* add to, alter or amend the said Schedule as he shall deem fit.

## PART III
## MISCELLANOUS

**21. Penalties.**

Any person who commits an offence against these Regulations for which no corresponding penalty is provided by the Act shall on conviction be liable to a fine not exceeding one thousand ringgit.

## SCHEDULE

(Regulation 20)

1. Power press, drop stamp, guillotine, clicking press, brick and tile press and any similar machine in which the material to be processed is fed between a reciprocating tool and a fixed die or bed.

2. Rubber scrap washer, rubber creping, sheeting and laminating machine, calender, oil expressers and rolls, cloth wrapping and solution spreading machine and any similar machine in which the material to be processed is fed into the in-running nip between pairs of revolving parts.

3. Circular saw, band saw, planer, moulder, chain mortising and other woodworking machinery.

4. Printing machinery.

5. Metal sawing, planning, milling, turning and other metal working machines.

6. Hydro-extractor, centrifuge and other revolving high speed cages in casings.

7. Acetylene generating plant.

8. Steriliser, vulcaniser and other unfired pressure vessels in which the material to be processed is placed.

9. Electric lift, crane, excavator, winch, crab and any hoisting machine other than a rope or chain block.

## LIST OF AMENDMENTS

*Particulars under section 7(ii) and (iii) of the Revision of Laws Act 1968 (Act 1)*

| ***Amending Law*** | ***Short title*** | ***In force from*** |
|---|---|---|
| Act 160 | Malaysian Currency (Ringgit) Act 1975 | 23-10-1970 |

## LIST OF LAWS OR PARTS THEREOF SUPERSEDED

| ***No.*** | ***Title*** |
|---|---|
| P.U.(A) 11 of 1970 | Factories and Machinery (Person-in-Charge) Regulations 1970 |