

Industrial Guide

Glossary

Industrial establishment

The whole of a place where, principally or as an addition, any type of industrial activity is undertaken by the owner or by a third party, irrespective of scale, number of workers, equipment or other production factors

Industrial activity

For the purposes of industrial licensing, industrial activity is considered to be any activity included in the Economic Activities Classification lists.

Industrial Licensing

The compulsory procedure which frames the requirements for industrial establishments within the terms of the law. Decree 39/03 of 26th November defined the rules for industrial licensing. In Mozambique industrial licensing is uniquely and exclusively the preserve of the government entity defined and formally constituted for that purpose.

Historical framework

The licensing of industrial establishments dates from 1945, with the publication of portarias no. 6:231 and 5:717, a time at which industrial activity proliferated with the fruits of the industrial revolution. The Governor General of the time began to exercise control over aspects concerning the hygiene and safety of industrial establishments and of personnel and material goods.

However faced with developments in technology and industrial expansion processes, and urbanization these previous regulations were very quickly overtaken.

Today guaranteeing the life of the population is an essential concern. This implies, without prejudice to the right to freely exercise industrial activity, the protection of the fundamental rights of the population, as well as any other rights susceptible to being compromised by industrial developments. Therefore, population growth, the environment and the organization of land come together in the development of a suitable industrial licensing regulation (decree 39/03 of 26th November).

The difficulties with licensing

The obvious technical-administrative complexity of the industrial licensing process is considered by many business people as being a bureaucratic intervention in the production chain of the company. However the new regulation which completely reformulates the legal regime that had been in force since 1998, introduces a new

philosophy for industrial licensing, allowing a reduction in bureaucracy throughout the whole process, through the elimination of certain acts and documents.

The objective of industrialists is to minimize the time between the decision to invest and the start of production, however this does not need to be incompatible with the licensing process. Meaning that this process could also be the catalyst for an increase in productivity, its analysis and implementation leading to constructive criticism which will allow for the elimination of conceptual deficiencies, reducing the risks associated to the work and well being of workers.

Industrial licensing is often neglected by industrial business people who lack information or are ill technical-administratively advised. As a result this is a process which should be prepared and organized by professionals with the technical capacity to do so, possibly even from outside the company should the resources not be available internally. This should be considered as an investment and realization of potential with significant return. Many times the industrial operator who does not have authorization to operate through licensing only realizes the seriousness of this omission when confronted by an inspection which closes his premises.

This guide aims, in a brief and succinct way, to provide the industrial operator with the procedures which need to be followed for licensing and also the technical conditions which need to be maintained in an industrial establishment, in accordance with the relevant regulations.

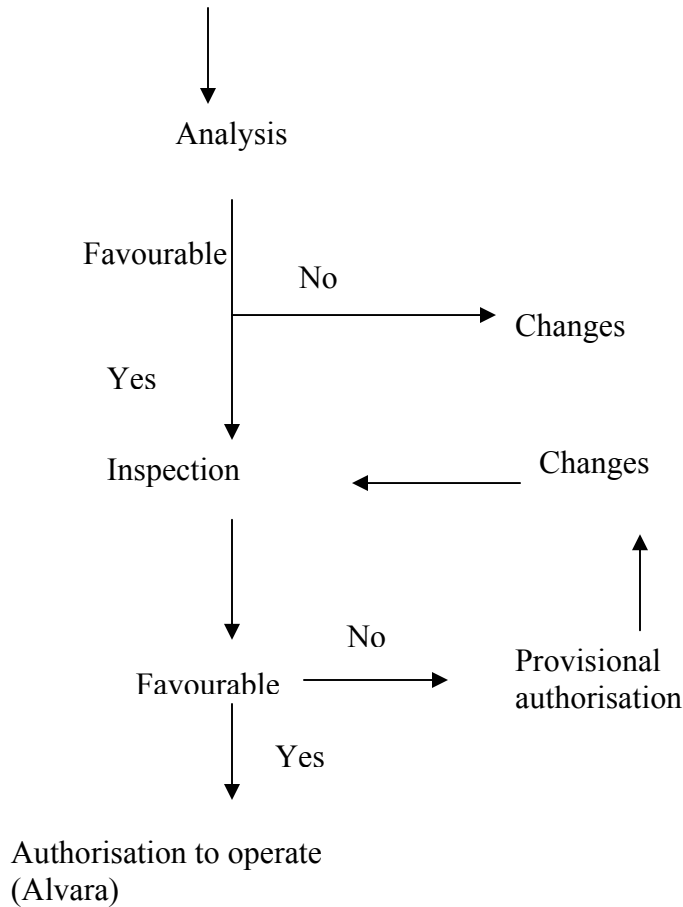
1. Licensing procedures

The operator must collect all the documentation mentioned in decree 39/03 of 26th November and submit it to the Industry and Commerce directorate.

Having submitted the process the coordinating body will evaluate it with a view to authorizing operations. During the analysis other bodies may be consulted and must issue their opinions within a pre-defined period. Having received these opinions the coordinating organization will elaborate a final opinion. Whether the final opinion is favourable or not the start of activities depends on the submission of a request for inspection. The process therefore moves as follows:-

Submission of process

- Request letter addressed to Minister or Governor
- Topographical map
- Plan
- Written description



- Don't forget that each industrial category has specific issues in respect to the requirements for industrial licensing, find your category and proceed accordingly
- Under the terms of the classifications of industrial activities these are divided into large, medium, small and micro depending on the value invested, electrical potential installed and number of workers employed.
- Establishments classified as micro are exempt from project approval and inspection but must pre-register in accordance with annex II of the industrial licensing regulation, except in the case of the food and beverage industry which

must observe that stipulated in law 8/82 and decree 12/82 both of 23rd June as well as Ministerial Diploma 51/84 of 3rd October, and the pharmaceutical industry must observe that established in law 4/98 of 14th January, the Medicines Law

- d) Small establishments are exempt from project approval but must present to the licensing body project documents as per Article 11 of the industrial licensing regulation.

2. Requirements for industrial licensing for large, medium and small industries

2.1 Request letter to Minister of Industry and Commerce

- Name, nationality, residence (individual), name of representative and headquarters (company) Government Gazette in which statutes are published or copy of the same
- Location where industry is planned

2.2 Topographical map

Existing infrastructure (factories, houses, roads, railway lines, hospitals, schools, water supplies, defense and security installations, geography of the area, mountains etc.)

2.3 Plan

Infrastructure of industrial establishment (warehouses, offices, processing units, sanitary installations, canteens, access routes, security installations, deposits, offices and others)

2.4 Written description of project

- Process and diagram of working of process
- Raw material (quality and quantity), production capacity, machines and equipment, total power draw, security measures
- Water supply system, security and first aid installations
- Approximate number of toilets, bathrooms and sanitary installations, drain network and effluent treatment installations
- Approximate number of workers

2.4.1 Flux and production process diagram

Basic representation of the equipment comprising the plant, electrical currents entering and leaving, their origin and destination.

2.4.2 Electrical capacity

This must conform to the requirement or capacity to consume

2.5 Environmental Impact Study approved by Ministry for Environmental Coordination (MICOA)

New companies must present an Environmental Impact Assessment while those already existing must present an Environmental Audit

3. Technical conditions for operation which must be maintained in the installations

3.1 Location

- Clean
- Good rainwater drainage

3.2 Storage of raw material and finished product

- Cool, well-lit and with good ventilation
- Isolated from the rest of the factory and laboratory by fire walls (depending on nature of raw material)
- Easy and unobstructed access maintained
- Lighting system and equipment must be inflammable
- Demarcated or adequately walled (if within the factory)

3.3 Fuel and flammable materials store

- Isolated (fire walls, all electrical equipment inflammable)
- Ventilated and with automatic sprinkler system
- Piping leading to secure area
- For large volumes, storage a considerable distance from the rest of the installation, sufficient extinguishers provided (water and foam)
- Protect system tanks holding highly flammable material from sun, or cool with automatic sprinkler (150mm hg to 40 degrees centigrade or 0.2 atm))
- Supply liquids by pipe
- Separate according to category and compatibility
- Sawdust, straw and other flammable packing materials must be stored in isolated buildings in inflammable compartments or packed in metal containers which are not stored in direct sunlight

3.4 Compressed gas

- Isolate using fire and heat resistant divisions
- Protect from excessive variations of heat, direct sunlight or persistent humidity (if stored in the open air)
- Do not store next to flammable substances
- Prohibit access to unauthorized personnel

3.5 Storage of radioactive materials

- Radiation outside the storage facility may not exceed 2.5 thousand rads per hour. Within the storage the level must be as low as possible
- Storage must have outside ventilation
- Containers must be sealed with polystyrene, rubber or cork but never glass or screw-caps in the case of unsealed radioactive products
- Prohibit access to unauthorized personnel

3.6 Storage of toxic substances

- All workers must be informed of and have access to information on the potential dangers, symptoms resulting from exposure, availability of first aid, and specific good practice
- Store in cool well ventilated place, never near flammable materials
- Restrict access and provide adequate signage

3.7 Drinking water storage

- Clean, ensure the hygiene of and close regularly
- Supply with appropriate pipes. Consumption must be from taps or deposits specifically for that purpose

3.8 Fire fighting water storage

- The deposits or tanks holding water for fire fighting must have at least the minimum capacity for fighting fires

3.9 Raw materials and finished products

- Labels must be periodically checked and must be explicit and visible, with indications of dangers, preventative measures during handling, instructions in case of accidents, fire, spillage or leakage; storage and handling of containers, use before dates, address of manufacturer

3.10 Water for production and cleaning

- Must be of good quality, treated and maintained in sealed containers (food industry)
- Supplied to the factory through suitable piping

3.11 Canteen

- Must have an area of 1m² per worker, washable floor, enough tables and chairs for each worker, sink, serving area, drinkable water

- Clean, well ventilated and illuminated
- Workers in the canteen must be dressed in different uniforms to those of other workers, and must be listed on an up to date sanitary chart

3.12 Laboratory

- Maintain hygiene and security measures (environmental conditions, individual and collective protection, calibration of measuring instruments and equipment)

3.13 Sanitary facilities

- Separated by sex
- May not communicate directly with the working areas, and must be easy to access and convenient
- Must be separated from the work place by an intermediate room where the washbasins are, if the whole is in a different building
- Have smooth, waterproof, washable, durable slip-proof tiled surfaces which can be disinfected. These surfaces should slope towards a gutter with a drain.
- Supply plumbed or current water in sufficient quantities, washbasins with soap and wherever possible a hand drying system
- Have drains linked to the mains or a septic tank interposed with suction systems where necessary
- Have walls painted in light colours and covered in tiles or other waterproof material to not less than 1.5 metres
- Have a fixed washbasin for each group of twenty workers or fraction thereof, who work the same shift, and in the case of numbers above one hundred, one fixed basin for every thirty workers over the first one hundred.
- One shower for each group of ten workers or fraction thereof who work the same shift
- Have a toilet with bidet or latrine for each group of twenty five men or fifteen women or fraction thereof.
- Have one urinal per group of twenty-five workers or fraction thereof who work the same shift, or per each group of ten in the food industry

3.13.1 Conditions for the equipping of sanitary installations

- Non-irritant soap must be available
- Collective towels may not be used
- When using collective basins each 0.6 meters must correspond to an individual basin, and the respective taps should by preference be operated by pedals
- Shower stalls must be in an appropriate location separate from the bidets and urinals, with an antechamber for dressing, hangers and bench, running

water, have anti-slip surfaces, have doors or constructed in such a way as to provide suitable protection, and must be well maintained and clean

- Each group of toilets must be in an independent location with an antechamber for washbasins and urinals
- The actual toilet itself must be in a compartment not less than 1mx1.3m with direct external ventilation, with independent door and lock
- The divisions of each stall must be at least 1.8m high and the bottom may not be more than 0.2m from the floor. They must be well-maintained, hygienic, and those for women must have a bucket with a lid
- Urinals must have at least 0.6 metres per person

3.13.2 Dressing rooms

- Must be in appropriate rooms separated by sex and well illuminated and ventilated
- May not join directly onto showers and washbasins
- Provide individual lockers and sufficient benches or chairs
- Dressing rooms, showers and basins must in total occupy no less than 1m² per worker in cases where more than 25 workers are employed
- Each locker must have a lock or padlock and have ventilation space above and below the door. In the case of workers exposed to toxic, irritant or infective substances the lockers must be made up of two independent compartments allowing them to store personal clothes separate from work clothes
- A place must be reserved for dirty clothes. Clothes and other personal items may not be stored outside the locker room
- The dressing and locker rooms must be maintained in hygienic and tidy conditions

3.13.3 Drains

- Must be in good condition with cutoffs and siphons and suitable inspection points, allowing for the complete removal of waste products at periods of peak discharge
- Be completely separate from the drinking water supply network
- Be channeled into the municipal supply or carried to the treatment station or septic tank as relevant

3.14 Corridors

- Must be sufficiently illuminated and ventilated
- Must be wide enough to allow for safety in the circulation of all the users of the installation

3.15 Access routes

- The distance to be covered to reach the exit must reduce directly in proportion to the risk

- In areas exposed to risk of fire, explosion or poisoning etc. exits must exist at either end of the place and must be open at all times during the working day
- Must be far enough away from machines and other equipment
- Must be protected by sturdy barriers and where necessary, with kick plates where there is a risk of falling
- External doors must allow for the rapid exit of personnel
- The width of stairs must be a minimum of 1.2m, or in special cases 0.9m
- Kickplates and barriers must have a minimum height of 0.9 metres.
- When stairs do not lead directly to the exit, passageways must be fire resistant with clearly indicated exit signs
- Elevators and lifts must obey all the requirements in the respective special security regulation and may not be considered as an emergency exit
- Ramps for use by people may not have an inclination of more than 10%
- Fixed handrail stairs higher than 9metres must provide a rest platform at each 9 metres or fraction thereof and must have a back guard after the first 2.5 metres

3.16 Offices

- Must be well ventilated, clean, conveniently illuminated and with good environmental conditions
- The infrastructure in the office must have good ergonomic conditions

3.17 State of plumbing and pipes

- Must be in a well conserved state and regularly maintained
- May not leak and must not be installed in such a way as to interfere with corridors and evacuation routes
- Must be fixed solidly to their supports, well lined up and accessorized with valves and other necessary items
- The pipes, taps, vales and accessories must be resistant to the chemical actions of the materials being transported, and to the maximum pressure and temperature to which they will be submitted
- Valves and taps attached to the pipes and plumbing must have indicators showing whether they are open and closed
- Automatic bypass valves must be equipped with manual override
- Purge valves must be placed in appropriate locations to allow the release of condensation or oils and other buildups that may accumulate
- Separate boilers, motors, trip switches, or naked flames or other potentially flammable items from the pipes and plumbing which carry flammable liquids. Pipes carrying gas or combustible oil should preferably be under ground

- Provide catchment for overflow at joints and valves in pipes carrying acid, alkali or other corrosive substances
- Identify pipes by stamped letters or adhesive plastic labels or painted stripes
- Pipes, if painted must be painted for their entire length or in 0.20-0.25m sections close to valves, taps, pumps or other similar lengths
- Near to the distribution points of each pipe attach instructions clearly indicating handling precautions to be taken and contents of the pipe.

3.18 Machinery safety

- Install machines and equipment in good condition, with security features and a regular maintenance plan
- Protectors may be made of metal, wood or plastic or any other material resistant to normal use. The machine may not have sharp edges or other defects which could lead to accidents
- Protectors must be well attached to the machine, floor, walls or roof and must be in place whenever the machine is operational

3.19 Individual protection equipment

a) Work clothes

- Must be designed taking into account the risks to which the worker may be exposed
- Must fit the worker well not affecting his comfort or ease of movement
- Must not have loose pieces

b) Eye protection

- Workers who undertake work which may endanger their eyes, (splinters, hot or caustic material, dust, dangerous or uncomfortable smoke, or intense light or radiation) must use well adjusted goggles
- Eye protectors must be of appropriate optical quality, light, resistant and kept clean
- The goggles must be of a type which do not steam up easily
- Goggles must have side protection, must fit snugly and must be individual. If they are used by another must be sterilized and have the elastic band changed

c) Hand protection

- Workers must use special gloves suited to their work depending on whether they are subject to the risk of cuts, abrasions, burns or corrosion
- Workers operating machines which may result in their hands getting trapped must not wear gloves
- Workers using toxic, irritant or infectious substances must use long gloves which also protect the forearm and which must adjust perfectly at their opening

- The hand protectors may be of rubber, polyvinyl, leather, asbestos, or lead depending on the relevant risk
 - Lead gloves to protect from X-ray must reach at least half way up the forearm and must be of a thickness of not less than 0.5mm without prejudice to their lightness and flexibility
 - Those working with electricity should have gloves of rubber, neoprene or plastic which contain an indelible imprint of the maximum voltage for which they are manufactured, and may not be used outside this specification
- d) Head protection
- Workers exposed to the risk of head trauma must use suitable protective, inflammable headgear with appropriate internal protection, ventilation chamber and wherever necessary which also protect the face and neck
 - Workers who operate or pass close to machines, moving parts, flames or incandescent material must have their hair completely protected by a well adjusted hat or equivalent head covering made of washable flame resistant material
 - Safety helmets must be individual and should they be used by another the plastic parts which come into contact with the head must be replaced
- e) Ear protection
- Workers who operate in areas of intense or prolonged noise must use appropriate ear plugs, which must be clean and sterilized whenever there is a change of user
 - When the noise level exceeds 80 decibels earmuffs must be used without prejudice to other general measures taken to isolate or reduce the impact of noise which may be taken
 - Spark ear protectors, especially those made of metal must be covered by protective, non-oxidizing and light net over a covering of leather or equivalent and must be held in place by an adjustable strap held in place behind the head.
- f) Other protection
- Workers exposed to risks which affect other parts of their bodies must be provided with the relevant form of protection in suitable material
 - In the case of specific exposure to fire risks easily flammable materials must be avoided in clothing worn
- g) Leg and foot protection
- Workers risking cuts, burns, abrasions, corrosion or crushing of feet must be equipped with protective shoes.
 - Workers must use steel toe-capped boots or shoes in cases where feet may be subject to mechanical accidents
 - In situations of chemical or corrosive risk shoes may be made of rubber, neoprene, treated leather, or vulcanized wood.
 - Asbestos footwear should be used in situations where molten metals or extreme high temperatures are concerned

- Long boots must be used in situations of heat and humidity
 - Footwear of a non-conductive material must be used when dealing with electricity
 - Shoes with studs, spikes or metal parts should not be used when there is a danger from sparks
 - Wherever necessary the soles of the footwear should be non-slip and in places where there is a danger of perforation or penetration of the sole, a metal insert must be used
 - Legs and knees must be protected when necessary in a manner appropriate to the type of risk, using protection which can be removed easily if necessary
- h) Respiratory protection
- Masks or other suitable methods depending on the risk must be supplied for workers exposed to the risk of inhaling dust, gases or noxious vapour
 - Respiratory equipment must preferably be individual and sterilized if used by another
 - The parts which come into contact with the skin must be of treated rubber or neoprene to avoid skin irritation
 - Filter masks must be used in places with little ventilation or where there is a lack of oxygen. Mechanical filters must be substituted whenever there are difficulties in breathing. Chemical filters must be substituted after use and if not used must be replaced after one year
 - Air injection breathing apparatus or pipe fed gas masks must be used in dangerous atmospheres or in areas without guaranteed air supply, or in areas of toxic gas or dangerous emissions which may not be neutralized by filter breathing equipment
 - Independent/portable breathing apparatus may only be used by those who have been specially trained
- i) Safety harnesses
- Workers who risk falling must use safety harnesses of a type and material suitable to the risk, and with cables and respective fixings and attachments
 - The safety harness should not permit a free fall of more than 1m and must have in place the appropriate mechanism to prevent a fall of any greater distance

3.20 Fire safety

- Appropriate methods must be adopted to prevent fire and preserve the safety of workers
- Equipment and installations which present a heightened risk of fire must, wherever possible be constructed in such a way that in case of fire they can be isolated, preferably automatically
- Suitable equipment to extinguish fires, in a perfect state of operation must be available and workers must be trained to use it.

3.21 First aid

- All personnel must have knowledge of the location and functioning of safety equipment as well as what action must be taken in the case of accidents
- Each sector must have: a first aid kit, fire extinguishers, emergency sprinklers, eye washes, emergency telephone with at least one doctor easily contactable, as well as trained first aiders from amongst the workers

3.22 Security signage

- Independently of mechanical and individual protection use security colours to illustrate machines and equipment, delimit areas and advise personnel of danger around them
- Colour signage must be clear and done in such a way as to draw attention to danger in a way that is easy to understand
- Maps and plaques indicating accident risks, orientation measures and location of safety equipment should be used
- Conventional colours should be used for pipes, equipment and signage

3.23 Environmental conditions

3.23.1 Chemical pollution

- Strengthen the ventilation system and provide extractors and filters
- Work with care with volatile and flammable gases
- Processes of transfer and supply must always be carried out through suitable pipes

3.23.2 Physical pollution

3.23.2.1 Illumination

- Light may be artificial or natural as appropriate to the work to be undertaken
- Whenever possible during the day use natural light
- Place windows, skylights and glassed in areas in such a way that direct sunlight does not enter the workplace
- Install appropriate lighting systems on principal stairs, exits and corridors which lead to the exits

3.23.2.2 Vibrations

- Use earplugs and protective footwear to reduce the effect of vibration

3.23.3 Biological pollution

- Observe all basic collective and individual hygiene rules and have a drainage and sanitation system which function adequately

- Avoid the accumulation of residue and organic waste in the workplace or other places for more than 24 hours

3.23.4 Ventilation

- Ventilate well
- Install openings for intake and outflow (circulation) of air in such a way as to not cause discomfort when artificial ventilation (suction, compression or mixed) is used

3.23.5 Intense heat radiation

- Isolate heat, preferably at source and as a complement allow for individual protection

3.24 Effluent

- Treat (alter the characteristics or properties in such a way as to make the final disposal more suitable; or destroy) to avoid environmental contamination

3.25 Personnel

- At the end of the working day the worker must take a bath with soap and wash their working clothes

3.26 Hygiene

- Regularly and effectively clean the establishment, equipment and systems for the removal of organic residues, or those which could contain poisonous micro-organisms and food decomposition
- Use disinfectant to reduce the number of remaining micro-organisms remaining following cleaning to prevent contamination of food
- Combine the cleaning and disinfecting steps by using disinfectant/detergent

3.27 Hygiene and cleanliness

3.27.1 Installation

- Keep the installation clean and hygienic at all times. Walls, floors and roofs must be of washable material and must preferably be smooth, without protrusions which lead to the accumulation of dust, and must always be of light colours be waterproof and protected against humidity