

Republic of the Philippines
DEPARTMENT OF LABOR AND EMPLOYMENT
Manila

MEMORANDUM CIRCULAR NO. 02
Series of 1998

SUBJECT: Technical Guidelines for Classifying Hazardous and Non-Hazardous Establishments, Workplaces and Work Processes

By virtue of Article 5 and Article 162 of the Labor Code of the Philippines, as amended, and its implementing rules and regulations, the following Guidelines is hereby issued governing the general classification of hazardous and non-hazardous establishments.

Section 1. Purpose

This Guidelines shall be used by labor standards enforcement officers of the Department of Labor and Employment (DOLE), employers and employees in the application of the provisions of the Occupational Safety and Health Standards (OSHS), specifically, Rule 1030 (Training of Personnel in Occupational Safety and Health); Rule 1013 (Hazardous Workplaces); and Rule 1960 (Occupational Health Services).

Section 2. Definition of Terms

As used in this Guidelines, the following terms shall mean:

- a) **“Biologic agents”** refers to any organism classified under viral or rickettsial or chlamydial, bacterial, fungal parasites and any other living organism that can cause a disease in human beings.
- b) **“Disabling injury”** refers to work-related injury suffered by an employee which results in death, or in permanent total or partial disability, or in temporary total or partial disability as defined in applicable laws and guidelines.
- c) **“Establishments”** refers to any single proprietorship, partnership, corporation or similar entity operating an economic activity and engaging the services of workers. **“Hazardous establishment”** is one in which the employee is exposed to potential risks of disabling injury, illness or death, either because of the presence of biologic agents, radiation, chemicals, substances, hazardous materials or physical hazards in the work environment, or because of the nature of the work processes performed or equipment used therein.
- d) **“Hazardous materials or substances”** refer to substances in solid, liquid or gaseous form known to constitute toxic, flammable, explosive, corrosive, oxidizing and radioactive properties.
- e) **“Hazardous work processes”** refer to work operations or practices performed by a worker in the establishment or workplace in conjunction with or as an incident to such operations or practices and which expose the employee to hazards likely to cause any disabling injury, illness, death or physical or psychological harm.
- f) **“Ionizing radiation”** refers to radiation occurring when energy is absorbed by living matter, inducing ionization which may in turn kill or modify living cells. **“Non-ionizing radiation”** refers to radiation from infra-red, ultra-violet, visible light, microwave, radiowave and ultra-sound exposure which does not contain enough energy to smash molecules or does not have the capability of inducing ionization of living cells.
- g) **“Power tools”** refer to any hand or portable tools which are driven pneumatically, or by electricity, mechanical means, or explosive charge.
- h) **“Work environment”** refers to the combination of all physical, biological, medical, physiological, psychological, social, technological and technical factors in the workplace that affect workers.
- i) **“Workplace”** refers to the office, premises or worksite where a worker is temporarily or

habitually assigned. Where there is no fixed or definite workplace, the term shall include the place where the worker actually performs regular work, or where he regularly reports to render service or to take an assignment. "Hazardous workplace" refers to a specific area within an establishment where a worker is exposed to potential risks of disabling injury, illness or death, but may exclude other areas within the same establishment where such risks are not present.

Section 3. Criteria for Classifying Hazardous Establishments or Workplaces

An establishment or workplace may be classified as hazardous if any of the conditions provided under Rule 1013 of the OSHS has been confirmed, as follows:

- a) Where the nature of the work exposes the workers to dangerous environmental elements, contaminants or work conditions including ionizing radiation, chemicals, fire, flammable substances, noxious components and the like;
- b) Where the workers are engaged in construction work logging, fire fighting, mining, quarrying, blasting, stevedoring, dock work, deep-sea fishing and mechanized farming;
- c) Where the workers are engaged in the manufacture or handling of explosives and other pyrotechnics products;
- d) Where the workers use or are exposed to power-driven or explosive powder actuated tools; and
- e) Where the workers are exposed to biologic agents like bacteria, fungi, viruses, protozoa, nematodes and other parasites.

Section 4. Criteria for Classifying Hazardous Processes, Activities or Operations

The following processes, activities or operations may be classified as hazardous:

- a) Manufacture or handling of hazardous materials or substances, including explosives and pyrotechnic products; liquefied petroleum gas (LPG) and petrochemical products; toxic or corrosive chemicals or mixtures or combination thereof; fertilizers and pesticides (particularly those banned or restricted pursuant to FPA Circular No. 04, Series of 1989); radioactive isotopes, substances, or materials, highly flammable and toxic gases; flammable and combustible liquids (e.g., paints, thinners, alcohol); glass and other similar products; combustible metals (e.g., magnesium, titanium) in large quantities; asbestos and other similar products.
- b) Hazardous work processes or operations, including productions of chemicals which may expose workers to harmful levels of such chemicals; machining, hot welding and cutting operations; mining, quarrying, drilling, blasting and other related operations; construction and demolition works as defined by DOLE; logging and woodworking operations involving the use of power tools; metal milling, fabrication, forming, cutting and other similar processes; operations involving the use of thermal equipment such as furnaces and induction heaters used in the manufacture of plastics or metal products; operation or use of pressurized equipment or tools with operating pressures of 15 psig. or higher; and operations involving work in confined spaces where there is probability of workers being exposed to oxygen-deficient, toxic, or explosive atmosphere.

Section 5. Criteria for Classifying Exposure to Environmental Elements as Hazardous

The following degrees or types of exposure to particular environmental elements may be classified as hazardous:

- a) Exposure to airborne contaminants, if the nature of regular or normal work process exposes an employee to conditions over normal levels of intake of or exposure to airborne contaminants, as provided for in Table 8-Threshold Limit Values for Airborne Contaminants of the OSHS;
- b) Exposure to biologic agents in accordance with varying occupational conditions, taking into account the biologic hazards to employees in terms of direct exposure; the risk from

prolonged or repeated exposure; and the concentration level or dose of exposure;

- c) Exposure or risk of exposure to ionizing radiation in doses exceeding 1 millisievert per year (mSv/yr.) or 100 milliRem per year (mRem/yr.) of ionizing radiation shall be classified as hazardous (e.g., processes that involve the use of x-ray equipment and other similar radiation sources);
- d) Exposure to fields of radio-frequency (RF) and microwave (MW) radiation with power densities equal to or greater than 5 milliwatt per square centimeter (mW/cm²) or an average specific absorption rate equal to 4 W/kg. or greater (e.g., immediate vicinity of radio and television transmission towers and antennas);
- e) Exposure to infra-red radiation in doses of at least 10 mW/cm² for more than five (5) minutes, such workplace is considered hazardous (e.g., operations involving the use of infra-red light sources for the protection of photosensitive materials and processes);
- f) Exposure to ultraviolet (UV) radiation at an energy level of at least 6.0 mJ/cm² (millijoule per square centimeter) and wavelength above 300 nm. (nanometers), or where the workers' eyes are exposed to UV radiation at an energy level of 4.0 mJ/cm² (e.g., processes which involve the use of UV light in order to enhance contrast as in fine embroidery work); and
- g) Exposure to visible light radiation with a dose of 10 mJ/cm² (e.g., high intensity lasers; activities such as filming or shooting which employ the use of high capacity lamps or light sources).

Section 6. Criteria for Classifying the Use of or Exposure to Power-Driven and Similar Tools

The use of or exposure to power-driven, pressure-driven or explosive powder-actuated tools may be classified as hazardous, subject to the following conditions:

- a) The presence of power tools in certain areas of an establishment shall not warrant automatic classification of the entire establishment as hazardous. Such classification may be justified when the normal operation of the tools has the potential of at least causing a disabling injury, or when the tools are used in the course of regular operation or part of the regular production process. An operation shall be considered regular if it is performed for the purpose of completing a normal production cycle;
- b) An establishment or workplace using a power tool as part of regular processes or operations may be considered as hazardous:
 - i. If the power tool has an exposed moving, cutting, shearing, boring, drilling, or sharp edge and is capable of causing any form of disabling injury during its normal operation;
 - ii. If it has heated or heat-producing parts which can come into contact with an employee's body and has enough heat to cause at least first degree burns;
 - iii. If it has an exposed reciprocating, moving or percussion-actuated part between which any part of an employee's body may get caught, thereby causing any form of disabling injury.
 - iv. If it generates noise equal to or above the permissible noise level under Rule 1074 of the OSHS.
 - v. If it normally emits any airborne contaminant above the prescribed Threshold Limit Value (TLV) of the OSHS.
 - vi. Where there is a strong possibility of contact with any energized part with a potential difference of at least 50 volts AC or DC during the normal operations of the tool;
 - vii. Where the part of the tool in contact with the worker's hand or body produces significant vibrations; and
 - viii. If the tool is not provided with suitable and effective safety control mechanism.

Section 7. Application of Criteria

In applying the sets of criteria prescribed in the foregoing provisions, the following general principles shall be observed;

- a) No establishment or workplace shall be classified as hazardous except on the basis of a duly-validated hazards evaluation and assessment of physical conditions conducted by DOLE labor standards enforcement officers or other authorized government authorities.
- b) Every hazards evaluation and assessment shall consider, among others, the quantity of hazardous materials or substances involved, the hazardous work processes or operations undertaken, the number of workers affected, the period of exposure, and the effectiveness of preventive or control measures that have been set in place in the establishment or workplace.
- c) In the absence of technical or medical knowledge or substantial information, a particular workplace or all workplaces in the entire establishment may be presumed as hazardous, until further investigation can prove otherwise, where employees manifest symptoms or evidence of harmful exposure to any hazardous chemicals or conditions arising from the performance of their work.

This Circular shall take effect upon its issuance, for the information and guidance of all concerned.

Manila, Philippines, 19 June 1998.


JOSE M. ESPAÑOL, JR.
Acting Secretary