

**REPUBLIC OF GHANA**



**REQUIREMENTS AND GUIDELINES FOR  
REGISTRATION AND LICENSING  
COLD STORAGE FACILITY IN GHANA**

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**MORTUARIES AND FUNERAL FACILITIES AGENCY**

**MoFFA**

# **Requirements and Guidelines for Registration and Licensing Cold Storage Facility in Ghana**

## **1.0 Introduction**

The Mortuaries and Funeral Facilities Agency (MoFFA) is an agency established under the Part Two of the Health Institutions and Facilities Act, 2011 (Act 829) “to license, control and regulate all facilities connected with the storage, transportation and disposal of human remains.

According to Section 57 of Act 829,” Cold Storage Facility” means premises with refrigeration equipment for storage of human remains”. In **Act 829** Section **43(2) (a)**, cold storage facility for human remains is one of the facilities required to be licensed.

It is required that, facilities and their staff involved in the preservation of the deceased have a clearer understanding on how to handle the human remains.

The storage of human remains shall be handled and treated with respect, care and dignity and shall be stored in conditions that are actively managed and monitored to meet the required standards of security, regulatory authorities and environmental control, which are appropriate to their age, origin and modern cultural significance. The standards of preservation of human remains such as ethical and legal standards and scientific and technical standards.

Failure to do so is not only unacceptable but will raise valid community and health concerns about what takes place in the cold storage facilities. Adherence to the requirements and guidelines set out in this document will inspire confidence in this essential component of the Ghana Health and Justice System. Many of the guidelines and Requirements relate to the **design, construction and provision of services**, such as water supply system, storage conditions and electricity, and it is strongly advised that they are adhered to as they represent best practice.

The purpose of this document therefore is to outline requirements and guidelines for setting up a cold storage facility and specifically provide the information required to enable an applicant register a cold storage facility.

## **2.0 Requirements and Guidelines for setting up a Cold Storage Facility**

In accordance with Section **56(1) (b)** of **Act 829**, the Minister may by legislative instrument, make Regulations prescribing the standards of sanitary, safety and security arrangements of a facility

which includes the Cold Storage facilities. These requirements and guidelines shall be carefully observed and enforced and may only be changed on recommendations of the Board.

### **3.0 Location and Siting of Cold Storage Facilities**

The following shall guide location and siting of cold storage facilities:

- (a) The facility shall be located in a place that pose no threat to the wholesomeness of the environment as well as the inhabitants in the vicinity;
- (b) The site shall be located away from:
  - i. environmentally polluted areas such as refuse dumps;
  - ii. industrial activities areas;
  - iii. environmentally sensitive areas such as wetlands.
- (c) The facility shall not be sited in areas prone to infestation of pests and susceptible to flooding including large open drain areas.
- (d) The facility shall obtain preliminary approval from the district planning officer of the suitability of the cite or premises to be used for the facility
- (e) The facility shall obtain citing clearance from the Environmental Protection Authority

It is important that these requirements and guidelines are duly followed.

### **4.0 Design and construction of Cold Storage Facilities**

The design and construction of a cold storage facilities shall be guided by the following:

- (a) There is adequate space for equipment and human remains;
- (b) It allows for effective cleaning and sanitization to avoid contamination and spread of infections in the environment;
- (c) It facilitates maintenance of all parts.
- (d) It protects against the entrance and harborage of rodents or other vermin, as well as the entry of contaminants.
- (e) The floors are made of water-proof, non-absorbent, washable and non-slip materials, without crevices, and shall be easy to clean and disinfect.
- (f) The walls are made of water proof, non-absorbent and shall be easy to clean and disinfect.

- (g) Fire retardant and materials with low flame spread, barrier systems such as tight ceiling and extractors to extract air.
- (h) The ceilings are done to prevent the accumulation of dirt and minimize condensation, mould development and flaking, and should be easy to clean.
- (i) Illumination is adequate and all bulbs shielded with shatter proof materials.
- (j) The doors close tightly and where applicable gaskets should be in good state of repair.
- (k) Clearly demarcate contaminated areas from non-contaminated areas.

## **5.0 Temperature Regime Management**

The following shall guide the temperature regime of cold storage facilities:

- (a) Thermometers used for temperature monitoring should be of good working condition and placed on the door and preferably digital.
- (b) Temperature readings of cold room should be monitored and recorded at regular intervals of two hours from morning to evening daily.
- (c) Bodies shall be kept at temperatures between 2°C (36°F) and 4°C (39°F).
- (d) Coolers of appropriate capacity in relation to the size of the cold room should be installed.
- (e) Where several coolers are used to refrigerate the cold storage room, sensors should be placed at an equal distance from the coolers on the opposite walls.
- (f) All cooling equipment shall be made of leak proof material.
- (g) All refrigerated spaces should be equipped with temperature measurement and recording devices.
- (h) Sensors of the thermostat that measures the temperature of the microenvironment of the cold storage room should be placed at mid-height on the wall far from doors and openings.
- (i) Visible and audible alarm systems should be in place
- (j) Compressors should be located away from the storage chamber where bodies are kept.
- (k) Forklift (where applicable) should have a strong engine which does not give out emissions or fumes from the exhaust which could contaminate the stored human remains.

## **6.0 General Maintenance**

The following shall guide general maintenance of a cold storage facility:

- (a) Prior to any alteration, repair or maintenance work on building or equipment, a skilled person shall assess its potential for contaminating stored human remains and put in place appropriate controls to minimize their exposure to contamination and environmental pollution.
- (b) Alterations on the premises and maintenance of equipment that may affect hygienic operations or cause decay and contamination of stored human remains or contamination of the immediate environment of the facility shall not be done while human remains are in storage.
- (c) Maintenance work on cooling equipment shall be done in a manner that prevents or minimizes contamination of stored products.
- (d) Cleaning and maintenance tools shall not be stored in the cold room.

## **7.0 Calibration of Measuring Devices**

Measuring devices (whether stand-alone or forming part of a piece of equipment) shall:

- (a) have the accuracy, precision, and conditions of use appropriate to the task performed;
- (b) be calibrated against a reference standard showing traceability of calibration to a national or international standard of measurement (where available), or (if no such standard exists) be calibrated on a basis that is documented;
- (c) be uniquely identified (e.g. by using serial numbers, indelible tags or other permanent means of identification) to enable traceability of the calibrations and to identify calibration status.

## **8.0 Pest Control**

The following shall guide pest control in a cold storage facility:

- (a) There shall be an effective and continuous programme in place for the control of rodents or other vermin.
- (b) The facility and its immediate surrounding areas should be regularly examined for evidence of infestation.

- (c) Measures involving treatment with chemical, physical or biological agents should only be undertaken by or under direct supervision of personnel who have a thorough understanding of the potential hazards resulting from the use of these agents, and the threat this may pose to the health of the inhabitants of that particular vicinity as well as personnel of the cold storage facility.

## **9.0 Sanitary Facilities**

- (a) The facility should ensure that there is an ample supply of potable water under adequate pressure with adequate facilities for its storage, where necessary, and distribution, and with adequate protection against contamination.
- (b) There shall be an efficient effluent and waste disposal system. All effluent lines (including sewer systems) should be large enough to carry peak loads and should be constructed in such a manner as to avoid contamination of potable water supplies.
- (c) There shall be adequate, suitable, and conveniently located changing and toilet facilities in the facility. Toilets should be so designed as to ensure hygienic removal of waste matter. These areas should be lit, well ventilated and should not be open directly into human remains handling area.

## **10.0 Protective Clothing**

- (a) All personnel who enter the cold storage area must wear suitable, clean personal protective clothing and footwear.
- (b) Personnel assigned to work in areas where human remains are handled must remove their outer clothing, footwear or coverings; and change to clean personal protective clothing before entering cold storage facilities.
- (c) Personal effects and clothing should not be deposited in human remains handling areas.

## **11.0 Personnel Cleanliness**

- (a) Every person engaged in the cold storage facility shall maintain a high degree of personal cleanliness while on duty, and shall at all times while so engaged wear suitable protective clothing including head and footwear, all of which shall be

washable unless designed to be disposed off and which shall be maintained in a clean condition consistent with the nature of the work in which the person is engaged.

- (b) Hands shall always be washed before commencing work, immediately after using the toilet, after handling human remains and contaminated material, and whenever necessary.
- (c) Suitable protective clothing including head, hand gloves and footwear shall be worn before handling the persons suspected to have died from infectious diseases. Hands shall be washed and disinfected immediately.
- (d) Notices requiring hand-washing should be displayed. Any person who has a cut or a wound should discontinue work. Until he/she is suitably bandaged should not engage in the handling, packaging or transportation of human remains.
- (e) No person working in any cold storage facility should wear exposed bandage unless the bandage is completely protected by a waterproof covering which is conspicuous in colour and is of such a nature that it cannot become accidentally detached.
- (f) Adequate first-aid facilities should be provided.
- (g) Spitting, eating, chewing and the use of tobacco should be prohibited in cold storage areas.
- (h) Gloves used in handling human remain shall be maintained in a sound, clean and sanitary condition.
- (i) Waste bins should be pedal operated and colour coded.
- (j) Dirty area should have UV light which should be controlled outside the room
- (k) Unexpired and appropriate strength disinfectant should be used.
- (l) Hand washing facility and cleaning schedule should be in place.
- (m) Automatic door is recommended to be used

## **12.0 Record Keeping and Documentation**

- (a) The cold storage facility shall maintain accurate records on all day-to-day activities of the facility critical to the safety of all employees and inhabitants of the environment in which the cold storage facility is situated.
- (b) Records shall be kept on the following:

- i. All human remains at facility for storage;
- ii. Pest control activities;
- iii. Cleaning activities;
- iv. Waste management;
- v. List of distributors;
- vi. Calibration of equipment;
- vii. Temperature monitoring;
- viii. Complaint Records;
- ix. Training of Workers;

### **13.0 The storage of human remains**

- (a) Providing appropriate storage is an essential part of caring for human remains. This requires handling with great care, respect and in a dedicated or appropriate environment preferably over a clean cushioned surface to prevent damage to mortal remains since the condition and fragility of the human remains is assessed and taken into account before they are transported, unpacked and handled.
- (b) Anyone handling human remains shall receive appropriate training and shall be made aware of their ethical and legal obligations with regards to human remains.
- (c) Researching, analytical or measuring equipment by researchers can result in wear and tear in the human remains. Hence such activities need to be supervised and carefully monitored. Example, in order to avoid marking bone, metal recording instruments such as measuring calipers are, as far as possible to be avoided and the use of plastic (coated) equivalents is encouraged.
- (d) It is appropriate that during cleaning/processing of human remains for research, an advice is sought from a trained conservator on a case-by-case basis and passive conservation is encouraged so as not to affect the research potential of the human remains.
- (e) The use of resins as consolidant and/or adhesives should be avoided and only applied by a trained conservator under the guidance of a person with the appropriate anatomical knowledge, such as a physical anthropologist. In particular, teeth should never be glued into their sockets as roots are a source of valuable biological information and should remain observable.



- (f) All materials used in storage (including boxes, bags, labels and pens) shall as far as possible be inert and of conservation grade with long-term stability variability.
- (g) Inert metal shelving shall be used and shall be raised at least 100mm above the floor to protect from accidental flooding and pests, and to allow for cleaning.
- (h) Boxes or other appropriate containers used to store human remains shall always be clearly labelled with a registration number and other pieces of relevant information.
- (i) Labels shall also state that these boxes or containers enclose human remains. If the human remains are less than 100 years old and covered by the Human Tissue this must be clearly stated on the outside of the box.
- (j) The human remains shall be stored in a respectful way that ensure their long-term preservation. Whenever appropriate and possible, the cold storage facilities may also be guided by the cultural preferences and sensitivities of communities that have cultural continuity with the remains, or for whom the remains have cultural importance, this may cover the selection of materials used to pack the human remains, the location of the remains within the storeroom, the position, orientation or articulation of the remains.
- (k) Objects associated with human remains shall be determined together with cultural context which shall be on a case-by-case basis. Wherever possible, associations between human remains and funerary objects shall be maintained (e.g. a dedicated space for the human remains within a general storage area) and specific advice shall be sought from a trained conservator for composite objects made in parts of the human remains.
- (l) Human remains in the cold storage facilities shall be regularly inspected to ensure they are stored appropriately and do not show any signs of deterioration.
- (m) The trained or authorized staff as appropriate shall regularly undertake condition assessments for the collection of human remain stored.
- (n) Human remains shall be wrapped in the appropriate sheet, labeled and stored in the cold room.
- (o) The cold storage facilities shall also have in its care recently amputated human parts, still born children as part of the human remains that the cold storage facility is storing temporarily
- (p) Human parts shall be kept in discrete areas away from the main activity of the store. All storerooms holding human parts and still born children shall be:

- i. Secure with access restricted/monitored;
- ii. Watertight and sealed from potential pests and dust.
- iii. Kept clean and monitored for pests, damage and other potential threats.
- iv. Maintained as areas where no food or drinks are permitted.
- v. Kept in the right environment with appropriate condition without any damage to the human remains, boxes and labels.
- vi. Regularly monitored regarding the relative humidity and temperature.
- vii. Frequently accessed collections may be stored differently to ease access and minimize handling (e.g. trays or inert boxes with supportive inert packing).

## 14.0 DEFINITION OF TERMS

TERM	DEFINITION
Cold storage facility	Means premises with refrigeration equipment for storage of human remains
Good Cold Storage Practices (GCSPs)	Refers to all practices and measures necessary to ensure the suitability of a cold storage facility to prevent contamination of stored human remains
Human remains	Includes the body of a deceased person or still born child and any part of a body removed in the course of surgical operation
Calibration	Procedure used for the comparison of a measuring instrument with a standard, under specific conditions, and adjustment of the instrument, if necessary.
Contamination	Means direct or indirect transmission of contaminants to the human remain and the environment.
Equipment	Includes the whole or any part of any, machine, fitting, device, instrument, stamp, apparatus, table, or article, that is used or available for use in or for preparing, marking, processing, packing, storing, carrying, or handling of any human remains.
Label	Includes any wording, tag, brand, symbol, picture, or other descriptive matter written, printed, stenciled, marked, embossed, impressed on, appearing on, attached to, or enclosed within any product.
Protective clothing	Special outer wear garments intended to preclude the contamination of one's self.
Waste	Includes, without limitation, all solids, liquids, and gases that is intended to be dispose of as being unwanted and that may become a source of contamination or attract pests.