Republic of the Philippines
NATIONAL POLICE COMMISSION
NATIONAL HEADQUARTERS, PHILIPPINE NATIONAL POLICE
OFFICE OF THE CHIEF, PNP
Camp BGen. Rafael T Crame, Quezon City

MEMORANDUM CIRCULAR
No.: 2021 - 034

25 MAR 2021

TEST PARAMETERS IN THE CONDUCT OF TEST AND EVALUATION FOR LABORATORY OR MEDICAL FREEZER (-20 TO -30 °C)

1. **REFERENCES:**
   a. NAPOLCOM Resolution No. 2020-0929 entitled: "Prescribing the Minimum Standard for Laboratory or Medical Freezer" dated October 15, 2020;

   b. NAPOLCOM Memorandum Circular (MC) No. 2019-002 entitled: "Defining the Duty and Authority of the NAPOLCOM to Prescribe Minimum Standards for Uniforms, Arms, and Equipment to be Procured by the Philippine National Police" dated January 29, 2019;

   c. PNP MC No. 2020-091 entitled: "Prescribing the Minimum Technical Specifications for Laboratory or Medical Freezer (-20 to -30 °C)" dated December 31, 2020;

   d. PNP MC No. 2019-016 entitled: "Implementing Guidelines of NAPOLCOM Resolution No. 2019-002 Defining the Commission's Function to Prescribe Minimum Standards for Uniforms, Arms and Equipment for the Philippine National Police and Delineation of Authority to the Chief, Philippine National Police and to Set the Technical Specifications of PNP Uniforms, Arms and Equipment dated April 4, 2019; and

   e. Test Parameter Board Resolution No. 2020-02-005 entitled, "Approving the Test Parameters in the Conduct of Test and Evaluation of Laboratory or Medical Freezer (-20 to -30 °C)" dated February 17, 2021.

2. **RATIONALE:**

This Memorandum Circular (MC) covers all the components of Laboratory or Medical freezer (-20 to -30 °C) to be procured by the Philippine National Police (PNP).

3. **SITUATION:**

In its fight against COVID-19 pandemic, The PNP HS needs an indispensable equipment for storing and preserving delicate and high value samples/items. Freezers equipped with the approved standard and technical specifications to accommodate multiple types of items and its containers maintain temperature just below freezing. Ultra-low freezers capable of temperature of -80 degrees Celsius or lower are often used for high-value materials and samples.

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4. **PURPOSES:**

a. To establish policy guidelines and test parameters for the conduct of functional test and evaluation for Laboratory or Medical Freezer (-20 to -30 °C) purposely to enhance the capability of PNP HS through acquisition of essential equipment; and

b. The Laboratory or Medical freezer (-20 to -30 °C) will provide indispensable storage space for items or delicate samples. It can be chest format or upright, typically equipped with adjustable shelves designed to accommodate multiple types of items containers. Standard freezers maintain a temperature just below freezing while ultra-low freezers are capable used for high-value materials and samples.

5. **DEFINITION OF TERMS:**

a. **Ambient temperature** – refers to an atmospheric temperature of the immediate surroundings.

b. **Biomedical** – refers to a set of sciences applying portions of natural science or formal science, or both, to knowledge, interventions, or technology that are of use in healthcare or public health. Such disciplines as medical microbiology, clinical virology, clinical epidemiology, genetic epidemiology, and biomedical engineering are medical sciences. In explaining physiological mechanisms operating in pathological processes, however, pathophysiology can be regarded as basic science.

c. **Blood products** – refer to blood components obtained from plasma using pharmaceutical processes. These are generally referred to as plasma derivatives. Examples of blood products are albumin and immunoglobulins.

d. **Compressor** – refers to a mechanical device that increases the pressure of a gas by reducing its volume. An air compressor is a specific type of gas compressor. Compressors are similar to pumps: both increase the pressure on a fluid, and both can transport the fluid through a pipe.

e. **Condenser** – refers to a device for reducing a gas or vapor to a liquid. Condensers are employed in power plants to condense exhaust steam from turbines and in refrigeration plants to condense refrigerant vapors, such as ammonia and fluorinated hydrocarbons.

f. **Defrost** – refers to the release from a frozen state.

g. **Electrical safety rating** – used to assess the safety of the equipment according to internationally accepted standards, for example, in the prevention of electric shock.

h. **Evaporator** – refers to a device in a process used to turn the liquid form of a chemical substance such as water into its gaseous-form/vapor.

i. **Insulation** – refers to the act of covering something to stop heat, sound, or electricity from escaping or entering, or the fact that something is covered in this way.

j. **Laboratory** – refers to the facility that provides controlled conditions in which scientific or technological research, experiments, and measurement may be performed. Laboratory services are provided in a variety of settings: physicians' offices, clinics, hospitals, and regional and national referral centers.

k. **Pharmaceutical** – refers to a substance used in the diagnosis, treatment, or prevention of disease and for restoring, correcting, or modifying organic functions.

l. **Plenum** - refers to an air-distribution box attached directly to the supply outlet of the heat, ventilation, and air-conditioning equipment that heats or cools the air to make the house comfortable.

m. **Polyurethane** – refers to a polymer composed of organic units joined by carbamate links.

n. **Potentiometer** – refers to a three-terminal resistor with a sliding or rotating contact that forms an adjustable voltage divider. If only two terminals are used, one end and the wiper, it acts as a variable resistor or rheostat.

o. **Refrigerant** – refers to a substance or mixture, usually a fluid, used in a heat pump and refrigeration cycle. In most cycles, it undergoes phase transitions from a liquid to a gas and back again. Many working fluids have been used for such purposes.

p. **Subfreezing** – refers to a being or marked by temperature below the freezing point.

q. **Temperature** – refers to the degree or intensity of heat present in a substance or object, especially as expressed according to a comparative scale and shown by a thermometer or perceived by touch.

r. **Thermostat** – refers to a component which senses the temperature of a physical system and performs actions so that the system's temperature is maintained near a desired set point. Thermostats are used in any device or system that heats or cools to a set point temperature, examples include building heating, central heating, air conditioners, heat, ventilation, and air-conditioning systems, water heaters, as well as kitchen equipment including ovens and refrigerators and medical and scientific incubators.

6. **GUIDELINES:**

a. The Directorate for Research and Development, shall function as an independent testing facility of the PNP. As required, its personnel shall perform their duties and functions pursuant to the PNP Memorandum Circular 2015-015;

b. The post-qualification test and the conduct of inspection and acceptance test shall be based on the most recent standard issued by NAPOLCOM and the specifications issued by the PNP for Laboratory or Medical freezer (-20 to -30 °C);

c. Additional technical requirements imposed by the Bids and Awards Committee (BAC) may only be considered in the conduct of test if the same are properly reflected in the bidding documents or in its supplemental bid bulletin (SBB). Likewise, in case there is a need to conduct additional tests, which are not included in the approved test parameters, the same may be allowed only if the additional test parameters are properly reflected in the bidding documents or in its SBB;

d. GPPB Circular No. 06-2016 with subject "Expenses Related to the Conduct of Post-Qualification" shall be observed during the conduct of post-qualification. Hence, the administrative and operational expenses shall be charged to the proceeds of the sale of the bidding documents as indirect cost of administrative cost pursuant to GPPB Resolution No. 04-2012;

e. On the other hand, administrative and operational expenses for the conduct of test and evaluation during inspection and acceptance shall only be imposed upon the supplier if the same were included in the computation of the Approved Budget for the Contract and integrated in the preparation of the Project Management Plan;

f. Consistent with the "pass or fail criteria," non-compliance with the NAPOLCOM-Approved Standard and PNP Specifications during post-qualification test is a ground for post-disqualification;

g. During the inspection and acceptance, the procuring entity may reject any goods or any part thereof that fail to pass any test and/or inspection or do not conform to the specifications;

h. Samples submitted for post-qualification and acceptance test and evaluation shall not be considered part of the delivered items, unless otherwise specifically provided in the bidding documents. Except in cases where samples are considered part of the delivered items or when a Motion for Reconsideration is filed by the suppliers with the BAC or Committee on Inspection and Acceptance, all samples submitted shall be returned to the suppliers immediately after the termination of the post-qualification and acceptance test and evaluation; and

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i. All the members of the Technical Working Group (TWG) shall sign the result of the post-qualification and acceptance test and evaluation. In case there are disagreements on the findings of the TWG, the member who did not conform with the findings/results is allowed not to sign the report, provided that he will submit his written explanation, which shall be attached to the report of the TWG.

7. **Procedures:**

a. **Visual/Dimensional and Technical Specifications Evaluation.**

1) **Purpose:** To ascertain whether the Laboratory or Medical Freezer (-20 to -30 °C) conforms with PNP Specifications through the conduct of visual, dimensional, and technical specification evaluation.

2) **Procedures:** To validate the visual, dimensional and technical specifications of the equipment based on the brochure submitted, and/or actual inspection/evaluation of the equipment for its conformity as indicated in NAPOLCOM-Approved Standard, PNP-Approved Specifications and other requirement.

3) **Standard:** The Laboratory or Medical Freezer (-20 to -30 °C) must conform with NAPOLCOM-Approved Standard, PNP-Approved Specifications and other requirements. Any defect noted during the test shall be classified as major defect and a basis for disqualification or non-acceptance of the items.

	Standard	Class of Defects
a)	The item should be tidy and must not have any disfigurements, such as deflection and hollowness.	Major
b)	All components must be compatible	Major
c)	Manual and brochures must be provided	Major
d)	Must have warranty on parts and services for at least 1 year	Major

b. **Functional Test**

Note: A technician or authorized trained representative of the proponent must be present to operate or guide the actual operation of the equipment.

1) **Purpose:** To ensure that the Laboratory or Medical freezer (-20 to -30 °C) is in good condition;

2) **Preparation/Installation of the Instrument:** Prior to functional test, necessary installation of all complimentary equipment and accessories, and verification of the operational condition of the Laboratory or Medical freezer (-20 to -30 °C) must be first established. Any abnormal performance or condition that was detected must be referred to the supplier; and

3) **Actual Test**: A functional test must be performed based on the operational manual of the Laboratory or Medical freezer (-20 to -30 °C). Any defect noted during the test shall be classified as major defect and its basis for post-disqualification or non-acceptance of the item.

Particulars		Standard/ Specifications	Test Procedure	Class of Defect
a)	Type	The unit must be upright type to be accessible by door on the front.	Visual/ Demonstration	Major
b)	Power Supply	Philippine Standard	Visual/ Demonstration	Major
c)	Internal Dimension	19.29" x 24.29" x 51.18" (WxDxH)	Visual/ Dimensional	Major
d)	External Dimension	31.22"x 36" x 78.18" (WxDxH)	Visual/ Dimensional	Major
e)	Caster/legs:	Must be flexible	Visual/ Demonstration	Major
f)	Shelve/Drawer or basket	Must not be less than 4	Visual/ Demonstration	Major
g)	Exterior/ Interior Finished	Must be stainless or galvanized steel with bacteria-resistant powder coating	Visual/ Brochure	Major
h)	Door Construction	Must be solid steel	Visual/ Brochure	Major
i)	Doors Locks/ Security system	With workable security lock and key	Visual/ Demonstration	Major
j)	Control	Must be digital or microprocessor	Visual/ Demonstration	Major
k)	Display	Must be touchscreen or graphical	Visual/ Demonstration	Major
l)	Temperature control range:	Must be within the range of Laboratory or Medical freezer (-20 to -30 °C)	Visual/ Demonstration	Major

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m)	Storage Capacities	Able to accommodate 250L volume of items or more	Visual/ Brochure	Major
n)	Temperature sensor:	Must have Resistant Temperature Detection	Visual/ Demonstration	Major
o)	Recorder:	Must be able to log or record data of temperature	Visual/ Demonstration	Major
p)	Alarm	Must be audible and visible for temperature, probe, open door, power failures	Visual/ Demonstration	Major
q)	Back Up Battery	Must last for 20 hours.	Visual/ Demonstration	Major
r)	Defrost	Must be manual or automatic.	Visual/ Demonstration	Major

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8. **REPEALING CLAUSE:**

All previous MCs inconsistent with the foregoing are hereby modified, amended, or repealed accordingly.

9. **EFFECTIVITY:**

This MC shall take effect immediately after 15 days from filing a copy thereof at the University of the Philippines Law Center in consonance with Sections 3 and 4, Chapter 2, Book VII, E.O. No. 292, otherwise known as the "Revised Administrative Code of 1987," as amended.

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