



**MALDIVES FOOD AND DRUG AUTHORITY**  
Ministry of Health  
Male', Maldives

## **Terms of Reference**

### **CALIBRATION OF EQUIPMENTS USED AT NATIONAL HEALTH LABORATORY FROM A CALIBRATION CENTER ACCREDITED TO ISO/IEC 17025**

**19<sup>th</sup> March 2019**

#### **1. Introduction**

National Health Laboratory (NHL) is a division of Maldives Food and Drug Authority (MFDA) with the main mandate of quality control, safety and hygiene verification of food and pharmaceuticals. NHL is divided into two main sections namely, Chemistry and Microbiology laboratories. The matrices tested include water, food and swabs and brought from food establishments, factories and resorts and pharmaceuticals.

NHL has been accredited to the international standard ISO/IEC 17025 since December 2008. For the maintenance of its accreditation status it is compulsory to calibrate equipments from a calibration centre accredited to ISO/IEC17025.

#### **2. Scope and Objectives**

The objective of this TOR is to find a competent calibration center / institute accredited to the international standard ISO/IEC 17025 to calibrate the equipments at NHL.

The List 1 attached includes the details of equipments that require calibration.

#### **3. Expected Outcomes**

The chosen party is expected to:

1. Calibrate the equipments in table 1 by sending technicians (for calibration of equipments that can be calibrated at NHL site) and by taking items to site of calibration (for items that cannot be calibrated at NHL).
2. Issue calibration certificates with sufficient data for analysis and uncertainty calculations
3. Place a sticker/label on the equipment with required details

#### **4. Requirements / Qualifications**

**4.1.** The calibration centers intending to offer calibration services to NHL shall have the following qualifications and requirements.

- a) Must be a calibration center accredited to the standard ISO/IEC 17025.
- b) Calibration certificates/reports must be issued, in paper, after calibration, bearing the accreditation logo.
- c) Calibration certificates must at least contain the following information:
  - a. Description of the equipment
  - b. Serial No.
  - c. Identification No/Manufacturer and Model no.

- d. Calibration Date
  - e. Location of calibration
  - f. Test conditions:
  - g. Reference standard used
  - h. Method of calibration
  - i. Uncertainty associated with the activity
- d) A label/sticker should be placed on the equipment after calibration with the details:
- a. LOGO of the calibration center
  - b. A reference number
  - c. Identification number of the equipment
  - d. Calibrated by
  - e. Date of calibration
- e) Calibration certificates should be received to NHL in at least a month's time.
- f) The calibration service provider must have at least 3 years' of experience and must be currently engaged in providing the service.
- 4.2. Documents to prove conformance to the points numbered 4.1 a) of above criteria should be submitted along with proposals and proof to show conformance to the rest of the criteria should be submitted either by submitting relevant documents or statements in the proposals. Submissions without these documents and statements will be cancelled. Proposals submitted by parties not conforming to the above criteria will be cancelled.**
- 5. Quoting and required documents**
- 5.1.** Prices must be quoted for the calibration service of **all** items in the Table 1. **Proposals and quotations which do not quote for ALL items will be cancelled.**
- 5.2.** The quotations must indicate clearly the following charges in **in Maldivian Rufiya (MVR) or US Dollars (\$):**
- a. Rate of calibration/consultancy charges for each type of equipment and the total cost
  - b. Postage costs involved in sending any required equipments to the calibration center
  - c. Postage costs in returning the equipments to NHL, Maldives
  - d. Return airfare for technicians for the calibration to arrive to Maldives and their return
  - e. Accommodation charges for the calibration technicians for the period of stay in Maldives
  - f. No. of days required for the calibration done in NHL and posted items
  - g. Charges for any freight of devices/ equipments / solutions/ standards required for the calibrations that would be brought in
- 5.3. Quotations /proposals not stating the above will be cancelled. Any other charges or incidental charges that would incur must be included. Any charges not mentioned in the quotation will NOT be borne by NHL during the payment process.**
- 5.4. Equipments that cannot be calibrated in the laboratory site should be identified in the quotation.
- 5.5. Arrangements that need to be made, standards and apparatus that need to be available from NHL such as required environment conditions must be stated.
- 5.6. In addition to the quotation interested parties should submit:
- a) A copy of the accreditation certificate to ISO/IEC 17025
  - b) A sample report of calibration
  - c) Brief profile
  - d) List of clients/ laboratories that had sought calibration services in the past 3 years.
  - e) Payment conditions
  - f) Any other terms and conditions subject to the process
  - g) Contact details

5.7. **Proposals/ quotations not accompanying the above documents/ information except for 4.2.(f) will be cancelled.**

6. **Duration:** All calibrations are to be completed before the 30<sup>th</sup> November 2019.

7. **Selection:** An appropriate party shall be chosen by evaluating the quotations/proposals using the following grading system. The party which gets the maximum number of points shall be awarded.

- **Price:** 80 (Eighty) points; The highest point will be given to the least quoted party and the rest will be graded by ratio.
- **Experience:** 20 (Twenty) points; External documents stating the duration of providing calibration services. The longest duration gets the highest point and the rest will be graded by ratio.

8. **Contact:** Thooma Adam/ Maldives Food and Drug Authority / Phone: 00 960 3014346

9. **Deadline for submission:**

Interested parties are to submit signed quotations and other required documents on or before the official time (13:00 hrs, Maldivian Time) of **23<sup>rd</sup> May 2019 to**

Maldives Food and Drug Authority, Ministry of Health,  
Roashanee Building,  
Sosun Magu,  
Male' 20184  
Republic of Maldives.

Electronic versions of the quotations and documents can be emailed to [nhl@health.gov.mv](mailto:nhl@health.gov.mv) before the above due date. Late submissions cannot be considered under any circumstances.

## TABLE 1 -NHL CALIBRATION LIST 2018

#	Item	Manufacturer/ Model No.	Serial/ Number	Lab Identification Number	Performance Range/Capacity	Resoluti on	Location/L ab	Accuracy
1.	Digital burette (50mL) (New)	Brand	8P6165	NHL/CH-WC/EQ219	50 ml		Water chemistry	
2.	Thermometer	Alla France	-	NHL/CH-WC/EQ172	-10 - +110 °C		Water chemistry	
3.	MK II Chloride analyzer 926	Sherwood	10639	NHL/CH-WC/EQ057	-		Water chemistry	
4.	BOD Incubator	Hach	06092708	NHL/CH-WC/EQ079	2-4°C		Calibration Room	20 <sup>0</sup> c
5.	Refrigerator	Whirlpool	-	NHL/CH-WC/EQ077	Chiller 2-8°C Freezer <18	+/- 2	Water chemistry	1 <sup>0</sup> C
6.	Fume hood	ESCO	2009-39431	NHL/CH-GN/EQ146	-		Water chemistry	
7.	Turbidimeter	Hach 2100N	-	NHL/CH-WC/EQ058			Water chemistry	1NTU
8.	COD Reactor	Hach USA	980400017502	NHL/CH-WC/EQ064	-	-	Water chemistry	
9.	pH meter	EUTECH	1569174	NHL/CH-WC/EQ109	-	-	Water chemistry	0.01 PH units
10.	pH meter (New)	Hach (New) HQ11D	150900016173				Water chemistry	-
11.	Dispenser (New)	BRAND GMBH + CO KG	07G 94025	NHL/CH-WC/EQ205			Water chemistry	0.12%
12.	Laboratory Oven (NEW)	Thermo scientific Hera therm OGH 100 51028143	42029579	NHL/CH-GN/EQ223	50°C-250°C	2°C	Bottle wash & distillation	
13.	Micro Pipette (NEW)	Fisherbrand	CJ12069	NHL/CH-FC/EQ217	20ul to 200ul	1ul	Food chemistry	
14.	Micro Pipette (multi-channel) (NEW)	Transferpipette-12	11Y3003	NHL/CH-WC/EQ043	20ul to 200ul	1ul	Food chemistry	
15.	Micro Pipette (FINNPIPETTE) (NEW)	Thermo scientific	MW 16085CE	NHL/CH-FC/EQ224	0.5-5ml	0.5mL	Food chemistry	
16.	OMT Oven	Gallenkamp OMT 075.XX 2.C	SG98/02/314	NHL/MB-FM/EQ006	55°C±2	0.1°C	Bottle Wash	55°C±2
17.	Stomacher	Seward 400	47290	NHL/MB-FM/EQ075	30,60,120 sec ±2	± 1	Food Microbiology	30,60,120 sec ±2
18.	Incubator	Sanyo MIR 262	40608373	NHL/MB-WM/EQ004	44°C±0.5	0.1°C	Water Microbiology	44°C±0.
19.	Biological Safety Cabinet II (New)	Thermo Scientific	300116932	NHL/MB-MB/EQ113	-	-	Media Room	-

20.	Biological Safety Cabinet (New)	BioBase BSC-200011A2-X	BSC20A 1609008	NHL/MB-FM/EQ114	-	-	Food Microbiology	-
21.	Dispenser (New)	Assimat	-	NHL/MB-MR/EQ110	1 to 10 ml	-	Media Room	9ml
22.	Pipette (New)	Finn pipette F2	MW16984	NHL/MB-MR/EQ115	1 to 10 ml	-	Media Room	10ml
23.	Incubator	Gallenkamp IPR 075XX 1.5	SG97/04/3 67	NHL/MB-FM/EQ002	44°C±0.5	0.1°C	Water Microbiology	44°C±0.5
24.	Ultra-Low Temperature Freezer	Sanyo MDF-U73V	61016921	NHL/MB-VL/EQ039	< -18°C±2	1°C	Molecular Biology	< -18°C±2
25.	Analytical Balance	JD 200-3	A191658	NHL/CH-PC/EQ198	Up to 200g	0.001g	MTG Laboratory	0.001g
26.	Analytical Balance	Sartorius	CPA225D	NHL/CH-GN/EQ149	0.01mg – 220g	0.01mg	Sensory Evaluation 1	
27.	Immersion thermometer (Reference)	Brannan	-	NHL/CH-FC/EQ042	0-210°C	1°C	Sensory Evaluation 1	
28.	Weight Set (12 pieces)	Troemner	-	NHL/GN-CH/EQ159	From 100g to 5mg	-	Sample Receiving	20mg, 50mg, 100mg, 500mg, 2g, 5g, 10g, 50g, 20g, 100g
29.	Weighing Balance	Sartorius	38110175	NHL/CH-GN/EQ 151	0 to 420 g	-	Sample Receiving	
30.	Refrigerator	Whirlpool	-	NHL/CH-GN/EQ145	-	-	Chemical Store	2-8 °C