

**MALDIVES FOOD AND DRUG AUTHORITY**

Ministry of Health

Male', Maldives

Terms of Reference**PARTICIPATION of NATIONAL HEALTH LABORATORY IN A PROFICIENCY TESTING SCHEME
ACCREDITED TO ISO/IEC 17043****03rd March 2021****1. Introduction**

National Health Laboratory (NHL) is a division of Maldives Food and Drug Authority (MFDA) with the main mandate of safety, quality control 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 etc. 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 assure quality of tests. To fulfill this obligation of ISO/IEC 17025;2007, NHL intends to participate in a Proficiency Testing (PT) scheme.

Thus this "Terms of Reference" (TOR) has been developed to find a suitable PT provider/ program.

2. Scope and Objectives

The objective of this TOR is to find a competent PT provider/program accredited to the international standard ISO/IEC 17043 for NHL to participate for the assurance of the quality of tests **for a period of 3 years.**

The chosen party should provide PT services including but not limited to the following:

1. Send PT samples to NHL
2. Evaluate the test results by comparing the test results with assigned or nominal value or harmonized value obtained with all participating laboratories in the program
3. Provide a report for the score of NHL's test result

The details of the parameters for which PT are required are included in the list 1 attached. Testing of the PT samples will be carried out at NHL.

3. Requirements / Qualifications

- 3.1. The PT providers intending to offer PT services to NHL shall have the following qualifications and requirements.
 - a) The PT provider offering the PT services must be accredited to the standard ISO/IEC 17043.
 - b) The program shall **cover all the tests in the list 1 attached and in the given ranges.**
 - c) The PT provider must have at least 3 years' experience of providing to PT and must be currently engaged in the service.
 - d) The PT program must have at least 5 laboratories participating in its program.



- e) Submission of test results should be available via electronic method or electronic correspondence.
- f) Time for the submission of results should allow sufficient time for transport of the sample/ material, processing and testing. The time taken for processing and testing for different parameters are included in the list 1.
- g) A schedule of the PT program for the year ahead should be available prior to the start of the year's program.
- h) Provision of transport/courier services for the sample materials to NHL.
- i) Reports of evaluation of the test results shall be available via electronic media.
- j) Statistical method used for the evaluation of each test result must be sent along with each report.
- k) Full charges for one-year program/cycle should be stated.
- l) Must be able to provide the service for 3 years.

3.2. Documents to prove conformance to the points numbered 3.1 a), b), c) and d) 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.

4. Submission of applications

- 4.1. Interested qualified parties should submit a quotation for charges of PT services inclusive of :
- a. Prices of the PT pack for the tests in US Dollars
 - b. Charges for courier/delivering the PT materials (for each test or pack of test) for each round of the test parameter to the following address:
National Health Laboratory,
Maldives Food and Drug Authority
Ministry of Health
Roashanee Building, Sosun Magu,
Male' 20184
Republic of Maldives
 - c. Time allowed for postage and testing.

Quotations /proposals not stating the above will be cancelled. Any other charges that would incur must be included.

- 4.2. In addition to the quotation interested parties should submit:
- a) A copy of the accreditation certificate to ISO 17043.
 - b) Schedule of the PT program for the year ahead
 - c) Criteria used to evaluate and decide acceptable test results
 - d) Brief profile
 - e) List of clients/ laboratories which had participated in the past 3 years.
 - f) Details of ways to submit test results and sending reports of evaluation of test results
 - g) Payment conditions
 - h) Any other terms and conditions subject to the process
 - i) Contact details including full address, email address and phone numbers with country codes

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

5. **Selection: An appropriate party shall be chosen by evaluating the quotations/proposals using the following grading system.**



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 proficiency testing scheme. The longest duration gets the highest point and the rest will be graded by ratio.

6. Duration: All required test rounds to be covered within a year of start date. Likewise, the service should be provided for 3 years.

7. Contact: Thooma Adam/ Maldives Food and Drug Authority / nhl@health.gov.mv

8. Deadline for submission:

Interested parties must email quotations and other required documents on or before the official time of **14th March 2021** to nhl@health.gov.mv. Late submissions cannot be considered under any circumstances.

List 1- Details of parameters for which PT is required.

#	Parameter	Matrix	Number of rounds (at least)	Time taken for processing and testing
FOOD CHEMISTRY				
1.	Moisture	Food	Once in a year	3 days
2.	Ash content	Food	Once in a year	3 days
3.	Total nitrogen	Food	Once in a year	3 days
4.	Sodium	Food	Once in a year	3 days
5.	Chloride	Food	Once in a year	3 days
6.	Mercury	Fish/Food	Once in a year	8 days
7.	Fibre	Food	Once in a year	3 days
8.	Peroxide Value	Oil	Once in a year	3 days
9.	Iodine value	Oil	Once in a year	3 days
10.	Total sugars	Food	Once in a year	3 days
11.	Acidity / acid value	Food	Once in a year	3 days
12.	Histamine	Fish	Twice in a year	2 days per round
13.	Aflatoxin Total	Food	Once in a year	3 days
14.	Aflatoxin M1	Food	Once in a year	3 days
15.	Melamine	Food	Once in a year	3 days
16.	Brix	Food	Once in a year	3 days
WATER CHEMISTRY				
17.	Sodium	Water	Twice in a year	4 days per round
18.	Potassium	Water	Twice in a year	4 days per round
19.	pH	Water	Twice in a year	1 day per round
20.	Electrical Conductivity	Water	Twice in a year	1 day per round
21.	Sodium	Sea Water	Once in a year	4 days per round
22.	Potassium	Sea Water	Once in a year	4 days per round
23.	pH	Sea Water	Once in a year	1 day per round
24.	Electrical Conductivity	Sea Water	Once in a year	1 day per round
25.	Chloride	Water	Once in a year	1 day
26.	Calcium	Water	Once in a year	2 days
27.	Magnesium	Water	Once in a year	2 days
28.	Alkalinity	Water	Once in a year	2 days
29.	Total Hardness	Water	Once in a year	2 days
30.	Phosphorus	Water	Once in a year	2 days
31.	Fluoride	Water	Once in a year	2 days
32.	Sulphate	Water	Once in a year	2 days
33.	Nitrite	Water	Once in a year	2 days
34.	Nitrate	Water	Once in a year	2 days
35.	Ammonium	Water	Once in a year	2 days
36.	Total Organic Carbon	Water	Once in a year	2 days
37.	Colour	Water	Once in a year	1 day
38.	Turbidity	Water	Once in a year	1 day
39.	Cadmium	Water	Once in a year	2 days
40.	Lead	Water	Once in a year	2 days
41.	Iron	Water	Once in a year	2 days



42.	Manganese	Water	Once in a year	2 days
43.	Aluminum	Water	Once in a year	2 days
44.	Zinc	Water	Once in a year	2 days
45.	Copper	Water	Once in a year	2 days
46.	Nickel	Water	Once in a year	2 days
47.	Chromium	Water	Once in a year	2 days
48.	Mercury	Water	Once in a year	3 days
49.	Chromium	Sea Water	Once in a year	3 days
50.	Mercury	Sea Water	Once in a year	3 days
51.	Barium	Water	Once in a year	2 days
52.	Boron	Water	Once in a year	3 days
53.	Arsenic	Water	Once in a year	3 days
54.	Selenium	Water	Once in a year	2 days
55.	Silver	Water	Once in a year	2 days
56.	Lithium	Water	Once in a year	2 days
57.	Cobalt	Water	Once in a year	2 days
58.	Tin	Water	Once in a year	2 days
59.	Cyanide	Water	Once in a year	2 days
60.	Biological Oxygen Demand (BOD)	Water	Once in a year	7 days
61.	Chemical Oxygen Demand (COD)	Water	Once in a year	3 days
62.	Suspended solids	Water	Once in a year	1 day
63.	Total Dissolved Solids	Water	Once in a year	1 day
64.	Oil and grease	Water	Once in a year	3 days
65.	Taste and Odour	Water	Once in a year	3 days
FOOD MICROBIOLOGY				
66.	Enumeration – Coagulase positive staphylococcus	Food	Twice in a year	3 days
67.	Enumeration – Escherichia coli	Food	Twice in a year	3 days
68.	Enumeration – Coliforms	Food	Once in a year	2 days
69.	Enumeration- Aerobic Plate Count	Food	Once in a year	3 days
70.	Detection test - Listeria monocytogenes	Food	Once in a year	5 days
71.	Detection test - Salmonella spp.	Food	Once in a year	5 days
72.	Detection test - Staphylococcus aureus	Food	Once in a year	5 days
73.	Detection test - Vibrio parahaemolyticus	Food	Once in a year	3 days
74.	Enumeration- Clostridium perfringens	Food	Once in a year	2 days
75.	Enumeration- sum of yeast and mould	Food	Once in a year	6 days
76.	Enumeration- Bacillus cereus	Food	Once in a year	3 days
77.	Enumeration- Aerobic plate count	Swab	Once in a year	3 days
78.	Enumeration - Enterobacteriaceae	Food	Once in a year	3 days
79.	Enumeration- Aerobic plate count	Milk	Once in a year	3 days
80.	Enumeration – Escherichia coli	Milk	Once in a year	3 days
81.	Enumeration – Coagulase positive staphylococcus	Milk	Twice in a year	3 days
WATER MICROBIOLOGY				
82.	Total Coliforms	Water	Twice in a year	2 days



83.	Escherichia coli	Water	Twice in a year	2 days
84.	Enterococci	Water	Twice in a year	3 days
85.	Clostridium perfringens	Water	Twice in a year	2 days
86.	Colony counts (22°C/ 3days and 37 °C / 2days)	Water	Twice in a year	4 days
87.	Pseudomonas aerogenosa	Water	Once a year	5 days