

WQ-11031/60/2016-WQ-Part (4)/226
Government of India
Ministry of Drinking Water and Sanitation

4th Floor, Pt. Deendayal "Antyodaya" Bhawan
CGO Complex, Lodhi Road,
New Delhi-110003.

Dated: 21st June, 2018

To
The Principal Secretary/Secretary
In-Charge of Rural Water Supply Department,
All States/UTs

Subject: Improvement of Drinking Water Quality Testing Laboratories

Madam/Sir,

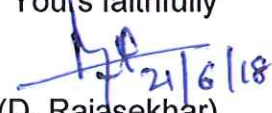
This is in reference to the discussions taken up during the workshop on "Improvement of Drinking Water Quality Testing Laboratories" with Director (WSSO)/Chief Chemist/Chemist of the State Governments organized on 10th May, 2018 at New Delhi.

As one of the initiatives to strengthen the functioning of drinking water quality testing laboratories and to complement best performing States, it has been decided to develop a ranking system for State and district level laboratories based on parameters e.g. infrastructure facilities, NABL accreditation, requisite, qualified & experienced manpower, equipments, testing of samples and trainings etc. The ranking system will work according to the data being uploaded/to be uploaded by the States on NRDWP IMIS.

Accordingly, Ministry has developed a draft **Ranking Performa** and is enclosed as **Annexure-A** for your suggestions (if any) in this regard.

Encl: As above

Yours faithfully


(D. Rajasekhar)
Deputy Adviser (WQ)
Tel: 011- 2436 1656

Copy to:

1. The Engineer-in-Chief/Chief Engineer, Rural Water Supply Department (All States/UT) for information and necessary action.
2. The Director, WSSO/Chief Chemist (All States) for information and necessary action.
3. Sr. Technical Director (NIC), MDWS, New Delhi for uploading the same on Ministry's website.

Proposed Ranking Performa for State Drinking Water Quality Testing Laboratory					
Name of State: (SAMPLE Draft)					
Name of State Laboratory:					
S. No	Proposed Ranking Indicators	Proposed Weightage	Document to be uploaded on NRDWP IMIS		
1	Laboratory detail at State level (at least 1 No.)	15	Certificate of NABL Accreditation is to be uploaded with lab image		
	Departmental Laboratory (with NABL accreditation)	15			
	Departmental laboratory in rented building (with NABL Accreditation)	10			
	Private Laboratory designated as State WQ Testing Laboratory with NABL Accreditation	10			
	Departmental laboratory (without NABL accreditation)	7			
	Departmental laboratory in rented building (without NABL Accreditation)	5			
	No State Laboratory	0			
2	Qualified, experined & trained manpower	20	Details to be uploaded		
	Chief Chemist (1 No.)	5			
	Senior Chemist (1 No.)	5			
	Chemist (2 Nos.)	2			
	Chemist (if 1 No.)	1			
	Bacteriologist (1 No.)	2			
	Laboratory Assistant (3 Nos)	2			
	Data Entry Operator (2 Nos)	1			
	Lab Attendant (2 Nos)	1			
	Sampling Assistants (2 Nos)	1			
	3	Equipment and instrumentation (functional only)		20	Image of the instruments to be uploaded
a Instruments/equipments for 13 basic parameters		16			
pH meter		1			
Conductivity meter		1			
Turbidimeter		1			
Hot air oven		1			
Facility for volumetric analysis		1			
Fluoride testing facility		1			
Arsenic testing facility		1			
UV Laminar Air Flow Chamber		1			
Micron filtration assembly with a vacuum pump		1			
Plate count and colony counter		1			
UV-Visible Spectrophotometer		1			
Bacteriological incubators		1			
Autoclave		1			
Refrigerator		1			
Digital balance		1			
Double distillation apparatus		1			
b Advanced instruments w.r.t. state specific containinants/newly emerging containinants		4			
Atomic Absorption Spectrophotometer for heavy metal/uranium testing		2			
Gas Chromatography-Mass Spectrometry (GC-MS)/High Performance Liquid Chromatography-Gas Chromatography (HPLC-GC) for pesticide testing		2			
4		Annual maintenace contract mechanism for State lab	12	AMC/CAMC document to be uploaded	
		Basic instruments			
		pH meter	1		
		Conductivity meter	1		
		Turbidimeter	1		
		Hot air oven	1		
	UV Laminar Air Flow Chamber	1			
	UV-Visible Spectrophotometer	1			
	Bacteriological incubators	1			
	Autoclave	1			
	Refrigerator	1			
	Digital balance	1			
	Specific instruments	2			
	Atomic Absorption Spectrophotometer	1			
	Gas Chromatography-Mass Spectrometry (GC-MS)/High Performance Liquid Chromatography-Gas Chromatography (HPLC-GC)	1			

5	Samples tested in the State Laboratory (5% sample tested against the total samples @ 3000 per district annually (E-4) each for 13 basic parameters)	15	
a	Basic parameters	13	
	pH	1	As per the details on IMIS
	Total Dissolved Solids	1	
	Turbidity	1	
	Chloride	1	
	Total Alkalinity	1	
	Total Hardness	1	
	Sulphate	1	
	Iron	1	
	Arsenic	1	
	Fluoride	1	
	Nitrate	1	
	Total Coliforms,	1	
	E-Coli	1	
b	Specific parameters/ newle emerging containinants	2	
	Heavy metals	1	
	Pesticides	1	
6	Sources tested in the State Laboratory	8	
	Sources tested during pre-monsoon based on random sampling through the state (5% the total sources)- (E-32)	3	As per the details on IMIS
	Sources tested during post-monsoon based on random sampling throughout the state (5% of the total sources)- (E-32)	3	
	Laboratory reporting Information regarding testing reported by State laboratory (E-24)	2	
7	Expenditure at State level (at least 1% on State lab)	8	
	Central +State expenditure against the OB+total release at State level (D-2)	8	As per the details on IMIS
8	State level training conducted in a year (at least 2) (E-18)	2	Training calender and training conducted image to be uplaoded
	Training for state and district WQ professionals at State level	1	
	Outreach orientation like for school teachers, school and college students, water volunteers etc. from State level	1	
	Total	100	

Proposed Ranking Performa for District Drinking Water Quality Testing Laboratory			
Name of State: (SAMPLE Draft)			
Name of the district:			
Name of District Laboratory:			
S. No	Proposed Ranking Indicators	Proposed Weightage	Document to be uploaded on NRDWP IMIS
1	Laboratory detail at district level (at least 1 No.) (E-7)	15	
	Departmental Laboratory (with NABL accreditation)	15	Certificate of NABL Accreditation is to be uploaded with lab image
	Departmental laboratory in rented building (with NABL Accreditation)	10	
	Private Laboratory desinated as district WQ Testing Laboratory with NABL Accreditation	10	
	Departmental laboratory (without NABL accreditation)	7	
	Departmental laboratory in rented building (without NABL Accreditation)	5	
	No district Laboratory	0	
2	Qualified, expernced & trained manpower	20	
	Chemist (1 No.)	5	Details to be uploaded
	Bacteriologist (1 No.)	5	
	Laboratory Assistant (2 Nos)	5	
	Data Entry Operator (1 Nos)	1.5	
	Lab Attendant (1Nos)	1.5	
	Sampling Assistants (2 Nos)	2	
3	Equipment and instrumentation (functional only)	20	
a	Instruments/equipments for 13 basic parameters	16	Image of instruments to be uploaded
	pH meter	1	
	Conductivity meter	1	
	Turbidimeter	1	
	Hot air oven	1	
	Facility for volumetric analysis	1	
	Fluoride testing facility	1	
	Arsenic testing facility	1	
	UV Laminar Air Flow Chamber	1	
	Micron filtration assembly with a vacuum pump	1	
	Plate count and colony counter	1	
	UV-Visible Spectrophotometer	1	
	Bacteriological incubators	1	
	Autoclave	1	
	Refrigerator	1	
	Digital balance	1	
	Double distillation apparatus	1	
b	Advanced instruments w.r.t. state specific containinants/newly emerging containinants	4	
	Atomic Absorption Spectrophotometer for heavy metal/uranium testing	2	
	Gas Chromatography-Mass Spectrometry (GC-MS)/High Performance Liquid Chromatography-Gas Chromatography (HPLC-GC) for pesticide testing	2	

4	Annual maintenance contract mechanism for district lab	12	
	<i>Basic instruments</i>		AMC/CAMC document is to be uploaded
	pH meter	1	
	Conductivity meter	1	
	Turbidimeter	1	
	Hot air oven	1	
	UV Laminar Air Flow Chamber	1	
	UV-Visible Spectrophotometer	1	
	Bacteriological incubators	1	
	Autoclave	1	
	Refrigerator	1	
	Digital balance	1	
	<i>Specific instruments</i>	2	
	Atomic Absorption Spectrophotometer	1	
	Gas Chromatography-Mass Spectrometry (GC-MS)/High Performance Liquid Chromatography-Gas Chromatography (HPLC-GC)	1	
5	Samples tested in the district Laboratory @ 3000 per district annually (E-4) each for 13 basic parameters)	15	
a	Basic parameters	13	As per the details on IMIS
	pH	1	
	Total Dissolved Solids	1	
	Turbidity	1	
	Chloride	1	
	Total Alkalinity	1	
	Total Hardness	1	
	Sulphate	1	
	Iron	1	
	Arsenic	1	
	Fluoride	1	
	Nitrate	1	
	Total Coliforms, E-Coli	1	
b	Specific parameters/ newly emerging contaminants	2	
	Heavy metals	1	
	Pesticides	1	
6	Sources tested in the district Laboratory	8	
	Sources tested during pre-monsoon (all sources)- (E-32)	3	As per the details on IMIS
	Sources tested during post-monsoon (all sources)- (E-32)	3	
	Laboratory reporting Information regarding testing reported by district laboratory (E-24)	2	
7	Expenditure at district level	8	
	Central +state share expenditure against the OB+total release at district level (D-2)	8	As per the details on IMIS
8	District level training conducted in a year (at least 2) (E-18)	2	
	Training for district, Block and GP level WQ professionals by district Lab only	1	Training calender and training conducted image to be uploaded
	Outreach orientation like for school teachers, school and college students, water volunteers etc. by district lab only	1	
	Total	100	