### 11. Scientific Quality Control

### 11.1 Central Laboratory

Central Laboratory is entrusted with analysis of samples received, organizing sampling works related to NAMP, NWMP and CRTAQMS. In addition Central Laboratory is also responsible for developing Regional Laboratories as well as coordinating and controlling them. The laboratory is also responsible for recognition of private laboratories and to ensure compliance of conditions/norms applicable on them.

## 11.1.1. Procedure for receipt and analysis of samples at Central Laboratory:

- 11.1.1.1. Samples of water/ wastewater/ air/ noise/ soil/ hazardous waste are received by JSO.
- 11.1.1.2. The lab code number to be generated and marked on each sample by Data entry operator/ LDC/ UDC as per the direction of JSO and subsequently the sample is inverted by data entry operator.
- 11.1.1.3. Samples are allotted by respective Supdt. SO on sample/parameter wise.
- 11.1.1.4. Analysis is done by JSO, SO and SSO under the supervision of Supdt. SO with respect to samples/parameters allotted to them.
- 11.1.1.5. The results of analysis are submitted to the Supdt. SO.
- 11.1.1.6. The analysis results are reviewed by Supdt. SO and the internal report is prepared.
- 11.1.1.7. The internal report is reviewed and approved by CSO.
- 11.1.1.8. The final analysis report is prepared and signed by CSO.

The working flow sheet of laboratory is annexed as chart No 11.1 and 11.4

## 11.1.2. Procedure of Planning and approval of sampling and monitoring

- 11.1.2.1. The request for sampling and monitoring is received in laboratory from technical section/Regional Office or from industries for paid monitoring.
- 11.1.2.2. The request is compiled and submitted by ministerial staff after properly indexing it to SO/SSO.
- 11.1.2.3. The SO/ SSO review the request and forward it to Supdt. SO for carrying out monitoring and sampling.
- 11.1.2.4. The Supdt. SO after reviewing availability of man power and instruments, recommends officials along with proposed date and schedule.
- 11.1.2.5. The CSO approve the officials along with proposed date and schedule.
- 11.1.2.6. The approval for undertaking journey for conducting monitoring out of Jaipur (Headquarter) shall be given by the Member Secretary.

### 11.1.3. Procedure for Laboratory Store

- 11.1.3.1. For daily requirement requisition is prepared by JSO/ SO/ SSO and submitted to store keeper.
- 11.1.3.2. Store keeper issues the same as per availability and enters the same in stock register. In case, it is anticipated that the required item is not available in sufficient quantity after issuance she/he shall initiate action as per 11.1.3.3.
- 11.1.3.3. In case of non availability, the store keeper submits on file requirement for purchase along with estimate of purchase to store officer of the laboratory.
- 11.1.3.4. The store officer submits its recommendation to laboratory incharge.
- 11.1.3.5. The laboratory in-charge will forward requirements to appropriate authority for purchase of items.

### 11.2 Regional Laboratory

- 11.2.1. Procedure for receipt and analysis of samples at Regional Laboratory:
  - 11.2.1.1. Samples of water/ wastewater/ air/ noise/ soil/ hazardous waste are being received by JSO.
  - 11.2.1.2. The lab code number is generated and marked on each sample by Data entry operator/ LDC/ UDC as per the direction of JSO and subsequently the sample is inverted by data entry operator.
  - 11.2.1.3. Samples are allotted by respective Lab In charge as sample/ parameter wise.
  - 11.2.1.4. Analysis is done by JSO and SO under the supervision of Lab In charge with respect to parameter allotted to concerned JSO/SO.
  - 11.2.1.5. The results are submitted to the Lab In charge after analysis.
  - 11.2.1.6. The results are reviewed by Lab In charge and after approval the internal report is being prepared.
  - 11.2.1.7. The internal report is reviewed and approved by Lab In charge.
  - 11.2.1.8. The final analysis report is prepared and signed by Lab In charge.

The working flow sheet of laboratory is annexed as chart No. 11.5.

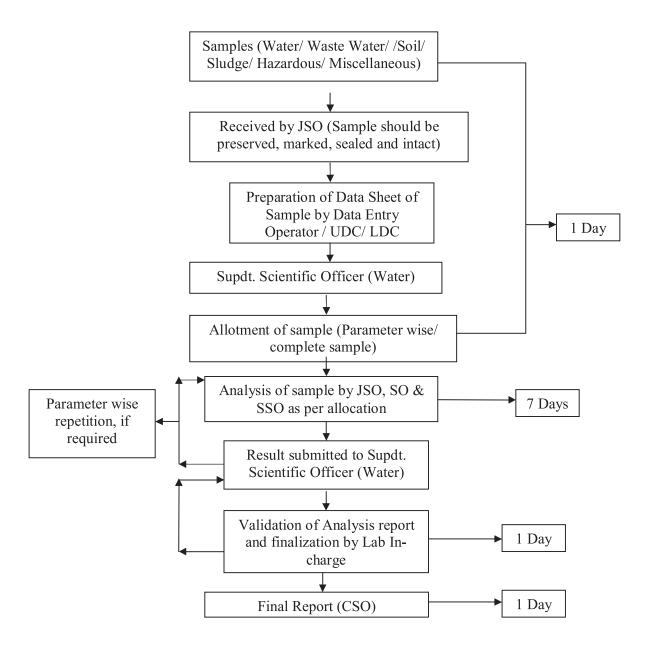
### 11.3. Laboratory Quality Control

The Chief Scientific Officer will be responsible for developing and maintaining good quality procedure according to IS/ISO 17025 in the Central Laboratory and other laboratories under her/him for which she/he will ensure:-

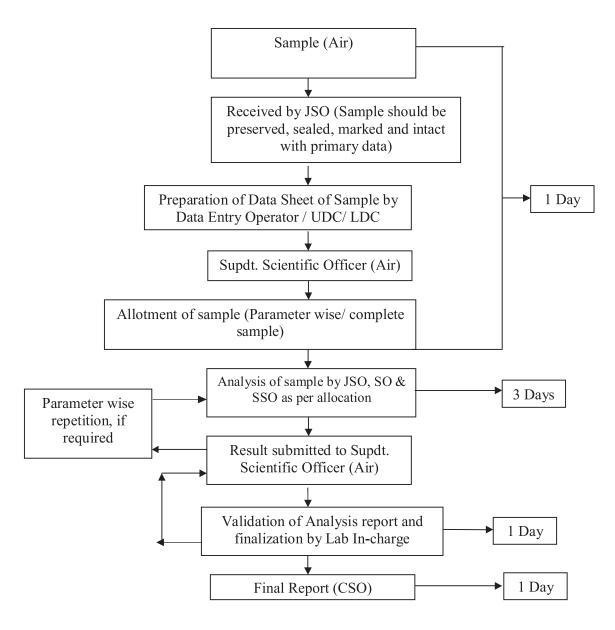
- 11.3.1. Preparation and maintenance of laboratory quality manual.
- 11.3.2. Preparation and maintenance of executive procedure manual.
- 11.3.3. Preparation and maintenance of work instructions.
- 11.3.4. Preparation and maintenance of testing procedure manual.
- 11.3.5. All works are carried out as per laboratory quality manual/ executive procedure manual/ work instructions/ testing procedure manual.
- 11.3.6. Annual maintenance contracts and calibrations of the instruments and standardization of reagents.

<u>Note:</u>- The quality manual, executive procedure manual, work instructions and testing procedure manual shall be reviewed and up-graded time to time by the Laboratory incharge.

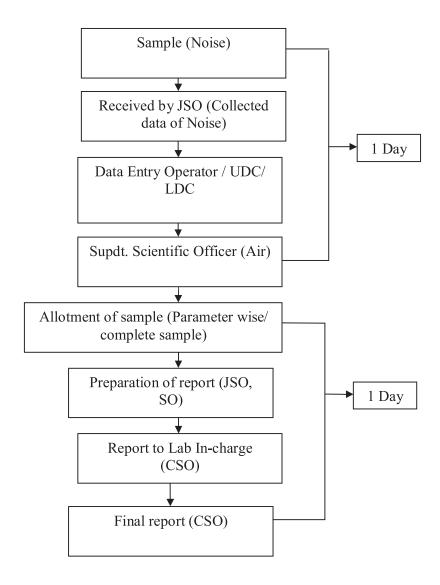
# <u>Procedure from Receiving of Water/ Waste Water/ Soil/ Sludge/ Hazardous / Miscellaneous</u> Samples up to Submission of Final Analysis Report at Central Laboratory, RSPCB



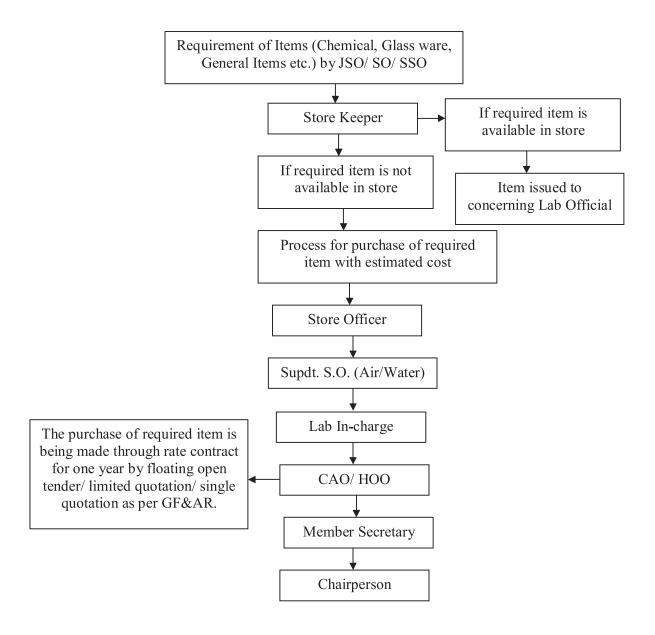
# <u>Procedure from Receiving of Air Sample up to Submission of Final Analysis Report at Central</u> Laboratory



# <u>Procedure from Receiving of Noise Sample up to Submission of Final Analysis Report at</u> <u>Central Laboratory</u>



### **Procedure of Laboratory Store at Central Laboratory**



### **Procedure at Regional Laboratory**

