1. Contact Person for On-line Monitoring of the Effluent and Emission Monitoring Systems installed in the Highly Polluting Industries of Rajasthan under Rajasthan State Pollution Control Board.

S.	Name	Mobile	Email	Purpose
No.				
1	Help Desk Support	18001806127	fms.rpcb@rajasthan.gov.in	Technical Support
2	Shri Vikas Agarwal	09929220691	vikasagarwal.doit@rajasthan.gov.in	RSPCB Online Monitoring Cell
3	Knowledge Lens	9166066514	glens@knowledgelens.com abhishek.s@knowledgelens.com	Technical Support

2. What is the "Pre-deployment checklist"?

The Industry will send the "Pre-deployment checklist" in Excel Format to the Technical Team. This is for Master Data Creation for the Industry. The team will create the master data of the industry in the Central Monitoring Software.

http://www.rpcb.rajasthan.gov.in/Pre-DeploymentChecklist.xlsx

After creating the master data (Pre-deployment checklist is completed) following information will be provided to the industry by Technical Team:

- SiteID
- MonitoringID
- User Name & Password for Central Monitoring System
- The URL for uploading the Data

3. What is the name and format of the uploaded data to the Central Server?

The zip file name should be SiteID_MonitoringID_UploadTime.zip. (Zip File Format)

The zip file containing two files should be uploaded (Nomenclature):

- a. CSV metadata File (metadata.csv)
- b. CSV data File. (SiteID_MonitoringID_UploadTime.csv) Data can be uploaded per Monitoring Station.

Each zip file should be uploaded per monitoring station.

The sample file format is uploaded separately on the RSPCB website http://www.rpcb.rajasthan.gov.in/rpcbweb/Guidelines/site_104_STACK1_20150609143316.zip

The uploaded data will be transmitted using HTTP REST interface to the provided URL

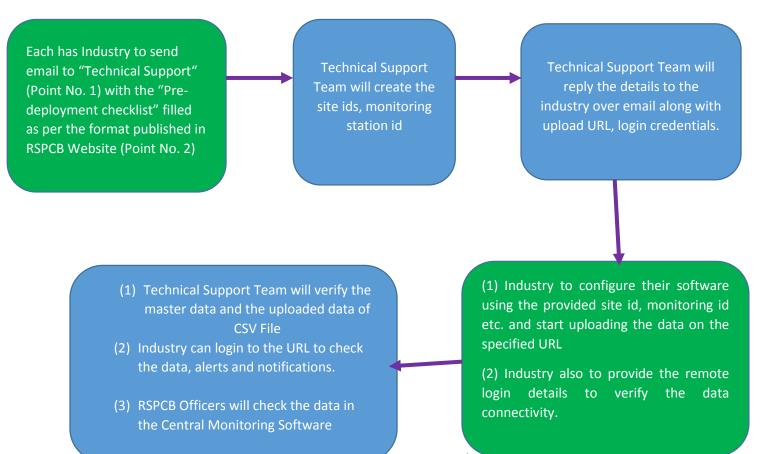
Please note that the upload time should be uploaded immediately, if there is a lag, the software will reject the upload. All delayed data should be uploaded through the delayed URL only.

4. What is the File Transmission Mechanism, FTP, and REST?

There is no FTP based transmission. All upload has to HTTP Rest based transmission.

5. What is the connectivity Procedure to upload data to RSPCB?

Connectivity Procedure:



.... instantaneous data or average record?

6

Transmission has to be at 1 Minute frequency. Average data with poll frequency of 2 seconds for 1 minute to be captured and sent. The data should be with the proper quality codes. Refer to question 9 for details on Quality Code.

If Transmission is not done at 1 minute, then it should be posted as delayed data. Transmission time to the data time shouldn't have more than 1 min lag. If delayed, post as delayed data only, otherwise feed will be rejected. Delayed Data has to be transmitted with Data Quality Code "L".

7. What is the URL For uploading the Data?

The URL will be provided once the Pre-deployment checklist for the site is completed. There are very specific URL for the site, so the URL is shared only once the Pre-deployment checklist is completed. (Refer Point No. 2)

8. Which parameters to be sent, any specific or all gas parameter?

All parameters specified as per CPCB guidelines has to be sent to Central Monitoring Software.

9. What is Data Quality Code?

Here are the data quality code to be used while transmission of the data. For detail explanation of these, refer to ISO-7168 specifications.

Data Qualifier	Code
Calibration Drift	D
Calibration mode	С
Corrected datum	0
Estimated datum	E
faulty	
measurement	F
invalid datum	1
maintenance mode	М
no datum	Ν
usable datum	U
zero mode	Z
Delayed datum	L

10. Who will provide the ID's and how to we apply for it? Do we generate our own ID?

The ID's will be generated by the Technical Support Team. Once the pre-deployment checklist are filled and sent to Technical Support Team, the site and the corresponding ID's will be created (Point No. 2).

11. Why do we need the metadata file to be uploaded along with data?

There will be multiple versions of the upload format that will be transmitted from various sites as we enhance the specifications to include security features for the API.

12. What is raw reading? Is the unprocessed data?

Yes. These are the raw readings directly from the instruments.

In case of 4-20mA output, the Raw Reading (RAW_READING) will be 10.2 in mA, and the converted and linearized reading (READING) will be 120 ppm.

It is mandatory to send the raw reading and linearized reading to ensure that accuracy of data transmitted.

13. What is the time format that is desired?

Time has to be transmitted as Unix Timestamp. E.g. 6/9/2015, 12:00:00 AM IST will be equal to 1433788200 as Unix Time.

Refer to http://www.epochconverter.com/

14. What is SITE_ID, SITE_UID?

SITE_ID will be the Industry MIS ID. SITE_UID is the unique key for each Industry. SITE_UID will be generated by GLens Team and shared.

Refer to <u>http://www.rpcb.rajasthan.gov.in/RISL%20v1.1.pdf</u> For details of the CSV Data File Format.

15. What does the maintenance flag and calibration flag relate to?

These flags are identified for knowing the status of the acquisition. These flags take a value of 0 or 1. If the site or analyzer is in maintenance, the upload should happen with maintenance flag set to 1. If the site or analyzer is undergoing calibration, the upload should happen with calibration flag to be 1. It is important that all calibration data is transmitted with the calibration flag to record the time of last instrument calibration.

16. What is UNIT_ID?

UNIT_ID will also be an ID generated based on the Industry Details.

This is the unique id associated for each of the different measurement units.

A particular parameter can be measured in multiple units, this provides the correct unit id associated with the measurement.

17. What is the exact functionality of the monitoring unit ID?

Monitoring unit ID corresponds to the Monitoring Station Location. E.g. RAW_MILL, BOILER_STACK, HOLDING_POND, EAST_GATE_AMBIENT, etc.

18. If there is a defined format, provide list of all parameter names and respective ID's?

We will use the standard parameter names given in the Industry Details Sheet. Based on that the ID's will be shared.

19. Is ANALYZER_ID a unique ID for each analyzer given to each vendor specific analyzer?

Yes. This will be a Unique ID for each analyzer based on its make and model. E.g. BAM -1020 Analyzer will have an id analyzer_23. This will be the same for all the Industries having that analyzer make and model.

20. Any other information related to online monitoring system?

Following links are provided on the website <u>www.rpcb.rajasthan.gov.in</u>

General Guidelines	Sample Data File (Zip Format – (a) Metadata (b) Data File)
FAQ	Pre-deployment checklist
Contact Details	Data File Description (CSV)