

Dated: - 18-06-2018

General Points Discussed with CPCB on OCEMS Protocol

Sr. No.	General points	CPCB Comments
1.	Print option, acknowledgement of submission for CPCB OCEMS Protocol	Agreed. After final submission acknowledgement receipt along with filled pdf document can be mail to registered e-mail id's. CPCB will develop the utility.
2.	Remarks & attachment option for every section	Agreed. CPCB shall provide remarks option in each section.
3.	CPCB RTDMS Portal	https://orp.cpcbcr.com/ocems/#/login is the new portal & industries are requested to fill up the same. However, CPCB RTDMS portal will continue to function for data visualisation at http://cpcbtdms.nic.in/industry-login through user id & pass word created on http://cpcbtdms.nic.in/cpcbIndustryRegistration
4.	Section –H IT Protocol – CPCB OCEMS Protocol	CPCB will try to segregate the information protocol for CEMS & Server details in Section H.
5.	Issue on service provider/Vendor/Supplier	If industries are facing problem w.r.t OCEMS, which are not resolved by the service provider in due course of time, industry should keep CPCB in loop.

Following points submitted by Industry to CPCB for clarification

Part	Section	Point No.	Requirement as per format	Discussion / Comments	Remarks/Clarifications
Part-I	A	3	At any point of time industry name has changed	To keep record of particular industry, if name change in past, chronological details need to be provided.	CPCB required keeping history of Industry's name change for their reference. Industry may provide the details of name change in past.
		8	Primary Contact & Secondary Contact	If primary contact will not respond than secondary contact is required.	Industry should provide primary & secondary contact detail for proper communication. For communication of CPCB & SPCB Primary contact person whoever dealing with all day to day Environmental activity should be preferred, however for secondary contact HOD/Technical Head. Industry should decide.
		10.1	Details of Environmental Engineer/Specialist/Scientist	CPCB opined that AADAHAR detail would be beneficial for Environment personnel as well as for Industry.	It is not must.
	B	4.1	Initial Consent to Operate(CTO) details	CPCB recommended that initial CTO's copy need to be furnished with CPCB OCEMS since plant was commissioned.	CTO starting from day 1 of operation by industry need to be furnished, if Industry is not having Initial CTO, industry shall upload reasons for the same.
	B1	6	Ambient conditions at CEMS locations	CPCB recommended that it would be based on CEMS technology.	Agreed, If insitu (CEMS) are installed than ambient conditions should be of stack location while in case of extractive CEMS installed, Ambient conditions of CEMS Analyzer room/shelter should be mentioned.
		7	Air pollution control devices (APCDs) of individual emission points	CPCB suggested that every pollution control devise should be certified.	If Industry has no certification it should mention clearly in the protocol.

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	C		Expected Flue Gas Stream Constituents at Sample Probe Locations	Industry specific parameters to be mentioned.	same
	D		Flue Gas Conditions at Sample Probe Location	As per Industry specific parameters to be mentions.	Same
		5.	Moisture in % in all stack to be given	As per Industry specific parameters to be mentions.	Need to provide supporting paper/documents relevant to moisture % in stack.
		7.	Fuel Used	CPCB recommended that please provide the details as per applicability.	Please provide the details where fuel used.
		8.	Fuel Burnt	CPCB recommended that please provide the details as per applicability.	Please provide the details of where fuel used.
	E	11.1	Method used for moisture monitoring.	CPCB recommended that please provide details if any method adopted to measure moisture in stack.	Please provide the method/details if any. If not applicable please mention details /reasons in Remark Column.
		12	Flow Meter Installed	CPCB requires load based data of every process stack, for which flow meter at each CEMS stack is required to be installed.	same
		13	Moisture Monitoring Device Installed	CPCB recommended that provide details if industry is monitoring moisture. Please provide the details like method used, Instrument used, frequency of monitoring or online monitored etc.	If industry is of the view that moisture monitoring is not required than it should provide the reasoning & copy of approval of regulators if obtained earlier.
		14	CO & CO ₂ Sensor installed?	CPCB opined that industry should inform whether it is being monitored or not.	Industry should provide reason if it is not done as per site specific issue if any. If industry of the view that it is not applicable than should record the scientific reason and a copy of approval of regulator if obtained earlier with Remarks in column on bottom of section.

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		19	Installation point is meeting 8D and 2D criteria or at equivalent diameters	CPCB suggested that if industry is not meeting out 8D/2D criteria for PM/Gaseous CEMS than industry shall furnish, report of stratification study conducted through EPA accredited lab monitoring (isokinetic sampling) /laminar air flow/ homogenous gaseous composition in their process stack. Industry should furnish details on actual basis.	Same
Part-II	F1	2	Dual range is available for the instrument	Please consult supplier / refer operating manual.	Agreed.
		4	Whether auto ranging available	Please consult supplier / refer operating manual.	Agreed.
		5	Dust Factor Set	Necessary to provide.	Industry should provide the details as per their CEMS specific / Operating manual. If Instrument does not apply dust factor, please mention in Remark Column on bottom of section.
		6	Stack Correction Factor set for Opacity Monitor	Please provide details.	Industry may provide the correction factor & if not known mention in remark.
		9	Whether the calibration was made for different Load conditions.	It is necessary to check linearity of the PM CEMS and its performance.	If industry has any past experience (on different load conditions), they may furnish the data. The load variation can also be practised by changing the APCD levels. Industry may practice monitoring on the day when industry is operating on different load conditions. It may furnish the reasons, if unable to conduct monitoring on various load conditions.

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		13	Whether the data submitted to SPCB or CPCB are being normalized for (Remarks: Each data has to be normalized at 760 mm of Hg Pressure , 25°C Temperature on dry basis)	It is necessary to normalize the data at given pressure and temperature conditions.	Industry is already doing normalization of data during calibration through isokinetic sampling. If not then industry should initiate the calibration of PM CEMS as per CPCB standard guideline. Real time data submitted to CPCB has to be normalized for which necessary system installation is the responsibility of the industry.
		14	Whether CO ₂ /O ₂ Correction applied as prescribed in emission limit	It is necessary to apply correction with CO ₂ /O ₂ . It would be industry specific either 6% O ₂ or 12% CO ₂ .	For cement plant 10 % O ₂ correction will be applied as per MoEFCC notification dt. 25.08.2014 (for SO ₂ & NO _x). Data submitted to CPCB should be corrected to the factors mentioned.
		15	Instrument calibration frequency prescribed by manufacturer	CPCB suggested that calibration to be required as per OEM standard guideline.	Calibration check is to be done as per CPCB guidelines & calibration frequency is to be decided on the basis of OEM recommendation. However, calibration check & mentioned calibration frequencies already mentioned in CPCB guidelines have also to be followed.
		16	Frequency of Calibration Verification (without adjustment) by Empanelled / Accredited Laboratories. No adjustment is allowed during verification	Empanelled laboratory yet to be finalized.	Industry shall get the systems calibrated either through their own lab staff or through technology providers and calibration verification is to be done by EPA Empanelled/accredited laboratories. Data should be submitted online to CPCB/SPCB. This arrangement shall continue till the time CPCB empanels the laboratories for OCEMS.

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	F2	1	CEMS selection as per the matrix provided in guideline	CPCB suggested that industry should furnish details on actual basis.	If industry is complying with previous guidelines, shall submit the same. Industry shall provide details as applicable.
		9	Calibration Frequency (Multipoint) (Remarks: If not done inform.)	CPCB recommended that industry can perform multipoint calibration either by use of calibration cylinder of different concentration (on three span scales) or by use of diluter.	Agreed If industry is not doing Multipoint calibration furnishes detail "NO" in Protocol. However, Industry has to carry out the multipoint calibrations.

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Sl. No	Section	Point No's	Condition as per Compliance Reporting Protocol	Clarification Required	CPCB REPLY
1	Section-B	3	Environment Clearance Validity	Clarification required on submitting validity date as Cement plants EC are perpetual & has no validity.	reply the same online
2	Section-F1	5	Dust Factor Set.	What is the difference between dust factor & stack correction factor. Vendors are not clear & are not providing the factors.	Take whatever factor Tech. Providers are incorporating and fill factor name it correctly. Some instruments have dust factor & some have stack correlation factor too. If both factors are put in the calculation than both have to be provided.
3		6	Stack Correction Factor set for Opacity Monitor.		

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	4	Section-F1	13	Whether the data submitted to SPCB or CPCB are being normalized for Temp, Pressure & Moisture	clarification required on which data to be normalized as Opacity meters does not have normalization facility.	The systems for continuous monitoring has to be installed for pressure, temperature & moisture as per guidelines and factor incorporation is required.
	5	Section-F1	17	Zero Drift Specified by Manufacturer for PM CEMS	Instrument manufacturer or the manual are not specifying any details on ZERO drift.	clarify the same. If Tech. Providers are not specifying, clearly mention and continue for ZERO/SPAN calibrations of instruments as per CPCB guidelines
	6	Section-F1	18	Span Drift Specified by Manufacturer for PM CEMS	Instrument manufacturer or the manual are not specifying any details on SPAN drift.	
	7	Section-F1	22	Frequency of Zero and Upscale Check prescribed in Manual for PM CEMS	Instrument manufacturer or the manual are not specifying any details on UPSCALE Check.	
	8	Section-F2	12	Concentration at which calibration made (ppb/ppm) (Remarks: Consistent Gain Factor record should be maintained).	Clarity required on how to calculate gain factor for gaseous parameters as suppliers are not providing any information.	This is instrument gain which can be obtained from the system only. Develop a SOP in such a way that this factor is recorded every time the system maintenance is done by the technical team in the OCEMS station.
	9	Section-F2	16	Data Capture Rate (in %age) (Remarks: Calculate variation in the actual measurements after calibration).	Clarity required on how to calculate Data capture rate as suppliers are not providing any information.	The data points in terms of 15 minute average will be compared in a day i.e. if 96 data points are available in a day for a particular parameter like SOx NOx than 100% data availability will be counted. Otherwise this data availability will also depend upon the frequency of results being

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					obtained from a particular technology.