

No. 3/66/2017-FFM/ 448-467 512.

गणराज्य

Government of India

केन्द्रीय जल आयोग

Central Water Commission

बाढ़ पूर्वानुमान प्रबोधन निदेशालय

Flood Forecast Monitoring Directorate

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R.K. Puram, New Delhi-110066.

Dated the 14 February 2018  
March

To

**The Chief Engineer**

**IBO/YBO/UGBO/LGBO/BBBO/TBO/MERO/NBO/NTBO/MCO/KGBO/CSRO/,**

**Central Water Commission,**

**Chandigarh/New Delhi/Lucknow/Patna/Shillong/Siliguri/**

**Bhubaneswar/Bhopal/Gandhinagar/Nagpur/Hyderabad/Coimbatore**

Subject: Standard Operating Procedure (SOP) for upkeep of Telemetry System of CWC and keeping them functional - regarding.

महोदय,

Kindly find enclosed the SOP for upkeep of Telemetry System of CWC and keeping them functional. The SOP has been devised for various activities to be carried out at Telemetry Sites (With regular CWC staff and those without regular CWC staff), Divisions/Modelling Centres (MC)/ Earth Receiving Stations (ERS) as well as for Data Backup at Sites/MCs/ERS for strict compliance to make the telemetry system fully functional. The periodical returns as indicated under various activities may also be ensured for taking various corrective measures for upkeep of the system and use of data during critical flood situation in both mathematical as well as conventional models.

Encl: As above.

भुवदीय  
विष्णु देव गय  
(विष्णु देव गय / Vishnu Deo Roy)  
निदेशक (एफ एफ एम) / Director (FFM)

Copy for favour of kind information to:

1. PPS to Member (River Management), CWC, New Delhi.
2. Chief Engineer (FM), CWC, New Delhi.
3. Chief Engineer (P&D), CWC, New Delhi.
4. Director, RMCD, CWC, New Delhi.
5. Director, RDC-1, CWC, New Delhi.
6. Director, RDC-2, CWC, New Delhi.
7. Director (FCA-1), CWC, New Delhi.
8. Director (FCA-2), CWC, New Delhi.
9. Director (SMD), CWC, New Delhi for uploading in CWC website.

Encl  
15/3/18  
AD-DC(A)

SMD अनु. / Sec. / Dy. No. 438  
डा. र. / Dy. No. 438  
दिनांक / Date 16/3/18

A. Copy forwarded for favour of information and necessary action to the Superintending Engineers/ Directors of the following circles with a request that the field Divisions under their control may please be instructed to ensure critical activities mentioned in SOP be carried out and returns sent as per periodicity mentioned in SOP.

- I. Director (Monitoring), CWC, Jammu.
- II. Director (M&A), CWC, Shimla
- III. Hydrological Observation Circle, CWC, Noida.
- IV. Hydrological Observation Circle, CWC, Dehradun.
- V. Hydrological Observation Circle, CWC, Varanasi.
- VI. Director (M&A Directorate), CWC, Patna.
- VII. Hydrological Observation Circle, CWC, Maithon.
- VIII. Hydrological Observation Circle, CWC, Guwahati.
- IX. NEIC, CWC, Silchar.
- X. SE (IC), CWC, Gangtok.
- XI. Hydrological Observation Circle, CWC, Bhubaneshwar.
- XII. S.E (Coordination), CWC, Bhopal.
- XIII. Hydrological Observation Circle, CWC, Gandhinagar
- XIV. SE (Coordination), CWC, Nagpur.
- XV. Godavari Circle, CWC, Hyderabad.
- XVI. Krishna and Coordination Circle, CWC, Hyderabad.
- XVII. Cauvery & Southern Rivers Circle, CWC, Bengaluru

B. Copy forwarded for favour of information and necessary action to the Executive Engineers of the following divisions with a request that all telemetry stations/modelling centres and ERS under their control may please be instructed to ensure critical activities mentioned in SOP be carried out and returns sent as per periodicity mentioned in SOP.

Executive Engineer, CD/SHD/UYD/CD/LYD/HGD/MGD-I/MGD-II/MGD-III/LGD-I/LGD-II/LGD-III/ DD/ LBD/ MBD/ UBD/ERD/ MD/ ND / MD/ TD/ WGD/ UGD/ LGD/ UKD/ LKD/ CD/HD/SRD/SWRD/NEID-III, CWC, Jammu/ Shimla/ New Delhi/ Jaipur/ Agra/ Dehradun/ Lucknow/ Varanasi/ Patna/ Behrampur/ Asansol/ Jalpaiguri/ Guwahati/ Dibrugarh/ Bhubaneshwar/ Burla/ Gandhinagar/ Surat/ Nagpur/ Hyderabad/ Pune/ Bengaluru/ Chennai/ Coimbatore/Kochi/Itanagar



## Standard Operating Procedure for upkeep of Telemetry System of Central Water Commission and keeping them functional

Stations In-Charge				Contact Number:	Return to be sent to Divn/Modelling Centre/Circle/ Ren
Name:	Activity	Person concerned	Periodicity	Organisation/Headquarter	Monthly to Division
Telemetry Sites with Regular Staff	Physical inspection regarding security arrangements, cleanliness, connectivity among components, data display, etc	JE/AE/AEE concerned	Monthly or date of site visit or disruption in data transmission to Div which ever is earlier.		Monthly to Division
	Cleaning of Solar Panels, Tipping Bucket Raingauge, battery leads, debris/silt from Termination blocks, ensuring connectivity, etc.	Site staff under supervision of JE/AE/AEE	Monthly or after every heavy rainfall or dust storm or cyclonic storm or flood or disruption in data transmission.		Monthly to Division
	Verification of data from DCP/DCU display on test check basis using gauge installed along the water level sensor and measured volume of water for rainfall sensors for few hours say 3 to 5 hours.	JE/AE/AEE concerned	Monthly or date of site visit or disruption in data transmission to Div which ever is earlier.		Monthly to Division
	Registering complaint with the vendor for correcting the fault beyond the control of site staff/in charge under intimation to Division office and duly recorded in the site register.	JE/AE/AEE concerned	Immediately after disruption of data as first information under intimation to Divisional Office. Immediately after nature of complaints has been identified after field inspection under intimation to Divisional office.		Monthly to Division
	Physical inspection regarding security arrangements, cleanliness, connectivity among components, data display, etc	JE/AE/AEE concerned	Monthly or date of site visit or disruption in data transmission to Div which ever is earlier.		Monthly to Division
Telemetry Sites without Regular Staff	Cleaning of Solar Panels, Tipping Bucket Raingauge, battery leads, debris/silt from Termination blocks, ensuring connectivity, etc.	Local labour or site staff on tour from other site under the supervision of JE/AE/AEE	Monthly or after every heavy rainfall or dust storm or cyclonic storm or flood or disruption of data.		Monthly to Division
	Verification of data on test check basis using gauge installed along the water level sensor and measured volume of water for rainfall sensors for few hours say 3 to 5 hours.	JE/AE/AEE concerned	Monthly or date of site visit or disruption in data transmission to Div which ever is earlier.		Monthly to Division
	Registering complaint with the vendor for correcting the fault beyond the control of site staff/in charge under intimation to Division office and duly recorded in the site register.	JE/AE/AEE concerned	Immediately after disruption of data as first information under intimation to Divisional Office. Immediately after nature of complaints has been identified after field inspection under intimation to Divisional office.		Monthly to Division

## Standard Operating Procedure for upkeep of Telemetry System of Central Water Commission and keeping them functional

Stations In-Charge		Name:			Contact Number:
		Activity	Person concerned	Periodicity	Return to be sent to Divn/Modelling Centre/Circle/ Organisation/Headquarter
Division Office/Modelling Centre		Monitoring of Data Reception from site through GPRS/GSM directly and Satellite through ERS/VSAT and data from other agencies as agreed in advance.	Duty Officer	Daily during non-monsoon and three hourly during monsoon	Fortnightly to Circles/ Organisation/ CWC HQ (FMO)
		Physical verification of equipments installed like Server/ UPS/ VSAT/Earthing, etc and working of data management software installed in the server.	AE/AEE/EE	Weekly or disruption.	Fortnightly to Circles/ Organisation
		Registering complaint with the vendor for correcting the fault beyond the control of site staff/in charge/Duty officer of control room under intimation to the Executive/ Superintending Engineer and duly recorded in the register. Ensuring availability of responsible officer/staff during complaint redressal visit of service engineer	Duty Officer	Immediately after disruption of data or receipt of similar information from site as first information as second line of monitoring. Immediately after nature of complaints has been identified after field inspection or receipt of similar information from site as second line of complaint redressal.	Fortnightly to Division Concerned in case of one MC for more divisions as well as to Circle , Organisations Concerned
		Review of licences and payment of fees to MOCIT	EE	Annual	Annual to CWC HQ(FMO)
		Usage of data/sharing data with other as agreed in advance.	Duty Officer	Daily during non-monsoon and three hourly during monsoon	Fortnightly to CWC HQ (FMO)
Earth Receiving Station		Verification of Raw Data Reception at DDRGS	Officer in Charge through service	Daily during non-monsoon and three hourly during monsoon	
		Physical verification of equipments installed like Server/ UPS/ VSAT/Earthing, etc and working of data management software installed in the server.	Officer in Charge through service engineer of vendor	Weekly or disruption.	
		Registering complaint with the vendor for correcting the fault. Ensuring availability of responsible officer/staff during complaint redressal visit of service engineer	Officer in Charge	Immediately after disruption of data as first information. Immediately after nature of complaints has been identified after field inspection.	

## Standard Operating Procedure for upkeep of Telemetry System of Central Water Commission and keeping them functional

Stations In-Charge	Name:			Contact Number:
	Activity	Person concerned	Periodicity	Return to be sent to Divn/Modelling Centre/Circle/ Organisation/Headquarter

### SOP for Telemetry Data Backup and validation

	Activity	Person concerned	Periodicity	Return to be sent to Divn/Modelling Centre/Circle/ Organisation/Headquarter
Site Level	The data backed up using Pendrive should be sent to concerned MC/Division for filling the gap due to transmission losses in their system and then deleted from the Pendrive to keep ready for future use	JE/AE/AEE concerned	Monthly or during site visit	
Division/ MC Level	Use mirror server for data back up. Primary and secondary data validation similar to manually observed data. Storage of validated data alongwith raw data in separate folders. Uploading of the validated telemetry data in eSWIS after creation of facility for the same.	AE/AEE/EE	Monthly	Monthly to Circles/ Organisation/CWC(HQ(FMO)