

Central Water Commission
Dam Safety Monitoring Directorate
Room No. 710(S), Sewa Bhawan,
R.K. Puram, New Delhi- 110066
Telefax 26104104

No.3/19/NCDS/DSM/31st meeting/2012/ 553-582-20

Dated: 1st August, 2012

To,

(As per list)

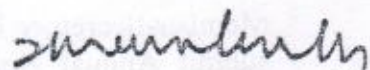
Subject:- Minutes of 31st Meeting of National Committee on Dam Safety (NCDS) -
Regarding

Sir,

Thirty-first meeting of National Committee on Dam Safety (NCDS) was held on 13th July, 2012 in Conference Room No.525 (N), Sewa Bhawan, R.K. Puram, New Delhi- 110066. A copy of the minutes of the meeting is enclosed herewith for taking follow up actions on the decisions taken during the meeting. It is requested that the follow up action taken report on the decisions taken may please be submitted to this office.

Encl: As above

Yours faithfully,



(L.A.V. Na'han)
Chief Engineer (DSO)

&
Member Secretary, NCDS

Copy for kind information to :

PPS to Chairman, CWC, New Delhi
PS to Member (D&R), CWC, New Delhi

Copy to :

Director, DSR, CWC, New Delhi
Director CMDD (NW&S), CWC, New Delhi

Minutes of the 31st Meeting of National Committee on Dam Safety held on 13th July, 2012 at 1100 hrs.

31st meeting of National Committee on Dam Safety (NCDS) was held on 13th July, 2012 in CWC Conference Hall, Sewa Bhawan, R.K. Puram, New Delhi under the Chairmanship of Shri R.C. Jha. Chairman, CWC & Chairman of the National Committee on Dam Safety (NCDS). Shri A.K. Ganju, Member, D&R, CWC & Vice-Chairman of NCDS was also present. At the outset, Chairman welcomed Members of NCDS/Representatives and other Officers present in the meeting. After introductory talk by Chairman, NCDS on issues of regular maintenance of dams, safety review and care to be taken for proper construction and development of project, a round of introduction of all present in the meeting took place. Subsequently Chairman, NCDS requested Chief Engineer (DSO) & Member-Secretary, NCDS to take up the agenda of the meeting. List of Officers from different organizations, present in the meeting is enclosed at Annexure-I

31.1.0 Confirmation of the Minutes of the 30th Meeting

Member Secretary informed that minutes of the 30th meeting were circulated among all Members and only the State of Tamil Nadu has given observations on item pertaining to Dam Safety Legislation. Director (DSR), CWC informed that the circulated minutes contained the contents of actual discussions that took place during the 30th meeting of NCDS, and further views on the matter may be expressed by the representative from Tamil Nadu during discussion on related agenda item of the present meeting. The Committee confirmed the minutes of the 30th meeting of the NCDS as circulated.

31.2.0 Pre & Post Monsoon Inspection of Dams

Member-Secretary informed the Committee that all DSO's/Dam owners are required to submit Annual Health Status Reports on the basis of the pre and post monsoon inspection reports of Dams. The status of Health Reports received during 2007-2011 from different States/Organizations was reviewed by the committee. On a query about all of 508 dams in Maharashtra having major deficiencies (as reported in Pre & Post monsoon Inspection Report 2009), the Superintending Engineer, Dam Safety Organisation Maharashtra admitted to the factual position and informed that the work is in progress and a report on the same would be submitted shortly. Member Secretary expressed concern that most of the Health Status Reports submitted by State DSOs, do not contain report on remedial action taken on the shortcomings of previous inspections. On a query from Chairman, NCDS regarding reasons of non-submission of Health Status Report by DVC, the Chief Engineer (C) DVC mentioned that inspection will be carried out, and report will be submitted shortly. Chairman, NCDS desired that in the interest of Dam safety, all Dam owners should submit their Health Status Report to CWC regularly, with a separate chapter on remedial actions taken on the shortcomings noticed during previous inspections.

31.3.0 Comprehensive Dam Safety Review Panels (DSRPs)

The Chairman, NCDS stressed the need and importance of conducting comprehensive dam safety review for all Large dams. Director (DSR), CWC mentioned that with the implementation of Dam Safety legislation, it would become mandatory on the part of Dam owners to carry out comprehensive Dam Safety Review through independent review Panels. Chairman, NCDS requested the States to constitute the DSRPs wherever this has not been done. Superintending Engineer, Dam Safety Organisation, Maharashtra informed that a number of Dam Safety Review Panels have been formed in Maharashtra and the details would be furnished to NCDS Secretariat. Chief Engineer, IDRB, Kerala intimated that approval regarding formation of DSRP has been granted and DSRP will be in place shortly. Research Officer, Karnataka informed of completing the comprehensive dam safety review in respect of 124 dams, while the comprehensive dam safety review of 22 dams is under progress. Member, Irrigation, BBMB suggested that the frequency of comprehensive dam safety review should be linked to the life of the dams, instead of having a uniform review frequency of one in 10 years. Director (DSR), CWC informed that as per the provisions of the Dam Safety Bill under consideration, vulnerability classification of the dams on the basis of age/size/condition etc. has been proposed, and the frequency of comprehensive Dam safety review would be linked to the vulnerability classification of dam. Chief Engineer, Dam Safety, Odisha also informed to have constituted the DSRPs and completed review for 109 out of 160 dams. The committee requested all the States to inform the status of constitution of DSRPs, along with the details of comprehensive dam safety reviews undertaken by the DSRPs on regular basis to NCDS Secretariat.

31.4.0 Dam Rehabilitation & Improvement Project (DRIP)

Director (DSR), CWC briefed the committee on the status of Dam Rehabilitation and Improvement Project. He further informed that a provision of Rs. 481 crore exists for inclusion of more States, and requested the other interested States to submit the proposals as per DRIP guidelines. Member (BBMB) enquired whether R&D component can be included under DRIP to which Director (DSR), CWC informed that R&D can be covered under institutional development component. He also explained the role of Engineering & Research Institutes in DRIP implementation.

31.5.0 Dams Reported as "Under Distress Condition"

31.5.1 Bhakhra Dam (Punjab)

The matter regarding distress deflection in Bhakhra Dam was deliberated during the meeting. The representative from BBMB mentioned that the Dam Safety Committee has opined that the deflection of the dam is within the limit, but matter has again been referred to IIT, Roorkee for analysis. Dam Safety Committee has suggested BBMB to install instruments to record stress and deflection at foundation level. On a query

regarding provision being made for additional spillway, the representative of BBMB stated that this would be decided based on finalization of revised PMF studies. Chairman, NCDS requested Member, BBMB to keep NCDS Secretariat updated on the rehabilitation works of Bhakra Dam.

31.5.2 Idukki Dam (Kerala)

Chief Engineer, IDRB, Kerala informed that study related to deflection in Idukki Arch Dam is being undertaken by NIT, Calicut, and a Report on remedial action taken would be submitted shortly to NCDS Secretariat. Director (DSR), CWC informed that Idukki Dam is included in DRIP.

31.5.3 Gararda Dam (Rajasthan)

Executive Engineer, HDPD Rajasthan informed about the consultancy work given to CWC for assessment of health of dam and rehabilitation of its failed portion. In this context, Director CMDD (NW&S) / Embankment (NW&S) informed that the consultancy work on the Gararda Dam has been initiated and a meeting with the Project Authorities will be convened shortly.

31.5.4 Jaswant Sagar Dam (Rajasthan)

The Executive Engineer, HDPD Rajasthan informed that the restoration work of Jaswant Sagar Dam has been completed and water would be stored during current monsoon.

31.5.5 Ranjit Sagar Dam (Punjab)

Director, Kandi Watershed Design Dte, Punjab informed that grouting of the holes have been completed and there is no observed seepage problem in Ranjit Sagar Dam.

31.5.6 Srisailem Dam (Andhra Pradesh)

Representative of Andhra Pradesh informed that the protection work at the Toe of Dam foundation opposite to Block No.5 was completed. It was further informed that the protection works opposite to the block 6 & 7 could not be started due to high tail water level on downstream side. It was informed that the work of repairs to the old Cofferdam downstream of NSRS Srisailem Dam has been completed to the tune of Rs.83.26 lakhs against the estimated cost of Rs.115.07 lakhs, and efforts are being made to complete the balance work at the earliest. Chairman, NCDS stated that the State Government of Andhra Pradesh should take up the necessary steps on urgent basis to increase the spillway capacity of dam as per design flood review. He also mentioned that CWC, prior to 2009 floods, had suggested to increase the spillway capacity of dam, but no action has been taken by the State Government of Andhra Pradesh so far.

31.5.7 Palemvagu Dam (Andhra Pradesh)

Representative of Andhra Pradesh informed that the additional spillway for Palemvagu Dam has been recommended, and in this regard detailed geo-technical investigation carried out and based on results of soil tests drawings for additional spillway have been issued.

31.5.8 Nand Gaon Dam (Maharashtra)

Superintending Engineer, Dam Safety Organisation, Maharashtra informed that the design work has been completed and the repair work on the dam is to start soon.

31.5.9 Kohira Dam (Bihar)

Representative of Bihar informed that the restoration measures on Kohira dam have been completed and the storage of the dam has started.

31.5.10 Maro, Obra and Nagwa Dam (Uttar Pradesh)

Executive Engineer, DSO, U.P. informed that no further rehabilitation work has been done regarding Maro Dam and regarding Maudha it was mentioned that no progress has taken place since last meeting. He further informed that the repair work for Obra and Nagwa Dams have been completed. Chairman, NCDS requested that NCDS Secretariat may be kept updated on the developments of the rehabilitation work being carried out.

At the end of discussions on Dams reported under distress, the Chairman, NCDS requested all Dam owners to keep NCDS Secretariat informed of the mitigation/rehabilitation measures being undertaken for distress dams. He also requested the NCDS Secretariat to remove the rehabilitated dams from the list of distress dams brought before the committee for deliberations.

31.6.0 Record of Dam Failure

Chairman, NCDS opined that failure in case of dams constructed during earlier periods has been observed to be on the lower side compared to dams recently constructed and stressed the need to develop better construction technique and carry out better supervision during construction period. He further requested all the State DSO's/Dam owners to furnish full details of dam failures in their States, as that would help in taking preventive measures for avoiding such failures in future.

31.7.0 Dam Safety Legislation

The representative of Tamil Nadu informed the Committee that the Hon'ble Chief Minister of Tamil Nadu has written to Hon'ble Prime Minister conveying Tamil Nadu's objection to the Dam Safety Bill in its current form. Director (DSR), CWC informed that Model (Draft) Dam Safety Bill – 2002 was deliberated in detail in the NCDS meetings. The same draft of the Dam Safety Bill was originally circulated as part of Draft Cabinet note for tabling in the Parliament. However, further changes were introduced during long consultation process including inter-Ministerial consultations, before its final approval by the Cabinet for placement of the Bill in the Parliament. The Dam Safety Bill was subsequently referred by the Parliament to the Standing Committee on Water Resources for examination. The draft Bill was uploaded by the Standing Committee on Lok Sabha Secretariat's website and comments were invited from various State Governments as well as individuals. Objection on the extent of jurisdiction of State Dam Safety Organizations was also raised before the Standing Committee. However, the same have not been covered in the final recommendations/observations of the Standing Committee. Informing the status of the Bill, he further informed that the new draft of the Dam Safety Bill incorporating recommendations of the Parliamentary Committee has been finalized by MoWR and further action is in process in consultation with Ministry of Law and Justice. Chairman, NCDS stated that there are other similar cases of dams situated in one State and items maintained and operated by neighbouring State (e.g. some dams under the control of Uttar Pradesh are located in Uttarakhand) and in such cases both the State are required to make joint efforts for ensuring the safety of the Dam. Chairman, NCDS further stated that in case of any difference of opinion among the two States, the matter may be referred to Central Dam Safety Organization, and provision for the dispute resolution in such a case, has been provided for in the draft Dam Safety Bill.

✓ 31.8.0 Risk Assessment Studies and preparation of Emergency Action Plan (EAP)

Committee reviewed the status of EAPs prepared by various States, Maharashtra and Andhra Pradesh indicated that EAPs have been prepared for 136 and 5 dams respectively. Other States mentioned no change in the status indicated in Table-III of the circulated Agenda. Director (DSR), CWC informed that as per the proposed Dam Safety Legislation, it would become mandatory for the dam owners to prepare EAP before the first filling of any large dam. The State Government of Karnataka requested for formation of Sub-Committees for preparation of EAPs, in respect of inter-state dams. Committee felt that separate sub-Committee may not be required solely for the preparation of EAPs and the State Government of Karnataka may finalize the EAPs in consultation with neighbouring States and other State holders. Chairman, NCDS requested the neighbouring States of Andhra Pradesh, Maharashtra and Karnataka to cooperate in the formation of their respective EAPs, as it would be in the interest of all the neighbouring States. Chairman, NCDS requested all the Dam owners to take necessary steps for preparation of EAPs and to report to NCDS Secretariat about the

number of Dams for which EAP's have been prepared, along with the target dates for the remaining Dams.

31.9.0 Completion Reports, Data Book and O&M Manual

Chairman, NCDS mentioned the importance of Completion Reports, Data Book and O&M Manual and requested all Members to furnish the related details for their projects.

31.10.0 Setting up Hydrology units and Design Floods Review

The need for setting up of hydrology units and review of the design flood in respect of dams was stressed by the Committee. Director (DSR), CWC informed that an analysis of 40 DRIP dams subjected to hydrological review indicates that about 50% of dams have undergone upward revisions by over 100%. Chairman, NCDS informed that the earlier design floods were based on the limited data availability and the design floods may have to be updated with more data now available, by carrying out hydrological studies based on advance statistical methods.

Member, Irrigation, BBMB stated that in case of increase of design flood by more than 50% the review should be relooked into, taking into account all the projects in the river.

Member, D&R, CWC informed that basin-wise position is generally analyzed in all such cases. Chairman, NCDS requested all States to take necessary steps for review of Design floods, and for setting up the hydrological units and to regularly intimate NCDS Secretariat regarding the status in this regard.

31.11.0 Monitoring of safety aspects of inter-State dams by Sub-Committee

(a) Mahanadi River System Sub-Committee

The State Govt. of Odisha proposed the reconstitution of the Sub-Committee with the following 4 members :-

1. Chief Engineer,
Dam Safety, Odisha
2. Chief Engineer,
Mahanadi Project, Raipur,
Chattisgarh
3. Chief Engineer & Basin Manager
Upper Mahanadi Basin
Burla, Sambalpur
Odisha

4. Chief Engineer,
Minimata Bungo Project, Bilaspur,
Chattisgarh

The reconstitution of the sub-Committee with proposed members was approved by NCDS for further action in this regard by the NCDS Secretariat. Chairman, NCDS requested the Sub-Committee to submit Report on the monitoring of the safety aspects on inter-State Dams of Mahanadi River System.

(b) **Parambikulam Aliyar Project Sub-Committee**

Chief Engineer, Kerala requested The Committee for ensuring early meeting of sub-Committee to discuss the safety aspects of the Dams situated in Kerala. He stated that only two meetings of the Sub-Committee could have been convened till date. Chairman, NCDS stated that the safety of the Dam structure is of concern to the State, where the dam is located and as well to the Dam owner. Thus both may be involved for the management of the dam safety aspects and may take necessary steps accordingly.

Deputy Superintending Engineer, Chennai, Tamil Nadu stated that the Sub-Committee may be disbanded as a Water Board already exists which can take care of the Dam safety aspects of the inter-State Dams. Chief Engineer, Kerala stated that the Water Board is for matters concerning sharing of waters and dam safety aspects are not covered. After brief deliberation, the

Committee decided that the matter related to Dam safety of inter-State Dams should be included by Kerala in the Agenda item for next meeting of Water Resources Board. Chairman, NCDS requested the States of Kerala and Tamil Nadu to deliberate on the issues related to the dam safety aspects of the inter-State Dams of the Parambikulam Aliyar Project in the next meeting of the Water Board and submit a Report on the outcome of discussions to the NCDS Secretariat.

(c) **Subarnarekha River System Sub-Committee**

It was informed that the meeting of the sub-Committee would be held shortly. Chairman, NCDS requested the Sub-Committee to submit a Report regarding the monitoring of dam safety of the inter-State aspects of Dams under Subarnarekha River System to NCDS Secretariat.

31.12.0 National Register of Large Dams

31.12.1 Updation as per new format

Chief Engineer, IDRB, Kerala requested for incorporation of factual information related to location of the four dams, namely, Periyar (Mullaperiyar), Parambikulam, Peruvuripallam and Tunacadavu in the NRLD. Member (D&R), CWC and Vice - Chairman, NCDS stated that a foot note has been used to indicate that "Periyar Dam is located in Kerala but controlled by Tamil Nadu" and accordingly a foot note "Periyar (Mullaperiyar), Parambikulam, Peruvuripallam and Tunacadavu dams located in Kerala, but operated and maintained by Govt. of Tamil Nadu" can be added. Chief Engineer, Kerala also expressed its apprehensions on the inclusion of "ownership details" in the new proforma of NRLD and wanted it to be replaced by the Caption: "Operated and maintained by". The suggestion was agreed by the Committee. The State Govts./Dam owners were requested by the Committee to furnish at the earliest the NRLD related information in the revised Performa (Annexure-II) enclosed.

31.13.0 Formulation of Dam Safety Organization

States/Dam owners were requested to take necessary steps for the formation of Dam Safety Organizations, wherever they do not exist. They were also requested to convey to the NCDS Secretariat the updated details of Address, Telephone No., Mobile No., e-mail address & Fax etc. for the existing Dam Safety Organizations, and for newly formed organizations.

The meeting ended with a vote of thanks to the Chair.

The decisions taken during the 31st meeting of NCDS are summarized below :-

- i) The minutes of the 30th meeting of the NCDS were confirmed as circulated.
- ii) All Dam owners should submit their Health status Reports of dams to NCDS Secretariat regularly, with a separate chapter on Remedial Actions taken on the Shortcomings noticed during previous pre and post monsoon inspections of dams.

(Action : States DSO's /Dam owners).
- iii) It was decided to constitute Dam Safety Review Panels wherever not yet constituted. All the States/ Dam owners to inform the status of constitution of DSRP's, along with the details of comprehensive dam safety reviews undertaken by the DSRPs on regular basis to NCDS Secretariat.

(Action : States DSO's /Dam owners)

- iv) Dam owners to keep NCDS Secretariat informed regarding the mitigation/rehabilitation measures being undertaken for dams in distress condition.

(Action: BBMB, State Govt's of Kerala, Rajasthan, Andhra Pradesh, Maharashtra, Uttar Pradesh)

- v) All the State DSO's/Dam owners to furnish full details of dam failures in their States.

(Action : States DSO's /Dam owners)

- vi) All the Dam owners to take necessary steps for formation of EAPs and to report to NCDS Secretariat about the numbers /details of Dams for which EAP's have been prepared, along with the target dates for preparation of EAP's for their remaining Dams.

(Action : States DSO's /Dam owners)

- vii) The State Government of Karnataka may finalize the EAPs in consultation with neighbouring States and other stake holders. The neighbouring States of Andhra Pradesh, Maharashtra and Karnataka to cooperate in the formulation of their respective of EAPs.

(Action : State Govt's of Karnataka, Andhra Pradesh, Maharashtra)

- viii) All States DSO's /Dam ownerst to furnish the related details of Completion Reports, Data Book and O&M Manual of their projects to NCDS Secretariat.

(Action : States DSO's /Dam owners)

- ix) All StatesDSO's/Dam owners to take necessary steps for review of Design floods, and set up the hydrological units and to regularly intimate NCDS Secretariat regarding the status in this regard.

(Action : States DSO's /Dam owners)

- x) The reconstitution of the Mahanadi River System sub-Committee with the following members was approved by NCDS.

1. Chief Engineer,
Dam Safety, Odisha
2. Chief Engineer,
Mahanadi Project, Raipur,
Chattisgarh

3. Chief Engineer & Basin Manager
Upper Mahanadi Basin
Burla, Sambalpur
Odisha

4. Chief Engineer,
Minimata Bungo Project, Bilaspur,
Chattisgarh

The Mahanadi River System Sub-Committee to submit Report on the monitoring of the safety aspects on inter-State Dams of Mahanadi River System.

(Action : DSO, CWC & Mahanadi River System
Sub-Committee)

xi) The States of Kerala and Tamil Nadu to deliberate on the issues related to the dam safety aspects of inter-State Dams in Parambikulam Aliyar Project in the next meeting of the Water Board, and submit a Report on the outcome of discussion to the NCDS Secretariat.

(Action : State Govt's of Kerala & Tamil Nadu)

xii) The Subarnarekha River System Sub-Committee to submit a Report regarding the monitoring of dam safety of the inter-State aspects of Dams under Subarnarekha River System to NCDS Secretariat.

(Action : Subarnarekha River System Sub-Committee)

xiii) The existing footnote on "Periyar Dam located in Kerala but controlled by Tamil Nadu" would be replaced by "Mullaperiyar (Periyar), Parambikulam, Peruvuripallam and Tunacadavu dams located in Kerala but operated & maintained by Govt. of Tamil Nadu".

(Action : DSO, CWC)

xiv) The State Govts./Dam owners were requested by the Committee to furnish at the earliest the NRLD related information in the revised Performa (Annexure-II) enclosed.

(Action : States DSO's / Dam owners)

xv) All States to convey to the NCDS Secretariat the updated details of Address, Telephone No., Mobile No., e-mail address & Fax etc. for the existing Dam Safety Organizations, and for newly formed organizations.

(Action : States DSO's / Dam owners)

**31st Meeting of National Committee on Dam Safety
on 13th July, 2012 at 1100 hrs**

LIST OF PARTICIPANTS

Sl.No.	Name, Designation & Organization	Status
1.	Shri R.C. Jha, Chairman, CWC	Chairman
2.	Shri A.K. Ganju, Member, D&R, CWC	Vice-Chairman
3.	Chief Engineer, DSO, CWC	Member Secretary
4.	Director, CMDD (NW&S), CWC	DSO, CWC
5.	Dr. B.P.X. Pillai, Director, DSR Dte, CWC	DSO, CWC
6.	Shri L.K. Taneja, Director, DSM Dte, CWC	DSO, CWC
7.	Shri V.K. Mahanudevan, Chief Engineer, IDRB, Kerala	Member
8.	Shri D.C. Singh, Chief Engineer, Uttarakhand	Member
9.	Shri B. Joshi, General Manager (D&E), NHPC	Member
10.	Shri A.K. Sharan, Chief Engineer (C), DVC	Member
11.	Shri Nilchala Panigrahi Chief Engineer, Dam Safety, Odisha,	Member
12.	Shri S.L. Aggarwal, Member, Irrigation, BBMB	Member
13.	Shri Devendra Singh, Director, Dam Safety, Bhopal, Madhya Pradesh	Representing Member from (Bodhi), M.P.
14.	Dr. Y.P. Sharda, Vice President, ISEG	Representing Member from ISEG
15.	Prasanta Mishra, Director, GSI	Representing Member from, GSI
16.	Shri K.V. Rajan, Joint Chief Engineer, Chennai	Representing Member from, Irrigation, Tamilnadu
17.	Dr. A.K. Das, Scientist, IMD	Representing Member from, IMD
18.	Shri Sanjeev Suri, Director, Kandi Watershed Design Dte., Punjab, Chandigarh	Representing Member from Kandi Area Development Irrigation, Works, Chandigarh
19.	Shri D.H. Kumavat, Superintending Engineer, Maharashtra	Representing Member from, Irrigation Department Maharashtra
20.	Shri S. Natesh, Director, KERS, Karnataka	Representing Member from, KERS

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21.	Shri R.M. Gupta, Executive Engineer, Dam Safety , Uttar Pradesh	Representing Member from Uttar Pradesh
22.	Shri Uday Kumar., Resident Engineer ,Bihar	Representing Member from Bihar
23.	Shri K.K. Jha, Executive Engineer, Water Resources Deptt., Jharkhand, Ranchi	Representing Member from, Jharkhand, Ranchi
24.	Shri M. Fazalullah, Executive Engineer, State Dam Safety Organisation, Andhra Pradesh	Representing Member from, Irrigation Department Andhra Pradesh
25.	Shri Vimal Kumar Choradia, Executive Engineer ,Hydraulic Data Processing Division, Rajasthan	Representing Member from, Rajasthan
26.	Shri C. Vaseeharan, Superintending Engineer& Director ,Dam Safety Division & Director, WRD,PWD, Dam Safety Directorate, Chennai	From Tamilnadu
27.	Rajeev Baboota, Chief Engineer (C), NHPC	From NHPC
28.	Shri S.B. Pandey, Superintending Engineer(C) & Tech. PA, DVC, Maithon	From DVC
29.	Shri P.K. Gupta, IMD	From IMD
30.	Shri Tarlochan Singh, Deputy Chief Engineer, Dam Safety, BBMB	From BBMB
31.	Shri A.K. Dubey, Superintending Engineer (C), Engg. Circle, DVC	From DVC
32.	Shri Baljeet, Executive Engineer, O/o C.E. (Design) Lucknow, U.P.	From Chief Engineer (Design), Irrigation Deptt. Lucknow(UP)
33.	Shri H.K. Udaya Kumar, Research Officer, DSC-2, KERS, Karnataka	From KERS, Karnataka
34.	Shri G Govardhan, Executive Engineer, DSO, Andhra Pradesh	From DSO, Andhra Pradesh
35.	Shri Mahi C.N., Executive Engineer, Dam Safety Organization, Nashik, Maharashtra	From DSO, Maharashtra
36.	Shri Akshaye Kumar Das, DSO, Odisha	From DSO, Odisha
37.	Shri Balbir Singh, Senior Design Engineer, Ranjeet Sagar Dam Design, ORG, Chandigarh	From Ranjeet Sagar Dam Design, ORG, Chandigarh
38.	Shri Kishan Chand Bhagat, Executive Engineer	From Dam Construction and Spillway Construction Division, RSD,Pathankot, Punjab
39.	Shri Heman Manchanda,ISEG	From ISEG
40.	Shri H.D. Kapila, SDE, Dam Safety, BBMB	From BBMB
41.	Shri V.D. Suresh, Deputy Superintending Engineer, DSD, Chennai-5	From Chennai
42.	Sh.V.C.Gupta, Deputy Director, DSM Dte., CWC	From DSO,CWC
43.	Shri O.P.Gupta, Deputy Director , FE&SA Dte. , CWC	From DSO,CWC
44.	Shri Rahul Kumar, Assistant Director, CWC	From DSO,CWC
45.	Shri Shahid Hussain, Assistant Director-II,CWC	From DSO,CWC

