

Minutes of the twenty ninth meeting of National Committee on Dam Safety (NCDS) held in CWC, New Delhi on 12.12.2008

The 29th meeting of the National Committee on Dam Safety (NCDS) was held on 12 December 2008 in the Conference Room of CWC, Sewa Bhavan, R. K. Puram, New Delhi under the Chairmanship of Shri A.K. Bajaj, Chairman, CWC & NCDS.

The list of officers / representatives of various States / Organizations who attended the meeting is given at Annex I.

29.0.0 Opening Remarks

29.0.1 At the outset, Chairman welcomed the members & all other representatives present. Thereafter, he requested Chief Engineer (DSO), Member-Secretary (NCDS) to take up the agenda items for discussion.

29.1.0 Confirmation of the minutes of 28th meeting

Chief Engineer (DSO) and Member-Secretary, NCDS informed that the minutes of the 28th meeting were circulated to all the members. No objections to the minutes were raised. Therefore, the minutes could be taken as confirmed. This was agreed to by all the members.

29.2.0 Issues relating to Dam Rehabilitation & Improvement Project (DRIP)

Chief Engineer (DSO) briefly explained the status of Dam Rehabilitation & Improvement Project (DRIP) and gave a brief presentation on the 1st draft Aide Memoire received from the World Bank. He informed the members that preparatory mission of the World Bank visited India from 12 to 22 November, 2008 and had discussion with officers of CWC & participating States. In the 1st draft of Aide Memoire, World Bank indicated to include 5 States viz. Chhattisgarh, Kerala, Madhya Pradesh, Orissa and Tamil Nadu as confirmed States. The World Bank also indicated that Jharkhand may be included if they respond with relevant details by January, 2009. The Representative from Uttarakhand assured to expedite submission of revised proposal on DRIP. Replying to a query by Member Secretary, he said that Uttarakhand has already set up a DSO; and he agreed to submit the details of DSO shortly to CWC. The total cost of project indicated by World Bank is 350 M\$ including the Central component. As per the 1st draft Aide Memoire, engagement of management consultant is required at Center as well as State levels for supervision and coordination of project activities.

During the discussion with the team members concerning Environmental and social aspects of the World Bank, it was indicated by the team that Environmental & Social Assessment (ESA) studies report got prepared by CWC has to be published on CWC, States as well as on World Bank web site and comments of people and stakeholders should be invited on this.

Representative of the World Bank endorsed the presentation made by Member Secretary on the status of DRIP. He also said that States having very few proposals for dam rehabilitations were not being considered for the DRIP. Chairman was of the view that States having isolated projects shall submit their proposals through CWC, so that the same can be clubbed together for reconsideration by the Bank.

On the query of some members, Sh. Sengupta informed that draft Aide Memoire had already been circulated to all participating States. As soon as final Aide Memoire is received by CWC, it will be circulated to participating States.

29.3.0 Review of National Scenario

29.3.1 Member-Secretary requested the representative from Uttar Pradesh to apprise the Committee, the latest position of inspection, rehabilitation etc. in respect of Obra, Nagwa, Maudaha and Maro dams in which deficiencies were noticed and reported earlier. The Executive Engineer, Dam Safety Cell, Lucknow informed that officers from DSO shall visit these projects and reports shall be submitted to CWC by March, 2009.

29.3.2 Breaching of large dams:

Nand Gavan Dam, Maharashtra: Representatives from Maharashtra informed that it is a very small dam and design is yet to be finalized by Municipal Corporation who is owner of the dam. State DSO may pursue the matter with them.

Jaswant Sagar Dam, Rajasthan: No representative from Rajasthan attended the meeting; hence this issue was not taken up for discussion.

29.3.3 Breaching of small dams

(a) Pratappura dam, Gujarat: No representative from Gujarat attended the meeting; hence this issue was not taken up for discussion.

- 29.3.4 Idukki dam, Kerala:** Representative from Kerala State informed about the unusual structural behaviour of the dam with regard to its deflection and informed the committee that report from CSMRS is awaited. The Chairman suggested DSR Directorate of CWC to take up the matter with CSMRS for an early compliance.
- 29.3.5 Idamalayar dam, Kerala :** Representative from Kerala State informed that the detail mapping of the d/s face of the dam and galleries have already been carried out and they will submit the compliance report within one month.
- 29.3.6 Kohira dam, Bihar :** Representative from Bihar informed that tenders for suggested rehabilitation measures is under process and as soon as fund is available, same shall be implemented.
- 29.3.7 Ranjit Sagar Dam, Punjab :** No representative from Punjab attended the meeting; hence this issue was not taken up for discussion.
- 29.3.8 Andhra Pradesh**
- a) Srisailem Dam:** Representative from the Andhra Pradesh informed that some remedial measures have already been completed and balance work is in progress. The dam deformation study report of 2007 is awaited from Survey of India. As soon as report will be received same shall be communicated to CWC.
- b) Palemvagu Dam:** Representative from Andhra Pradesh informed that it is a under construction project and report is awaited from the Expert Committee constituted to study the reasons for failure.
- 29.3.9 Madhya Pradesh**
- a) Chandiya Dam:** Representative from the Madhya Pradesh informed that officers from the State DSO have not visited the project yet and report from the project authority is awaited. A report in this regard may be submitted to DSO, CWC after visit by State DSO officials.
- b) Piplai Dam:** Representative from Madhya Pradesh informed that 90% remedial measures have already been completed. Member Secretary requested him to submit a report.

Member-Secretary then requested all the States / Organizations to indicate if there were any failures of dams. In response, no failure was reported by the States

29.4.0 Progress of implementation of the recommendations of the "Report on Dam Safety Procedures."

CWC Publications on the "Report on Dam Safety Procedures" (1986) and "Guidelines for Safety Inspection of Dams" (1987) are proposed to be revised / updated by incorporating the latest techniques & developments and the experience gained over the years. Comments / suggestions based on further experiences in the field of dam safety have been sought from the dam owning States / Organizations. In this context, the Chairman emphasized that the Committee wanted to update the procedures with the latest technology and the experience gathered by the States in handling the dam safety activities. The representative of Jharkhand and NHPC agreed to submit their suggestions to DSO, CWC shortly.

29.5.0 Dam Safety Legislation

Member Secretary informed the members that the request for enacting such central legislation by Parliament of India has come from two States, namely Andhra Pradesh and West Bengal. As and when enacted, this Act will become applicable to these two States with immediate effect. In order to make the central Act applicable in other States, a resolution to such an effect will have to be passed by the House or, where there are Two Houses, by each of the Houses of the Legislature of respective State.

Chairman said that the draft Dam Safety Act has been finalized by Central Water Commission; and is now in active consideration of the Ministry of Water Resources. He further said that with this initiative, it will be possible to have uniform Dam Safety Act for all the States; and even though uniform Act is desirable, States are still free to enact independent Dam Safety Acts on their own.

29.6.0 Emergency Action Plan & Risk Assessment Studies

Member-Secretary requested all the members to inform the committee about the action taken by them on the preparation of EAP. Director, KERS (Karnataka) proposed to form a sub-committee of NCDS for coordinating the work of preparation of EAPs of dams which are in series located in more than one State. They have requested the NCDS to form the sub-committees. Chairman felt that formation of sub-committee

may not produce the desired result. Director, KERS informed the committee that EAP will be taken up after hydrological review. The representative of BBMB informed that they have prepared the EAP for Bhakra Dam.

Dr. Pillai, Director, SMD, CWC pointed out that Emergency Action Plan & Risk Assessment Studies are two entirely different issues; and not alternatives to each other. The Risk Assessment Study will give an insight into the possibilities of dam failures as well as consequences of such failures; and it shall be seen as a management tool for setting our prioritization right. On the other hand, EAP shall be seen as mandatory exercise for facing any eventuality of a dam failure. Replying to a query, he further clarified that the Dam Break Studies will be a prerequisite to the formulation of EAP. He then further informed that if any State wants to undertake Dam Break Analysis, EAP or Risk Assessment Studies of any project under their jurisdiction, CWC – to a limited extent - can undertake these studies on consultancy basis.

29.7.0 Preparation of Data Book, Completion Reports, O & M Manual

The position regarding completion / submission of these reports by various States / Organizations was reviewed by the Member-Secretary with reference to the status prepared in DSO, CWC and all the members were requested to complete the work as early as possible.

29.8.0 Dam safety activities and Inspection of Dams

The status of Inspection report/Health status received from States was reviewed by the Member-Secretary with reference to the status prepared in DSO, CWC. It was observed that Health Status reports of dams based on the inspection reports are not being received from Jharkhand, Punjab, Uttarakhand, West Bengal and DVC. All the members were requested to conduct regular inspections of dams and send Health Status Reports in time.

29.9.0 Safety review of large dams:

29.9.1 The position regarding formation of Dam Safety Review Panel (DSRP) was reviewed by the Committee and it was found that some of the States / Organizations are yet to form such Panels. Chairman stressed the need for an independent review panel. He also reminded that if any State wants to be a part of the World Bank assisted Dam Rehabilitation &

Improvement Project (DRIP), then independent dam safety review panels must be constituted, otherwise it will not be possible to get the World Bank assistance. The representative of NHPC informed the committee that the Bakreshwar Dam in West Bengal has recently been inspected by them on request from the State Government. No inspection has so far been made by State DSO. The representative of West Bengal was requested to look into the matter.

- 29.9.2** Member Secretary informed the committee that the Dam safety Organization, CWC is receiving requests from the States and dam owning organizations for providing the list of experts for formation of Dam Safety Review Panel. Presently, no such list is available with DSO, CWC and Committee may advice in this regard. Chairman suggested that a list of retired experts of states may be prepared by the States and may send it to DSO, CWC who can compile these informations including list of retired CWC experts.

29.10.0 Monitoring safety aspects of inter-State dams by Sub-Committees

- 29.10.1 Position regarding the activities of the three Sub-committees constituted by NCDS to monitor and review the safety aspects of inter-State dams is as under:

(a) Mahanadi River System: Representative of Orissa informed that next meeting will be held in January, 2009.

(b) Parambikulam Aliyar Project: The two States of Kerala and Tamil Nadu are having different views regarding continuation of the sub-committee. Tamil Nadu informed the Committee that they have inspected and are taking care of all the 9 dams under the Parambikulam Aliyar System.

(c) Subarnarekha River System: Representative of Orissa informed that last meeting was held in November, 08.

29.11.0 Setting up of hydrological units in the States

The position regarding status of setting up of hydrological units in the States was reviewed by the Member-Secretary with reference to the status prepared in DSO, CWC. The States of Andhra Pradesh, Chattisgarh, Jharkhand, Kerala (KSEB), Uttarakhand and West Bengal were requested to complete the work as early as possible.

29.12.0 Instrumentation of dams.

Detailed report on the status of instrumentation of dams was requested from the dam owning authorities, which are awaited. Tamil Nadu, Karnataka and Orissa submitted reports in respect of a few dams during the meeting. BBMB was requested to provide the Instrumentation Analysis report/Structural Behaviour report of their dams. NHPC informed that they are analyzing the instrumentation data and result is being indicated in their health status report

29.13.0 National Register of Large Dams.

Representative from Andhra Pradesh informed that they have submitted the updated corrected list to CWC today. The representative of West Bengal was requested to remove the inconsistency in their data of NRLD by January, 09. The representative of Uttrakhand was requested to confirm the list of 19 dams in their States by January, 09.

29.14.0 Progress of Dam Health And Rehabilitation Monitoring Application (DHARMA) and Review of DIG Meeting

Member Secretary informed that as per the decision of 28th NCDS meeting, the development of 'Dam Health and Rehabilitation Monitoring Application (DHARMA)' has been taken up by CWC for collecting and presenting the crucial Dam Safety related data in an organized and standard manner. The software development work is being done in a phased manner; and out of seven modules, work on two modules have been completed. He also informed that creation of DHARMA data file for each State has also been completed as per the limited information available with CWC.

Chairman then distributed the installation CD of the customized software (DHARMA – Ver. 1.2 Beeta) along with respective data file to each DSO representative present in the meeting. Dr. Pillai, Director, Software Management Dte., CWC gave a live demonstration of the DHARMA software highlighting the program architecture and features of the completed modules.

Reviewing the activities of DHARMA Implementation Group (DIG), Member Secretary informed that three meetings of DIG have been held for assimilating the knowledge pertinent to DHARMA development. DIG has also raised three issues for deliberation by NCDS as brought out in the Agenda. On the first issue, the Committee was of the view that Project

Identification Code (PIC) shall be generated only after the TAC clearance of a project, and thereafter it shall be mandatorily reflected in all documents, correspondences and approvals of that project. On the second issue of applicability of RTI Act on DHARMA data, members were of the view that NCDS may not be able to give any direction on the issue. Chairman was of the view that DIG may identify such sensitive data requirements and explore the possibility of their separate treatment during program development. Members of NCDS welcomed the suggestion of Dam Safety Conference raised by DIG as third issue. The Committee agreed for initially organizing the National Dam Safety Conferences coinciding with the NCDS meetings.

29.15.0 Discussion on other issues with the permission of the Chair

Chairman requested all the States to take dam safety issues more seriously. Independent DSO should be created in the States where it has not yet been created. Legislation on dam safety should be given priority. Pointing out the absence of some members as a serious matter, he also said that all members of NCDS should attend the meetings regularly, and to maximum possible extent they should avoid sending junior officers as representatives.

The 29th meeting of NCDS was earlier scheduled to be held in Andhra Pradesh, which was later shifted to Delhi due to unavoidable reasons. The members agreed for holding the next NCDS meeting in Andhra Pradesh.

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