

Minutes of XIth meeting of National Committee on Seismic Design Parameters (NCSDP) for River Valley Projects held in Central Water Commission on 7.6.2001.

The eleventh meeting of National Committee on Seismic Design Parameters (NCSDP) was held on 07.06.2001 in the Committee Room of Central Water Commission, New Delhi, under the chairmanship of Shri S.K. Das, Member (D&R), CWC. The list of Committee members, project representatives and invitees who attended the meeting is given in Annex. 1.

Item 11.1 Welcome by Chairman, NCSDP

The Chairman, NCSDP welcomed all participants to the XIth meeting. A brief self-introduction was given by the officials present. Thereafter, the agenda was taken up for discussion.

Item 11.2 Confirmation of the minutes of the last meeting

The Minutes of Xth Meeting of NCSDP held on 15.9.2000 were confirmed with the following amendment in item 10.4.1.6:

The words, '*Comparative Study of Middle Vaitarna Dam and Koyna dam*' may be changed to:

"The Committee had desired that Deptt. of Earthquake Engg., University of Roorkee (DEQUOR) should carry out a comparative study of ground motion proposed for Middle Vaitarna Dam with accelerogram recorded in Koyna region for which data are available with CWPRS".

Item 11.3 Approach papers on state-of-art methodology for site specific seismic study

Approach papers submitted by DEQUOR and CWPRS, Pune were discussed to some extent. It was observed that CWPRS paper emphasised the adoption of probabilistic approach for the estimation of site specific seismic parameters, while DEQUOR was in favour of deterministic approach. Dr. I.D. Gupta, Jt. Director, the author of CWPRS approach paper was not present in the meeting to elaborate his views. It was decided to resolve the matter by forming a Sub Committee headed by Dr. A.S.

Arya, Member, NCSDP, with the following members, which would consider and deliberate on the two approach papers and recommend the guidelines for the site specific seismic studies at an early date.

Sub Committee

1.	Dr. A.S.Arya, Professor Emeritus	Chairman
2.	Dr. S.N.Bhattacharya, Add. Director General, IMD	Member
3.	Dr. D.K.Paul, Prof. & Head, DEQUOR	Member
4.	Dr. S. Basu, Prof. DEQUOR	Member
5.	Dr. I.D. Gupta, Jt. Director, CWPRS	Member
6.	Member Secy., NCSDP & Director (FE&SA), CWC	Convenor

Item 11.4 Tungabhadra Dam, Karnataka

As decided in the last meeting, seismic design parameters of Tungabhadra Dam based on the study done by CWPRS can be arrived at only after the finalisation of the guidelines for the site specific seismic studies, which has now been entrusted to the Sub Committee mentioned above. The recommendations of the Sub Committee are to be awaited for taking a decision regarding the seismic parameters for the dam.

Item 11.5 Middle Vaitarna Dam, Maharashtra

The recommendations of DEQUOR in their site specific seismic study report No. EQ: 99-12 for Middle Vaitarna Dam giving the value of peak ground acceleration of 0.21 g for MCE and of 0.105g for DBE in the horizontal direction and vertical component as $2/3^{rd}$ of the horizontal component were accepted by the Committee.

Item 11.6 Chamera Hydro Electric Project, Stage II, Himachal Pradesh

The revised site specific seismic study report of the project submitted in pursuance of the recommendation of tenth meeting of NCSDP could not be discussed as neither Prof. L.S. Srivastava, Consultant for the report nor any representative of the project was present during the meeting to explain and present the revised report. The project may be taken up in the next meeting.

Item 11.7 New Projects referred to NCSDP

Item 11.7.1 Teesta H.E. Project, Stage-V, Sikkim

The Committee desired that seismic spectra for the Teesta project site may be studied in comparison to the seismic spectra for Tehri dam site. As the Member from NGRI, Hyderabad was not present in the meeting, it was decided that the comments of the Member (NGRI) on the site specific seismic studies should be obtained. In the meantime NHPC can go ahead with dynamic analysis of dam section based on seismic study report by DEQUOR.

Item 11.7.2 Parbati Hydro Electric Project Stage-II, Himachal Pradesh

The site specific seismic study conducted by DEQUOR has determined a Richter magnitude of 8.0 associated with Mandi Sundernagar Thrust at a focal distance of 15 km. In view of the historical occurrence of earthquake of magnitude 8.0 (Richter), the Committee desired that this event should be stepped up to 8.5 magnitude and accordingly the corresponding peak ground acceleration at the project site may be determined. As decided in case of Teesta project the comments of the Member from NGRI on the site specific seismic studies should also be obtained for Parbati.

Item No. 11.7.3 Lendi Major Project, Distt. Nanded, Maharashtra

The project lies in Zone II of the seismic zoning map of India (IS: 1893-1984). The Committee decided that the project can be designed as per BIS Code 1893-1984 procedure considering Zone II.

Item No. 11.7.4 Brutang Irrigation Project, Orissa

The project could not be discussed as no representative of project was present in this meeting.

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

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Ncsdp/minutesxi

**XI Meeting of National Committee on Seismic Design Parameters (NCSDP)
For River Valley Projects held on 07.06.2001**

List of the Committee Members, Special Invitees and other participants who attended the meeting

S.No.	Name	Designation	Department / Organisation	Member/Spl. Invitee/ Representative-Project
Committee Members				
1.	Sh. S.K. Das	Member (D&R)	Central Water Commission New Delhi	Chairman
2.	Dr. S.N. Bhattacharya	Additional D.G.	IMD, New Delhi	Member
3.	Dr. D.K. Paul	Professor & Head	Deptt. of Earthquake Engg. University Of Roorkee, Roorkee	Member
4..	Sh.K. S. Khandpur	Chief Engineer (DSO)	Central Water Commission, New Delhi	Member
5.	Sh. S.Masood Husain	Director	FE&SA Dte., CWC, New Delhi	Member-Secretary
Special Invitees				
6.	Dr. B.K. Mittal	Chairman	Central Water Commission, New Delhi	
7..	Sh. M. Gopalakrishnan	Chief Engineer (N&W)	-do-	
8..	Sh. A. K. Chakrabarti	Chief Engineer (NBP)	-do-	
9..	Sh. A. K. Ganju	Chief Engineer (NW&S)	-do-	
10.	Sh. Vinay Kumar	Director, (Emb. NW&S)	-do-	

Project Representatives				
11.	Dr. B.C. Mathur	Professor	Deptt. of Earthquake Engineering, University of Roorkee, Roorkee	Parbati HE Project
12.	Dr. S. Basu	Professor	-do-	Teesta HE Project
13.	Dr. M. L. Sharma	Asstt. Professor	-do-	Middle Vaitarna
14.	Sh. S. Bhatnagar	Chief (Geology)	NHPC, Faridabad	Parbati HEP & Teesta HEP
15.	Sh. S. L. Kapil	Manager (Geophy.)	-do-	-do-
16.	Sh. A. K. Jain	Manager (Civil)	-do-	-do-
17.	Sh. Brij Mohan	Dy. Manager (Civil)	-do-	-do-
18.	Sh. Shrish Dubey	Engineer (Civil)	-do-	-do-
19.	Sh. B. Prabhat Kumar	Sr. Manager (Geology)	-do-	-do-
20.	Sh. Sharad Bhatnagar	Manager (Geology)	-do-	-do-
21.	Sh. H. N. Satyanarayana	Dy. Manager (Civil)	-do-	-do-
22.	Sh. A. B. Kulkarni	Chief Engineer	Municipal Corpn. Of Greater Mumbai	Middle Vaitarna Dam
23.	Sh. V.N. Churi	Dy. Chief Engineer	-do-	-do-
24.	Sh. G. G. Lakule	Consultant	Tata Consulting Engineers, Mumbai	-do-
25.	Sh. G.d. Bhanegaonkar	Assistant Superintendent Engineer	Nanded Irrigation Circle, Nanded (Maharashtra)	Lendi Project
26.	Sh. K.B. Kasor	Assistant Engineer	-do-	-do-
27.	Sh. M. Mahesh Babu	Geologist (Sr.)	GSI, Nagpur	-do-