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Government of India
Central Water Commission
Foundation Engg. Directorate

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Room No.712, Sewa Bhavan,
R.K.Puram, New Delhi-110066

Dated the 6 Dec., 1992
January

To


Shri M.G. Joshi,
Chief Engineer, (DSO)
C.W.C.
Sewa Bhawan, R.K.Puram
New Delhi

Subject:- Minutes of the 3rd meeting of the National
Committee on Seismic Design Parameters (NCSDP)
for River Valley Projects on 11.11.1992 in
Central Water Commission.

Sir,

Please find enclosed the minutes of the
3rd meeting of the National Committee on Seismic
Design parameters for River Valley Projects held
on 11.11.1992 at New Delhi.

Yours faithfully,


(S.K. Das) e(1/15)
Director (FED)

Encls: as above

Minutes of the 3rd meeting of the National
Committee on Seismic Design Parameters
(NCSDP) for River Valley Projects.

Opening remarks: The 3rd meeting of the National Committee on Seismic Design Parameters (NCSDP) for River Valley Projects was held in Central Water Commission (CWC), New Delhi, on 11.11.1992 under the Chairmanship of Shri A.B. Joshi, Member (D&R), CWC. List of the Committee members, Project officials and others present during the meeting is at Annex.I. Chairman welcomed the members, project officials and other participants to the meeting and took up the Agenda for discussion.

Item-1

Confirmation of the minutes of the 2nd meeting held on 6.3.92

Members of the NCSDP felt that a minor correction was necessary on the first line of para 6 under item 4 of the minutes of the second meeting concerning Srinagar Hydro Electric Project. Instead of "the DEQUOR representative" on the first line of para 6, item 4, at page 3, it should be "the Committee". With this minor change, the minutes were confirmed.

Item-2

Srinagar Hydro Electric Project (Uttar Pradesh)

During the second meeting of NCSDP the Project representatives handed over some sets of DEQUOR report dated December, 1990 for seismic parameters for the project. As it was not possible for members to go through the report during the course of the meeting and the representatives of DEQUOR felt that a review of site specific design parameters determined earlier might be warranted in view of the Uttarakashi earthquake of October 1991, the discussion was postponed.

One copy of the report dated March 1992 containing replies to the questionnaire of the Committee and one copy of the DEQUOR report dated December, 1990 were sent to the members of NCSDP in September, 1992 for perusal. Project authorities were also requested to send to each of the Committee members a copy of the modified DEQUOR report for study. The modified report was yet awaited.

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Representative from GSI, Lucknow appraised the members of NCSDP on the geological & seismic features of the project site and the design features were presented by the project representative. Dynamic Analysis of the dam carried out by the University of Roorkee was presented by Dr. Pandey of the University.

Members of NCSDP decided that the DEQUOR report which was prepared prior to the occurrence of the Uttarkashi earthquake needed modification in view of the Uttarkashi earthquake which occurred in October, 1991. The proposed dam section needed to be checked for the time history/ response spectra of the Uttarkashi earthquake. So far as the design of structures like Power House were concerned, which were highly reinforced structures, the provisions in the existing IS Code would suffice.

Item-3

Uttarkashi Earthquake of 20.10.91

A draft note on the Uttarkashi Earthquake which occurred on 20.10.91 was discussed in detail during the 2nd meeting of NCSDP. Based on the discussions during the above meeting and also on the written responses received from the members, CWC has finalised a note in March, 1992 titled "A report on the Uttarkashi Earthquake dated 20.10.91 vis-a-vis the seismic design parameters for Tehri Dam" which was sent to Secretary, Ministry of Water Resources, New Delhi. The note appears in Annex II.

Members of NCSDP accorded their approval to this note after perusal.

Item-4

Kishau Project (Uttar Pradesh)

The project envisaged the construction of a 236 m high concrete gravity dam across river Tons near Kishau in Dehradun district of Uttar Pradesh. During the 24th meeting of the erstwhile Standing Committee, it was recommended that the project authorities might request DEQUOR to prepare the complete report on seismic studies of the site keeping the designer in picture. A copy of the DEQUOR report (No. p 596) was circulated to the members of NCSDP.

Since there was no presentation from the project side as well as from GSI, the NCSDP could not take up

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this case for discussion.

Item-5

Srirem Sagar Project(Andhra Pradesh)

This project executed between 1972-80 in the Nizamabad district(Andhra Pradesh) comprises a 13,640 m long earthen Dam of height 38 m, with a 765 m long spillway and 113 m long non overflow masonry section accross Godavari River with maximum height of the masonry dam being 43 m. The project site falls in Zone 1 of the seismic map of India.

Since no seismic forces were adopted in the design, the project authorities sought recommendation of design seismic parameters for checking the stability of the dam on the recommendation of the Dam Safety Panel. The geological information supplied by the project was sent to the members of NCSDP for persusal along with the agenda for the third meeting of NCSDP.

The representative from G.S.I. presented the geological and seismological aspects of the project.

It was decided that since the dam site was close to the epicentre of the Bhadrachalam earthquake, the dam structure would have to be checked for stability based on the intensity of this earthquake.

Meeting ended with a vote of thanks to the Chair.

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List of Participants of the 3rd meeting of NCSDP on 11.11.92

1. Shri A.B. Joshi
Member(D&R),
Central Water Commission,
Sewa Bhavan, R.K.Puram,
New Delhi-110066
2. Dr. Jaikrishna
Ex-vice Chancellor,
61, Civil Lines,
University of Roorkee,
Roorkee - 247667
3. Dr. P.N. Aggarwal
Head
Department of Earthquake
Engineering,
University of Roorkee,
Roorkee-247667
4. Shri N.B.G. Tilak
Director,
Engineering Geology Div. I
Geological Survey of India
Hyderabad-500060
5. Shri P.L. Marula *Director*
Land slides and Seismotectonic
Group Division,
Northern Region,
Geological Survey of India,
Plot-2, Sector-E
Aliganj
Lucknow-226020
6. Shri S.C. Bhatia
Scientist E-II,
National Geophysical
Research Institute,
No.6, Uppal Road,
Hyderabad-500007

~~Project Officials~~

1. Shri T.V.S. Narayanamurty
Superintending Engineer
Sriramsagar Project Designs
Hyderabad, Block 4 & 5
Gruhakalpa, M.J.Road
Hyderabad-I
2. Shri D.K.Aggarwal
Chief Engineer,
Power House,
Irrigation Design
Organisation,
Roorkee
3. B.K.Agarwal
Superintending Engineer,
Tehri Dam Design Circle
Irrigation Design Org.,
Roorkee.
4. Kumed Sharma
Senior Geologist
Geological Survey of India
Dehradun,
Srinagar Const.Circle-I
Srinagar(Garwal)
5. Shri M.C.Shrama
Supertending Engineer
Srinagar Const Circle-I
Srinagar(Garwal)
6. Dr. A.R.Chandrasekaran,
Professor, BEQ, VOR,
Roorkee, University of Roorkee.
7. Shri U.C.Mital,
Superintending Engineer,
I.D.O. RKE
Irrigation
8. Shri Vinod Prakash,
Chief Engineer,
Ganga Valley H.E.P.,
Dehradun

20. Shri N.L.Hasija,
Officer-in-Charge;
Seismotectonic Cell
Survey of India
Dehradun

11. Shri Mahesh Chander,
Executive Engineer & LPO,
M.H.P.,
Dehradun (Okhla)
Delhi

12. Shri B.K.Mital,
Director,
CMDD(N&W),
CWC (Room No.614)

13. Shri V.K.Mehrotra,
Superintending Engineer,
D.D.C.III,
I.D.O., Roorkee

14. Shri A.D.Pandey,
Reader,
Dept.of Earthquake Engineering,
University of Roorkee,
Roorkee

15. Shri A.C.Gupta,
Director,
CMDD (NW&S),
CWC

15. Shri S.K. Das (Member Secretary)
Director (P.E.), CWC