

Government of India
Ministry of Jal Shakti
Department of Water Resources, RD & GR
National Dam Safety Authority

Minutes of the Regional Meeting-cum-Workshop of Northern Region States/UTs/CPSUs held by National Dam Safety Authority on 10.9.2022 at Chandigarh

A Regional Meeting-cum-Workshop was organized by National Dam Safety Authority (NDSA) under the chairmanship of Shri J. Chandrashekhar Iyer, Member (D&R), Central Water Commission (CWC) & Chairman, National Dam Safety Authority (NDSA) on 10th September 2022 at Chandigarh to review the various activities undertaken under the Dam Safety Act, 2021 by the State/UT Governments/dam owners for safety of dams falling under their jurisdiction as well as sensitize all the stakeholders about the provisions contained in the Dam Safety Act, 2021. Senior officers from Department of Water Resources, RD & GR, Ministry of Jal Shakti, CWC, NDSA and the States/UTs/dam owners falling under the Northern Region participated. The list of participants is enclosed as **Annexure-I**.

Chairman, NDSA welcomed the participants and briefly outlined the objective of holding the regional meeting-cum-workshop. He stated that the meeting is second in the series of regional workshops being conducted by National Dam Safety Authority under the directions of Ministry of Jal Shakti. The Parliament of India has enacted the Dam Safety Act, 2021, which has come into force with effect from 30th December, 2021. The Act provides for surveillance, inspection, operation and maintenance of the specified dam for prevention of dam failure related disasters and to provide for institutional mechanism to ensure their safe functioning and for matters connected therewith or incidental thereto. Under the provisions of the Act, National Committee on Dam Safety has been constituted and National Dam Safety Authority has been set up at the Central Government level. At the State Government level, State Committee on Dam Safety and

State Dam Safety Organisation are to be notified. He emphasized upon the need for taking all necessary actions timely by all the SCDS & SDSO of the States/UTs as well as the Heads of CPSUs, private dam owners and other agencies, as stipulated under the Act, to ensure the safety of the specified dams under their jurisdiction.

Shri Anand Mohan, Joint Secretary (RD & PP), DoWR, RD & GR, MoJS in his opening remarks stated that the Dam Safety Act, 2021 is drafted keeping in view the safety of the dam, safety of life & property, flora, fauna etc. The Act envisages institutional mechanism for dam safety management and governance. He added that we need to create adequate frame work and allocated adequate finances to maintain our dams. We have available with us the huge legacy of knowledge in CWC and all the dam owners, which should be used for designing the adequate framework. He informed that inspection of dams by dam owners is being closely followed by Prime Minister's Office. He urged that all dam owners must carry out the dam inspections timely and also take corrective measures as required, immediately for ensuring the safety of dams.

Chairman, then requested Shri S. S. Bakshi, Director, NDSA Secretariat to make a brief presentation on Dam Safety activities in India and then to take up the agenda items for deliberations. The power point presentation of Director, NDSA Secretariat was followed by presentations by each of the participating States/UT/CPSU of the Northern region on the agenda points. The following points emerged from the deliberations.

1. STATE/UT-WISE STATUS ABOUT SPECIFIED DAMS

(as per criteria stipulated in Dam Safety Act, 2021)

The State/UT-wise status about the number of existing specified dams and those under construction, including their ownership, were presented by all the States in their power point presentation made during the meeting, which were deliberated at length. Certain suggestions were made and few discrepancies were also pointed out during the discussions.

It was decided that the Head of SDSO of the States/UTs shall compile and tabulate the details of all the dams in their State/UT in the format as desired in Agenda Note and

communicate the same officially to Director, NDSA Secretariat, Sewa Bhawan, 4th Floor, R.K.Puram, New Delhi at the earliest.

(Action : Head of SDSO of States/UTs)

2. STATUS ABOUT NOTIFICATION OF SCDS AND SDSO:

(Post enactment of the *Dam Safety Act, 2021*)

All the States/UTs falling under the Northern Region have notified the constitution of SCDS and establishment of SDSO, except the Union Territory of Ladakh. Chief Engineer, I&FC, UT of Ladakh informed that the file on the matter is under process with the Government. Chairman requested the representative of UT of Ladakh to expedite the notification of SCDS & SDSO. JS (RD & PP), MoJS assured that Ministry of Jal Shakti would take up the issue regarding constitution of SCDS & SDSO in the Union Territories at the appropriate level in Ministry of Home Affairs.

Few States informed that the representation from upstream and downstream State has not been followed by a few in constitution of the SCDS as stipulated in the Act. In this context, Chairman requested Director, NDSA Secretariat to circulate the notifications of SCDS received from the various States/UTs to other concerned States/UTs so that appropriate representation of upstream and downstream State is ensured in the SCDS as per the Act. The State/UT, if need be, may also communicate with NDSA Secretariat. The NDSA Secretariat may also independently examine the matter.

(Action: UT of Ladakh, NDSA Secretariat)

3. DAM SAFETY UNIT:

The States/UTs by and large informed that Executive Engineers, Assistant Engineers, Junior Engineers along with other supporting technical/non-technical staff are posted and made responsible for operation and maintenance of each specified dam, which form the Department's Dam Safety Unit. Some of the States informed that they did not have adequate manpower, hence officers are given additional responsibility of two to three specified dams. Director, NDSA Secretariat reiterated that as per the provisions of the Act, adequate competent level of engineers is required in the Dam Safety Unit for each specified dam. The Head of SDSO shall take up this matter with their respective

State/UT Government to ensure that a robust Dam Safety Unit is functional in respect of every specified dam under the Operation and Maintenance Establishment. CPSUs and other dam owners shall also ensure setting up of a robust Dam Safety Unit within their organization.

(Action: Head of SDSO of States/UTs, Dam Owners/Head of CPSUs)

4. STATE DAM SAFETY ORGANISATION

The SDSO of States/UTs presented the activities initiated by them in accordance with the provisions of the Act. Director, NDSA Secretariat conveyed that the dam owners and SDSO have a huge mandate in front of them to fulfill under the Act for ensuring safety of dams. He conveyed that as per the Act, nothing contained therein shall be construed to absolve an owner of a specified dam of the duties, obligations or liabilities incidental to the construction, operation, maintenance and supervision of the dam or reservoir.

Chairman, NDSA conveyed to the Heads of the State Committee on Dam Safety, State Dam Safety Organisation and dam owners to take all requisite actions and perform all the functions timely as mandated under the Act.

(Action: Head of SCDS & SDSO of States/UTs, Dam Owners/Head of CPSUs)

5. SAFETY, INSPECTION AND DATA COLLECTION:

The power point presentation made by States/UTs/CPSUs in the Northern Region indicated that 168 dams out of 183 existing specified dams have completed the pre-monsoon inspections as per the distribution given in **Table-1**. It was informed by the SDSO/dam owners that the remaining dams would be inspected soon.

Director, NDSA Secretariat mentioned that all the inspection reports have not been received from SDSO/dam owners in NDSA, which needs to be expedited. It has been observed that some of the dam owners were not carrying out the inspections in the format/as per the checklist as finalized & circulated by CWC for inspections of dams. The States were directed to follow unified procedure for pre and post monsoon inspection of the dams by adopting the format circulated by CWC.

The States/UTs/CPSUs were advised to complete the post monsoon inspections of the specified dams latest by 31st Dec 2022 in the CWC format and submit the report to SDSO with a soft copy to NDSA Regional Director, Chandigarh, Member (Technical), NDSA and to NDSA Secretariat, New Delhi. The SDSO shall further examine the report and present a gist of their analysis categorizing the dams in Category I, II & III as per the CWC check list/ format for inspections of dams to NDSA Secretariat.

Table : 1

Sl. No.	States/UT	Total No. of Large Dams completed (As per NRLD, 2019)	Nos. of Dams Inspected as reported by States
1	Haryana	1	0
2	Himachal Pradesh	19	18
3	Punjab	14	14
4	Uttar Pradesh	117	117
5	Uttarakhand	17	11
6	Jammu and Kashmir (UT)	15	8
7	Ladakh (UT)		
	Total	183	168

Director, NDSA Secretariat mentioned that all activities related to Dam Safety, Inspection and Data collection stipulated under chapter VII of the Act need to be complied with by the dam owners/SDSO.

(Action: Head of SDSO of States/UTs, Dam Owners/Head of CPSUs)

6. ANNUAL REPORT:

It was decided that all the SDSO's shall prepare and submit the annual report containing the documentation of activities in relation to Dam Safety as per relevant sections of the Act which is to be laid by the State Government in the house of State Legislature. A copy of the same shall be forwarded to the Member (Disaster & Resilience) as well as to NDSA Secretariat, New Delhi. NDSA shall be preparing a Consolidated Annual Report for the entire country for which States shall submit the documentation as and when sought by NDSA.

(Action: Head of SDSO of States/UTs, Dam Owners/Head of CPSUs)

7. CREATION OF NATIONAL LEVEL DATA BASE OF DAMS:

CWC had compiled from the States/UTs/dam owners the information on the large dams in India and published as a National Register of Large Dams (NRLD) in Oct 2019. After enactment of the Act, NDSA has asked the States/UTs to update the details on the specified dams.

In order to compile basic information regarding the specified dams, a form is enclosed as **Annexure-II**. The form shall be got filled up by the dam owners, and after examination, the Head of SDSO shall sign and submit the same to the Regional Director, NDSA, Chandigarh, Member (Technical), NDSA, New Delhi as well as to NDSA Secretariat.

The Irrigation & Water Resources Department, Govt of UP informed that they have published a State Register of Large Dams in 2021, which has details about the large dams in Uttar Pradesh. The document was appreciated by all the participants. A copy of the same was presented to Chairman, NDSA during the meeting. Chairman, NDSA suggested other States and CPSUs to bring out such a publication for the specified dams as per the Act.

(Action: Head of SDSO of States/UTs, Dam Owners/Head of CPSUs)

8. LOG BOOK:

It was informed by the States that they were maintaining the data register at the dam site wherein the readings of various instruments installed at dam were being recorded, the seepage amount and other data manually. Some of the States/CPSUs were maintaining this record in digitized form which was appreciated by all.

Member (Policy & Research), NDSA informed that all SDSOs have to maintain a log book or database for each specified dam under their jurisdiction recording therein all activities related to the surveillance and inspection, and all important events related to dam safety. It was further conveyed that till such time regulations are finalized by NDSA, available CWC guidelines may be followed.

(Action: Head of SDSO of States/UTs, Dam Owners/Head of CPSUs)

9. INSTRUMENTATION, EMERGENCY ACTION PLAN (EAP) AND DISASTER MANAGEMENT, OPERATION AND MAINTENANCE MANUAL:

Some of the States informed that they were recording the instrumentation data in the functional instruments in the specified dams. However, in the non-instrumented dams, States stated that it is difficult for them to draw instrumentation plan as they did not have the in-house expertise in this field. Also, some of the States informed that they were not in a position to prepare the EAP on their own due to lack of expertise and want of experts. Some of the States informed that they had prepared O&M manual in-house for certain specified dams which are being used to operate the Gates.

Table - 2

Guidelines And Manuals	
 Guidelines for Selecting and Accommodating the Inflow Design Floods for Dams	Doc. No. CDSO_GUD_DS_06_v1.0 June 2021
Operational Procedures for Assessing and Managing Environmental Impacts in Existing Dam Projects	Doc. No. CDSO_Gud_DS_08_V1.0 November 2020
Guidelines for Classifying the Hazard Potential of Dams	Doc. No. CDSO_Gud_DS_09_V1.0 November 2020
 Manual for Assessing Hydraulic Safety of Existing Dams - Volume I	Doc. No. CDSO_MAN_DS_04_v1.0 June 2021
 Manual for Assessing Hydraulic Safety of Existing Dams - Volume II	Doc. No. CDSO_MAN_DS_04_v1.0 June 2021
Manual for Assessing Structural Safety of Existing Dams	Doc. No. CDSO_MAN_DS_03 November 2020
Handbook for Assessing and Managing Reservoir Sedimentation	Doc. No. CDSO_GUD_DS_04_v1.0 February 2019
Inspection Manual for Dam Field Engineers after Seismic Events, Maithon Dam, Damodar Valley Corporation, Jharkhand	Doc. No. CDSO_MAN_DS_05_v1.0 February 2019
Guidelines for Assessing and Managing Risks Associated with Dams	Doc. No. CDSO_GUD_DS_10_v1.0 February 2019
Technical Specifications of Hydro-meteorological, Geodetic, Geotechnical and Seismic Instruments	Doc. No. CDSO_TS_DS_01_v1.0 January 2018
Inspection Manual for Dam Field Engineers After Seismic Events, Ichari Dam, Uttarakhand	Doc. No. CDSO_MAN_DS_01_v1.0 January 2018
Manual for Rehabilitation of Large Dams	Doc. No. CDSO_MAN_DS_02_v1.0 January 2018
Guidelines for Safety Inspection of Dams	Doc. No. CDSO_GUD_DS_07_v1.0 January 2018
Guidelines for Mapping Flood Risks Associated with Dams	Doc. No. CDSO_GUD_DS_05_v1.0 January 2018
Guidelines for Preparing O&M Manuals for Dams	Doc. No. CDSO_GUD_DS_03_v1.0 January 2018
Guidelines for Instrumentation of Large Dams	Doc. No. CDSO_GUD_DS_02_v1.0 January 2018
Guidelines for Developing Emergency Action Plan (EAP) for Dams	Doc. No. CDSO_GUD_DS_01_v2.0 February 2016

Chairman, NDSA urged the Heads of SDSOs and dam owners to take necessary actions and comply with the provisions of the Act. He informed that CWC will shortly publish a Manual on Instrumentation of dams which would be useful to the dam owners and SDSO. Some of the States viz HP & Punjab and CPSUs like NHPC, BBMB, THDC, NTPC, SJVNL have prepared the EAP and O&M for their dams. They were requested to upload the EAP on the DHARMA portal to share with the other States/UTs for lateral

capacity building in the country. The States were also requested to share the details of the consultants engaged by them for preparation of EAP for benefit of other States/UTs. The States/UTs were informed that CWC has also published the “*Guidelines for Developing Emergency Action Plan for Dams*” under the DRIP I scheme which can be referred. The same can be accessed through CWC website on the link for DRIP. It was suggested that the existing O&M Manuals at the project sites need to be updated as per the “*Guidelines for preparing O&M Manuals for Large Dams*” and Rule curves are to be prepared/updated for the specified dams. The States/UTs were informed that the guidelines available on CWC web site are tabulated in **Table-2**.

(Action: Head of SDSOs/Dam Owners/Head of CPSUs, NDSA Secretariat)

10. HYDRO-METEOROLOGICAL STATIONS, EARLY WARNING SYSTEM, SEISMOLOGICAL STATIONS:

Some of the States informed that hydro-meteorological stations were established in the vicinity of some of the specified dams. BBMB, NHPC, SJVNL & HP informed that they have installed the Early Warning System (EWS) for the dams. However, other States/dam owners stated they need to install EWS for their dams. Though the CPSUs have installed the seismological stations for their dams, States/UTs informed that such stations are not established for all the dams in their jurisdiction. SDSOs/dam owners were requested to take appropriate actions for establishing these stations at the earliest as per the provision of the Act.

(Action: Head of SDSOs/Dam Owners/Head of CPSUs)

11. RISK ASSESSMENT STUDIES, ASSESSMENT OF VULNERABILITY OF DAMS AND HAZARD CLASSIFICATION, COMPREHENSIVE DAM SAFETY EVALUATION:

Director, NDSA Secretariat requested the States/UTs/dam owners to present the actions taken by them in regard to risk assessment studies, vulnerability assessment and hazard classification of dams as well as comprehensive dam safety evaluation. Most of the States/CPSUs expressed that these studies have not been conducted for most of their dams, primarily due to lack of system expertise and want of expert individuals/agencies in the desired field for carrying out these studies. Member (Policy &

research) informed that the existing Guidelines published by CWC under the DRIP Phase I Scheme could be followed till such time the Regulations are in place. He added that as these studies are to be carried out in a time bound manner as per the Act, expeditious actions need to be taken by SDSO/Dam owners. Member (Technical), NDSA suggested SDSOs/dam owners to immediately prepare a road map for carrying out these studies in respect of their dams and share the details of the independent panel of experts/ organizations which the States/UTs/CPSUs are considering for engaging for carrying out these studies.

(Action: Head of SDSOs/Dam Owners/Head of CPSUs)

12.RECORD OF MAJOR DAM FAILURES IN THE STATE/UT:

NDSA requested SDSO/Dam owners to maintain a record of major dam incidents of each specified dam under their jurisdiction, and make available to NDSA, information as and when sought. The SDSO shall report the event of any dam failure under their jurisdiction to NDSA and any other information sought by NDSA in this regard.

(Action: Head of SDSOs/Dam Owners/Head of CPSUs)

13.COORDINATION AND OVERALL SUPERVISION OF REHABILITATION PROGRAMS BEING EXECUTED IN THE STATES THROUGH CENTRALLY OR EXTERNALLY AIDED FUNDING:

In the Northern Region, the States of Uttarakhand and Uttar Pradesh are participating in the DRIP Phase II & III. During the review, the performance of Uttarakhand in DRIP related works was found to be satisfactory. The State of Uttar Pradesh was advised to expedite the award of works. BBMB is also in the final stages to be part of DRIP Phase II & III Scheme. BBMB was advised to expedite the formalities and benefit from the scheme.

Regarding DHARMA portal, the States/UTs submitted that they were not able to access the portal due to login issues and lack of trained personnel. The Project Director, DRIP Phase II & III and Member (Policy & Research), NDSA assured that shortly all the login issues shall be addressed and training for DHARMA portal shall be arranged for interested states.

(Action: Concerned DRIP Implementing Agencies/ PD, DRIP & Member, NDSA)

14. LIST OF INDIVIDUAL EXPERTS IN DAM SAFETY ENGINEERING IN THE STATE/UTs AND LIST OF AGENCIES FOR INVESTIGATION, DESIGN, CONSTRUCTION AND ALTERATION OF THE SPECIFIED DAMS :

The Heads of SCDS/SDSO/Dam Owners/CPSUs were requested to provide a list of names with resume of individual Experts (retired/freelancers) and Consultancy agencies in the field of Dam Safety Engineering and related aspects as available with them and also the names of executing agencies which have proven track record of successfully executing dam rehabilitation and related works. NDSA shall generate a country-wide database which should serve as a reference for NDSA and SDSO activities/studies/assignments.

(Action: Head of SCDS/ SDSOs/Dam Owners/Head of CPSUs/NDSA Secretariat)

15. ANY OTHER ITEM WITH THE PERMISSION OF THE CHAIR

i) Chairman, NDSA as well as Joint Secretary (RD&PP), Ministry of Jal Shakti, both were of the opinion that the presentations made by the representatives of the SDSO of Uttar Pradesh and Uttarakhand/UJVNL were without much details and far from satisfactory. They were therefore directed to send the details as per agenda items to Director, NDSA Secretariat within two weeks.

ii) Chairman, NDSA requested Member (Technical), NDSA to seek the salient features of Wazirabad Barrage, from CEO, Delhi Jal Board to examine the features of the structure and ascertain if it falls under the category of specified dam.

iii) Chairman, NDSA requested Member (Technical), NDSA and Regional Director, NDSA, Chandigarh to seek the salient features of Sukhna lake structure to examine the features of the structure and ascertain if it falls under the category of specified dam.

(Action: Head of SDSO of Uttarakhand & UP/Regional Director & Member, NDSA))

The regional meeting-cum-workshop ended with thanks to the Chair and all the participants.

**REGIONAL REVIEW MEETING-CUM-WORKSHOP OF NORTHERN REGION
STATES/UTS/CPSUS HELD BY THE NATIONAL DAM SAFETY AUTHORITY ON
10.9.2022 AT CHANDIGARH**

List of Participants

National Dam Safety Authority (NDSA)

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| 1. | Sh J Chandrashekar Iyer | Chairman, NDSA & Member (D&R), CWC |
| 2. | Sh S. K. Sibal | Member (Technical), NDSA and Chief Engineer (N&W), CWC |
| 3. | Sh Gulshan Raj | Member (Policy & Research), NDSA and Chief Engineer, DSO, CWC |
| 4. | Sh Vijai Saran | Member (Regulation), NDSA and Chief Engineer (E&NE), CWC |
| 5. | Sh Vivek Tripathi | Member (Disaster & Resilience), NDSA and Chief Engineer(NW&S), CWC |
| 6. | Sh Sarbjit S Bakshi | Director, NDSA Secretariat and Director, DSD-II, CWC |
| 7. | Sh Bhupesh Kumar | Director, Northern Regional office, NDSA & SE (C), IBO, CWC, Chandigarh |

Special Invitees

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| 8. | Sh Anand Mohan | Joint Secretary, (RD&PP), DoWR, RD & GR, MoJS |
| 9. | Sh Shiv Nandan Kumar | Chief Engineer, IBO, CWC, Chandigarh |
| 10. | Sh Manoj Kumar | Senior Joint Commissioner (Pen. River), DoWR, RD & GR |

Punjab

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| 11. | Sh. Rakesh Krail | Director, Dam and Spillway, o/o CE, Design, WRD |
| 12. | Sh. Davender Singh | Executive Engineer, Dam Safety |
| 13. | Sh Rahul Sharma | SDO, SDSO |

Uttar Pradesh

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| 14. | Sh. Sanjay Khanduja | Chief Engineer (D&R) |
| 15. | Sh. Rama Kant Verma | Director, Dam Safety Cell |

Uttarakhand

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| 16. | Sh. Dinesh Chandra | Chairman SCDS & Engineer in Chief, Irrigation Deptt. |
| 17. | Sh. Jaipal Singh | Chairman SDSO & Chief Engineer, Irrigation Deptt. |
| 18. | Shankar Kumar Saha | SE, Irrigation Deptt, |

Himachal Pradesh

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| 19. | Er. Deepak Jasrotia | Chairman, SDSO, Deputy Chief Engineer, Department of Energy |
| 20. | Er. Ashit Kashyap | Sr. Executive Engineer, SDSO |

Haryana

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| 21. | Sh. Birender Singh | HOD, I&WRD |
| 22. | Sh. Tarun Agrawal | Superintending Engineer, I&WRD |
| 23. | Sh. Ravi Mittal | Superintending Engineer, I&WRD, Yamunanagar |

U.T. of J&K

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| 24. | Sh. Jankar Nath | Executive Director (Civil), JKPDC |
| 25. | Sh. Janak Sharma | General Manager (Civil) |
| 26. | Sh. Rakshit Nanda | Assistant Manager (Mechanical) |

U.T. of Ladakh

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| 27. | Er. Afaq Showkat Mir | Chief Engineer, I&FC, Mechanical |
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U.T. of Chandigarh

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| 28. | Er. Jigna K Sanghadia | Superintending Engineer, Const. Circle-II, Chandigarh |
| 29. | Dr. Rajesh Bansal | Superintending Engineer |

U.T. of Delhi

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| 30. | Sh. S.K. Jain | Chief Engineer, Delhi Jal Board |
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Bhakra Beas Management Board (BBMB)

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| 31. | Sh. C. P. Singh | Chief Engineer, Bhakra Dam, BBMB |
| 32. | Sh. Arvind Sharma | CE, Dam Safety, BBMB |
| 33. | Sh. Sukhdeep Singh | Joint Secretary, BBMB |
| 34. | Sh. Pradeep Goyal | SDE, Dam Safety, BBMB |

National Hydroelectric Power Corporation (NHPC)

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| 35. | Shri R K Agrawal | Executive Director |
| 36. | Shri P K Jain | Group General Manager, (Chamera-I) |
| 37. | Shri R K Gupta | Group General Manager (D&E) CO, Fbd. |

National Thermal Power Corporation (NTPC)

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| 38. | Kulwinder Singh | Head of Project, Koldam |
| 39. | Sh. Surinder Kumar Garg | DGM- Koldam Hydro Power Station, Bilaspur, HP |
| 40. | Sh. Shashi Kumar Singh | DGM- Hydro Region HQ, EOC Noida (UP), NTPC Ltd |

Tehri Hydroelectric Power Corporation (THDC)

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| 41. | Virender Singh | GM (Safety) |
| 42. | Mr. Atul Kr. Singh | DGM |
| 43. | Mr. Sheel Kr. Saxena | DGM |

Satluj Jal Vidyut Nigam Limited (SJVN Ltd)

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| 44. | Sh. Sanjeev Gupta | CGM |
| 45. | Sh. Ajay Chauhan | DGM, Civil Design |
| 46. | Sh. Shiv Prasad | DGM, In-charge, Nathpa Dam |

Annexure-II

SALIENT INFORMATION OF EACH SPECIFIED DAM

The following *Salient Information* shall be provided in *HARD COPY* and *SOFT COPY* by each dam owner through *State Dam Safety Organization* on each specified dam under its jurisdiction:

S.No.	Information
1	Name of the State or UT in which the Dam is Located
2	Name of the Dam
3	Full Address of the Dam
	Latitude: _____ °N Longitude: _____ °E
4	Name of the Dam Owner
5	Full Address of the Dam Owner
6	Commissioning of the Dam
	Date of Commissioning of the Dam : _____
7	Material with which the Dam was Constructed
8	Salient Features of the Dam
	Height (m) (above deepest foundation level) :
	Length of the crest (m) :
	Bottom width (m) :
	Top width (m) :
	Capacity of the reservoir (in m ³)
	(a) Active Storage :
	(b) Dead Storage :
	Max Flood Discharge (in m ³)
	(a) Design Flood :
	(b) Observed Flood :
	Specially difficult Foundation problems : Yes or No
	Unusual Dam Design : Yes or No
9	Inspection Galleries in the Dam
	Number :
	Elevation of Galleries (m) :
	Are all Galleries Dry? : Yes or No

10	Gates	
	Method of Operation of Gates	: <i>Hydraulic or Electric</i>
	Size of each Gate	:
	Number of Gates	:
	Number of Gates in working condition	:
11	Operation & Maintenance Manual	: Yes or No
	Was an <i>Operation & Maintenance Manual</i> prepared?	: Yes or No
	If No , by when is the same likely to be prepared?	
12	Silting of Reservoir	
	Does the Reservoir get silted?	: Yes or No
	If Yes , what percentage of the reservoir capacity is lost?	:
13	Leakage through the Dam Body	
	Peak Water leakage (<i>in m³</i>)	:
14	Structural Safety Assessment	
	Was <i>Structural Safety Assessment</i> performed?	: Yes or No
	If Yes , was the Dam found to be safe?	: Yes or No
	If No , was the Dam retrofitted?	: Yes or No
	If Yes , when was it retrofitted?	:
	If Yes , what was the retrofit measure adopted?	:
15	Dam Break Analysis	
	Was <i>Dam Break Analysis</i> performed?	: Yes or No
	If YES , were <i>Disaster Management Plans</i> prepared?	: Yes or No
16	Emergency Action Plan	
	Was an <i>Emergency Action Plan</i> prepared?	: Yes or No
	If Yes , was it shared with the SDMA and DDMA?	: Yes or No