



# **BHAKRA BEAS MANAGEMENT BOARD**

## **EMERGENCY ACTION PLAN/ DISASTER MANAGEMENT PLAN FOR PONG DAM (TALWARA)**

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## **FORWARD**

Emergency situation may arise due to flood, water leakage, accidents, terrorist attack and other natural disasters/ natural calamities such as earthquakes etc. at any time. These disasters may cause serious loss to life and property of people.

Under such situation, the risk should be foreseen to the extent possible well in advance and action is needed to be taken as per well documented Procedure as per situation. This will ensure the preparedness in respect of all related aspects to avoid disasters and minimize the losses. It will also help to ensure immediate corrective actions to plug the situation by arranging all possible means required to prevent any emergency situation.

Better management, planning, coordination, rehearsals, collective and sincere efforts by all at all time will help to achieve the desired objectives. This Emergency Action Plan for Beas Project Unit-II (Pong Dam) has been prepared based on the guidelines of Central Water Commission & data / information provided by the field officers.

This EAP will prove as an effective tool to handle the unforeseen situation to some extent. All concerned of Beas Project unit-II to go through this EAP meticulously in letter & spirit and also to educate their fellow colleagues accordingly. Deep involvement and cooperation of all concerned and their associates is expected in effective implementation of this Emergency Action Plan.

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# **EMERGENCY ACTION PLAN FOR BEAS DAM AT PONG**

## **BEAS PROJECT UNIT-II**

### **1.0 INTRODUCTION**

Beas Dam at Pong (Beas Project Unit-II) is the major storage project on river Beas which is one of the principal tributaries of the Indus Basin. It originates in the Upper Himalayas near Rohtang Pass and flows in the east west direction in Himachal Pradesh till it emerges in the plains near village Talwara in Hoshiarpur District of Punjab. The total length of its course up to its confluence with Sutlej river is about 400Kms. and the length up to Beas Dam at Pong is 230Kms. An earth-core gravel shell dam, rising to elevation 435.86m (1430 ft), was considered most expedient in view of the nature and structure of the foundation, its location in the active seismic zone and availability of construction materials in the vicinity. The top of the dam 132.6m (435 ft) above the deepest foundation level and 100.6m (330 ft) above the normal river bed. It is 1950m (6400 ft) approx. long at crest across the gorge, 13.72m (45 ft) wide at top and nearly 610m (2000 ft) wide at the base. The dam section has an upstream slope of 3 to 1 with berm at El. 350.520m (1150 ft) and downstream slope of 2.5 to 1 with a berm at El. 350.520m (1150 ft).

An overflow chute spillway with six bays of 14.478m (47.5 ft) each with radial gates each of size 14.478 x 12.344m (47.5 x 40.5ft) has been provided on the left abutment of dam. The spillway has a discharging capacity of approx. 12375 cumecs (437000 cusec) at the highest flood level of 433.121m (1421 ft). The construction of dam involved diversion of the river through five concrete lined tunnels, marked T1, T2, P1, P2 and P3 each with 30ft finished dia. Two of these tunnels are used as outlets for controlled irrigation releases and the other three for housing power penstocks. Permanent intake structure along with trash rack structures etc. have been

provided on a excavated bench at elevation 374.9m (1230ft) for all these five tunnels. Penstock tunnels have been provided with emergency gates of size 3.05x6.4m (10x21ft) operated from the hoist structures, located on top of the dam, which are connected to the tunnels by means of vertical shafts. The irrigation outlets are normally operated from the control chamber floor at elevation 343.6m (1127.5ft) but can also be operated from the hoist house at elevation 435.86m (1430ft) in case of emergency. Each control chamber is connected to the hoist house through a vertical shaft, nearly 91.4m (300ft) deep.

The Pong power plant is a reinforced concrete structure located in the stilling basin downstream of penstock tunnels having an uprated installed capacity of 396 MW (6 units of 66MW each). The general layout plan of Pong Dam & appurtenant works is attached as Annexure-I. The salient features of the project have been appended as Annexure-II.

## **1.1 GEOLOGY**

The dam site lies in the upper Shivalik sand rock, clay shale / silt stone formation, which have been subject to folding. The clay shale bands are generally massive, well compacted but largely un-cemented and tend to loosen on exposure. Further, some of the clay shale bands are formed to contain sheared plastic gougy seams. The sand rock band is generally coarse grained, massive, firm to friable and is seemingly pervious. The disposition of the shear zones in the left abutment suggests the presence of a rather complex anticlined geological structure. The dips recorded are of the order of 10° due North (that is towards the right bank) near the left bank, gradually steeping to about 15° towards the right bank of river.

## **1.2 EMERGENCY ACTION PLAN**

E.A.P.is a necessity and a first major step for safety and accident prevention during construction period as well as during post construction period i.e. operation and maintenance stage of the project. It is still a difficult

thought process to comprehend the naturally occurring events and understand them in totality. Their ill-effect or adverse effect can be attempted for their prevention. So in this direction it has been contemplated to prepare the Emergency Action Plan for the project that may be realistic to practice in handling and meeting the challenges of unforeseen eventuality. The present attempt is for the high massive earth-cum-rock fill dam in northern Indian on river Beas at Pong. The region is a seismically active one and falls in the zone V of the seismic zoning map of Indian. The catchment areas of dam reservoir receives medium to high rainfall. The average rainfall observed in 1800mm (71in) yearly. The project of this gigantic nature has the potential of development of unprecedented & inevitable floods rising out of the cloud burst or unexpected rains which may trigger emergency situation as shown in the alert level tables. The likelihood that maybe encountered and the situation may be developed due to high flood resulting into overtopping, embankment failures, large land slides in and around the vicinity of the dam resulting into high wave striking at the full reservoir level. The other reason for overtopping may be due malfunctioning of spillway gate at the time when there is flash floods in the catchment and the flood routing capacity of the reservoir falling short despite of the best efforts. Another potent factor which may cause unfathomable impact on the stability of embankment of dam may be the development of high pore pressure in the core section and endangering the very existence of the dam.

These factors are sufficient in nature to set in motion the disasters which dislocate normal day to day human life running at normal pace & also at the same time affecting the very nerve of the economic system. The occurrence of a disaster devastates environment and further creates many human hazards which increase their hardship and dislocate the normal living beyond redemption so the outside help is needed effort to mitigate the prevailing deplorable condition at that time.



To sum up the causes which may be responsible for such type of disasters may be classified as

- (a) **Hydrologic**: - Such as flooding due to large releases, seepage slumping, piping, embankment cracking, embankment deformation, movement of concrete section (Sliding or overturning). Settlement failure of spillway gates or supporting structures, outlet works, equipment malfunctioning etc.
- (b) **Earthquake**: - This natural cause may have impact on the structural stability of the dam resulting into embankment piping, cracking and movement of concrete section.
- (c) **Other events**: - These include equipment failure security / criminal action, structural fire and land slide, wild fires, storm of extreme intensity, cloud burst, T-Sunami and sabotage etc.

The action plan would enable the project authorities to alleviate or moderate the problems likely to develop in potential, imminent situation. This document includes procedures and information to help the authorities to issue early warning, notification messages to all those responsible for discharging duties in such like situation downstream. The E.A.P. mainly dwells / covers the potential emergencies cropping up due to hydraulic reasons as classified earlier.

### **1.3 NOTIFICATION FLOW CHART: -**

The N.F.C. happens to be the most guiding component of E.A.P. This will enable the authorities handling the following situations most skillfully.

- (a) Flood is occurring or is expected
- (b) Potential emergency situation is developing or has developed.
- (c) Failure is imminent /inevitable or has occurred.

In this E.A.P. four number Alert level to cope with different types of developing situation have been identified and are appended at Annex-III. The Notification Flow Chart (N.F.C.) relating to the different alert levels have

been marked and find place at Annexure-IV. In order to supplement in the N.F.C. the necessary narrative information has been appended as Annexure-V. In order to act swiftly, an attempt has been made to develop sample warning messages providing brief specific information about the developing situation. These find place as Annexure VI. For ensuring speedy and prompt action, these flow chart shall have to be made mandatory for their depiction in the offices of all those officer concerned with E.A.P. responsibilities.

## **2.0 RESPONSIBILITIES:-**

Bhakra Beas Management board administration looks after the control of three projects mainly.

- 1) Bhakra Nangal project, Nangal
- 2) B.S.L.Unit-I Sundernagar
- 3) Beas Project unit-II at Pong at Talwara

The maintenance and upkeep of the Beas dam Project at Pong is being looked after by Chief Engineer Pong Dam. The different works of the Project are being managed and administrated through three Nos Superintending Engineer as per organizational setup mentioned at Annex VII.

The maintenance & operation of the Project is of high importance and is vital to the security and structural stability of the Project. This is possible only though the performance/their realization of duties & responsibilities to their fullest extent. In the hierarchy of sharing responsibility Executive Engineer /Divisional Engineer is in position of pivotal importance when he has to face challenge of simple to most intricate problem developing on the project. So for the purpose of handling the imminent situation i.e. the development of emergency situation of potential danger to the project, XEN Pong Dam Division will be responsible to act promptly at the site of emergent situation on the project. Executive Engineer Mechanical, XEN Electrical, XEN R/M on the project site would provide all the resources

under their control to help XEN Pong Dam division to tackle the situation and they would work in tandom with him Executive Engineer Pong Dam would identify the triggering event as per Alert levels and simultaneously ensure deputing of responsible persons to meet such an eventuality.

This may include incidence of a sabotage / terrorist attack. In this case Executive Engineer Pong Dam will immediately inform Project Security Officer who will act promptly as per his duties and responsibilities listed separately in this document under the head Duties and Responsibilities. Notification in this case will be made to all concerned as per N.F.C. after identification of the situation by Executive Engineer Pong Dam in consultation with S.E., Pong Dam circle. The list of agency dealing with such type of situation is attached as Annex. VIII.

The probable situation likely to develop might be impinging of unprecedented high flood due to incessant rains / could burst in the Beas catchment. He will immediately inform his high officers as per flow chart of external alert. He will also ensure notification to other concerned XENs as per N.F.C. However he may delegate his powers to SDO Pong Dam under certain special circumstances. In such an inevitable mishap/ potential imminent situation all agencies, partner state to whom water is being supplied or the districts of the states through which river Beas runs past will be informed of the developing exigency well in time as per N.F.C. The list of concerned Deputy Commissioners has been appended as Annex IX.

It is again needless to impress that the O & M of the project is strictly carried out by the efficient, the most experienced operation according to the procedures as provided in O& M document of the project. During the developing emergency situation on the project XEN, Shah Nehar barrage would be ready with his personnel to manage passage of high flood release as made through Pong spillway during routing of impugning flood by the Beas dam project authorities.

In such an eventuality of grim flood inundation which might threaten upstream as well Downstream areas of Beas dam, XEN Pong dam would arrange notification to all the Departments & Civil authorities of the districts of the concerned states including the village situated on the rim of the reservoir falling in Kangra districts of H.P. The list detailing contact numbers of various villages Sarpunches and NGO's functioning u/s and d/s of the Pong dam project have been appended as Annex-XIII. The list containing contact numbers of loading centres in Pong reservoir is attached as Annex IX-A.

## **2.1 RESPONSIBILITY FOR EVACUATION, RESCUE & RELIEF:**

In the face of most unusual situation likely to put the normal functioning of the project in jeopardy, C.E. Pong Dam being the head of the project would act /respond to the situation with firm and grit determination on the basis of the feedback information from S.E. Pong Dam and other senior officers. The situation would be tackled with maximum calm and poise without any panic amongst his team of officers deputed to meet the challenging situation. He will put all the resources at his command to bring the developing / deteriorating situation under control. The developing situation may warrant to call help through notification to the Distt. Magistrate made in N.F.C. at Annex IV. Distt. . Magistrate is to act as Chairman of the Co-ordination Relief Committee during such an inevitable situation. Chief Engineer may also call help of Indian Army, Indian Navy, Indian Air Force (contact Nos. as per Annex-X) but through Chairman BBMB office. Central agencies such as IMD/CWC will have also to be informed as per NFC because they have also the responsibility to discharge by issuing messages in regard to latest developing weather conditions in the catchment through

various media-means such audio visual and print etc. List of these agencies has been attached as per Annex-XI.

Other attendant factors to be taken care of are:-

1. Releases from Pandoh Dam to be got stopped if possible and continuous discharge from Dehar power house into river Sutlej be ensured during such situation.
2. The Releases from Ravi into Beas at Madhopur should also be got controlled to minimize the severity of the passing high flood d/s Beas Dam / Harike head works as number of rivulets /may be running full & discharging maximum flood waters into Beas.

The developing situation such as high floods would be met through taking various steps through the deployment of different officers by forming their teams and entrusting various work assignments in order to cope with the situation. The XEN Pong Dam Division in consultation with SE Pong Dam (PDC) would identify & make declaration of emergency of external alert level (Red). Immediately a siren would be sounded in the presence of SE (HQ), SE (PDC) & CE Pong Dam. The mode of sounding siren will.

(a) In case of emergency , the duration of number of sound blasts will be 2 minutes BLOW 30 second BREAK for 4 time.

(b) For all clear signal it will be continuous Siren for 5 minutes which will be sounded upon the direction Chief Engineer, Pong Dam after the emergency is over.

It is also added that the siren installed at Pong Dam and in Township area would sound simultaneously at the time of declaration of the emergency. It is also imperative that the staff operating the siren as well conversant with the emergency sounding mode. The operating of alarm has to be checked periodically. Its maintenance will be carried out annually when the emergency action plan is reviewed.

In all there would be seven Nos. teams for dealing with the situation right from Dam top to down to Talwara T/Ship. XEN Pong Dam would

monitor the situation with a precise period of time & continuously inform SE Pong Dam circle about the same.

### **2.1.1 TEAM AT DAM SITE FOR RESCUE & EVACUATION OPERATION**

XEN Pong Dam	XEN Mechanical	XEN R/M
SDO Pong Dam Sub Division	SDO Gates & Gearing	SDO R/M
SDO S.S.T. S/ Divn	SDO Field Mechanical	SDO Silt Survey
SDO Instrumentation	SDO Land disputes	ARO Laboratory at Pong Dam

In case of any unusual situation getting out of control where flooding becomes inevitable (as per case IV of notification flow chart ), this team would arrange to tide over the situation with their all-out efforts and ensure timely evacuation, rescue & relief of persons entrapped inside the dam or in near vicinity. The team members would:-

- (a) Transport the casualties if any on priority basis to pre decided first aid centre after rescue.
- (b) Carry all works to the pre meditated assembly point.
- (c) Take Roll call of assembled persons.
- (d) Pass on information in respect of absenteeism / missing persons to the control room at site.
- (e) Put in all efforts with the help of fire fighting staff, divers or other personnel of army present at site.
- (f) Use the facilities available at each control room as per annex-XIII if required.
- (g) Maintain daily diary of work progress & submit report in this regard to control room as well as to high officers.
- (h) They will also attend to any other responsibility as assigned by SE (PDC), SE Talwara Circle or CE Pong Dam.

(i) Ensure that list of persons working in Dam area under XEN RM, XEN PDD, XEN Electrical & XEN Mech. Is available with them as per Annexure –XIX. They will attend to the downstream area up to Ghaner Terrace during such eventuality.

### **2.1.2 TEAM AT SANSARPUR TERRACE:**

It will comprise of the following members under the overall control of Executive Engineer Mechanical.

- |   |
|---|
| <ul style="list-style-type: none"><li>- XEN Mechanical</li><li>- SDO Transport S/Divn. Ghaner Terrace</li><li>- SDO W/Shop S/Divn. S.P. Terrace</li><li>- SDO Disposal S.P. Terrace</li><li>- SDO Stores S.P. Terrace</li></ul> |
|---|

They will put all efforts for the rescue & transport of the casualties and would discharge all the responsibilities as detailed for team at Dam site.

It is important to mention here that the above team would manage & ensure operation of rescue in the area up to Ghaner Terrace u/s and d/s up to Talwara colony or as per the gravity of the situation in consultation with team leaders operating in the colony area. The help of the local area N.G.Os. or Sarpanchs of the surrounding villages may be requested / asked for. The list containing contact no. of N.G.O. of the area appended as annex XIII.

### **2.1.3 TEAM TALWARA T/SHIP**

This team would comprise of the following team members and would be headed by two number XENs as below.

Team A	Team B
XEN Township Talwara S.D.O Estate S.D.O Water Supply S.D.O Enforcement	Superintendent Procurement A.S.P.-1 A.S.P.-2 S.D.O. Horticulture & Sanitation

In the event of high flood passage, the possibility of inundation of the whole T/Ship area and the country side area adjoining to the BBMB colony is an imminent possibility. So in order to meet with the situation two nos. teams have been formed Team A would be in operation and will manage rescue and

evacuation work in the area up to sector-2 the road perpendicular to the State highway leading to, Sanata Dharam Mandir in Sector 2 and up to the other end straight. Whereas team B would be responsible for similar in the area left to the above said road (leading to Mandir).

For quicker management and timely action the help of the NGO's / Gram Panchayats of the area can be sought. the list of NGO and Pradhan of village is appended as Annex-XIII.

XEN T/Ship will also request his counterpart in Shah Nahar Colony for the formation of the similar teams for handling the imminent situation. The duties & responsibilities of the above team are as under:-

(a) They will attend the rescue & evacuation operations on priority basis. They will transport immediately the victims or casualties to the nearby medical Centre /first-aid Centre for prompt medical aid to the sufferers.

(b) For having immediate help of men and material during the period of such exigency, they will contact local NGOs and village Sarpanches as per list attached at Annex XIII. This also includes food and clothing.

(c) They will also collect the information regarding the loss of human life, livestock and loss to the housing etc and will further pass on this information to the control room established in the colony at safe and easily accessible pre planned place.

(d) The evacuated persons will be transported to the shelters at higher elevation (Plan attached at Annex XX). Where the affected persons may be stationed with temporary housing such as tents, nearby school building or place such as Mandir and Gurudwara etc.

(e) The routine roll call of persons deployed be made invariably in assembly point. Absenteeism / missing persons will be reported to the control room and to the higher authorities.

(f) For fresh instructions, if any, they will also keep contact daily with higher officers.



(g) To ease the hardship of the affected persons, in the area they will make alternate arrangement for water supply if the present system has gone out of order due to flooding and is not repairable.

(h) They will maintain daily diary of the event and work progress and submit report in the regard to the higher officers as well as to the established control room.

(i) They may use the facilities available at each control room as per annex-XIII.

#### **2.1.4 TEAM FOR ENSURING ELECTRIC SUPPLY COVERING THE AREA FROM DAM TOP TO TALWARA T/SHIP**

<b>XEN Talwara Electrical</b>
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- |   |
|---|
| <ol style="list-style-type: none"><li>1) SDO field electrical</li><li>2) SDO electrical W/Shop at S.P.Terrace</li><li>3) SDO Transmission Sub divn.</li><li>4) SDO Electrical &amp; A/c S/Divn. Talwara</li></ol> |
|---|

The duties & responsibilities of the team are as under:-

(a) They will make all out efforts to ensure temporary lights (if electric supply has gone out of order ) during such an eventuality if need be.

(b) Safe shut down wherever required / needed should be organized / ensured to avoid any mishap.

(c) They will organize all support services like power, temporary lighting and operation of the water pumps etc.

(d) They will also arrange to organize dewatering of the inundated area up to dam site if any.

(e) The routine check-up / roll call shall be exercised on particular pre-planned assembly point. The absenteeism would be immediately reported to nearest control room and to the higher authorities also.

(f) They will maintain daily diary of events and work progress and submit report in this regard to higher officers as well as to the established

control room.

(g) They may use the facilities available at each control room as per Annex-XII.

(h) They may control the local NGO's and village sarpanches as per Annexure-XIII for any help during such exigency hour.

#### **2.1.5 SECURITY TEAM FOR PONG DAM & T/SHIP AREA**

Project Security Officer DSP	Project Security Officer DSP
1) Inspector security	Inspector security
2) Sub Inspector	Sub Inspector
3) A.S.I.	A.S.I.

Security team would keep a constant watch on the ongoing emergency operations from all angles during any exigency to meet the challenge of inevitable flooding or an event of sabotage as the case may be. For this, Project Security officer would frame two teams one for Pong Dam area and the other for Talwara Township colony area. The team would be responsible to:-

- a. Provide timely access to emergency services.
- b. Manage all project entry points
- c. Prioritize vehicle movement to the emergency site.
- d. Not allow any unauthorized person entry in to emergency site.
- e. Divert the traffic through pre planned alternate.
- f. To permit authorized persons / recognized agencies with minimum delay who have come to the help during such hour.
- g. Any other responsibility as assigned by higher officers i.e. Director Security Chandigarh or C.E. Pong Dam.
- h. The Contact number of different agencies / bomb squads to be contacted at that time is placed at Annexure X.

### **2.1.6 COMMUNICATION TEAM FOR ESTABLISHING COMMUNICATION NETWORK DURING EMERGENCY**

ADE Pong Dam Division JE Control Survey Sub Division JE Workshop Sub Division S.P. Terrace
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Communication system will have to be kept well maintained during such exigency at Pong Dam as in colony area. The team will be responsible.

- (a) To set ready suitable persons to act as messengers in case of failure of communication system.
- (b) To keep the system is running condition and its timely use at the hour of emergency.
- (c) To ensure timely repair / maintenance if normal system goes erratic.
- (d) To discharge any other responsibility as assigned by higher officers.
- (e) Report in this connection to higher officer as well as to established control room.

### **2.1.7 MEDICAL ASSISTANCE TEAM**

<b><u>Principal Medical Officer BBMB Hospital Talwara Township</u></b>
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- |   |
|---|
| <ul style="list-style-type: none"><li>1. Medical Specialist &amp; Medical Officers</li><li>2. Dispensers &amp; other paramedical staff of BBMB Hospital</li></ul> |
|---|

This team has been entrusted with very important job assignment of providing immediate medical assistance to the victims, during unusual occurrence at dam site or in Township area. The important duties of this team includes:-

- (a) To set emergency post at emergency site in consultation with XEN Pong Dam division at dam & with consultation of XEN T/Ship in colony area.
- (b) To make available readily medical equipments & medical as per requirement in first aid centre

(c) To ensure timely shifting of casualties to nearby hospitals/ medical centers.

(d) To make suitable arrangement of vehicle for carrying out casualties in consultation with XEN mechanical.

(e) To keep contacts with other Govt. / Non Govt. dispensaries / hospital in the surrounding area.

(f) To maintain daily diary of events and work progress and submit report in this regard to higher officer as well as to the established control room.

(g) They may use facilities available at each control room as per Annex.

## XII

(h) They will also arrange medicines especially for gastroenteritis or other water borne diseases.

2.2 **CONTROL ROOM** : The control room is a very important component of E.A.P for monitoring & coordinating the actions of various agencies involved in dealing with the imminent emergency situation. Two number control rooms have been set up each at Pong dam site as well as in Talwara colony area in consultation with XEN Pong Dam & XEN T/Ship for respective sites. The team members in each case will be as enlisted under:

SDE Water Regulation (Dam Site)	XEN HRD/ Env. (Talwara Colony)
-ADE Water Regulation	SDO Control survey
JE Water Regulation	JE Silt Survey

S.E/Head-quarters Talwara will be the overall in charge of both the control rooms. All types of functioning will be guided by him. He will keep a direct liaison with different agencies discharging duties during such hour. The control room will be well equipped with all types of information in relation to the activities being performed at sites to handle the unusual occurrence. The control room must have the facilities available as enlisted in Annexure- XII.

The execution of work, if required, would be round the clock. The team leader in each case would be responsible for smooth working of the control room. They will establish continuous contact with I.M.D. through XEN Water Regulation for any abrupt change in the catchment area. They will manage a continuous flow of information from the control room set up by district authorities and update the control room accordingly.

### **2.3 E.A.P. CO-ORDINATOR'S RESPONSIBILITY**

E.A.P. co-coordinator will share the load of responsibility of the activities of revisions to E.A.P. whenever needed. It should be in the form of yearly exercise. For this the trainings & drills will be arranged and the record there of will be well maintained separately. He will have an intimate knowledge and motivating spirit to make the E.A.P. more effectively implemented. Amendments to E.A.P., if any undertaken during annual review shall be well circulated. Even in the instance when no amendment is made, a circular shall have to be issued for the purpose. Any party can contact co-coordinator for any quarry regarding the plan.

### **2.4 APPROVAL OF THE PLAN:-**

The E.A.P. would be involve or supposed to be involve presently in the implementation at the time of any mishap on Pong Dam assuming thereby that all parties involved are aware of and fully agree to the roles assigned to them during such emergency. Accordingly the names of related parties have appended as Annexure – XVI.

### **3.0 EMERGENCY PROCEDURES:-**

#### **3.1 Emergency Identification, Evaluation and Classification**

It is mandatory on the part of Executive Engineer Pong Dam Division to determine and identify situation that requires an emergency action. Therefore establishment of procedures for timely recognition are imperative. To serve as a guide at that time following emergency identification, evaluation & classification procedure elements are detailed below:-

A list of the conditions or events which could lead to or indicate an existing or potential emergency. Situations involving flood emergencies due to a breach or other structural failure as well as a major flood without a breach should be included. Unusual situations such as those cause (a) by overtopping of a dam due to insufficient spillway capacity during large inflows to the reservoir (b) by seepage or piping through the dam over long internal conduits. (c) Slope embankment slides (d) earthquake damage (e) landslide generated waves within the reservoir. Hydraulics, hydronamics, hydrology, sediment transport mechanics and geo-technical aspects are all involved in breach formation and eventual dam failure. The prominent causes can be listed as follows:

- 1) Extreme storm
- 2) Landslide
- 3) Earthquake
- 4) Overtopping
- 5) Structural damage
- 6) Piping
- 7) Equipment malfunction
- 8) Foundation failure
- 9) Sabotage

The above unusual situation can be divided into 3 categories:-

**a) Hydrologic:** These are related to flooding due to large releases, seepage, slumping, piping, embankment reformation, embankment overtopping, movement of concrete section (sliding or over turning) settlement, failure of spillway gates or supporting structures, spillway & outlet works releases, equipment malfunction etc.

**b) Earthquake:** These are related to impact of earthquake at dam which could lead to embankment piping, embankment cracking, embankment deformation, liquefaction and movement of concrete section etc.

**c) All other events:** These are related to hazardous material spills / releases, equipment failures, security / criminal actions, fish / wildlife impacts, wildfires, structural fires, landslides, extreme storm, sabotage etc. One or more of the above unusual situation will initiate declaration of an emergency for internal alert or external alert.

A brief description of the means by which potential emergencies will be identified, including the data & information collection system, monitoring arrangements, surveillance, inspection procedures and other provisions for early detection of conditions indicating an existing or potential emergency. Emergency events occur with unusual situation, varying degrees of severity and predictability. An emergency may develop gradually and be steadily monitored providing ample response time. Conversely, an emergency may develop suddenly requiring immediate emergency response to prevent devastating loss of life or impacts to structures or the environment. The following definitions are used to classify emergency events according to an ascending and progressive order of severity to which the dam downstream or off-site population, structures or environment are threatened. Condition may dictate that situation is classified as imminent without passing through the less severe situations. A smooth transition should occur, if the situation is classified as “developing” prior to “imminent”.

Assessment of degree of seriousness of unusual situation is required. It may be classified as the Blue, Yellow, Orange and Red level alert accordingly to their seriousness.

Guidelines lie mainly in the interface between the internal and external emergency planning, being the two main aspects of the following:-

**(a) Definition of alert levels:** If an incident happens with the dam or problem arises related with the dam over its foundations or with landslides into the reservoir, earthquakes, adverse meteorological situation or any other alert must be given to civil protection system. The gravity of the problem

may obviously vary with the situation, but in order to assure that all the entities involved in emergency actions are behaving in accordance with the situation, the alert levels need to be previously defined, and must be the same for the internal external emergency plan of each dam.

These alert levels are established in colours, from Blue, the lowest. Level that corresponds to a routine or normal situation, to Red, corresponding to a serious or catastrophic situation. The alert levels defined are presented in Annexure III its underlying philosophy relates the gravity of dam problems with the expected impacted in the downstream valley and the likelihood of the total dam rupture.

**b) Alert and warning systems:** When facing problematic situation, the entity exploring the dam must judge the corresponding alert level and notify the civil protection system, in order to allow the development of the necessary action, according to the situation.

If the dam rupture is very likely (orange alert level) or imminent (red level) give “external alert” signal and the entity exploring the dam must warn population downstream of the dam. In orange level, the warning indicates people to be ready for evacuation and in red alert to evacuate quickly. Given that a dam rupture can be very sudden, it is assumed that people leaving up to a certain distance downstream of the dam have to be evacuated by their own means, with no time to wait for civil protection help.

Procedures, aids, instructions and provisions for interpreting information and data to assess the severity and magnitude of any existing or potential emergency should be clearly defined. The table covering different emergency situation demanding entirely separate approach to tackle each case is given as Annexure III.

### **3.2 NOTIFICATION PROCEDURES:**

Notification procedure is no less important part of E.A.P. For this SE (HQ) has been assigned to be spokesperson to pass on the information to be



news media such as Radio, T.V. and Newspapers. He is also the co-ordinator of E.A.P. This will be followed in letter & spirit that the passing on of information will be exclusive domain of SE (HQ). The news media will be informed keeping public interest in view and avoid sensational news making. Co-ordinator shall be assisted by the team heads and their under associates for feedback. The name and position and office, home telephone of to be notified have been enlisted at Annexure –XIV. The list showing who is to make call to whom & in what priority finds mention at Annexure –V. The necessary format for supplying the information during notification to the media is as follows:-

- (i) This is (name, title, agency) monitoring / Pong Dam
- (ii) The date is \_\_\_\_\_ and time is \_\_\_\_\_
- (iii) The conditions at Dam are \_\_\_\_\_
- (iv) We will notify you if the conditions at the dame change. We will give you briefing at \_\_\_\_\_ hours or sooner.
- (v) For further information contact at BBMB control room telephone No. \_\_\_\_\_ or \_\_\_\_\_
- (vi) This message will be sent to you in the text form of fax or others.

### **3.2.1 EVENT REPORT:-**

The incharge shall ensure that the following report forms are to be used when recording various emergency situations and unusual occurrences:-

- i) Emergency event unusual occurrences report for reporting emergency events and unusual occurrences other than earthquakes, bomb threats and oil and hazardous spills. Form-I.
- ii) Earthquake Damage report- for reporting earthquakes \_ Form 2
- iii) Bomb threat Report- for reporting bomb threats \_ Form- 3.

These forms have been attached as Annexure XV.

The needed action to bring the situation under control at the site will be taken by S.E. Pong & XEN Pong Dam divn. If urgency of the matter so

requires, Director Designs; Expert Engineers as per Annex- XVII may be consulted for assistance during such an exigency. The following points are required to be taken care of:-

(1) All agencies, persons notified should be documented separately during such a mishap.

(2) Immediate sanction of funds will be accorded by CE Pong dam in anticipation of sanction of estimate.

(3) It is required that each individual should maintain diary for recording messages received & duties assigned.

(4) For complete documentation of the event, the video recording/ photography of emergency site is a must.

(5) Attendance at site should be made invariably during occurrence of such emergency.

(6) Executive Engineer Pong Dam division should prepare a formal status report for the dam facilities which should contain date, time, location of observation. Water level in the reservoir, inflows / outflows and other related parameters.

(7) In the event of terrorist attack / sabotage the formal status report would be developed accordingly.

#### **4.0 PREVENTIVE ACTION:-**

Preventive actions are the actions required to be carried out to avoid any unto-ward incident to important installations at dam which may Otherwise result in failure the dam embankment, deformation etc and loss of life & property downstream. In case of any inevitable identified situation going out of control and putting the stability of the dam in danger, the residents of the area likely to be affected immediately will be given warning for evacuation to the safer places. This also includes the persons working / deployed in the power house and in other u/s/& d/s locations who are to be

informed well in time for evacuation to safer places. This step has to be taken shortly by XEN Pong Dam Division or by his representative after identification declaration of emergency. The other preventive actions include:-

- 4.1 SURVEILLANCE:-** This is very important preventive action. For this, the dam and its appurtenant should be watched with great care. The rim of the reservoir (left & right) should also be attended to up to reasonable distance in rainy season to avoid any unto-wards incidence likely to take place. For this competent persons well conversant with the emergency operations at dam (as per O & M) should be deputed which is an important requirement of EAP during high floods. In addition it must be ensured that the repair and maintenance of the project is strictly carried out as contained in O & M of the project. The list of persons who are well trained & fully conversant with the emergency operations should be displaced at convenient place at dam site. A list of local telephone numbers inside the dam body i.e. Telephone directory dam site is appended as Annex-XVIII. The list of persons working in dam area in different sub divisions / locations is appended as Annex. XIX. This list is required to be updated from time to time for any change.

**4.2 ACCESS TO THE SITE:-**

It must be ensured by XEN (PDD) that primary and secondary routes to site of emergency are well maintained and site is easily approachable during the emergency hours. Means of access to site should be clearly defined in case of emergency situation when it is urgently required to arrange for reconstruction activities to avoid any confusion to different agencies operating at that time. A layout plan of the area showing alternative routes also for easy approach is attached as Annexure XX.

### **4.3 EMERGENCY SUPPLIES AND RESOURCES**

There are certain planning and organizational measures that can help Dam personnel and local officers to manage emergency situations more safely and effectively. These include:-

#### **4.3.1 MATERIAL AVAILABILITY**

Material needed for emergency repair may be stock piled at a nearby convenient safe place from where it can be used whenever there is emergent need for small quantum emergency jobs. For major emergency need bulk supply sources be beforehand identified as per different zones in embankment of dam and their timely supply has to be ensured by XEN Pong Dam division. Material such as earth or sand gunny bags to be kept ready in near vicinity of the dam for their immediate use.

#### **4.3.2 MACHINERY EQUIPMENT AVAILABILITY**

The different types of machinery are required for carrying out different activities during course of reconstruction or other use. Some machinery has been stationed permanently at Top of dam R.L.1430 ft. and the rest at Sansarpur Terrace to meet with any emergency. The list of machinery along with operators available at Bhakra is appended as Annex XXI. Detail of more machinery available with BBMB at BSL Project, Sundernager and Beas Dam at Talwara which can be arranged shortly is detailed at Annexure XXII.

#### **4.3.3 CONTRACTORS**

If required, contractor / contractors can also be engaged at the time of any emergency arising at Dam site likely to put the safety of structure in danger, S.E. (P.D.C) in consultation with Chief Engineer, Pong Dam will finally decide about engaging the services of contractor / contractors immediately after inspecting / evaluating the gravity of the situation. The list of contractors having expertise in the field and supposed to be competent enough to handle emergency situation of lesser magnitude has been

appended as Annexure- XXIII along with type of machinery available with them. The list also contains their contact numbers. However, for undertaking repair / reconstruction jobs of high quantum, the list of very renowned firms having good experience is appended for reference & immediately contact at Annexure – XXIV.

#### **4.3.4. LABOUR**

The labour required during the execution of the work will have to be arranged locally. XEN, Pong Dam will make all such arrangements in shortest possible time. A list of contractors who can make labour available has been appended as Annexure XXIII.

#### **4.3.5. ENGINEERS EXPERTS**

During any emergency S.E. (PDC) / XEN Pong Dam will contact / call on request the Engineers / persons having expertise in the field. A list of persons / retiree who contributed a lot during their service with the project has been attached as Annexure –XVII. These persons may prove helpful for better guidance to tackle / handle the emergency situation promptly & properly.

#### **4.4 CO-ORDINATING INFORMATION ON FLOWS:-**

On receipt of precise and accurate information about the high floods likely to impinge, Director Water Regulation Nangal in consultation with the Member Irrigation and C.E. Pong Dam will arrange lowering of reservoir level in anticipation of approaching floods with through study of the situation. Director water regulation will make requests to Director Power Regulation & C.E. system operation & concerned Chief Engineers for stopping releases d/s Bhakra dam during high flood hours so as to ease out the situation in rain Beas Dam Pong Dam.

During high flood period Director Water regulation, SDE water regulation Talwara will keep constant watch on the inflows at Pong dam. In case of any flood impinging the reservoir, Director Water Regulation / SDE Water Regulation will issue instructions to Executive Engineer Mechanical / SDO gates & gearing to operate the spillway gates specifying discharge to

be made /gate opening such that Pong Reservoir level does not exceed 1400 ft Executive Engineer Mechanical / SDO Gate & gearing will issue instructions to his staff to open the gate accordingly as per the discharge/ gate opening intimated by Director Water Regulation / SDE Water regulation and will confirm to SDE Water Regulation Talwara.

Whenever the releases d/s Pong Dam are more than 50,000 cs, SDE Water Regulation Talwara will issue the flood warning to the officers mentioned at Annexure- XXV through Police wireless system as well as through canal telegraph office. The above action will be repeated whenever the releases from Pong Dam are to be increased to pass the flood water.

Due consideration has to be given to the following Para of O & M of Pong Dam while passing floods which reads as:

“In case of high floods, if the reservoir level exceeds 1400 ft. despites raising all the radial gates even to an extent that bottom of gates is above EI. 1401 ft. than at that time all the gates, must be opened further to an extent that the bottom of the gates does not remain below EI. 1419 ft”.

Further in such an emergency situation, SDE Water Regulation Talwara will remain in touch invariably with IMD, CWC & catchment area of river Beas u/s of Pong Dam and collect information about the floods impinging the reservoir. He will also pass in this information to Director Water Regulation, SE (HQ), XEN Pong Dam & XEN Mechanical. SDE Water Regulation will make day& night discharge observations arrangement at the important discharge sites through his staff.

A list of persons along with their contact number responsible for the collection of information relating to inflows and working in dam area is attached as Annexure-XXI. It will be ensured by SDE Water Regulation that the work of observation u/s as well as of Pong Dam at different discharge site runs smoothly even during the period of darkness, inclement weather

and non-business hours. The list of persons deployed at discharge sites find mention at Annexure- XXVI.

#### **4.5 PROVIDING ALTERNATIVE SOURCE OF POWER**

In the event of power failure during crucial hours of emergency at site when different activities are running simultaneously, it is very much imperative to have an alternative source of power to meet with such situation so that the execution may be carried out smoothly without any hindrance. At Pong Dam all the important mechanical installation have been provided with D.G. set arrangement as an alternative source. The smooth operation of D.G. sets at different location to be ensured by concerned XEN Mechanical. There may not arise any complicity at the time of emergency when electric supply goes out of order.

#### **5.0 EXECUTION OF WORK AT SITE**

Chief Engineer Pong Dam, SE (PDC) Director Design Director Dam Safety would decide depending upon the quantum of repair / reconstruction works, whether the work has to be got executed through large construction forms or purely through the department. The Executive Engineer incharge at site will ensure that construction work at site of emergency is being carried out strictly in accordance with construction drawings & specifications or any other decisions taken by above officers at site.

For ensuring quality control ARO and his staff would be requisitioned. Engineer in-charge of the site would get the stock piled material tested for its suitability for all purposes before its use at site. The daily progress at site will be recorded shift wise. All officers are supposed to perform their duties as per as list of responsibilities assigned to each individual division wise. Any discrepancy noticed at the site of work / during execution should be brought to the knowledge of Engineer-in-Charge and he will try to remove / rectify such discrepancy promptly so that progress of work is not suffered.

## **6.0 INUNDATION MAPS:**

Inundation maps is an important component of EAP these are usually needed to develop an adequate evacuation plan when numbers of dwellings are located downstream of the area where emergency has taken place. Also it appraises the responsible emergency management authority of column of water at different locations which helps the authorities to take appropriate steps accordingly.

It is pertinent to mention here that the inundation maps for downstream area of Pong Dam are available with Punjab Drainage Department / Himachal Govt. It is there, required that inundation maps for vulnerable reaches (in case of any expected mishap) should be developed / made available by Punjab Drainage Deptt. / Himachal Govt. No action in this connection is required to be taken by BBMB authorities. However the important installations/ offices of BBMB d/s of Pong Dam i.e. Ghaner terrace, S.P.Terrace, Colony area will be looked into by BBMB authorities and is adequately covered under this document during such eventuality of high floods.

## **7.0 Description of Location of Pong Dam**

Beas dam (Unit- II) also named as Pong Dam comprises an earth-core gravel shell dam 132.6 (435ft) high above the deepest foundation level and 100.6m (330ft) high above the normal river bed. It is located at Pong which was a tiny hamlet on the right bank of the river Beas in Kangra district now in Himachal Pradesh and is at a distance of about 40km (25 miles) from Mukerian, a railway station on the Delhi-Jammu railway line. The site is about 483km (300 miles) north-north west of Delhi bearing its co-ordinates as 75-50'-0" E longitude and 30-58'-30"N latitude. It has a surface power house, located downstream of the left abutment of the dam clear of the dam toe. The power house has an installed generation capacity



of 396 MW (66 MW x6). The dam is well connected both road. The broad salient features of the project have been appended as Annexure-II.

**8.0 TRAININGS:** To ensure that persons discharging responsibility under the plan are well familiar with the entire element contained therein, the training to all these persons is a necessary component of EAP with this they will come to know about their duties and responsibilities and availability of different equipments in the plan. Each individual is supposed to be well trained for identification, detection & evaluation of particular situation so that Alert level could be triggered accordingly.

A training imparted could be included as an appendix to the EAP. Exercise simulating sliding overtopping or breach of the embankment due to high floods & malfunctioning of mechanical installation may be considered for Mock drills to ensure proper & prompt response at every level. A sufficient number of people could be trained to ensure adequate coverage at all times. A careful roaster should be kept of training completed. Persons should be given training at more than one responsible position so that alternates could be provided for each position. In the event when a particular person as per N.F.C. is not available due to some reason, his alternative as per list in annexure XXVII is supposed to perform the duty.

**9.0 DUTIES AND RESPONSIBILITIES TO BE DISCHARGED BY DIFFERENT OFFICERS DURING EMERGENCY HOURS AT PONG DAM ARE ENLISTED AS BELOW:**

<b>Designation/ Address</b>	<b>Duties and Responsibilities</b>
<b>9.1</b> C.E . Beas Dam,BBMB Talwara 01883-237131 (O) 01887-237133 (R) 94172-16052 (M)	1) To notify / inform higher authorities of BBMB/outside agencies about the mishap as per notification flow chart of particular Alert level as per situation at site.  2) To notify District Magistrate who is Chairman Co-ordination Relief Committee, Hoshiarpur.  3) To keep close watch of the different activities being carried out by different agencies at the time of emergency.  4)To accord all anticipation sanctions at site  5) To make request notify Chief Engineer BSL Sundernagar and Chief Engineer, Bhakra Dam Nangal for providing required resources as per Alert level.  6) To provide all types of information to Board office in regard to evacuation, rescue & relief operation.  7) He will ensure the timely restoration of all the works after emergency over.  8) He will also contact the large construction companies having expertise in Dam construction activities.  9) In Case of terrorist attack or sabotage as informed by P.S.O, he will immediately inform higher officers as per N.F.C & also guide the officer under his control to act promptly.

	<p>10) He will request C.E.B.S.L as well as C.E, System operation for not making releases d/s Pandoh Dam.</p> <p>11) He will also request C.E, Bhakra Dam and C.E, System Operation for reducing the releases d/s Bhakra Dam as for as possible.</p>
<p><b>9.2</b> S.E. (HQ) Talwara BBMB, Talwara 01883-236047 (O) -236104 (R) 9418092177 (M)</p>	<p>1) To notify /inform different agencies / officers as per notification flow chart of particular Alert level as per situation at site.</p> <p>2) To keep constant liaison with Civil Authorities of Punjab &amp; Himachal and all other including all the Superintending Engineer / Directors under Pong Dam administration, Pollution Control Kangra.</p> <p>3) He will supervise the functioning of control rooms and will be well equipped with all type of information including rescue &amp; relief Operation etc.</p> <p>4) He will act as EAP Coordinator and responsible for all EAP related activities such as trainings, drills and revision to EAP if any.</p> <p>5) Being spokesperson, he is required to disseminate information and make contact to utilize media as appropriate at the time of emergency on behalf of Chief Engineer, Pong Dam.</p> <p>6) He will also ensure that no visitor pass is issued to anyone and no vehicle will be allowed to cross the top of Dam during such emergency period.</p>
<p><b>9.3</b> S.E. (PDC) Talwara BBMB, Talwara 01883-236125 (O) -237150 (R) 94180-92177 (M)</p>	<p>1) To have timely and reliable identification, evaluation &amp; classification of existing potential emergency condition as per information of XEN, Pong Dam Divn.</p>

	<p>2) To notify /inform different agencies / officer as per notification flow chart of particular Alert level as per situation at site.</p> <p>3) To keep liaison with all SEs/Directors, teams to handle disaster, XENs and other involved directly / indirectly to handle the disaster.</p> <p>4) To keep close watch / supervision at site when construction activities of any quantum are in progress.</p> <p>5) To ensure that work at site is being carried out strictly as per construction drawings and specifications or any other decision taken in consultation with experts, C.E. Pong Dam, Director Design &amp; Director , Dam Safety, S.E. Talwara circle at site.</p> <p>6) He will ensure that there is no danger of spread of any epidemics or water borne diseases after the floods.</p> <p>7) To accord sanction in anticipation as per emergent Rules of DFR provisions within his competency.</p> <p>8) To keep close watch on rescue, relief and evacuation operations being carried out by different teams.</p> <p>9) To ensure proper access to site at the earliest possible.</p> <p>10) To ensure that all lighting arrangements have been made at all emergency locations (Pong Dam &amp; colony area) including requirement of Power Supply to all equipment / machinery.</p> <p>11) Adequate lighting arrangement should be</p>
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	<p>ensured at all identified / vulnerable sites well in advance in anticipation of any mishap.</p> <p>12) To provide all types of information related to the execution of work to S.E. (HQ) from time to time.</p> <p>13) Adequate lighting arrangements should be ensured at all identified / vulnerable sites well in advance in anticipation of any mishap.</p> <p>14) To keep liaison with civil authorities who have been carrying all rescue &amp; relief operation at site of emergency &amp; also remain in touch with control room of Civil authorities. Also to provide all type of information to BBMB Control room at Pong Dam as well as in Township area.</p> <p>15) He will ensure timely action to arrange for some suitable / competent agency or agencies to take up the reconstruction activities at dam site / colony area to restore the occurred damages due to floods.</p> <p>16) He will ensure that releases from Bhakra d/s into Sutlej have been reduced to maximum during the period of un-presidents floods impinging Pong dam.</p> <p>17) To use Report Form No. 1, 2 and 3 when recording various emergency situation and unusual occurrences. These forms have been attached with EAP as Annexure-XV.</p> <p>18) He will ensure that proper action has been taken by Project security officer in case of any Sabotage or terrorist attack at the site as enlisted in duties &amp; responsibilities of Project security officers.</p>
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<p><b>9.4 S.E. Talwara Circle</b>  <b>BBMB, Talwara</b>  01887-236013 (O)  01887-236114 (R)  94180-92177 (M)</p>	<p>1) To notify / inform different agencies / officers as per notification flow chart of particular Alert level as per situation at site.</p> <p>2) To ensure that all related machinery / equipment are in running conditions and have been deployed as per requirement of S.E. PDC/XEN Pong Dam division.</p> <p>3) To ensure that all type of material available and required at site of emergency is being delivered by Supdt. Proc. Central Stores, Nangal Township.</p> <p>4) In case of power supply failure alternative arrangement of supply of power to equipment / machinery and at emergency locations is being ensured.</p> <p>5) To ensure repair / mtc. of machinery, if required, at site by deputing a team of expert mechanics so as to carry smooth working at site.</p> <p>6) He will put all efforts for an early restoration of the normal work.</p> <p>7) To have liaison with S.E. NMC Circle, S.E. BSL Circle-II, Sunder Nagar and Ranjit Sagar Dam administration for any required resources other than available.</p> <p>8) Formation of purchase committee / committee in consultation with C.E. Pong Dam for procurement of material from appropriate resource through spot purchase.</p> <p>9) To ensure procurement of different lubrications and spare parts for smooth running of machinery.</p> <p>10) To remain in touch with C.E. Pong Dam, S.E.P.D.C. &amp; S.E.(HQ) during such emergency hours.</p>
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<p><b>9.5 Director, Designs</b>  BBMB Nangal  01887-223108 (O)  94172-02097 (M)</p>	<p>1) Director Design should inspect the emergency site immediately when he gets the information of such mishap and to offer remedial / suggestive measures at site.</p> <p>2) Director Designs will ensure all time availability of SDE's &amp; ADE's and drawing hands under the administration for imparting any required guidance to field persons at site or issuance of construction drawings, if necessary during the execution phase of damaged site.</p>
<p><b>9.6 Director, Dam Safety</b>  BBMB Nangal  01887-223179(O)  9463998230 (M)</p>	<p>1) Director Dam Safety should inspect the site when he gets the information of any mishap of Pong Dam and to offer any remedial / suggestive measures for ensuring total safety of the structure.</p> <p>2) Director Dam Safety will also ensure the availability of staff under his administration during emergency hours.</p>
<p><b>9.7 Director Water Regulation</b>  BBMB Nangal  01887-223758(O)  94635-98550(M)</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular Alert level as per situation at site.</p> <p>2) He will also keep liaison with authorities at Harike as well as Madhopur Head works.</p> <p>3) To keep constant liaison with Member, Irrigation, BBMB, Chandigarh, Chief Engineer, Pong Dam, Talwara, S.E. PDC and S.E.(HQ) Talwara.</p> <p>4) He will issue directions to SDE, Water Regulation, Talwara for making, releasing d/s of Pong Dam.</p>

	<p>5) He will also keep constant liaison with I.M.D. during such emergency period.</p> <p>6) He will request authorities at Madhopur link to stop release water into river Beas as the river is already running full due to continuous high releases from Pong Dam.</p> <p>7) He will request Director Power Regulation and C.E. System Operation for not making releases d/s Pandoh Dam and request for reducing releases d/s Bhakra Dam.</p>
<p><b>9.8 S.D.E. Water Regulation</b>  <b>BBMB, Talwara</b>  01883-236008(O)  236129(R)  94179-14786(M)</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>2) He will pass on information as a warning notice of emergency of routing high floods to all the regulating agencies having concern with the releases from Pong Dam.</p> <p>3) To keep constant liaison with Director, Water Regulation, Nangal, SEPDC, SE Talwara Circle, Se (HQ) Talwara &amp; XEN, Pong Dam Division, XEN Mechanical Division, XEN Shah Nehar Barrage during such mishap.</p> <p>4) He will act promptly as per instructions contained in O &amp; M of Pong dam Project.</p> <p>5) He will immediately inform XEN, Shah Nahar-Barrage about imminent developing situation at Pong.</p> <p>6) He will provide all type of information Periodically to SE (PDC) and control room established in Colony area.</p>



	<p>7) He will also ensure that daily diary is maintained in respect of each activities carried out at site by persons/staff under his control and all the higher authorities are apprised accordingly during such emergency.</p> <p>8) He will also make day and night discharge observation arrangement at the discharge site under his control.</p>
<p><b>9.9</b> XEN RM Division, BBMB, Talwara 01883-236192(O) 236040(R) 9417202078</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>2) XEN should readily available with him contact members of skilled / unskilled working under his control.</p> <p>3) Record / strength of skilled workers of different categories whose services are required during emergency operation should also be available.</p> <p>4) XEN should also keep a list of readily available all types of stores under his control alongwith available quantity of each item.</p> <p>5) XEN should also keep a list of alternative arrangement in the absence of skilled workers, readily available.</p> <p>6) XEN should also keep a list of machinery in working under his control readily available.</p> <p>7) Mode of conveyance &amp; shortest possible route to the emergency site should be identified well in advance in consultation with XEN R.M. Division.</p>

	<p>8) To maintain daily diary in respect of activities performed by persons under his control &amp; appraise S.E.PDC about the same.</p> <p>9) He will maintain a constant liaison with XEN Pong Dam and S.E.PDC during such eventuality or mishap.</p> <p>10) He will make a pre-planned arrangement for deploying the persons on site of emergency so that work can be performed smoothly and promptly. He will also inform villages Pradhans u/s about rising R.W.L. as per Annexure-XIII.</p> <p>11) He will ensure that all stock present in his stores such as cement, sand and aggregate is fresh and quite sufficient for its use at emergency site. Batch of piled up cement should be mentioned clearly.</p> <p>12) Xen should also keep a record of local persons well trained in swimming, diving and who will help in rescue &amp; relief operation at emergency site, especially persons from water sports complex and loading centres.</p> <p>13) XEN will also keep a list of persons having private boats with them for rescue operations during emergency hours. He may also contact water sports authorities.</p> <p>14) XEN should also ensure attendance 24 hours during such emergency.</p> <p>15) XEN will also maintain liaison with loading centres of fishery Department in Pong reservoir for arrangement of boats &amp; boatmen if required, during the operation</p>
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	<p>of rescue &amp; relief as per Annexure-IX A.</p> <p>16) XEN will also ensure that duties to him in team for rescue, relief and evacuation operation at Bhakra are discharged properly during emergency hours. (For emergency due earthquake as well as sabotage or terrorist attack).</p> <p>17) He will also ensure that firefighting arrangement under his control is well equipped and ready to perform duties in shortest possible time during emergency hours.</p>
<p><b>9.10</b> XEN Pong Dam Division, BBMB, Talwara 01883-236061(O) 236079(R) 9418092177(M)</p>	<p>1) To have timely and reliable identification, evaluation and classification of existing and potential emergency condition in consultation with SE(PDC), SE Talwara Circle &amp; CE Pong Dam.</p> <p>2) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>3) XEN should keep readily available with him contact members of all persons skilled / unskilled working under his control.</p> <p>4) Record / strength of skilled workers of different categories whose services are required during emergency operation should also be available.</p> <p>5) XEN should also keep a list of readily available all types of stores under his control alongwith available quantity of each item.</p> <p>6) XEN should also keep a list of alternative arrangement in the absence of</p>

	<p>skilled workers, readily available.</p> <p>7) XEN should also keep a list of machinery in working under his control readily available.</p> <p>8) Mode of conveyance &amp; shortest possible route to the emergency site should be identified well in advance in consultation with XEN R.M. Division.</p> <p>9) To post a special observer at dam site during high floods.</p> <p>10) He will also ensure that no vehicle is allowed to cross the top of dam during such an emergency situation.</p> <p>11) To maintain daily diary in respect of activities performed by persons under his control and apprise SE (PDC) about the same.</p> <p>12) He will maintain a constant liaison with XEN-Mech. XEN Elec, XEN, RM and S.E. PDC during such eventually or mishap.</p> <p>13) To ensure that all lighting arrangement required are according to requirement of work site.</p> <p>14) To ensure that N.F.Cs are posted in Pong Control Room, Power House &amp; at other key locations.</p> <p>15) To ensure 24hours first aid / medical aid.</p> <p>16) After identification of emergency condition, he will stop all the routine works being carried out at dam site and in surrounding area.</p> <p>17) He will allow minimum possible</p>
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	<p>persons to work inside the dam body (urgent notice)</p> <p>18) He will also keep a readily available copy of key drawings of Pong Dam.</p> <p>19) He will ensure identification of sources of supply of suitable aggregates, natural or processed from nearby Khads or through co tractors.</p> <p>20) He will also ensure proper stock file of aggregate of meeting the demand of minor damages.</p> <p>21) He will make a preplanned arrangement for deploying the persons on site of emergency so that work can be performed smoothly &amp; promptly.</p> <p>22) He will ensure that all stock present in his stores such as cement, sand and aggregate is fresh and quite sufficient for its use at emergency site. Batch of piled up cement should be mentioned clearly.</p> <p>23) He will also ensure timely identification of different types of material if needed for reconstruction activities as already used such as clay shale, sand rock, sand &amp; gravel, sand, gravel, cobbles and boulders as per maximum section of dam (attached as Annexure-I)</p> <p>24) XEN shall also ensure that photography of the site of emergency has been carried out intensively. All the events have been covered fully till the completion of execution of work.</p> <p>27) XEN will also ensure that proper arrangement have been made to carry</p>
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	<p>leveling of the site by survey party and assist during the repair construction activities of different controlling points.</p> <p>28) XEN should ensure that report form No. 1, 2 &amp; 3 are to be used when recording various emergency situation and unusual occurrences. These forms has been attached with EAP at Annexure – XV.</p> <p>29) XEN shall also ensure attendance 24 hours at dam site during such emergency at Pong Dam.</p> <p>30) XEN will ensure that a formal status report for dam safety has been developed by him as per requirement of E.A.P.</p> <p>31) XEN will ensure that work at site is being carried out strictly as per construction drawings and specifications or any other decision taken in consultation with experts, C.E. Pong Dam, S.E. PDC, Director Designs, Director/ Dam Safety &amp; S.E. Talwara Circle at site of emergency.</p> <p>32) He will seek immediate help from Civil Authorities through higher officers or directly in case of any potential emergency arising out of a sabotage act or terrorist attack.</p> <p>33) He will also Project Security Officer during above emergency at Dam site.</p> <p>34) He will also perform his duties as per para 2.1.1 for rescue &amp; relief operation in case of sabotage.</p>
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<p><b>9.11</b>      XEN      Township Division, BBMB, Talwara 01883-236004(O) 236016(R) 9417202086</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>2) XEN should readily available with him contact members of skilled / unskilled working under his control.</p> <p>3) Record / strength of skilled workers of different categories whose services are required during emergency operation should also be available.</p> <p>4) He will ensure availability of sufficient number of boats for their use in rescue and relief operation.</p> <p>5) He will ensure that there is no danger of spread of any epidemics or water born diseases after the floods.</p> <p>6) XEN should also keep a list of readily available all types of stores under his control along with available quantity of each item.</p> <p>7) XEN should also keep a list of machinery in working under his control readily available.</p> <p>8) Mode of conveyance &amp; shortest possible route to the emergency site should be identified well in advance on consultation with XEN Pong Dam Division.</p> <p>9) To maintain daily diary in respect of activities performed by persons under his control &amp; apprise S.E.PDC about the same. 10) He will make a pre-planned arrangement for deploying the persons on</p>
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	<p>site of emergency so that work can be performed smoothly and promptly.</p> <p>11) He will ensure that all stock present in his stores such as cement, sand and aggregate is fresh and quite sufficient for its use at emergency site. Batch of piled up cement should be mentioned clearly.</p> <p>12) XEN will also ensure providing sheds, toilets for temporary stay of persons engaged in execution of work at site as per requirement of XEN Pong dam Division.</p> <p>13) He will also seek help from civil authorities as well as N.G.O's coming forward for the purpose.</p> <p>14) He will arrange to make mobile van announcements through public address system about the emergency.</p> <p>15) He will also ensured cleanliness and sanitation of the area during and after the occurrence of such mishap.</p> <p>16) XEN shall also ensure attendance 24 hours during such emergency.</p> <p>17) XEN shall also make all arrangements for temporary dispensary at site to give 1<sup>st</sup> aid to all during rescue &amp; relief operation.</p> <p>18) He will also discharge his duties as team leader for rescue &amp; relief operation in Colony area.</p>
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<p><b>9.12</b>      XEN      Electrical Division, BBMB, Talwara 01883-236056(O) 236017(R) 9417202062</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>2)XEN should readily available with him contact members of skilled / unskilled working under his control.</p> <p>3) Record / strength of skilled workers of different categories whose services are required during emergency operation should also be available.</p> <p>4) XEN should also keep a list of readily available all types of stores under his control alongwith available quantity of each item.</p> <p>5) XEN should also keep a list of alternative arrangement in the absence of skilled workers, readily available.</p> <p>6) XEN should also keep a list of machinery in working under his control readily available.</p> <p>7) Mode of conveyance &amp; shortest possible route to the emergency site should be identified well in advance on consultation with XEN Pong Dam Division.</p> <p>8)XEN will ensure that adequate lighting arrangement have been made at all vulnerable points both at Pong Dam &amp; in T/ship area.</p> <p>9)XEN will ensure that all lighting arrangements have been made at emergency site including power supply to all equipment / machinery and to bring to the notice of S.E. PDC regarding each</p>
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	<p>activity performed / completed at site and to the satisfaction of persons working / executing the job at site.</p> <p>10) XEN will ensure that daily diary of each event / activity performed at site is maintained.</p> <p>11) XEN will ensure that in case of power failure adequate arrangement to run the equipment on alternative source of power has been made.</p> <p>12) XEN will maintain a liaison with XEN Pong dam, XEN RM, XEN Mech., S.E. Talwara Circle &amp; S.E. PDC during emergency hours.</p> <p>13) He will make a pre-planned arrangement for deploying the persons on site of emergency so that work can be performed smoothly and promptly.</p> <p>14) XEN will ensure that sound arrangement under his control is trouble free &amp; well maintained for evacuation of inhabitants in the near vicinity of mishap.</p> <p>15) XEN will also ensure attendance-24 hours during such exigency.</p> <p>16) He will also discharge his duties as team leader for rescue operation for ensuring electric supply for area from Dam to Talwara colony.</p>
<p><b>9.13</b> Supdt. PS&amp;D Division, BBMB, Talwara 01883-236094 (O) -236068 (R) 94172-06231(M)</p>	<p>1) He should keep ready with him contact numbers of all persons skilled / unskilled working under his administration.</p> <p>2) Record / strength of skilled workers of different categories whose services are</p>

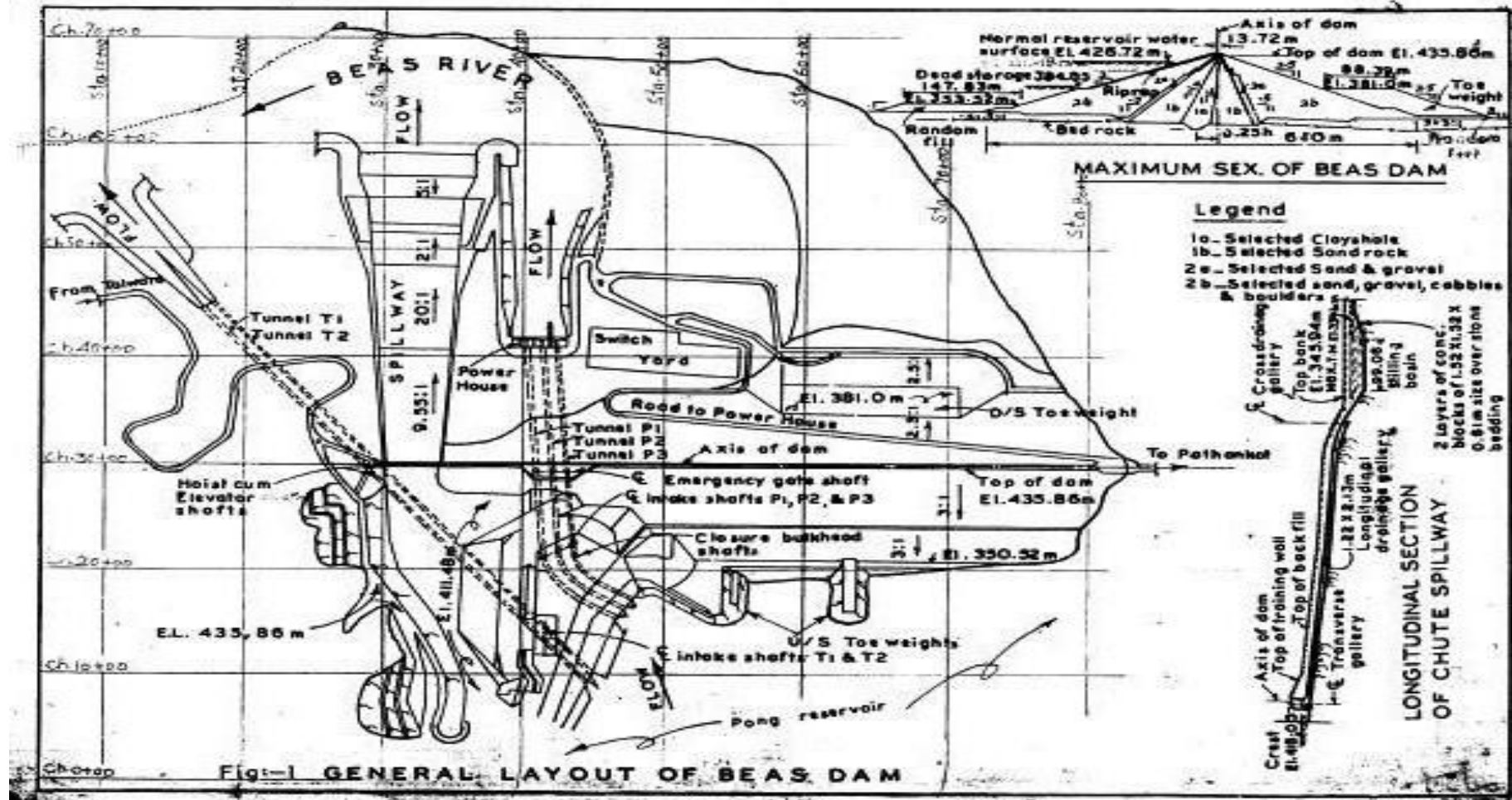
	<p>required during emergency operation should also be available.</p> <p>3) He should also keep a list of readily available all types of stores under his control alongwith available quantity of each item. He should also apprise S.E. Talwara Circle about the same from time to time.</p> <p>4) He should also keep a list of alternative arrangement in the absence of skilled workers readily available.</p> <p>5) He will ensure delivery of all materials / stores quickly for its use at emergency site.</p> <p>6) He will make arrangement at shortest notice for the materials from other projects if required.</p> <p>7) He will also discharge his duties as team leader for rescue &amp; relief arrangement at Talwara in colony area.</p>
<p><b>9.14</b> XEN Mech. Division, BBMB, Talwara 01883-236006(O) -237746 (R) 9417861127(M)</p>	<p>1) To notify / inform different agencies / offices as per notification flow chart of particular alert level as per situation at site.</p> <p>2)XEN should readily available with him contact members of skilled / unskilled working under his control.</p> <p>3) Record / strength of skilled workers of different categories whose services are required during emergency operation should also be available.</p> <p>4) He will ensure all vehicles, heavy earth moving machinery and other equipments / mechanical installations in complete</p>

	<p>working order.</p> <p>5) XEN should also keep a list of alternative arrangement in the absence of skilled workers, readily available.</p> <p>6) XEN should also keep a list of machinery in working under his control readily available.</p> <p>7) Mode of conveyance &amp; shortest possible route to the emergency site should be identified well in advance on consultation with XEN Pong Dam Division.</p> <p>8) He will ensure that daily diary is maintained in respect of each activity carried out at site by persons under his control &amp; to apprise S.E. Talwara Circle.</p> <p>9) XEN will ensure the stock piling of lubricants &amp; spare parts at site where the machinery has already been kept permanently.</p> <p>10) XEN should have with him a list of machinery (required with him) available at other projects under BBMB, alongwith operators. Annexures-XXI &amp; XXII.</p> <p>11) XEN should have a list of suitable / required machinery available with other departments such as XEN, Shah Nahar, XEN, Mukerian Hydrel Channel.</p> <p>12) XEN will ensure the persons who have been assigned duties during emergency hours are discharging it properly &amp; promptly.</p> <p>13) He will also discharge his duties as team leader for rescue operation at Pong</p>
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	<p>Dam.</p> <p>14) XEN should keep close liaison with XEN, Pong Dam who is overall incharge of the site for all types of assignments / requirements in relation to execution of work.</p> <p>15) XEN shall also ensure attendance 24 hours during such exigency.</p> <p>16) He will also perform his duties as per para 2.1.1 in case of sabotage / terrorist attack (For Rescue and Relief)</p> <p>17) He will also ensure immediately alternative power supply arrangement of existing system of supply fails due to some reason.</p>
<p><b>9.15</b> PMO BBMB, Hospital Talwara 01883-236060(O) -237222 (R) 9463598081 (M)</p>	<p>1) He/She will immediately move to the emergency site for assisting in rescue &amp; relief operation after getting information about such eventuality.</p> <p>2) He/She will move to the site with a team of Doctors and other allied staff well equipped to give first aid to injured persons.</p> <p>3) He/She will keep a constant liaison with CMO Mukerian Hopital, Dasuya, Hoshiarpur and Bholkalota community health Centre, if some persons are required to be shifted there for immediate medical services / treatment.</p> <p>4) He/She will ensure every part of aid to persons which is available in any of nearby hospital / dispensary.</p> <p>5)He/She will try to make all arrangement in shortest possible time by opening</p>

	<p>Temporary dispensary at site with the help of XEN Township so that immediate medical aid be given to victims at site of emergency.</p> <p>6) He/She will immediately make all arrangements to refer patients to reputed hospital at Jalandhar, Ludhiana or PGI, Chandigarh if situation warrants so.</p> <p>7) He/She will keep record with him of every person who has been given medical aid by BBMB temporary dispensary at site.</p> <p>8) He/She will also inform C.E. Beas Dam, regarding his activities during such hours of exigency.</p> <p>9) He/She will arrange to provide 24 hours medical service through his staff at site of emergency.</p> <p>10) He/She will keep constant liaison with S.E. (HQ) and keep on apprising him about the situation at site in respect of rescue &amp; relief operations, victims or any fatality.</p> <p>11) He/she will ensure a complete availability of every type of medicine in advance, doctors and other staff for extending help during the hours of emergency (especially medicines for Gastroenteritis and other water born diseases.</p>
<p><b>9.16 Project Security Officer</b>  <b>BBMB, Talwara</b>  01883-236463 (O)  01883-236463 (R)  9418080483 (M)</p>	<p>1) He will arrange to inform / notify bomb squad / sniffer dog agencies as per list attached at Annexure-VIII in case of sabotage / terrorist attack will remain in constant touch with them for seeking any help required during such emergency hours.</p>

	<p>2) He will arrange to guide all the persons at work site to deal with such situation (Bomb like thing) through his team associates under his control)</p> <p>3) He will ask for any help required during such emergency from S.E. (PDC) / BBMB authorities.</p> <p>4) He will ensure persons under his control are competent to control/tackle such a situation.</p> <p>5) He will ensure that incident has been record in the event report form as per Annexure-XV.</p> <p>6) He will immediately inform Director, Security, S.E. (PDC) and all concerned as per Annexure-IV.</p> <p>7) He will immediately inform C.E., Beas Dam during any un towards incident of terrorist attack at Pong Dam or in near vicinity.</p> <p>8) He will also request S.E. (PDC) for immediate help to handle the situation during such crucial hour.</p>
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**Basic Data and Salient Features of Pong Dam.**

**Basic data**

Type of Project	Multipurpose Project for Irrigation and Power.
Location	Pong- Himachal Pradesh
Year of Start of Construction	1963
Year of completion of dam	1974
Commissioning of 1 <sup>st</sup> unit of Pong Power Plant	January 1978
Commissioning of last unit (6 <sup>th</sup> ) of Pong Power Plant	October 1983

**Hydrology and Climatology.**

River on which located	Beas
Sub Basin	Beas
Main river basin	Indus
Catchment area upstream of Dam site	12560 Km <sup>2</sup> (4850 sq. miles)
Catchment area under Permanent Snow	780 Km <sup>2</sup> (300 sq. miles)
Average annual rainfall in the Catchment area	180 cm (71in)
Maximum observed air temp. at Dam Site	48.8 <sup>0</sup> C (118 <sup>0</sup> F)
Minimum observed air temp at dam site	0 <sup>0</sup> C (32 <sup>0</sup> F)
Maximum annual run off	23050x10 <sup>6</sup> m <sup>3</sup> (18.69x10 <sup>6</sup> acre ft.)
Minimum annual run off	8760x10 <sup>6</sup> m <sup>3</sup> (7.10 x 10 <sup>6</sup> acre ft.)
Average annual run off	15300 x 10 <sup>6</sup> m (12.40 x10 <sup>6</sup> acre ft.)
Maximum observed flood (4 August 1977)	19800 m <sup>3</sup> /s (700 000 ft <sup>3</sup> . /s)
Design flood discharge	33555 m <sup>3</sup> /s (1185000 ft <sup>3</sup> /s)
Frequency of design flood	1 in over 10 000 years

**Reservoir**

Maximum Reservoir level	EL. 433. 12 m (1421 ft.)
Full reservoir level	EL. 426.72m (1400 ft.)
Dead storage level	EL. 384.05m (1260 ft.)
Gross storage Capacity	8570x106m <sup>3</sup> (6.95x10 <sup>6</sup> acre ft.)
Live storage Capacity	7290x106m <sup>3</sup> (6.95x10 <sup>6</sup> acre ft.)
Dead storage Capacity	1280x106 <sup>3</sup> m (1.04x 10 <sup>6</sup> acre ft.)
Maximum reservoir depth	97.84 m (321 ft.)
Reservoir length	41.8 Km (26 miles)
Reservoir surface area at Full reservoir level	260 Km <sup>2</sup> (100 <sup>2</sup> sq. miles)

**Dam**

Type of dam	Earth core –cum-gravel shell dam
Elevation of top of dam	EL. 435.86 m (1430 ft.)
Free board (above Maximum Reservoir level)	2.74 m (9 ft.)
Maximum height of dam above Deepest foundation level	132.59 m (435 ft.)
Maximum height of dam above Deepest river bed	100.58m (330 ft.)
Crest length	1950.7m (6400 ft.) approx...
Crest width	13.72 m (45 ft.)
Dam slopes	Upstream 3.0 H: I V Downstream 2.5 H: I V
Maximum width at base (Excluding toe- weights)	610m (2000 ft.)
Factor of safety against sliding (Minimum)	
(a) Non –seismic condition	1.5
(b) Seismic condition	1.1

**River Diversion Works**

Number of tunnels	5
Finished dia. of each tunnel	9.14m (30 Ft.)
Length of tunnel T-1	1363.37m (4473 ft.)
T-2	1338.38m (4391 ft.)
P-1	808.02m (2651 ft.)
P-2	772.67m (2535 ft.)
P-3	734.26m (2409 ft.)
Total aggregate length	5016.70m (16459 ft.)
Minimum thickness of RCC lining	76.2cm (2ft 6 in)
Maximum discharge through each Tunnel during division	
(a) T-1 & T-2	1260m <sup>3</sup> /s (44soo ft <sup>3</sup> /s)
(b) P-1, P-2 & P-3	1340m <sup>3</sup> /s (47300 ft <sup>3</sup> /s)
Maximum water velocity through Each tunnel	
a) T-1 & T-2	19.2 m/s (63 ft. /s )
b) P-1, P-2 & P-3	20.4 m/s (67ft./ s)

**Outlet Works**

Number of outlet tunnel	2
Number of outlet	4
Type of gates for regulation and For emergency closure	Slide gates
Size of each gate	2.13m wide x3.20m high (7.0 ft. wide x 10.5 ft. high)
Operating mechanism of gates	Hydraulic hoists
Capacity of gate hoist	625 tonne
Maximum net head	95.71m (314 ft.)
Minimum net head	46.7 m (153.3 ft.)
Maximum discharge through each outlet	253m <sup>3</sup> /s (8925 ft <sup>3</sup> /s)
Minimum discharge through each outlet	183m <sup>3</sup> /s (6450 ft <sup>3</sup> /s)
Type of intake	Drop-inlet type
Maximum velocity in intake	13.7 m /s (45 ft/s)
Maximum velocity through the Trashracks	2.1 m/s (7 ft. /s)

**Spillway**

Type of spillway	Overflow gated chute spillway
Number of bays	Six each of 14.48m (47.5ft) Width
Maximum outflow through spillway	12375 m <sup>3</sup> /s (437000 ft <sup>3</sup> /s)
Overall width at the crest	102.11 m (335 ft.)
Clear water way at the crest	86.87 m (285 ft.)
Crest elevation	EL. 416.05m (1365ft)
Coefficient of discharges at crest (Cd)	3.66
Discharges intensity at the crest	143m <sup>3</sup> /s per metre (1540ft. <sup>3</sup> /s per foot)
Spillway gates	Six radial gates each of size 14.478 x12.344m (47.5x40.5 ft.)
Type of gate hoist	Mechanical
Capacity of gate hoist	150 tonne
Hoisting speed of the gates	0.46 m/min (1.5 ft/min) with electric Motor 0.15 m/min (0.5 ft. /min) with diesel Engine
Length of spillway chute	655.62 m (2151 ft)
Length of stilling basin	99.06 m (325 ft)
Maximum height of training walls	25.30 m (83 ft.)
Type of energy dissipater	Stilling basin with chute blocks and dentate sill
Velocity of water at the entrance Of approach channel	1.83 m/s (5ft /s)
Maximum velocity of water in the approach channel	6.10 m/s (20 ft/s)
Maximum velocity of water in the chute	14.63 m/s (48 ft/s) at the start to 44.2 m/s (145 ft/s) at the end of the chute
Discharge intensity in stilling basin	58m <sup>3</sup> /s per meter(626ft <sup>3</sup> /s per foot)
Spillway bridge width	7.32m (24ft)wide with 0.91m (3ft) Wide walkway on either side

**Penstock Works**

Number of penstock headers	3
Number of penstock branches	6
Maximum discharge through each Penstock header	215 m <sup>3</sup> /s (7600 ft <sup>3</sup> /s) approx...

**(v-vi)**

Diameter of each penstock header	7.28 m (23.885 ft.)
Diameter of each penstock branch	5.025 m (16.486 ft.)
Type of penstock	Steel liner (embedded)
Velocity through the trash rack	Drop-inlet type
Emergency gates	0.91 m/s (3 ft. /s)

**Power Plant**

a) Power House Building Type	Reinforced cement concrete
Number of units in first stage	framed structure
Number of units in second stage	4
Spacing Centre line of units	2
Width of service bay & service bay extension	18.288-m (60-ft.) 18.288-m (60-ft.) wide service bay with 7.4m (24.27 ft.) wide service bay extension
Width of generator hall	22.76m (74 ft. 8 in)
Overall height of the building	43.48 m (142 ft. 8 in)
b) Turbines	
Type	Vertical shaft, Francis type
Rated output	86200 mhp
Speed	166.7 rpm
Rated head	65.5m (215 ft.)
Maximum net head	95.10m (312ft.)
Minimum net head	95.10m (312ft.)
Distributor level	47.85m (157 ft.)
Minimum tail water level	El.331.62 m (1088 ft.)
Maximum tail water level	El.330.71m (1085 ft.)
Installed capacity of each unit	66 MW
Number of butterfly valves	6 (one for each unit)
Number of pressure relief valves	6 (one for each unit) c)
c) Generators	
Type	Umbrella type
Rated capacity	66.667 MVA
Speed	166.7 rpm
Power factor	0.9
Generated voltage	11 KV
Number of phases	3
d) Switchyard	220 KV

**Benefits**

a)	Irrigation	
	Annual Irrigation	$1.6 \times 10^6$ hectares ( $4 \times 10^6$ acres)
	Annual increase in food grains	$2 \times 10^6$ tonne
	Cost of annual procedure	
b)	Power	
	Installed capacity 1 <sup>st</sup> stage	$4 \times 60 = 360$ MW
	Firm power 1 <sup>st</sup> stage	72 MW @ 100% load Factor
	Secondary	34 MW
	Total installed capacity including	
	Extension project	$6 \times 60 = 360$ MW
	Installed capacity after R.M.U.	$6 \times 66 = 396$ MW

**Quantities of Material used**

Excavation including aggregate recovery	$30 \times 10^6 \text{ m}^3$ ( $39 \times 10^6 \text{ yd}^3$ )
Concrete	$1.13 \times 10^6 \text{ m}^3$ ( $1.48 \times 10^6 \text{ yd}^3$ )
Fill Material	$35 \times 10^6 \text{ m}^3$ ( $45.8 \times 10^6 \text{ yd}^3$ )
Steel (including construction plant works)	111760 tonne (110 000 Tonne)

**Annexure –III** (i-iv)

**ALERT LEVEL FOR EMERGENCY CONDITIONS (BEAS DAM) UNIT-II**

Type of Alert	Alert level	Situation	Engineer in charge action	Response system
Internal Alert	Blue	<p>No immediate detection of anomalies in the dam or other events that do not compromise the structural dam safety and do not make unviable the dam observation system. Situation is stable or developing very slowly. No consequences are expected in the valley d/s of the dam.</p> <ol style="list-style-type: none"><li>1. RWL is <math>\pm 1380</math> ft and inflows are 75000 cusecs on 31<sup>st</sup> August.</li><li>2. Small depression or boil noticed in slope of dam when RWL is <math>\pm 1350</math> ft.</li><li>3. High formation of vortices observed inside intake structure floating grid stuck up in the intake structure when RWL is rising</li><li>4. Leakage observed in 8" dia. Pipe in emergency gate shaft &amp; water getting accumulated in emergency shaft.</li><li>5. A small earthquake observed by GSR-18 and seepage discharged in abutment tunnels increased marginally.</li><li>6. Slide observed in right abutment resulting in falling of rock mass into in reservoir.</li><li>7. Damage to grid structure of the intake due to impact by floating equipment when RWL, is <math>\pm 1295</math> rising and structure requiring immediate repair/ maintenance.</li><li>8. Huge sliding tendency of rock mass observed by slope indicator No. 1 in intake area EL <math>\pm 1230</math> putting stability of access bridge in danger.</li></ol>	<ol style="list-style-type: none"><li>1. Measure to solve problem</li><li>2. Give internal alert signal of blue level</li><li>3. Make notification in chart No.1</li><li>4. Inform to<ol style="list-style-type: none"><li>i) Dam owner of C.E. Pong Dam</li><li>ii) Member irrigation</li></ol></li></ol>	Direct command system

**ALERT LEVEL FOR EMERGENCY CONDITIONS (BEAS DAM) UNIT-II**

Type of Alert	Alert level	Situation	Engineer in charge action	Response system
Internal Alert	Yellow	<p>Existence of anomalies of events that might compromise up to some degree and assuming that eventual small consequences downstream can happen.</p> <ul style="list-style-type: none"> <li>• Reservoir level reaching <math>\pm 13801</math>ft by 15<sup>th</sup> August Inflows are of the order of 100,000 cusecs.</li> <li>• Earthquake of <math>\pm 0.06g</math> observed by GSR-18 at top of Dam when RWL is 1360 ft. and seepage increased in galleries within dam body.</li> <li>• Horizontal movement devices have shown small d/s movement of dam in deepest section and seepage discharge in galleries increased when RWL<math>\pm 1360</math>ft</li> <li>• Bonnet Cover of emergency gate shaft failed resulting in quashing of water in the shaft rising up to corresponding RWL settlement</li> <li>• Observed by vertical movement devices in the deepest section requiring immediate repair</li> <li>• Side observed in intake area above spillway approach channel</li> <li>• when RWL + 1355 ft. rising</li> <li>• Perceptible deformation of reservoir bed observed through Bench Marks along the periphery of the reservoir fixed on broadest part of the reservoir when RWL is +1390 ft.</li> <li>• Lot of seepage observed from seepage points located at the toe of</li> </ul>	<ol style="list-style-type: none"> <li>1. Measure to solve problem</li> <li>2. Give internal alert signal of Yellow level</li> <li>3. Make notification in chart No.2</li> <li>4. Inform to <ul style="list-style-type: none"> <li>* S.E. Pong Dam Circle</li> <li>* C.E. Pong Dam</li> <li>* Member (Irr)</li> <li>* Chairman, BBMB</li> </ul> </li> </ol>	Direct command system



		dam when RWL is + 1400 ft. endangering the stability of the dam as more flood is likely to impinge the reservoir.		
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**ALERT LEVEL FOR EMERGENCY CONDITIONS (BEAS DAM) UNIT-II**

Type of Alert	Alert level	Situation Situation with high Probability of dam failure. It may not be Possible to control the situation and might cause serious consequences d/s of the dam	Engineer in charge action	Response system
External Alert	Orange	<ul style="list-style-type: none"> <li>RWL reaching + 1390 by 20<sup>th</sup> August inflows of the Order of lacs cusecs are coming Out flows are 200000 cusecs heavy flood likely to impinge to reservoir as Per IMD forecasting</li> <li>Huge land side observed in the right abutment when RWL is <math>\pm 1400</math> and inflow is 150000 resulting in falling of rock into reservoir and endangering the safety of dam.</li> <li>Lot of damage in a huge stretch observed to u/s pitching of pong dam due to high speed wind when RWL is <math>\pm 1400</math> and water is continuously rising due to flood in the intake area.</li> <li>Failure of u/s slope pitching due to flood impinging the reservoir in anticipation of high flood impinging the reservoir as per IMD forecasting when RWL <math>\pm 1410</math> ft.</li> <li>Earthquake observed by GSR -18 as 0.09 g when RWL is <math>\pm 1400</math> and seepage suddenly increased in different galleries of the dam.</li> <li>Heavy leakage observed through power house machines which is Increasing rapidly may result in flooding of the power house building</li> <li>* Emergency arising due to huge fire in cable gallery getting out of Control</li> <li>One of the spillway is in operation when RWL is <math>\pm 1400</math> and inflows are of the order of 200000 cs heavy flood expected as per IMO report</li> <li>Sabotage /Bomb threat /terrorist activities and situation developing serious.</li> </ul>	1. Measure to solve problem 2. Give internal alert signal of Yellow level 3. Make notification in chart No.2 4. Inform to * S.E. P.D. C. * C.E. Pong Dam * Member (Irr) * Chairman, BBMB District Magistrate Warning Population d/s dam to be ready for evacuee.	Incident command system

### Annexure –III

(iv-iv)

#### ALERT LEVEL FOR EMERGENCY CONDITIONS (BEAS DAM) UNIT-II

Type of Alert	Alert level	Situation of inevitable catastrophe, imminent failure of dam.	Engineer in charge action	Response system
External Alert	Red	<ul style="list-style-type: none"><li>• RWL is 1410 by 31<sup>st</sup> August. Inflows are of the order of 300000 cusecs and outflows are corresponding to full spillway gates opening (6Nos.) Plus flow through machines. Heavy flood likely to impinge the reservoir as per IMD Reports.</li><li>• Could burst shooting RWL 1415 and flows in reservoir are 250000</li><li>• Cusecs More Flood expected overtopping imminent.</li><li>• One of the spillway gates is inoperative when RWL is 1408 ft. and inflow is 300000 cusecs Continuous rain in the catchment. More Flood expected</li><li>• Horizontal movement devices have shown perceptible d/s movement of dam in the deepest section. RWL at 1410 ft Seepage discharge in galleries in the dam body increased Substantially.</li><li>• Earthquake Observed by GSR- 18 is 0. 10g. RWL is 1410 ft. Horizontal movement device has shown value more than permissible limit increased seepage observed. Also wide cracks in galleries observed.</li><li>• RWL is at 1405 ft. inflows are 25000 Cusecs. All Flood gates are open but some of the Shah Nehar Barrage gates are not operative. Heavy flood expected overtopping of barrage imminent</li><li>• Heavy land slide wave occurred in the right abutment when RWL is 1410 ft. Causing severe wave action and turbulence and level approaching 1420 ft.</li><li>• Potential emergency situation Developed Due to sabotage/terrorist attack resulting in substantial flooding of the dam galleries along with cracks.</li></ul>	<ol style="list-style-type: none"><li>1. Measure to solve problem</li><li>2. Give internal alert signal of Yellow level</li><li>3. Make notification in chart No.2</li><li>4. Inform to<ul style="list-style-type: none"><li>* S.E. Pong Dam</li><li>Circle</li><li>* C.E. Pong Dam</li><li>* Member (Irr)</li><li>* Chairman, BBMB</li></ul></li></ol> Distt. Magistrate Warning Population d/s dam stuckly to evacuate. Indian Army. Navy & Air Force.	Incident command system

**ANNEXURE-IV**

**INTERNAL ALERT (BLUE)**

**NOTIFICATION FLOW CHART EAP(EMERGENCY ACTION PLAN) PONG DAM**

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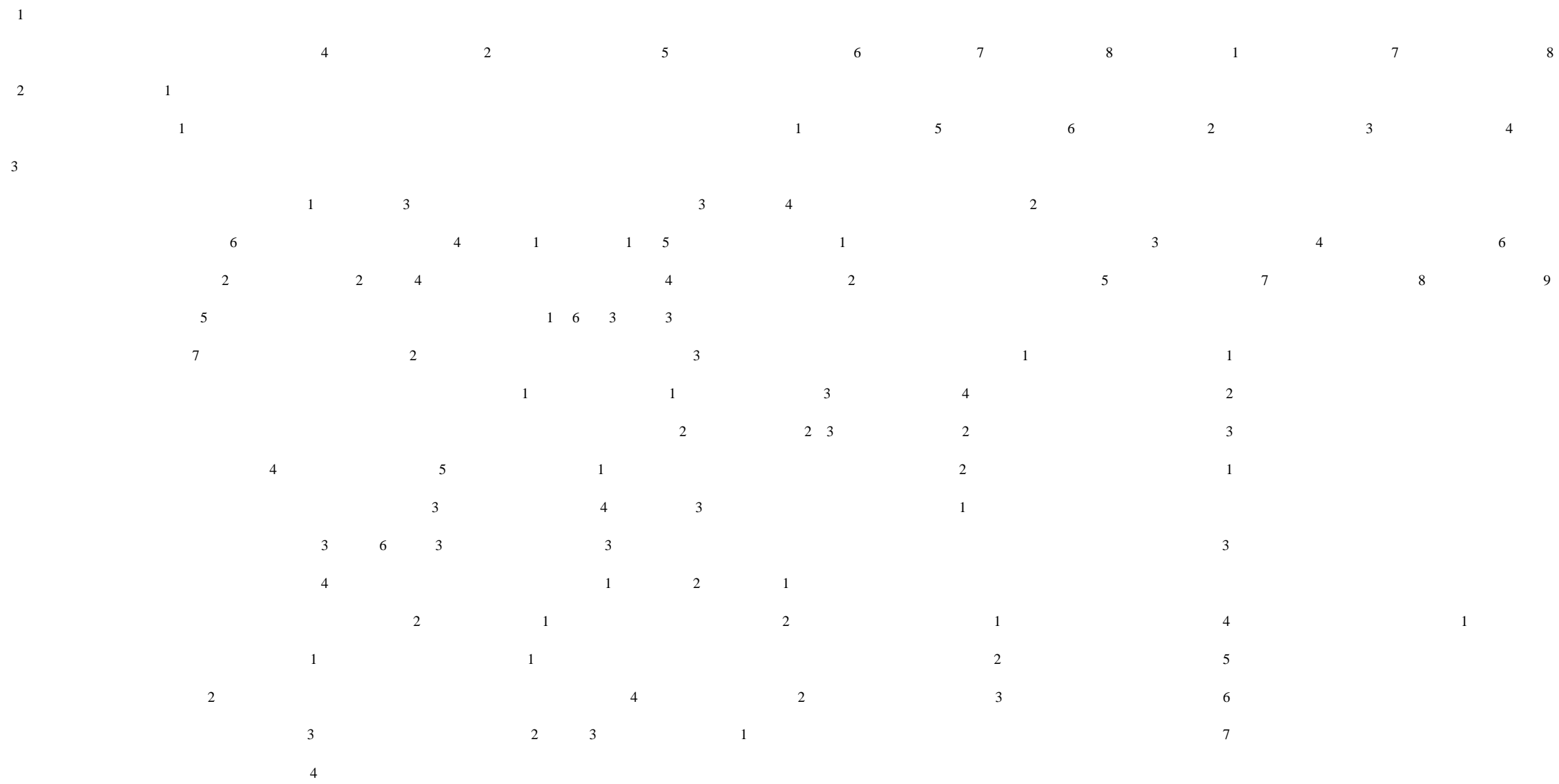
2

**INTERNAL ALERT (YELLOW)      ANNEXURE - IV**

## NOTIFICATION FLOW CHART EAP(EMERGENCY ACTION PLAN) PONG DAM



NOTIFICATION FLOW CHART EAP(EMERGENCY ACTION PLAN) PONG DAM







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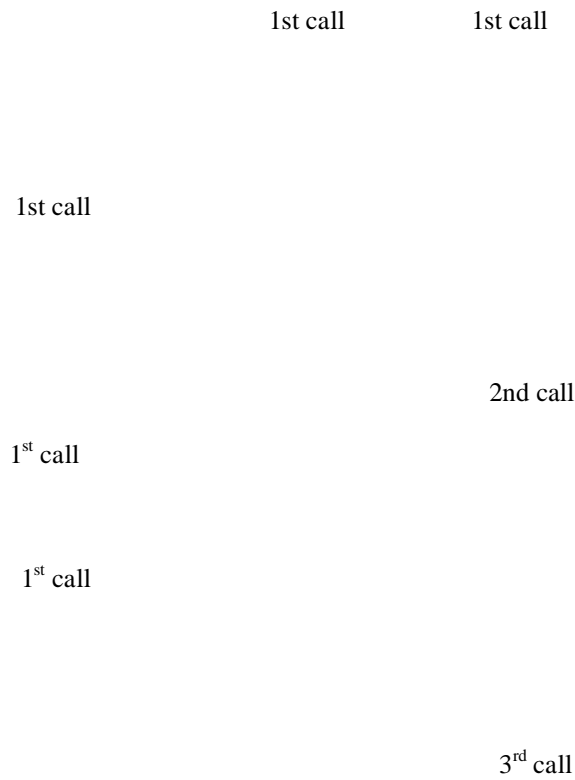
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Name of Project: Beas Dam Unit-II

**Annexure-A (Fig.2)**  
Summary Sheet for Pong Dam Emergency Action Plan





**Annexure-V (i-ii)**  
**Internal Alert Blue**

**Narrative information listing persons to be notified by each individual as per N.F.C. of Pong Dam.**

- 1. After knowing about the occurrence of disaster SDO Pong Dam will make Four calls as below:**

1 <sup>st</sup> call to Xen Pong Dam Division	01883-236061(O) -236079 (R) 9418092177
2 <sup>nd</sup> call to SDO G&G	9417469567
3 <sup>rd</sup> call to SDO Spillway Shaft & Tunnels	9417070540
4 <sup>th</sup> call to Instrumentation	9463038497
  
- 2. Xen Pong Dam Division will make Five No. Calls as below:**

1st call to SE PDC Talwara	01883- 236125 (O) 94180-92177
2 <sup>nd</sup> Call C.E. Beas Dam Talwara	01883-237131(O) -237131(R) 94172-16052
3 <sup>rd</sup> call to Xen Mech.	01883-236006 (O) 237746 (R) 9417861127
4 <sup>th</sup> call to Xen R.M. Divn.	01883- 236192(O) 236040 (R) 9417202078
5 <sup>th</sup> call to Xen Electrical. Division	01883-236056 (O) <b>-236079 (R)</b> 9417202062
  
- 3. SDO G& G will make two No.calls as below:**

1st call CFO	01883-236086 (O)  9417500236
2 <sup>nd</sup> call to be ensure that Message has been delivered to all as per notification flow chart	
- 4. SDO SST will make single call to SDO Field Elec.** **01883237144**  
94630-49391
  
- 5. SDO Field Electrical. Will make a single call to Xen Elec.**

	01883-236056 (O) 236040 (R) 9417202062
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6. **Xen Mech. will make single call to S.E. Talwara Circle** 01887- 236013 (O)
  
7. **Xen RM Will make a single call to SE (PDC)** 01883- 236125 (O)  
-237150 (R)  
9418092177
8. **SDO Instrumentation will make a single call to SDO RM** 9417456978
9. **SDO RM will make a single call to Xen RM** 01883- 236192(O)  
-236079(R)  
9417202078
10. **S.E.Pong Dam Circle will make three calls as below:**  
1<sup>st</sup> call to C. E. Beas Dam 01883-237131 (O)  
-237133 (R)  
9417216052  
2<sup>nd</sup> call to S.E. (HQ) 01883-236047 (O)  
-236104 (R)  
9418092177  
3<sup>rd</sup> call to Director Dam Safety Nangal 01887-223179 (O)  
9463998230 (M)
11. **Xen Electrical will make two calls as below:**  
1<sup>st</sup> call to SE (PDC) 01883-236125(O)  
-237150(R)  
9418092177 (M)  
2<sup>nd</sup> call to S.E.Pong Power House 01883-236171 (O)  
-237149 (R)  
9417605634
12. **C.E. Beas Dam will make two calls as below:**  
1<sup>st</sup> call to Member/Irrigation, BBMB **0172-5011753 (O)**  
**-2548931**  
2<sup>nd</sup> call to C.E. Generation Nangal 01887-223355(O)  
-223146(R)
13. **S.E. Pong Power House Will make a single call to C.E. Generation, Nangal** 01887 -223355(O)  
-223146(R)

**Annexure-V(i-iii)**  
**Internal Alert Yellow**

**Narrative information listing persons to be notified by each individual  
as per N.F.C. of Pong Dam.**

- 1. After knowing about the occurrence of disaster SDO Pong Dam will make Four calls as below:**

1<sup>st</sup> call to Xen Pong Dam Division 01883-236061 (O)  
-236079(R)  
9814685799

2<sup>nd</sup> call to SDO Gates & Gearing 9417469567 (M)

3<sup>rd</sup> call to SDO SST 9417070540(M)

4<sup>th</sup> call to SDO Instrumentation 9463038497 (M)

- 2. SDO Gates & Gearing will make four No. calls as below:**

1<sup>st</sup> call to CFO 01883-236021 (O)  
-9417500236 (R)

2<sup>nd</sup> call to SDO Elect. Workshop S.P.Terrace 9465844607 (M)

3<sup>rd</sup> call to Transmission 9417475202 (M)

4<sup>th</sup> call to ADE Pong Dam Division 9463038497(M)

**ADE Pong Dam Division will ensure that messages have been  
Delivered to each individual as per NFC**

- 4. Xen Pong Dam Division will make Seven Nos. calls as below:**

1<sup>st</sup> call to SE PDC Talwara 01883-236125 (O)  
9418092177 (M)

2<sup>nd</sup> call to C.E. Beas Dam 01883-237131 (O)  
-237133 (R)  
94172-16052

3<sup>rd</sup> call to S.E. / HQ Talwara 01883-236047 (O)  
-236104 (R)  
9418092177(M)

- 4<sup>th</sup> call to Xen RM Division Talwara 01883-236192 (O)  
9417202078
- 5<sup>th</sup> call to Xen Mech. Division Talwara 01883-236006 (O)  
-236068 (R)  
9417861127 (M)
- 6<sup>th</sup> call to Xen Elect. Division Talwara 01883-236056 (O)  
236040 (R)  
9417202062(M)
- 7<sup>th</sup> call to SDE Water Regulation Talwara 01883-236008 (O)  
-236129 (R)  
9417914786(M)
- 5. SDE Water Regulation Talwara will make two calls as below:**  
1<sup>st</sup> call to Director Water Regulation, Nangal  
2<sup>nd</sup> to remain in touch with CEC/IMC & catchment area of the Dam
- 6. Director Water Regulation will make a single 0172-5011752-53  
Call to Member Irrigation, BBMB, Chandigarh. 9417022944(M)**
- 7. SDO SST will make a single call to SDO RM Talwara 9417456978(M)**
- 8. SDO RM Talwara will make a call to all village Pardhans D/S Pong Dam  
and NGOs if required**
- 9. SDO Instrumentation will make 5 no. call as below:**  
1<sup>st</sup> call to SDO Control Survey Pong Dam 9417216059 (M)  
2<sup>nd</sup> call to SDO Field Electrical 01883-237144 (O)  
9463049391(M)  
3<sup>rd</sup> call to Photographer to cover the indent at site 8968810945(M)  
4<sup>th</sup> call to SDO RM Sub Division 9417456978(M)
- 5<sup>th</sup> call to Supdt/Procurement Talwara 01883-236094 (O)  
9417206231(M)
- 10. SDO Field Electrical will make a single call to  
Xen Electrical. 01883-236056 (O)**  
9417202062
- 11. C.E Beas Dam will make six No. calls as below:**  
1<sup>st</sup> call to Member/Irrigation, BBMB, Chandigarh **0172-5011753  
-2548931**  
2<sup>nd</sup> call to Chairman BBMB, Chandigarh 0172-5011751  
3<sup>rd</sup> call to C.E. Generation Nangal 01887-223355 (O)  
-223146 (R)  
4<sup>th</sup> call to C.E. Sundernagar 01907-262333 (O)  
-262444 (R)

- 5<sup>th</sup> call to C.E. Bh. Dam, Nangal 01887-223001 (O)  
-223024 (R)
- 6<sup>th</sup> call to C.E. Ranjit Sagar Dam 01870-263244 (O)
- 12. Member/Irrigation will make a single call to Chairman BBMB, Chandigarh** 0172-5011751
- 13. S.E. Pong Dam Circle will make four calls as below:**
- 1<sup>st</sup> call to C.E.Beas Dam Talwara 01883-237131 (O)  
-237133 (R)  
9417216052
- 2<sup>nd</sup> call to contact experts Annexure-XVII
- 3<sup>rd</sup> call to Director/Designs, Nangal 9417202097(M)
- 4<sup>th</sup> call to Director/Dam Safety, Nangal 9463998230 (M)
- 14. Xen RM will make a single call to o/o SE PDC Talwara** 01883-236125(O)  
-237150(R)  
9418092177 (M)
- 15. S.E.(HQ) will make four No. call as below:**
- 1<sup>st</sup> call to Secretary, BBMB, Chandigarh 0172-5011759(O)
- 2<sup>nd</sup> call to S.E. Pong Power House 01883-236171(O)  
-237149(R)  
9417216081
- 3<sup>rd</sup> call to S.E. Nangal Mech. Circle, Nangal 01887-223004(O)  
**-227062(R)**
- 4<sup>th</sup> call to S.E. BSL Circle No. II Sundernagar 01907-262288(O)  
-262341(R)
- 16. Xen Mech. Talwara will make a single call to S.E. Talwara Circle, Talwara** 01883-236013(O)  
94180-92177(M)
- 17. S.E. Pong Power House will make a Single call to C.E. Generation, Nangal** 01887-223355(O)  
-223146(R)



**Annexure-V (i-v)**  
**External Alert Orange**

**Narrative information listing persons to be notified by each individual  
as per N.F.C. of Pong Dam.**

**1. After knowing about the occurrence of disaster SDO Pong Dam will  
make Six Number calls as Below:**

Ist call to Xen Pong Dam Division	01883-236061(O) -236079(R) 9814685799 (M)
2 <sup>nd</sup> call to SDO SST.	9417070540(M)
3 <sup>rd</sup> call to SDO G&G	9417070540(M)
4 <sup>th</sup> call to All Villages Pardhan D/S Pong Dam & NGOs as per list.	
5 <sup>th</sup> call to Supdt Procurement	01883-236094 (O) 9417206231(M)

6 <sup>th</sup> call to SDO Instrumentation	9463038497(M)
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**2. Xen Pong Dam Division will make Six calls as below:**

Ist call to SE PDC Talwara (Ist to PSO in case of terrorist attack of sabotage)	01883-236125 (O) 9418092177 (M)
2 <sup>nd</sup> Call C.E. Beas Dam Talwara	01883-237131 (O) - 237133(R) 9417216052
3 <sup>rd</sup> call to SE (HQ) Talwara	01883-236047 (O) 236147 (R) 9418092177(M)
4 <sup>th</sup> call to Xen Mech. Divn. Talwara	01883-236006 (O) -237746 (R) 9417861127
5 <sup>th</sup> call to SDE Water Regulation Talwara	01883-236008(O) -236129(R) 94179-14786
6 <sup>th</sup> call to Xen RM Talwara	01883-236192(O)  9417202078
7 <sup>th</sup> call to PSO	01883-236463(O) 9418080483(M)

**3. SDO SST will make four calls as under:**

Ist call to Xen Pong Dam Division	01883-236061(O) -236079(R) 9814685799 (M)
2 <sup>nd</sup> call to SDO Control Survey Talwara	9417216059(M)
3 <sup>rd</sup> call to SDO G&G Talwara	9417469567(M)
4 <sup>th</sup> call to SDO RM Talwara	9417456978(M)

**4. SDO Control Survey will make six calls as below:**

1 <sup>st</sup> call to Barrier at Sansarpur Tarrace ( to PSO in case of terrorist attack or sabotage)	01970-233110
2 <sup>nd</sup> call to check post at Ghati	01883-237080
3 <sup>rd</sup> call to check post at right bank	01883-237144Ext.430
4 <sup>th</sup> call to CFO Talwara	01883-236021(O) -236086(R) 9417202096
5 <sup>th</sup> call to PSO Talwara	01883-236463(O) -236059 9418080483(M)

6 <sup>th</sup> call to Photographer to cover the incident	8968810945(M)
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**5. SDO RM will make a single call to Xen RM:**

	01883-236192(O) 9417202078
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**6. Xen RM will make eight calls as under:**

1 <sup>st</sup> call to Civil Hospital Kangra	01892-265054
2 <sup>nd</sup> call Civil Authority Kangra	01892-222103(O)
3 <sup>rd</sup> call SE PDC Talwara	01883-236125(O) 01883-237150(R) 9418092177
4 <sup>th</sup> call to village Pradhan u/s&d/s Pong Dam and NGOs as per list attached	
5 <sup>th</sup> call Xen Pollution Control Board Kangra	01892-2673020
6 <sup>th</sup> call SDM Jawali	<b>01893-264310</b>
7 <sup>th</sup> call to SDM Dehra	<b>01970-233102</b>
8 <sup>th</sup> call to SDM Mukerian	<b>01883-</b>
244441(O)	<b>-244442(R)</b>

**7. SDO G& G will make four calls as below**

1 <sup>st</sup> call to Xen Mech Divn. Talwara	01883-236006 (O) 9417861127(M)
2 <sup>nd</sup> call to SDO Field Mech.	9417012049(M)
3 <sup>rd</sup> call to ASP-I Talwara	9417011109(M)
4 <sup>th</sup> call to ASP-II Talwara	9805720405(M)

8. **SDO Instrumentation will make three calls as below:**

1 <sup>st</sup> call to Xen Township Talwara	01883-236004 (O) 9417202086
2 <sup>nd</sup> call to Police Station Dehra	<b>01970-233102</b>
3 <sup>rd</sup> call to Police Chowki Sansarpur Terrace	01970-256421
  
9. **Xen Township Division, Talwara will make six No. calls as below:**

1 <sup>st</sup> call to S.E. Talwara Circle	<b>01883-236013(O)</b>
2 <sup>nd</sup> call to Police Station Talwara	<b>01883-236127(O)</b>
3 <sup>rd</sup> call Mobile Van announcement D/S Pong Dam	
4 <sup>th</sup> call to Municipal Committee Talwara (BDPO)	<b>01883-236134</b>
5 <sup>th</sup> call to PMO BBMB Hospital Talwara	<b>01883-236060(O) -236087(R) 9463598081</b>
6 <sup>th</sup> call - Announcement form nearly Mandir /Gurdwara	
  
10. **ADE Pong Dam Divn. will Make four No. calls as below:**

1 <sup>st</sup> call to SDO Field Electrical	01883-237144 (O) 9463049391(M)
2 <sup>nd</sup> call to SDO Elect Workshop Sansarpur Terrace	01883-236005(O)
3 <sup>rd</sup> call to SDO Transmission	94174-75202 (M)
4 <sup>th</sup> call to SDO Electrical Accounts Talwara	01883-236126 (O) 9417012049(M)
  
11. **SDO Electrical & Accounts Talwara will make two No. calls as below:**

1 <sup>st</sup> call to Xen Elect Talwara	01883- 236056(O) - 236017(R) 9417202062
2 <sup>nd</sup> call to Xen HRD & Quality Control Talwara	01883- 236102 (O) 9418092177 (M)
  
12. **Xen HRD & Quality Control Talwara will make call to ensure the massages have been delivered to each individual as per N.F.C.**
  
13. **Xen Elect. Talwara will make five No. calls as below:**

1st call to S.E. Pong Dam Circle Talwara	01883-236125(O) -237150 (R)
2 <sup>nd</sup> call to DSP Dehra (HP)	<b>01970-233439</b>
3 <sup>rd</sup> call to DSP Mukerian Punjab	<b>01883-244367</b>
4 <sup>th</sup> call to DFO Dehra (HP)	01970-233156
5 <sup>th</sup> call to DFO Dasuya Punjab	01883-283007

- 14. ASP-II will make three No. calls as below:**
- |   |                                  |
|---|----------------------------------|
| 1 <sup>st</sup> call to Superintendent PS&D Talwara | 01883-236094(O)<br>9417206231(M) |
| 2 <sup>nd</sup> call to SDO Store                   | 9417206939(M)                    |
| 3 <sup>rd</sup> call to SDO Disposal                | 9805720405(M)                    |
- 15. Xen Mech. Talwara will make three No. calls as below:**
- |  |                        |
|--|------------------------|
| 1st call to Director/Designs Nangal T/ship           | <b>01887-223108</b>    |
| <b>2nd call to Director/Dam Safety Nangal T/ship</b> | <b>01887-223179</b>    |
| <b>3rd call to S.E. Talwara Circle</b>               | <b>01883-236013(O)</b> |
- 16. SDO Field Mech. will make two No. calls as below:**
- |  |               |
|--|---------------|
| 1 <sup>st</sup> call to SDO Transport      | 9417012037(M) |
| 2 <sup>nd</sup> call to SDO Mech. Workshop | 9463372369(M) |
- 17. SE Pong Dam Cricle, Talwara will make four No. calls as below**
- |   |  |
|---|--|
| 1 <sup>st</sup> call to C.E. Beas Dam Talwara               | 01883-237131(O)<br>-237133(R)<br>94172-16052                         |
| 2 <sup>nd</sup> call to Director Security Chandigarh        | <b>0172-5011763(O)</b><br><b>-5011764(R)</b>                         |
| <b>3<sup>rd</sup> call to S.E. Pong Power House Talwara</b> | <b>01883-</b><br><b>236171(O)</b><br><b>-237149(R)</b><br>9417605634 |
| 4 <sup>th</sup> call to contact expert members              | Annexure-XVII  |
- 18. C.E. Pong Dam will make seven No calls as below:**
- |   |                               |
|---|-------------------------------|
| Ist call to Member / Irrigation, BBMB, Chandigarh | 0172-5011753                  |
| 2 <sup>nd</sup> call to Chairman BBMB, Chandigarh | 0172-5011751                  |
| 3 <sup>rd</sup> call to D.C. Hoshiarpur           | 01882-220301 - 302            |
| 4 <sup>th</sup> call to C.E. Generation, Nangal   | 01887-223355(O)<br>-223146(R) |
| 5 <sup>th</sup> call to C.E.Bh. Dam Nan gal       | 01887-223001(O)<br>-223024(R) |
| 6 <sup>th</sup> call to C.E. B.S.L. Sunder Nagar  | 01907-262333(O)<br>-262144(R) |
| 7 <sup>th</sup> call to C.E. Ranjit Sagar Dam     | 01870-263244(O)               |
- 19. Chairman, BBMB will make a single call as below:**
- |                               |                                   |
|-------------------------------|-----------------------------------|
| Call to Ministry of Power GOI | 011- 23717474(O)<br>-23017957( R) |
|-------------------------------|-----------------------------------|

- 20. C.E./ Generation will make single call to Member Power, BBMB.**  
0172-2549486(O)  
-2661498(R)
- 21. S.E./ HQ will make nine calls as below:**  
1<sup>st</sup> call to Secretary, BBMB, Chandigarh 0172-5011759(O)  
  
2<sup>nd</sup> call to Fire Tender Uchi Bassi 9216968319(M)  
3<sup>rd</sup> call to civil Hospital Hazipur 01883-272252  
4<sup>th</sup> call to Civil Hospital Mukerian 01883-244702  
5<sup>th</sup> call to Health Centre Bholkatola 01883-232773  
6<sup>th</sup> call to all concerned D.Cs of the State as per Annexure-IX  
7<sup>th</sup> call to SP Dharamshala 01892-222244  
8<sup>th</sup> call to SP Hoshiarpur 01882-220501(O)  
9<sup>th</sup> call to News Media Radio & TV as per Annexure-XI
- 22. Secretary, BBMB will make three No. calls as below:**  
1<sup>st</sup> call to Secretary Punjab Irrigation 0172-2740156-860  
-2569811( R)  
2<sup>nd</sup> call to Secretary Rajasthan Irrigation. 0141-2227254(O)  
-2710659( R)  
3<sup>rd</sup> call to Secretary Haryana Irrigation 0172-2740118(O)  
-2543505( R)
- 23. SDE Water Regulation will make four No. Calls as below:**  
1<sup>st</sup> call to Director Water Regulation, Nangal 01887-223758(O)  
-223036( R)  
94175-00260  
2<sup>nd</sup> call to Xen Shah Nehar Barrage 01883-236044  
3<sup>rd</sup> call to IMD/CWC New Delhi 011-27662607  
-26108855  
4<sup>th</sup> call to Fishery Department Kangra 01893-201282
- 24. Director Water Regulation will make eight Nos. calls as below:**  
1<sup>st</sup> call to Member/ Irrigation, BBMB 0172-5011753  
2<sup>nd</sup> call to Xen Harike Headwork 01632-246210  
3<sup>rd</sup> call to Xen Madhopur Beas Link 01870-257239  
4<sup>th</sup> call to IMD New Delhi 011-27662607  
5<sup>th</sup> call to SE Harike Head Work 01632-246203  
6<sup>th</sup> call to SE Madhopur Beas Link 01870-257239  
7<sup>th</sup> call to Director Power Reg. Chandigarh 0172-2652820(O)  
-2726802(R)  
8<sup>th</sup> call to C.E. System Operation, Chandigarh 0172-2653660(O)  
-2283696(R)
- 25. PSO will make three No calls as below:**  
1<sup>st</sup> call to C.E. Beas Dam Talwara 01883-237131(O)  
-223133(R)

	2 <sup>nd</sup> call to Director Security Chandigarh	9417216052
	3 <sup>rd</sup> call to all concerned	0172-5011763
26.	<b>Director Security will make Single call to Member (Irr.)</b>	0172-5011753

**Annexure-V (i-v)**  
**External Alert Red**

**Narrative information listing persons to be notified by each individual  
as per N.F.C. of Pong Dam.**

**1. After knowing about the occurrence of disaster SDO Pong Dam will  
make Six Number calls as Below:**

Ist call to Xen Pong Dam Division	01883-236061(O) -236079(R) 9814685799
2 <sup>nd</sup> call to SDO SST.	9417070540(M)
3 <sup>rd</sup> call to SDO G&G	9417469567
4 <sup>th</sup> call to All Villages Pardhan D/S Pong Dam & NGOs as par list.	
5 <sup>th</sup> call to Supdt Procurement	01883-236094 (O)
6 <sup>th</sup> call to SDO Instrumentation	9463038497

**2. Xen Pong Dam Division will make Six calls as below:**

Ist call to SE PDC Talwara (Ist to PSO in case of terrorist attack of sabotage)	01883-236125(O)  9418092177(M)
2 <sup>nd</sup> Call C.E. Beas Dam Talwara	01883-237131 (O) - 237133(R) 94172-16052
3 <sup>rd</sup> call to SE (HQ) Talwara	01883-236047 (O) 236147 (R) 9418092177
4 <sup>th</sup> call to Xen Mech. Divn. Talwara	01883-236006 (O) -237746 (R) 9417861127
5 <sup>th</sup> call to SDE Water Regulation Talwara	01883-236008(O) -236129(R) 94179-14786
6 <sup>th</sup> call to Xen RM Talwara	01883-236192(O) -236079(R) 9417202078
7 <sup>th</sup> call to PSO	01883-236463(O) 9418080483

**3. SDO SST will make four calls as under:**

Ist call to Xen Pong Dam Division	01883-236061(O) 236079(R) 9814685799(M)
2 <sup>nd</sup> call to SDO Control Survey Talwara	9417216059
3 <sup>rd</sup> call to SDO G&G Talwara	9417469567
4 <sup>th</sup> call to SDO RM Talwara	9417456978

- 4. SDO Control Survey will make six calls as below:**
  - 1<sup>st</sup> call to Barrier at Sansarpur Tarrace ( to PSO in case of terrorist attack or sabotage) 01970-233110
  - 2<sup>nd</sup> call to check post at Ghati 01883-237080
  - 3<sup>rd</sup> call to check post at right bank 01883-237144Ext.430
  - 4<sup>th</sup> call to CFO Talwara 01883-236021(O)  
-236086(R)  
9417202096
  - 5<sup>th</sup> call to PSO Talwara 01883-236463(O)  
-236059(R)  
9418080483
  - 6<sup>th</sup> call to Photographer to cover the incident 9465577918
- 5. SDO RM will make a single call to Xen RM:** 01883-236192(O)  
-236 040(R)  
9417202078
- 6. Xen RM will make eight calls as under:**
  - 1<sup>st</sup> call to Civil Hospital Kangra 01892-265054
  - 2<sup>nd</sup> call Civil Authority Kangra 01892-222103(O)
  - 3<sup>rd</sup> call SE PDC Talwara 01883-236125(O)  
01883-237150(R)  
9418092177
  - 4<sup>th</sup> call to village Pradhan u/s Pong Dam and NGOs as per list Annexure-XIII
  - 5<sup>th</sup> call Xen Pollution Control Board Kangra 01892-2673020
  - 6<sup>th</sup> call SDM Jawali 01893-2643102
  - 7<sup>th</sup> call to SDM Dehra 01970-233102
  - 8<sup>th</sup> call to SDM Mukerian 01883-244441(O)  
-244442(R)
- 7. SDO G& G will make four calls as below**
  - 1<sup>st</sup> call to Xen Mech Divn. 01883-236006 (O)  
237746 (R)  
9417861127
  - 2<sup>nd</sup> call to SDO Field Mech. -  
9463998245(M)
  - 3<sup>rd</sup> call to ASP-I Talwara 01883-236094 (O)  
9417011109 (M)
  - 4<sup>th</sup> call to ASP-II Talwara 01883-236094 (O)  
9805720405 (M)
- 8. SDO Instrumentation will make four calls as below:**
  - 1<sup>st</sup> call to ADE Pong Dam Divn. Talwara 9463038497
  - 2<sup>nd</sup> call to Xen Township Talwara 01883-236004 (O)  
-237746 (R)  
9417202086
  - 3<sup>rd</sup> call to Police Station Dehra 01970-233102



- 4<sup>th</sup> call to Police Chowki Sansarpur Terrace 01970-256421
- 9. Xen Township Division, Talwara will make seven No. calls as below:**
- 1<sup>st</sup> call to S.E. Talwara Circle 01883-236013(O)  
-237114(R)
- 2<sup>nd</sup> call to Police Station Talwara 01883-236127(O)
- 3<sup>rd</sup> call Mobile Van announcement D/S Pong Dam
- 4<sup>th</sup> call to Municipal Committee Talwara (BDPO) 01883-236134
- 5<sup>th</sup> call to PMO Canal Hospital Talwara 01883-236060(O)  
-236087(R)  
94635-98081
- 6<sup>th</sup> call to announcement form nearly Mandir /Gurdwara
- 7<sup>th</sup> call to Punjab Pollution Control Board. 0175-2215802
- 10. SDO-Inst./ADE Pong Dam Divn. will make four No. calls as below:**
- 1<sup>st</sup> call to SDO Field Electrical 01883-237144 (O)  
94630-49391
- 2<sup>nd</sup> call to SDO Elect Workshop Sansarpur Terrace 01883-236005(O)
- 3<sup>rd</sup> call to SDO Transmission 94174-75202
- 4<sup>th</sup> call to SDO Electrical Accounts Talwara 01883-236126 (O)  
9417012049(M)
- 11. SDO Electrical & Accounts Talwara will make two No. calls as below:**
- 1<sup>st</sup> call to Xen Elect Talwara 01883- 236056(O)  
- 236040(R)  
9417202062
- 2<sup>nd</sup> call to Xen HRD & Quality Control Talwara 01883- 236102 (O)  
-236075(R)  
9417202040
- 12. Xen HRD & Quality Control Talwara will make call to ensure the messages have been delivered to each individual as per NFC**
- 13. Xen Elect. Talwara will make five No. calls as below:**
- 1st call to S.E. Pong Dam Circle Talwara 01883-236125(O)  
-237150 (R)  
9418092177
- 2<sup>nd</sup> call to DSP Dehra (HP) 01970-233439
- 3<sup>rd</sup> call to DSP Mukerian Punjab 01883-244367
- 4<sup>th</sup> call to DFO Dehra (HP) 01970-233156
- 5<sup>th</sup> call to DFO Dasuya Punjab 01883-283007
- 14. ASP-II will make three No. calls as below:**
- 1<sup>st</sup> call to Superintendent PS&D Talwara 01883-236094(O)  
-236068 (R)  
9417206231 (M)

- 2<sup>nd</sup> call to SDO Store 01883-236011  
9417206939(M)
- 3<sup>rd</sup> call to SDO Disposal 01883-236011  
9805720405(M)
- 15. Xen Mech. Talwara will make three No. calls as below:**
- 1st call to Director/Designs Nangal T/ship 01887-223108
- 2nd call to Director/Dam Safety Nangal T/ship 01887-223179
- 3rd call to S.E. Talwara Circle 01883-236013(O)  
-236114 (R)  
9818092177 (M)
- 16. SDO Field Mech. will make two No. calls as below:**
- 1<sup>st</sup> call to SDO Transport 01883-236018  
9417712037(M)
- 2<sup>nd</sup> call to SDO Mech. Workshop 9463998245  
9463372369(M)
- 17. SE Pong Dam Circle, Talwara will make four No. calls as below**
- 1<sup>st</sup> call to C.E. Beas Dam Talwara 01883-237131(O)  
-237133(R)  
94172-16052
- 2<sup>nd</sup> call to Director Security Chandigarh 0172-5011762-763
- 3<sup>rd</sup> call to S.E. Pong Power House Talwara 01883-236171(O)  
-237149(R)  
9417605634
- 4<sup>th</sup> call to contact expert members Annexure-XVII
- 18. C.E. Beas Dam will make nine No calls as below:**
- Ist call to Member / Irrigation, BBMB, Chandigarh 0172-5011753
- 2<sup>nd</sup> call to Chairman BBMB, Chandigarh 0172-5011751
- 3<sup>rd</sup> call to D.C.Hoshiarpur 01882-220301-302
- 4<sup>th</sup> call to C.E. Generation, Nangal 01887-223355(O)  
-2231246 (R)
- 5<sup>th</sup> call to C.E.Bhakra Dam Nangal 01887-223001(O)  
-223024(R)
- 6<sup>th</sup> call to C.E. B.S.L. Sundar Nagar 01907-262333(O)  
-262144(R)
- 7<sup>th</sup> call to C.E. Ranjit Sagar Dam 01870-263244
- 8<sup>th</sup> call to concerned SE Harike Headworks 01632-246203
- 9<sup>th</sup> call to SE Madhopur Beas link 01870-257239
- 19. Chairman, BBMB Will make two calls as below:**
- 1<sup>st</sup> Call to Ministry of Power GOI 011-23717474(O)  
-23017957(R)
- 2<sup>nd</sup> call to Indian Army as per Annexure-X

- 20. C.E. / Generation will make single call to Member Power, BBMB.**  
0172-2549486(O)  
-2661498(R)
- 21. S.E. / HQ will make nine calls as below:**  
1<sup>st</sup> call to Secretary, BBMB, Chandigarh 0172-5011759(O)  
2<sup>nd</sup> call to Fire Tender Uchi Bassi 9216968319  
3<sup>rd</sup> call to civil Hospital Hazipur 01883-272252  
4<sup>th</sup> call to Civil Hospital Mukerian 01883-244702  
5<sup>th</sup> call to Health Centre Bholkatola 01883-232723  
6<sup>th</sup> call to all concerned D.Cs of the State as per Annexure-IX  
7<sup>th</sup> call to SP Dharamshala 01892-222244  
8<sup>th</sup> call to SP Hoshiarpur 01882-220501(O)  
9<sup>th</sup> call to News Media Radio & TV as per Annexur-XI
- 22. Secretary, BBMB will make three No. calls as below:**  
1<sup>st</sup> call to Secretary Punjab Irrigation 0172-2740156-860  
2<sup>nd</sup> call to Secretary Rajasthan Irrigation. 0141-2227254(O)  
3<sup>rd</sup> call to Secretary Haryana Irrigation 0172-2740118(O)
- 23. SDE Water Regulation will make four No. Calls as below:**  
1<sup>st</sup> call to Director Water Regulation, Nangal 01887-223758(O)  
-223003( R)  
94175-00260  
2<sup>nd</sup> call to Xen Shah Nehar Barrage 01883-236044  
3<sup>rd</sup> call to IMD/CWC New Delhi 011-27662607  
-26108855  
4<sup>th</sup> call to Fishery Department Kangra 01893-201282
- 24. Director Water Regulation will make eight Nos. calls as below:**  
1<sup>st</sup> call to Member/ Irrigation, BBMB 0172-5011752-53  
9417022944  
2<sup>nd</sup> call to Xen Harike Headwork 01632-246210  
3<sup>rd</sup> call to Xen Madhopur Beas Link 01870-257239  
4<sup>th</sup> call to IMD New Delhi 011-27662607  
5<sup>th</sup> call to SE Harike Head Work 01632-246203  
6<sup>th</sup> call to SE Madhopur Beas Link 01870-257239  
7<sup>th</sup> call to Director Power Reg. Chandigarh 0172-2652820(O)  
-2726802( R)  
8<sup>th</sup> call to C.E. System Operation, Chandigarh 0172-2653660(O)  
-2283696(R)
- 25. PSO will make three No calls as below:**  
1<sup>st</sup> call to C.E. Beas Dam Talwara 01883-237131(O)  
-223133(R)  
94172-16052  
2<sup>nd</sup> call to Director Security Chandigarh 0172-5011763

- 3<sup>rd</sup> call to all concerned
- 26. Director Security will make Single call to Member (Irr.)**

0172-5011753

**Annexure-A (Fig.2)**

**INTERNAL ALERT & DEVELOPING SITUATION NOTIFICATION  
FLOW CHART FOR EAP PONG DAM**

**1. After knowing about the occurrence of incident Xen Pong Dam will make calls as below:**

Call to SE PDC Talwara	01883- 236125 (O) 9418092177
Call to C.E. Beas Dam Talwara	01883-237131(O) -237133(R) 94172-16052
Call to Distt. Civil. Protection Authority	01882-220307(O) -246089 01882-220407(R)

**2. Distt. Civil. Protection Authority will make Calls as below:**

1 <sup>st</sup> Call to C.E. Beas Dam Talwara	01883-237131(O) -237133(R) 94172-16052
2 <sup>nd</sup> Call to Divisional Commissioner Jalandhar	0181-2224549 (O) -2459661 (R)
3 <sup>rd</sup> Call to State Weather Service- IMD Chandigarh	0172- 2629984(O) -2629981(R)

**3. C.E. Beas Dam Talwara will make calls as below:**

Call to Deputy Commissioner (Indus) Delhi	011- 24360332 (O) 011- 24100787 (R) 09650388955(M)
Call to Regional Chief Engineer-CWC Chandigarh	0172-2741766 (O) 0172-2742435 (R)
Call to Chairman, BBMB Chandigarh	0172-5011751(O) (Fax) 01722549857
Call to In-Charge Dam Safety Organization Chandigarh	0172-2637569(O) (Fax) 01722642327
Call to Flood Control Cell (Hoshiarpur)	01882-220301(O) 01882-220302(R)

**4. Divisional Commissioner Jalandhar will make call as:**

Call to Flood Control Cell (Hoshiarpur)	01882-220301(O) 01882-220302(R)
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## **Annexure-VI**

### **Sample warning messages for different situations.**

1. Blue situation of Emergency (inter Alert)
  - i) Slide occurred at right abutment upstream area
  - ii) Damage to grid Stream by floating equipment.
2. Yellow situation of Emergency (Internal Alert)
  - i) H.M.D. showing d/s movement of dam & seepage Increased in galleries.
  - ii) Damage occurred to U/S pitching due to high waves.
3. Orange situation of Emergency (External Alert)
  - i) Huge fire in cable gallery getting onto of control.
  - ii) Huge Land slide occurred in right abutment & inflows increasing.
4. Red situation of Emergency (External Alert)
  - i) High in flows are coming i.e.  $\pm 200000$  cs (More flood expected as per IMD) overtopping imminent.
  - ii) Spillway gate No ----Inoperative at RWL+ 1410 inflows are  $\pm 300000$ cs.

## ORGANISATIONAL SET-UP OF BEAS DAM PROJECT

Chief Engineer Beas Dam

Dy. C.E. /HQ

PSO

PMO

Dy. C.E. Pong Dam Circle

S.E. Talwara Circle

XEN Pong Dam	XEN R.M.	Xen Elec.	Xen HRD	Xen T/Ship	Xen Mech.	Supdt. Proc. Store& Disposal
1. Pong Dam S/D	1. Land Dispute	1. Talwara Elec.&Accts	1. Arrear	1. Estate Sub Divn.	1. Field Mech.	1. Store
2. S.S.T S/D	Sub Division	2. Field Elec.	2. P&P	2. Water Supply	2. Workshop	2. ASP-I
3. Cont. Survey	2. R.M. S/Divn.	3. Elec.W/shop &		3.Hort. & Sanitation.	3. Transport	3. ASP-II
4. Instrumentation	3. Silt Survey	Transmission		4.Enforcement	4. Gates &Gearing	4. Disposal
5. ADE	4. Soil Laboratory					

**ANNEXURE-VIII****CONTACT NOS. OF AGENCIES KEEPING SNIFFER DOGS & BOMB SQUAD**

Sr. No.	Name of officer/address	Bomb Squad Tel. No.	Sniffer Dog Tel. No.
1	Control Room Jalandhar	0181-221041.42	0181-22041.42
2	DIG/NR. Dharamshala	01892-222570 018892-224882	- -
3	SP/Crime, Shimla	-	0177-2625535
4.	ADGP/CID, Shimla (Control Room)	-	0177-2622408
5.	Control Room(police) Ludhiana	0161-2414932,933	-



**ANNEXURE-IX**

**LIST OF DEPUTY COMMISSIONERS OF PUNJAB & HIMACHAL  
PRADESH DISTRICTS**

1. Deputy Commissioner Kangra	01892-222103-O
	01892-224950-R
2. Deputy Commissioner Hoshiarpur	01882-220301-O
	01887-220302-R
3. Deputy Commissioner Gurdaspur	01874-247963-O
	01874-224501-R

**ANNEXURE-IX-A****LIST OF LOADING CENTRES ON RESERVOIR RIM**

Sr.No.	Name of Societies	Name of Secretary	Contact No.
1.	Dehra	Sh. Krishan Chand	9418776467
2.	Haripur	Sh. Girdhari Lal	01970265385
3.	Nandpur	Sh. Man Singh	9816924387
4.	Nagrota Surian	Sh. Manohar Lal	8826812941
5.	Harsar	Sh. Rajesh Kumr	9805164952
6.	Jawali	Sh. Sanjay Kumar	8894648430
7.	Guglara	Sh. Naresh Kumar	9816888872
8.	Dhameta	Sh. Subhash Chand	01893254915
9.	Sihal	Sh. Ajay Kumar	9459840188
10.	Khatiar	Sh. Bodh Raj	9625057898
11.	Sathana	Sh. Harjash Singh	9779227968
12.	Barnali	Smt.Kamlesh Kumari	9473926483
13.	Dada Siba	Sh. Ramesh Kumar	9817885387
14.	Jambal	Sh. Kour Chand	9625514834
15.	Siul Khad	Sh. Pawan Kumar	9816491909

**ANNEXURE-X**

**CONTACT NUMBERS OF INDIAN ARMY**

- |    |  |                                      |
|----|--|--------------------------------------|
| 1. | Indian Army Cantt. Unchi Bassi                       | 01883-285235                         |
| 2. | Indian Army Cantt. Pathankot                         | 0186-2220751-2-3<br>(Exchange)       |
| 3. | Indian Army Cantt. Mamoon                            | 0186-221886-87                       |
| 4. | Indian Army Cantt. Jalandhar<br>(11-Core c/o 56-APO) | 0181-2661213<br>Extension 2630263154 |

**ANNEXURE-XI****LIST CONTAINING CONTACT NUMBERS OF MEDIA PERSONS**

Sr.No.	Name	Telephone No.	Name of Paper
1.	Sh. D.C.Bhardwaj	9463220466	Punjab Kesari
2.	Sh. Raman Tandon	9417088779	Punjab Kesari
3.	Sh. Surinder Sharma	9465147822	Dainik Bhaskar
4.	Sh. Rajiv Osho	9872787714	Ajit Samachar
5.	Sh. Anurag Thakur	9417473413	Ajit Samachar
6.	Sh. Sumerjit Shammy	9417355724	Ajit Samachar
7.	Sh. Munish Sharma	9417393480	Dainik Jagran
8.	Sh. Rakesh Sharma	9872635007	Amar Ujala
9.	Anuradha	9417934550	Punjab Kesari
10	Sh. Sukhwinder Malhi	9413716829	Times of India
11.	Sh. R.K.Ghai	9417074464	Nawan Jamana

**DOORDARSHAN JALANDHAR (TV)**

1.	Mr. S.S. Rehman	0181-2258117 O 0181-2245267(Fax) 98178-03786	
2.	Mrs. Usha Chauhan	0181-2254256 O 94172-22205	

**ALL INDIA RADIO JALANDHAR**

1.	Director Mr. D.P. Malik	0181-2258177-O 0181-2452395-R 94172-081177	
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**PRESS TRUST OF INDIA**

1.	Mr.Ashwani Kumar Anand	0172-2706280-O 2706281 98729-76281	
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**ALL INDIA RADIO CHANDIGARH**

1.	Mr. J.S. Randhawa Dy. Director	0172-2623844 9817279847	
2.	Mrs. Akanksha Sexena Coordinator	0172-2623844 9417281846	

**UNI**

1.	Mr. V. K. Jallali	0172-2704299 0172-2705814Fax 9814128468	
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**Facilities to be made available in each control room**

1. Emergency rescue lights (5Nos)
2. Diving masks (2Nos)
3. Safety net (5m x5m) 5Nos
4. Safety rope ( 1000m long 25mmdra)
5. Rope Ladders (10m long 5Nos)
6. Full body harness ( Safety belts 10Nos)
7. Ascending & Descending device (5Nos)
8. Safety Helmets with head lamps (10Nos)
9. Ear muffs / dust respirators / gum boots/ safety shoes for 10 persons.
10. Electric Hand gloves / chemical hand gloves (5 pair each)
11. Fire extinguisher (5Nos)
12. Mobile D.G. Set
13. Stretchers (5Nos)
14. First Aid Kit (10Nos)
15. Artificial Resuscitators (5Nos)
16. Hand held torches (5Nos)

**ANNEXURE-XIII****LIST OF VILLAGES D/S & U/S OF PONG DAM ALONGWITH  
NAMES OF SARPANCHES & NGOs**

Sr. No.	Name of Panchayat	Name of Sarpanch
1.	Jawali	Sh. Ravi Kumar
2.	Matlahar	Smt. Reena Kumari
3.	Harsar	Sh. Hakam Singh
4.	Nagrota Surian	Sh. Sanjay Mahajan
5.	Guler	Smt. Nisha Kumari
6.	Haripur	Sh. Parveen Kumar
7.	Bari(Sanda)	Smt. Krishna Devi
8.	Dehra	Smt. Sunita Kumari
9.	Dada Siba	Smt. Pawna Kumari
10.	Nangal Chowk	Sh. Ranbir Singh
11.	Landiara	Sh. Ram Kumar
12.	Lohara	Sh. Naresh Singh
13.	Jagnoli	Sh. Ranbir Singh
14.	Dhameta	Smt. Nirjla Rani
15.	Khatiar	Smt. Suman Bala
16.	Sathiana	Smt. Rekha Devi
17.	Rey	Sh. Sukhdip Singh
18.	Badukhar	Sh. Raghav Singh

**LIST OF PERSONS TO BE NOTIFIED DURING EMERGENCY AND OTHER CONTACT NUMBERS**

Sr. No.	Name and designation	Home address	Contact number
1.	Er. Raj Singh Rathore, C.E. Beas Dam Talwara	2/T-8, Sector-I	9417216052
2.	Er. Ashok Kumar SE /HQ Talwara	206/T-6, Sec.1	9463998109
3.	Er. R.D.Sawa S.E. PDC Talwara	-	9418092177
4.	Er. R.D.Sawa S.E. Talwara Circle	-	9418092177
5.	Er. Mandip Singh Addl. SE Electical Divn.	6/T-6,Sector-II	9417202062
6.	Er. Jasbir Pal SDE W/Regulation	221/T-6,Sector-I	9417914786
7.	Er. Satnam Singh Addl. SE T/Ship Divn	212/T-6, sector-I	9417202086
8.	Er. Manveen, XEN Pong Dam Division	12/T-6, Sector- II	9814685799
9.	Er. R.R.Mehta Xen R.M. Division.	--	9417202078
10.	Manveen,Xen, HRD/Env. Divn.	12/T-6, Sector- II	9814685799
11.	Er. S.K. Khanna Xen Xen Mechanical Divn.	1/T-6 Sec.1	9417861127
12.	Er. Suresh Maan Addl.SE Proc. Store Divn.	9/T-6,Sector-II	9417206231
13.	Er. R.K. Sandhu ADE Water Regulation	406,L,T-5,Sector-I	9877987303
14.	Er. Madan Lal SDO Field Elect.	405L/T-5, sector-I	9463049391
15.	Er. A.K. Gachli	901-L/T-5, sector-III	7837345743
16.	Er. Tej Pal Singh SDO Land Dispute	3-L/T-5, sector-III	9417456978
17.	Er. Kamaljit Suman SDO Control Survey S/D	5-L/T-5, sector-I	9417216059

18.	Er. Sham Sunder SDO- Instrumentation	2-L/T5, Sector-1	9463038497
19.	Er. TPS Phul SDO Hort. & Sani. Sub Divn.	3/T-6,Sector-II	9417202096
20.	Er. Satish Kumar Field Mechanical S/Divn.	908-L/T5, Sector-III	9417469567
21.	Sh.Parminder Singh ARO. Soil Lab. Dam Site	1419L/T-3C, Sector-I	9501079170
22.	Er. Ram Babu Sharma SDO Enforcement Sub Divn,	911-L/T-5, Sector-III	7589344349
23.	Er. A.P.S. Ubhi ADE Pong Dam Circle	906-L/T-5, Sector- III	9463068008
24.	Er. S.K. Dadhich SDO Store sub Division	410L/T-5, Sector-I	9417206939
25.	Er. A.K. Bhatia, ADE/Tech	913-L /T-5 Sector-III	7589344653
26.	Er. N.D. Dogra SDO Mech. W/Shop	6-U/T-5,Sector-I	9463372363
27.	Er. Pradeep Kumar Goyal, SDO (SST)	907-L/T-5 Sector-III	9417070540
28.	Er. Satpal SDO Water supply sub divn.	6L/T-5, Sector-I	9417474103
29.	Er. Hitesh Dubey ASP-1 PS&D Division	907-U/T-5, Sector- III	9417011109
30.	Dr. Rashmi Chadha PMO BBMB Hospital	11/T-6,Sector-II	9463598081
31.	Dr. Raj Kumar SMO BBMB Hospital	210/T-6,Sector-I	9463059843
32.	Dr. Amarjit Singh MO BBMB Hospital	219/T-6,Sector-I	9463067536
33.	Dr.Shobna Soni MO BBMB Hospital	219/T-6,Sector-I	9915889355
34.	Smt. Archana Kulshrestha Principal,DAV School	215/T-6,Sector-I	9463702686
35.	Er. Ashok Kumar, SDO Disposal Sub	-	9805720405



	Divn.		
36.	Er. Sanjay Kumar, SDO, Field Mech. Sub Divn.	211 T-6, Sector-1	9417012049
37.	Er. Tejpal Singh, SDO, R.M. Sub Divn.	408L/T-5, Sector-I	9417456978
38.	Er. Paramjeet Kaushal , SDO Elec. Transmission	917U/T-5, Sector-I	9417475202
39.	Sh. Jatinder Kumar, P.S.O. BBMB Security	227/T6, Sector-1	9418080483
40.	Er. Dheeraj Kumar, ADE/Env.o/o CEBD	909 L /T-5, Sector-3	9417012037

**GENERATION ORGANISATION PONG POWER HOUSE CIRCLE,**  
**BBMB TALWARA**

Sr. No.	Name	Designation	Mobile No.
1	Er. Suresh Kumar, Chaudhary	SE/PPH	9417605634
2	Er. R.C. Chaudhary	Addl.SE/PPH Divn.	94172-01130
3	Er. Ajit Kumar	Addl.SE/Mech Mtc.	94172-01138
4	Er. Rajiv Kumar Sharma	Addl.SE/OP PPH	94172-01129
5	Er. Kabal Singh	Sr. XEN/OP PPH	94639-98459
6	Er. R.K. Mehta	Addl.SE/OP PPH	94173-79392
7	Er. Kewal Singh	Sr. XEN PPH	94172-16081
8	Er. Manish Yadav	AE/Elect. Mtc.	7589435664
9	Er. Rakesh Kumar	AE/Elect. Mtc.	94639-98252
10	Er. Rajnish Kumar Pal	AE/Mech. Mtc.	94172-02081
11	Er. Ashwani Kumar	AE/OP. PPH	94178-82277
12	Er. Rajesh Kumar	ADE/Tech.	94172-02056
13	Er. Puneet Kumar	SDO/Civil	94657-62061
14	Er. R.K. Dhamija	SDO/S&T	94173-08553

**Form-1****Emergency event/unusual Occurrence Report**

For use when reporting emergencies for unusual occurrence other than earthquake oil and hazardous substance spills and bomb threats. For any of the three aforementioned emergencies use the appropriate report from because this is a general form, there will be sections that do not pertain to the emergency. Only fill out those sections that are applicable to the emergency.

Date-----

Time-----

Location -----

Brief description of events (include caller s name and phone number  
-----  
-----**Pertinent Data**

Size of affected area -----

Extent of damages -----

Effect of operations -----

Possible cause -----

Rate of discharge -----

Appearance of discharge -----

Fore bay elevation-----

Appearance of fore bay-----

Fore bay rise rate-----Tail bay rise rate-----

Weather condition -----

Injuries/loss of life -----

Witness -----

Others -----

**Earthquake Damage Report: For Reporting Earthquakes**

The-----dam (latitude-----longitude-----

Lies within seismic zone-----where major damages can be expected from earthquakes. The dam has the possibility of being subject to moderate to severe ground shaking from nearby or distant moderate to large magnitude earthquakes.

**Earthquake Damage Report**

Date-----

Time-----

Person Reporting information -----

Feature Affected-----

**Description of Earthquake Effects**

On structural conditions

Type of damage (slides subsidence etc.-----

Location-----

Severity-----

Movement (direction magnitude) -----

Deflection or Settlement Readings-----

Effect on adjoining structure -----

On hydraulic conditions -----

Type of effect (leakage or stoppage-----

Location-----

Size of affected structure -----

Estimated flow or change in flow -----

Nature of discharge (including sediment) -----

Wave action damage -----

Others -----

### Site Conditions

Water Surface elevation / stoppages -----

Location -----

Size of affected area -----

Estimated flow or change in flow -----

Nature of discharge (including sediment) -----

Wave action damage -----

Others -----

### Action

Change in operation -----

Emergency repairs -----

Surveillance -----

Regional assistance needed (examination) -----

Public information provided -----

- To facilitate analysis of conditions a map should be prepared showing the location and extent of a damaged areas such as subsidence areas seeped areas springs and other pertinent data including the dated of readings and site conditions at the Time of observation. This map should be revised periodically to show changing condition until they are stabilized.

**Bomb Threat Report: For Reporting Bomb Threat**  
**BOMB THREAT**

Place this card under your telephone

Question to ask:

1.	When a bomb is going to explode?	15. Caller's Voice	
2.	Where is it right now?	....calm....	...Nasal...
3.	What does it look like?	....Angry....	....Stutter....
4.	What kind of packet is it?	....Excited....	....Lisps....
5.	What will cause it to explode?	....Rapid...	....Raspy....
6.	Did you place the bomb?	....Soft....	....Deep....
		....Loud....	....Ragged....
		....Laughter....	....cleaning....
		....Crying....	....throat....
		....Normal...	....Deep....
		....Distinct....	....Breathing....
		....Slurred....	....cracking voice..
			...Excited...
			...disgusted...
			...Accent...
			...Familiar...
7.	Why?	If voice is familiar, who did it sound like?	
8.	What is your address?	17. BACKGROUND SOUNDS	
9.	What is your name?	....Street noises...	...Factory...
10.	EXACT WORDING OF THE THREAT	....Motor...	...Machinery...
		....Crockery...	...Animal noises...
		....Voices...	....clear...
		....PA system...	...Static...
		....Music...	...local...
		....House noises...	...Long distance..
		....Cellular...	...Other..
		....office machinery..	
	OTHER INFORMATION	17. THREAT LANGUAGE	
11.	Sex of caller M or F accent/race	....well spoken... (educated) ....Foul... ....Irrational...	...Incoherent... ...Taped... ...Message... Read by threat maker
12.	Age.....length of call	18. REMARKS	
13.	No. at which call is received.....	Report call immediately to phone No. .... Date.....	
14.	Time.....Date.....	Name..... Position.....	

**ANNEXURE- XVI (I-ii)**

**LIST OF HEADS/SIGNATURES OF ALL PARTIES**

<b>Sr. No.</b>	<b>Name &amp; Designation</b>
1.	Er. Raj Singh Rathore, C.E. Beas Dam Talwara
2.	Er. Balbir Singh , Engineer-in-Chief, Generation Nangal
3.	Er. Ashwani Kumar Aggarwal, C.E. Bhakra Dam Nangal
4.	Er. N.S. Behal, C.E. BSL Project Sundernagar
5.	Er. A.S. Kapoor, C.E. Ranjit Sagar Dam Shahpur Kandi
6.	Er. Ashok Kumar, S.E./HQ, Beas Dam Talwara
7.	Er. Suresh Kumar Chaudhary, S.E. Pong Power House Talwara
8.	Er. R.D. Sawa, S.E. Pong Dam Circle Talwara
9.	Er. R.D. Sawa , S.E. Talwara Circle Talwara
10.	Er. S.K. Bedi, Director/Designs Nangal
11.	Er. Arvind KUMAR SHARMA, Director/ Dam Safety Nangal
12.	Er. Husan Lal Kamboj S.E. Bhakra Dam Circle Nangal
13.	Er. Satish Kumar Singla ,Director/Water Regulation, Nangal
14.	Er. Mohan Singh, S.E./ HQ, Nangal
15.	Dr. Rashmi Chadha P.M.O. BBMB, Hospital Talwara
16.	Smt. Archana Kulshrestha, Principal DAV School Talwara
17.	Deputy Commissioner, Hoshiarpur
18.	Deputy Commissioner, Gurdaspur
19.	Deputy Commissioner, Kangra, (H.P.)
20.	Superintendent of Policy Hoshiarpur
21.	Superintendent of Policy Kangra at Dharmshala, (H.P.)
22.	Senior Medical Officer, Civil Hospital Mukerian
23.	Medical Officer, Health Center, Bholkalota

**Name of Sarpanches D/S & U/S of Pong Dam with contact numbers**

Sr. No.	Name of Village	Name of Sarpanch	Mob. number
1.	Jawali	Sh. Ravi Kumar	88941-53553
2.	Matlahar	Smt. Reena Kumari	98051-56091
3.	Harsar	Sh. Hakam Singh	98161-41595
4.	Nagrota Surian	Sh. Sanjay Mahajan	98053-25323
5.	Guler	Smt. Nisha Kumari	98540-87233
6.	Haripur	Sh. Parveen Kumar	94186-56801
7.	Bari (Sanda)	Smt. Krishna Devi	98057-50772
8.	Dehra	Smt. Sunita Kumari	98167-98787
9.	Dada Siba	Smt. Pawna Kumari	88942-37655
10.	Nangal Chowk	Sh. Ranbir Singh	98179-24265
11.	Landiara	Sh. Ram Kumar	98160-64994
12.	Lohara	Sh. Narjeev Singh	94184-56854
13.	Jagnoli	Sh. Ranbir Singh	94182-53613
14.	Dhameta	Smt. Nirjla Rani	98160-54463
15.	Khatiar	Smt. Suman Bala	96250-57898
16.	Sathiana	Smt. Rekha Devi	97819-58722
17.	Rey	Sh. Sukhdip Singh	98167-02623
18.	Badukhar	Sh. Rajhav Singh	98160-02308



**ANNEXURE XVII****LIST OF EXPERTS / RETIREES WELL CONVERSANT WITH**  
**DAM REPAIRS**

Sr. No.	Name and Designation	Home address	Contact No.
1.	Er. P.A. Kapoor	Kothi No. 661, Sector-15, Faridabad	011-26412801 011-26417639
2.	Sh. R.N. Aggarwal Retd. Chairman, BBMB	1/135, Shikha Apartments Sector-5, Mansa Devi Complex, Panchkula, Haryana	Fax: 011-41684103 98185-98908-M
3.	Sh. G. D. Gupta Retd. C.E.Beas Dam	H. No. 600, Sector-10 Panchkula, Haryana	0172-2585084
4.	Er. Narinder Sharma Retd. Chief Engineer, Beas Dam	Kothi 994, Sector-9 Panchkula, Haryana	0172-2560295 09417516581-M
5.	Er. N.K. Jasrai Retd. Chief Engineer, Beas Dam	3Ka-16, Pawan Puri Colony, Nagnagi Road, Bikaner (Rajasthan)	09413131437-M

**ANNEXURE-XVIII****TELEPHONE DIRECTORY OF DAM SITE**

<b>Sr No</b>	<b>Phone No.</b>	<b>To Whom Allotted (I.W)</b>	<b>Sr. No</b>	<b>Phone No.</b>	<b>To Whom Allotted</b>
1	237144	P&T(Telephone Exchange)	36	435	Police Post Near PI,P2,P3
2	401	Telephone Exchange	38	436	Police Post right side
3	402	XEN Regulation Cell	39	437	Police Post main gate S/ Yard
4	403	SDO Pong Dam S/ D.	40	438	Police Post main gate P/ House
5	404	SDO Field Electrical	41	439	Police Post power House
6	405	SDO Gate & Gearing	42	440	Police Line Ghati
7	406	SDO RM Sub Divn.	43	441	11KV Sub Station Dam Site
8	407	SDO SST Sub Divn.	44	442	33KV Sub Station Terrace
9	408	SDO Control survey	45	443	66KVSub Station Dam Site
10	409	SDO Silt Survey	46	444	Fire Station Dam Site
11	410	SDO Instrumentation	47	445	Sedimentation Tank
12	411	SDO Elect.W/shop Terrace	48	446/447	T-1 (Near Spillway)
13	412	SDOMachine w/shop Terrace	49	447/446	T-2 (Near Spillway)
14	413	SDO Store S/Divn. Terrace	50	448	Control Room Regulation
15	414	SDO Auto shop Terrace	51	420	Driver Room
16	415	SDO Field Mech. S/Divn.	52	450	Floating Equipment
17	416	ARO Soil Lab	53	452	Compressor House
18	417	ADE Regulation	54	459	SDO Night Duty
19	418	ADE Design Cell	55	460	Spillway Gallery
20	419	JE G & G (control Room)			<b>POWER WING</b>
21	449	JE Pong Dam Sub Divn.	56	453	SE PPH (PW)
22	421	JE Field Elec.( Dam Top)	57	454	XEN Elect. Mtc. (PW)
23	422	JE T/Exchange M-9805916969	58	455	Xen Op. PPH (P.W)

24	423	JE S.S.T Sub Divn.	59	456	Control Room (PPH)
25	424	JE Bit Shop	60	457	Control Room (Sw/ Yard)
26	425	JE Pipe Shop	61	458	P1,P2,P3 Shafts
27	426	JE Field Elec.(D/S of Dam)			
28	427	JE Committee Room			
29	428	Committee Room Main			
30	429	Check Post Ghatti			
31	430	R/S check Post			
32	431	Main Gate Terrace			
33	432	Police Post Ghatti			
34	433	Police Post Sathana			
35	434	Police Post Near T1&T2			

**ANNEXURE-XIX (Pages1 to 17)****Contacts of Employees:Officers/Officials Working in Dam Area.****R.M. Divn, BBMB,Talwara**

<b>Sr. No.</b>	<b>Name Of Employees S/Shri</b>	<b>Designation</b>	<b>Address</b>	<b>Contact No.</b>
1.	Er. Richi Ram	Xen	-	9417802078
2.	Surinder Singh	Ch/Man.G-1	T3/1677L,Sec-3	9417060396
3.	Suresh Kumar	Ch/Man	T2/1208L,Sec-3	8894561245
4.	Rajnesh Kumar	Clerk	T3/1406L,Sec.-3	9417384427
5.	Tilak Raj	J.E	T2/732L,Sec-1	9914469477
6.	Pawan Kumar	Peon	T1/1121L,Sec-1	9463882173
7.	Jagdish Singh	Peon	T2/1248L,Sec-1	9417477790
8.	Boota Singh	Drafts man	T5/901U, Sec. 3	9465547300
9.	Santokh Singh	Drafts man	T3/1525L,Sec. 3	9646317700
10.	Som Raj	Clerk	T3/1448L,Sec. 3	9464241887
11.	Sonu Kumar	Clerk	T2/1046L,Sec. 1	9463214726
12.	Raman Kumar	Clerk	T3/1406U,Sec. 3	9459027887
13.	Daljit Singh	Ch/Man	T3/1135L,Sec-3	9465249380
14.	Kanta Devi	Peon	T2/565L,Sec. 3	9465861427
15.	Bimla	Peon	T2/642U,Sec. 1	9781922664
16.	Ravi Parkash Punj	L.O. Gr-II	-----	9417601320
17.	Savita Kumari	Peon	T2/1037U,Sec-1	9478174913
<b>Land Dispute Sub Division</b>				
1.	Tejpal Singh	SDO	T5/408L,Sec-1	9417456978
2.	Promila Nayar	Patwari	T3/1412U,Sec.3	9417070623
3.	Harmail Chand	Supervisor	T3/1008L,Sec. 1	9878039406
4.	Balkar Singh	Peon	T2/638L,Sec.1	9803537010
5.	Tilak Raj	Baldar	T2/1277U,Sec.1	7589274048
<b>Silt Survey Sub Division</b>				
1.	Er. A.K.Gachli	SDO	901-T-5,Sec.3	7837345743
2.	Er. Manish Sharma	J.E.	-	9041417700
3.	Mehar Chand	Ch/ManWopt	Vill.Pankhuh	
4.	Harbans Lal	Chowkidar	T1A/849,Sec,1	9815935625
5.	Jagdish Chander	Beldar	T2/275-U,Sec,3	9876696021
6.	Ashok Kumar	Beldar	T1A/816,Sec,1	9418764505
7.	Tarsem Kumar	Beldar	T1A/824,Sec,1	9463706175
8.	Pingla Devi	Beldar	T2/1272U,Sec-3	9816857102
9.	Lakhbir Singh	Beldar	T2/1211U,Sec,3	9815106429

1.	Papinder Singh	F.S.O	10-L /T-5 Sec-1	95309-97330
2.	Harjinder Kumar	-do-	T3/1672L,Sec. 3	84377-42883
3.	Mohinder Singh	-do-	T2/625L,Sec. 2	94633-08226
4.	Pawan Kumar	-do-	T3/1380U,Sec.1	98557-76143
5.	Mangal Singh	LFM	T3/1029L,Sec. 1	94178-49579
6.	Yashpal Singh	-do-	T3/928L,Sec. 1	94789-13818
7.	Raj Kumar	-do-	T2/727L,Sec. 1	94178-82472
8.	Bachitter Singh	-do-	T3/943L,Sec.1	9417493198
9.	Rajesh Kumar	-do-	T5/418L,Sec.1	94171-15941
10.	Manmohinder Singh	-do-	T2/657L,Sec.2	94174-78191
11.	Kewal Krishan	C/Man,Gr-1	T3/1420U,Sec.1	9888147924
12.	Som Parkash	Driver	T1A/113,Sec.1	9417062965
13.	Junas Masih	Driver	T3/1030U,Sec1	9814863756
14.	Davinder Singh	Driver	T2/1276L,Sec-1	9417175964
15.	Arun Kumar	Driver	T2/1239U,Sec-1	9646876676
16.	Jagdev Singh	Driver	T3c/1078L,Sec3	9417672983
17.	Parveen Kumar	F/Man	T3/1379U,Sec.1	8168432995
18.	Gitesh Chandel	F/Man	T3/1339U,Sec-1	8988186683
19.	Kirpal Singh	Driver	T3/976-L,Sec.1	9417175964
20.	Rajinder Singh	F/Man	T3/1156L,Sec3	8195926935
21.	Rajiv kumar	F/Man	T3/901L,Sec.1	8699492547
22.	Jagseer Ram	F/Man	T3/1008U,Sec.1	9914546384
23.	Ramesh Kumar	-do-	T3/978L,Sec.1	94657-66304
24.	Des Raj	-do-	T3/1378L,Sec1	98143-10325
25.	Karnail Singh	-do-	T3/1030L, Sec-1	94639-06041
26.	Navpreet Singh	-do-	T3/942L,Sec.1	95308-40426
27.	Sham Lal	-do-	T3/1711L,Sec.3	7696513921
28.	Raj Kumar	-do-	T3/1356L,Sec1	98787-68698
29.	Kamal Jit	FM	T3/1149L,Sec.3	99144-09235
30.	Harwinder Singh	-do-	T3/1426L,Sec.1	98034-27347
31.	Naveen Kumar	-do-	T2/652L,Sec.2	98760-15675
32.	Jagdev Singh	-do-	T2/1247L,Sec.1	94176-72983
33.	Ranjeet Singh	-do-	T2/633L,Sec.2	94640-62450
34.	Balbir Singh	-do-	T3/1026L,Sec-1	94170-70883
35.	Surinder Kumar	-do-	T3/1376L,Sec.3	96466-27082
36.	Dilawer Singh	FM	T2/1265L,Sec.1	98880-68464
37.	Raj Kumar (PB)	-do-	T2/751U,Sec.3	9459287400
38.	Mohinder Kumar	-do-	T2/748U,Sec.3	98161-43388
39.	Shashi Kumar	FM	T1/1137,Sec.1	76963-80975
40.	Devanand	-do-	T3/1376U,Sec.1	95309-67810
41.	Darshan Kumar	-do-	T2/1073L,Sec.1	95308-80110

42.	Gurbachan Lal	-do-	T3/934U,Sec.1	94782-04386
43.	Dhanna Singh	-do-	T2/639L, Sec-2	9592290186
44.	Kuldeep Singh	-do-	T2/1247U,Sec-3	89684-90021
45.				
<b>Research Lab. Dam Site</b>				
1.	Parminder Singh	ARO	T5/12L,Sec-1	9463777025
2.	Dilaver Singh	RA Gr-A	T3/1112L,Sec-3	98727-69133
3.	Gulab Singh	SA	T2/744L,Sec-1	94177-57560
4.	Shiv Kumar	SA	T3/1439L, Sec-3	98787-71222
5.	Kuldeep Kaur	LA	T3/614U, Sec-1	94653-89091
6.	Sethi Singh	S.Obs.	V.Mail Chamba	98824-02412
7.	Urmila Devi	ALA	T3/1412L,Sec.3	7696400182
8.	Satish Kumar	ALA	V.NangalChowk	94183-30722
9.	Moti Lal	ALA	Hassanpur,Prohatan	9888455230
10.	Dharminder Singh	Beldar	T2/1324U,Sec.1	9816531585
11.	Narjeet Singh	Beldar	T2/1327U,Sec.1	9646062360
12.	Ashok Kumar	Helper	T2/1219U,Sec.1	9041558251
13.	Satbir Singh	Beldar	T2/1255U,Sec.3	9465146275
14.	Ramesh Kumar	Beldar	T2/1208U,Sec-1	9463111813
15.	Bidhi Chand	Beldar	V.P.O.Basaral.	9805162715
16.	Rakesh Kumar	Beldar	T1/1129,Sec-1	9815916664
17.	Hem Raj	Beldar	V.P.O.Ghamroor.	8629086828
18.	Ravinder Kumar	Beldar	V.P.O.Tatwali.	8894650617
19.	Tarlok Singh	Beldar	T2/747U,Sec.1	9872697082
20.	Rano Devi	Beldar	T2/1277U,Sec.1	9888447069
21.	Vinay Kumar	Beldar	T1/563,Sec-1	9882082372
22.	Kuldeep Singh	Beldar	T2/1279U,Sec-1	9530678952
23.	Pawan Kumar	Peon	T1/1121L,Sec-1	9463882173
<b>R.M. Sub Division Dam site</b>				
1.	Tejpal Singh	SDO	T5/408L,Sec.1	9417456978
2.	Varun Kumar	JE	T4/429U,Sec.3	8054351809
3.	Jaswinder Singh	JE	T4/432U,Sec-3	8283831483
4.	Gurwinder Singh	Patwari	T2/1272L,Sec-1	9781822066
5.	Kamlesh Kumar	Patwari	T3/1157L,Sec.3	9878395083
6.	Avinassh Kumar	-do-	T3/1158L,Sec.3	94174-75315
7.	Raj mal	Masson	T3/1609L,Sec.3	94781-78337
8.	Harbhajan Singh	Painter	T3/1533L,Sec.3	94636-73765
9.	Jeet Raj	Masson	T3/1168L,Sec.3	9478849220
10.	Satnam Singh	Carpenter	T3/1058L,Sec.3	98884-58630
11.	Kewal Singh	Supervisor	T3/1429L,Sec.3	98030-34364
12.	Pawan Bhakri	-do-	T3/1660U,Sec.3	94177-60228
13.	Rasal Singh	-do-	T2/632L,Sec.2	94653-28673

14.	Hussan Lal	-do-	T3/1540L,Sec-3	9646030778
15.	Saran Dass	W/Mistry	T2/753L,Sec.3	94177-21337
16.	Puran Chand	Safai Sewak	T1A/112,Sec.1	9464470663
17.	Daulat ram	-do-	T2/1254L,Sec.1	98763-56264
18.	Shashi pal	-do-	T2/1278U,Sec.3	97811-38627
19.	Harnam Singh	-do-	T2/635U,Sec.1	94171-80508
20.	Ram lal	-do-	T2/1042U,Sec.1	99145-12034
21.	Naresh Kumar	-do-	T2/607L,Sec.2	89688-82399
22.	Nazzar Singh	-do-	T2/725L,Sec.3	94176-75060
23.	Naresh Kumar	-do-	T2/724L,Sec.1	88725-61923
24.	Gulab Mashi	-do-	T2/715U,Sec3	9646318678
25.	Chaman Lal	-do-	T2/1227U,Sec-1	9463042276
26.	Hari Krishan	-do-	T2/1033U,Sec.1	98163-87623
27.	Vishwa Mittar	-do-	T2/652U,Sec.2	9465843584
28.	Ashok Kumar	-do-	T2/656L,Sec.3	9464034494
29.	Ramesh Singh	Beldar	T2/1208U,Sec.1	9463111813
30.	Sher Singh	-do-	T3/1165U,Sec-3	8872588226
31.	Baljit Singh	-do-	T2/580U,Sec.3	9915865591
32.	Ram Lal	T/Mate	T2/1253U,Sec.1	98728-80799
33.	Ashwani Kumar	Beldar	T2/1273L,Sec.3	76962-77467
34.	Gulzar Singh	-do-	T2/609L,Sec.2	95012-33301
35.	Jagar nath	-do-	T2/1256U,Sec.3	93188-45353
36.	Pardhan Singh	-do-	T2/724U,Sec.1	9463220438
37.	Raj Kumar	-do-	T2/1315L,Sec.1	9041216660
38.	Roop Lal	-do-	T2/1274U,Sec.1	9882624588
39.	Mohan Singh	-do-	T3/909U,Sec-1	8699292136
40.	Pawan Kumar	-do-	T2/542L,Sec.3	9463878425
41.	Kewal Krishan	-do-	T2/1278U,Sec.3	9478844031
42.	Jarnail Singh	-do-	T2/1231L,Sec.3	9855776261
43.	Sumeet Kumar	-do-	T2/1274U,Sec.1	7837033889
44.	Sapana Rani	-do-	T1/865U,Sec.1	9041876117
45.	Shankutla Devi	-do-	T2/729L,Sec-1	9041569789
46.	Suresh Kumar	T-Mate	T2/1208U,Sec-3	8813882367
47.	Ram Lal	T-Mate	T2/715U,Sec-3	9872880799
48.	Ajmer Singh	T-Mate	T2/715U,Sec-3	9915105579
49.	Jagdish Singh	Peon	T2/1248L,Sec-1	9417477790

**List of Employees of Pong Dam Divn. BBMB, Talwara / (Pong Dam S/D)**

Sr. No.	Name Of Employees S/Shri	Designation	Address	Contact No.
1.	Er. Manveen Chaudhary	XEN	-	9418092177
2.	Er. Sham Sunder	S.D.O.	2L/ T-5, Sec.1	9417475377
3.	Er. Kamaljit Suman	S.D.O.	5LT-5 Sec. 3	9417216059
4.	Er.Kuldip Singh	J.E.	10-L/T-5,Sec.3	9041892812
5.	Er. Mangender Yadav	J.E.	-	7717254188
6.	Satish Kumar	Photographer	412 U T4 Sector3	9465577918
7.	Ashok Kumar	DHD	433 U T4 Sec 3	
8.	Er. Som Raj	JE	939 U T3 Sec1	7018167847
9.	Er. Navdeep Kumar	JE	436 U T4 Sec3	9501034069
10.	Er. Inderpal Singh	JE	402 U T4 Sec 3	8146633658
11.	Navdeep Kumar	JDM	676 U T2 Sec 2	9517737929
12.	Sarbjit Singh	Clerk	1452-L/T-3,Sec.3	9872876827
13.	Er. Harpreet Singh	JE	971 U T3 Sec 1	9518422922
14.	Er. Shish Pal	JE	438 U T4 Sec3	8626937404
15.	Pawan Kumar	Sr. Asstt.	415 T-5,Sec.1	9805231036
16.	Nardev Singh	Clerk	1002-L/T-3,Sec.I	9463220979
17.	Vinod Kumar	D.H.D.	433-L/T-4,Sec.3	9417914420
18.	Kashmir Singh	D.M	1661-L,T3, Sec. 3	9463540197
19.	Raj Kumar	Azo opt	617-L/T3C,Sec-3	9041486482
20.	Anil Sharma	Clerk	1450-U/T3,Sec-3	9465327242
21.	Sheetal Kumari	Clerk	1060-U/T3,Sec-3	9876569258
22.	Om Parkash	Clerk	927-T-3, Sec. 1	8437555968
23.	Surinder Kumar	Clerk	687-LT2,Sec-1	9896255436
24.	Vijay kumar	Supervisor	1510L, T-3 sec.3	9417757195
25.	Raj Kumar	Ch/Man	734L,T-3C,Sec-3	9501801484
<b>Industrial Workers Pong Dam Sub-Division</b>				
26.	Kewal Singh	JE	1105L,T3, Sec. 3	9463285055
27.	Jaswinder Singh,	Mason	920-L, T-3, Sec. I	9417882093
28.	Jarnail Singh,	Carpenter	927-L, T-3,Sec. I	9872754235
29.	Surinder Singh.	C./Fin.	930-L, T-3, Sec. I	9464733605
30.	Roshan Lal,	-do-	1063L,T-2, Sec. I	9781559285
31.	Vinod Kumar	Super visor	1101,T-I, B,Sec. I	9464317321
32.	Pritam Chand,	W/Mistry	1060L,T3C,Sec.3	9041558239
33.	Madan Lal,	Chargman	1640L, T3, Sec. 3	9876499901
34.	Onkar chand	Chargman	863, T-I, Sec. I	8699280207
35.	Sadiq Mohamad,	Masson G-I.	422L, T-4, Sec. 3	9888717801
36.	Des Raj	Fitter	1563L, T3, Sec. 3	9803682773
37.	Updesh Misser	-do-	1130U,T3, Sec. 3	9463468068
38.	Kulwant Singh	C/Man	1551L, T-3,Sec.3	9464067803
39.	Balbinder Singh	Pump Opt,	1078L,T-2, Sec. 1	7696427778



<b>S.S.T. Sub Division</b>				
40.	Gurdeep Singh	Cnc.Finisher	1132L, T-3, Sec.3	9855038834
41.	Naresh Kumar	Ch/Man	1150L,T-3, Sec.3	9530840687
42.	Suresh Chander	W/Mistory	621L,T-3C, Sec.3	9417973923
43.	Ashok Kumar	W/Mistory	969-L,T-3, Sec.1	9463945409
44.	Vijay kumar	Masson	1014L,T-3, Sec.1	9814494478
45.	Ashok Kumar	W/Mistory	1063-LT-3, Sec.3	9417123535
46.	Som Paul	Carpenter	1070L,T3C,Sec.3	9465754300
47.	Prem Chand	Fitter	1250L,T-2, Sec. I	9803232522
<b>Instrumentation Sub Division</b>				
48.	Rajinder Kumar	Ch./Man	974-L,T-3,Sec.-1	09805619402
49.	Tirath Ram	Fitter	1537L, T-3, Sec.3	9465036704
50.	Sarvjit Singh,	Pipe Fitter	692-L, T-2, Sec.2	9465370712
51.	Gogi Lal	W/mistry	1072L, T-3C sec3	9815358782
<b>Control Survey Sub Division</b>				
52.	Bhajan Singh	Surveyor	1401L, T-3 Sec.3	9478730125
53.	Chhotu Ram	W/mistry	1051L, T-3c Sec3	9417388239
54.	Balhar Singh	Supervisor	936-UT3,Sec-1	7837591734
55.	Sukhdev Singh	Supervisor	1379L,T3,Sec-1	9417506902
56.	Sukhdev Singh	Supervisor	1352L,T3,Sec-1	9303176977

**List of Employees of Electrical Divn. (Field Electrical S/Divn. Dam Site)**

<b>Sr. No.</b>	<b>Name Of Employees S/Shri</b>	<b>Designation</b>	<b>Address</b>	<b>Contact No.</b>
1.	Er. Mandeep Singh	Addl.SE	-	9417202062
2.	Er. Madan Lal	S.D.O.	405 L T5 Sec.1	9463049391
3.	Er. Naveen Sharma	J.E.	575 L T2 Sec.3	9041498468
4.	Chhote Lal	WorkMistry	1220 L T2 Sec.1	9988320426
5.	Jaswinder Singh	Elect. Gr.-1	965 L T3 Sec. 1	9988601077
6.	Jatinder Kumar	Elect. Gr.-1	1003 U T3 Sec.1	7508263980
7.	Harkamal Jit	Elect. Gr.-1	1138 T1 Sec 1	9463643546
8.	Krishan Kumar	Elect. Gr.-1	918 L T3 Sec 1	9988898790
9.	Ramnik Singh	Elect. Gr.-1	1102 L T3 Sec. 3	9463473199
10.	Satpal	Elect. Gr.-1	1604 L T3 Sec 3	9463440275
11.	Chaman Lal	Elect.	950 U T3 Sec. 1	9803682722
12.	Satpal	A.L.M.	1508 L T3 Sec. 3	9465147728
13.	Vaishno Das	A.L.M.	922 U T3 Sec. 1	7696215309
14.	Nirmal Chand	Welder	1561 L T3 Sec. 3	7589447875
15.	Sarup Lal	Beldar	1243 UT2 Sec. 1	8198339126
16.	Ashok Kumar	Beldar	1240 L T2 Sec. 3	8699321360
17.	Ram Sarup	Beldar	730 L T2 Sec. 3	9779902534
18.	Prem Chand	Beldar	743 L T2 Sec. 1	9464445517

19.	Luthra Bahadur	Beldar	1215 L T2 Sec.1	9465149399
20.	Daya Chand	Beldar	1234 U T2 Sec. 3	9646260647
21.	Sansar Chand	Beldar	667 U T2 Sec. 2	9463092048
22.	Roop Lal	Beldar	746 L T2 Sec. 1	8195870117
23.	Som Raj	Beldar	654 U T2 Sec. 3	9988535331
24.	Lekhraj	Beldar	809 T1 Sec. 1	9878723961
25.	Malkiat Singh	Beldar	1245 U T2 Sec. 1	9465059841
26.	Raj Kumar	Beldar	1344 U T2 Sec. 1	9464575971
27.	Harvans Singh	Beldar	1322 L T2 Sec. 1	9464571084
28.	Balwinder Singh	Beldar	751 L T2 Sec. 1	8146058101
29.	Balbir Singh	Beldar	850 L T1 Sec. 1	9417277393
30.	Dhannu Ram	Chowkidar	1320 L T2 Sec. 1	9463583188
31.	Satnam Singh	L/man	1406 LT3C Sec. 1	9780029725
32.	Narinder Singh	Ch/Man	1180 L T3 Sec.3	7589051161
33.	Ashok Kumar	L/Man	1340 L T2 Sec. 1	9780029573
34.	Surinder Kumar	Peon	1234 U T2 Sec. 1	9459554267
35.	Rani	Sweeper	756 L T2 Sec. 3	8727037277

**Plant Maintenance & Transmission Sub Division**

<b>Sr. No.</b>	<b>Name Of Employees S/Shri</b>	<b>Designation</b>	<b>Address</b>	<b>Contact No.</b>
1.	Er. Paramjit Kaushal	S.D.O.	917 U T5 Sec. 3	9417771297
2.	Er. Naresh Kumar	J.E.	7 U T-5 Sec. 3	8468757884
3.	Vijay Kumar	Elect. Gr.1	1358 L T3 Sec. 1	9041556010
4.	Avtar Singh	Elect. Gr.1	1370 L T3 Sec. 1	9465584085
5.	Rakesh Pal	Elect. Gr.2	952 L T3 Sec. 1	7696174578
6.	Avtar Singh	Elect. Gr.2	1116 L T3 Sec. 1	9463878437
7.	HaminderMishra	Work Mistry	1209 L T2 Sec. 3	9478246016
8.	Sher Singh	Sweeper	577 L T2 Sec. 3	8054465464
9.	Ramesh Lal	L/M	426 L T4 Sec.3	9464480591
10.	Mulkha Singh	L/M	754 L T2 Sec. 1	9876647698
11.	Vinod Kumar	L/M	1233 U T2 Sec. 3	8054557475
12.	Bodhraj	L/M	1143 L T3 Sec. 3	9417480859
13.	Amit Kumar	A.L.M.	946 U T3 Sec. 1	9417667303
14.	Ashok Kumar	A.L.M.	746 L T2 Sec. 3	8968258483
15.	Gurdev Chand	Elect. Gr. 2	1341 L T2 Sec. 1	9023823855
16.	Anil Kumar	Jr. Welder	1224 L T2 Sec. 3	7696894043
17.	Gurdial Singh	Beldar	808 T1 Sec. 1	9803145118
18.	Darshan Singh	Beldar	1314 U T2 Sec. 1	9878592316
19.	Sudharshan Singh	Beldar	735 U T2 Sec. 1	9464447064
20.	Balbir Singh	Skilled Lab.	1238 L T2 Sec. 3	9417277393
21.	Joginder Lal	Elect. Gr. 2	1539 L T3 Sec. 3	9417974334
22.	Amrik Singh	Elect. Gr. 3	737 L T3-C Sec. 3	9465967595
23.	Ranbir Singh	S.S.A.	1430 L T3C Sec. 1	9464736120
24.	Dinesh Kumar	C.R.O.	1404 L T3C Sec. 1	7696169510
25.	Sansar Chand	C.R.O.	705 L T2 Sec. 1	9463672458
26.	Gurnam Singh	T-Mate	1039 U T2 Sec. 1	9478875208
27.	Kuldeep Singh	Chowkidar	1271 L T2 Sec. 3	9815498657
28.	Nath	SBC	620 L T2 Sec. 2	7837439616
29.	Yash Pal	SBC	1140 T1 Sec. 1	9463706169
30.	Ranjit Singh	Beldar	1218 U T2 Sec. 1	9464031773
31.	Bir Singh	Chowkidar	---	9464376989
32.	Raj Kumar	Foreman	740 L T3C Sec. 3	9464150107
33.	Parvesh Rani	W/Beldar	1325 U T2 Sec. 1	7508468211

**List of Employees of Water Regulation Working in Dam Area**

<b>Sr. No.</b>	<b>Name</b>	<b>Designation</b>	<b>Local Address</b>	<b>Contact No.</b>
1.	Er. Jasbir Pal	SDE	221/T-6,Sector-I	9417914786
2.	Er. Saurabh	J.E.	1503UT3,Sec-3	09736651752
3.	Er. Rakesh Sandhu	S.D.O.	-	9478729786
4.	Sh. Jagtar Singh	Ch/Man	1616L/T3,Sec-3	9781591546
5.	Sh.Karnail Singh	W/mistry	1704L/T3 Sec. 3	9478220090
6.	Sh.Jaidev Singh	W/mistry	1375L/T3 Sec. 1	9464322894
7.	Sh.Darshan kumar	W/mistry	1409L/T3 Sec.3	9478245718
8.	Sh. Madan Lal	Painter	1201L/T2,Sec-1	9463440204
9.	Sh.Tavinder Kumar	G/Reader	1246L/T2 Sec. 1	9417808786
10.	Sh. Gurmail Singh	G/Reader	1277U/T2 Sec.3	9878653914
11.	Sh.Hemant Soni	G/Reader	804/T1 Sec. 1	9872709878
12.	Sh. Kamaljit	G/Reader	633L/T2 Sec. 1	9463944278
13.	Sh. Surjit Kumar	G/Reader	1265L/T2 Sec. 1	9478734368
14.	Sh. Naveen Kumar	G/Reader	719L/T2 Sec. 1	9915873738
15.	Sh. Jung Bhadur	G/Reader	1247U/T2,Sec-1	9817362366
16.	Sh.TarandeepSingh	G/Reader	636U/T2 Sec. 1	9417882455
17.	Sh. Balbir Singh	Beldar	1337U/T2,Sec-1	8728906626
18.	Sh.Mohinder Singh	Beldar	1745/T1A Sec.3	9463740757
19.	Sh.Mukesh kumar	Beldar	1145/T1 Sec. 1	9417480843
20.	Sh. Ravinder Kumar	Beldar	1393U/T2,Sec-2	9501914450
21.	Sh.Mintu	S/Karamchari	713U/T2 Sec.3	9878225040
22.	Sh.Piar Chand	Boatman	1330U/T2,Sec-1	9805310087

**List of Employees of Mechanical Divn.**

<b>Sr. No.</b>	<b>Name of Employee S/Shri</b>	<b>Designation</b>	<b>Contacts No.</b>
1	Er. S.K. Khanna	XEN	9417861127

**List of Employees of Mechanical Divn. (Gates & Gearing S/Divn. Dam Site)**

<b>Sr. No.</b>	<b>Name of Employee S/Shri</b>	<b>Designation</b>	<b>Contacts No.</b>
1.	Sh. Satish Kumar	S.D.O.	07696788996
2.	Sh. Prem Pal	J.E.	09465573942
3.	Sh. Chaman Lal	Fore Man	09817751392
4.	Sh. Surinder Singh	Charge Man-I	08627038670
5.	Sh. Harjit Singh	Charge Man	09417066294
6.	Sh. Jyoti Prashad	Welder	09417493055
7.	Sh. Ajay Kumar	Pump/ Opt.	09459399116
8.	Sh. Ram Phal	Fitter-Erection	09081564325
9.	Sh. Khem Raj	Greaser-I	07589243374
10.	Sh. Ashok Kumar	Painter –Gr.-Ii	09876603844
11.	Sh. Krishan Kumar	Hoist Opt.	09530884022
12.	Sh. Ajay Kumar	Hoist Opt.	09463285431
13.	Sh. Bishan Dass	Hoist Opt.	09256137374
14.	Sh. Kuldeep Singh	Fitter	09463244514
15.	Sh. Kishori Lal	C.T.E Painter	08557037357
16.	Sh. Mohinder Singh	Rigger	08437691028
17.	Er. Manik Mahajan	JE	
18.	Er. Aman Kumar	JE	
19.	Sh. Ravi Singh	Skilled Labour	09041886568
20.	Sh. Hamir Chand	Chowkidar	07696238961
21.	Sh. Mashu Ram	Chowkidar	08196934668
22.	Sh. Baghel Singh	Beldar	09815713567
23.	Sh. Surinder Pal	Beldar	09464027929
24.	Sh. Tuffani Ram	Beldar	08894956815
25.	Sh. Bihari Lal	Beldar	09465938843
26.	Sh. Narinder Singh	Beldar	09915509447
27.	Sh. Parmeshwar Tiwari	Beldar	09463543397
28.	Sh. Sunil Gupta	Beldar	09041981169
29.	Sh. Balwan Singh	Beldar	08691228451
30.	Sh. Bhopal Singh	Beldar	07837639847
31.	Sh. Hans Raj	Beldar	09041575395
32.	Sh. Vijay Kumar	Beldar	09915959561

33.	Sh. Subhash Chand	Beldar	08894841273
34.	Sh. Avtar Singh	Crane Opt.	09464448514
35.	Sh. Budhi Singh	Boat Man	09041475417
36.	Sh. Jagdish Chand	Boat Man	08437117823
37.	Sh. Mohinder Singh	Boat Man	08427253918
38.	Sh. Chaman Lal	Boat Man	09814808209
39.	Sh. Surinder Singh	Motor Boat Opt.	09816189740
40.	Sh. Sewa Singh	Boat Man	09418188744
41.	Sh. Rajan Kumar	De-Mag-Opt.	09888543176
42.	Sh. Jit Singh	Crane Opt.	08699088924
43.	Sh. Hoshiar Singh	-Crane Opt.	09888021542
44.	Sh. Karnail Singh	-Dozer Opt.	-
45.	Sh. Sukhdev Singh	Shaval-Opt.	09463227132
46.	Sh. Rajesh Kumar	Dumper-Opt.	09464070740
47.	Sh. Gian Chand	Boatman	-
48.	Sh. Bawa Singh	Driver	9463774737
49.	Sh. Vikram Singh	Mechanic	-
50.	Sh. Lal Singh	Greaser	09464023784
51.	Jaswinder Singh	T/Opt	9872441141
52.	Tarsem Lal	Beldar	8427331468
53.	Dharam Pal	Beldar	-
54.	Shankar	Beldar	-
55.	Raj Kumar	Beldar	-
56.	Rakesh Kumar	Beldar	-

### Field Mechanical Sub Division

Sr. No.	Name of Employee S/Shri	Designation	Contacts No.
1.	Er. Sanjay Kumar	SDO	9417012049
2.	Sh. Mohinder Singh	F/Man	9463437261
3.	Sh. Kulwinder Singh	F/Man	9816820200
4.	Sh. Arjun Dev	F/Man	9463673757
5.	Sh. Gurpeet	Welder	9417242459
6.	Sh. Chaman Lal	S/Labour	9814499625
7.	Sh. Harmesh Lal	W.P.M. G-I	9041850917
8.	Sh. Darbara Singh	Beldar	9914549796
9.	Sh. Rachpal Singh	Beldar	9464056338
10.	Sh. Raman Kumar	Beldar	9464857828
11.	Sh. Tarsem Lal	Beldar	8427331468
12.	Sh. Darshan Singh	Beldar	9417074523
13.	Sh. Gurdev Singh	Beldar	9463108537

14.	Sh. Amar Singh	Chowkidar	09816786553
15.	Sh. Harish Kumar	Chowkidar	9464928583
16.	Sh. Anil Kumar	Wpm	8427820669
17.	Sh. Sukwinder Singh	Supervisor	9417044912
18.	Sh. Satvir Singh	Wpm	7508785170
19.	Sh. Surinder Singh	Pump Operator	7589243959
20.	Sh. Jai Pal Singh	Wpm	9465233168
21.	Sh. Saroop Singh	Pump Operator	9417639734
22.	Sh. Bharat Singh	Beldar	7589037236
23.	Sh. Kamaljit Singh	WPM	9805885524
24.	Sh. Khushal Singh `	Beldar	9463462682
25.	Sh. Varinder Singh	Pump Operator	9463809452
26.	Sh. Kirpal Singh	Beldar	9915890978
27.	Sh. Ashok Kumar	Beldar	8437531007
28.	Sh. Parkash Chand	WPM G-Ii	8198078260
29.	Sh. Kewal Kumar	Pump Attendant	8968398950
30.	Sh. Kali Dass	Beldar	9878098250
31.	Sh. Bhupinder Singh	Beldar	-

### Workshop Sub Division

Sr. No.	Name of Employee S/Shri	Designation	Contacts No.
1.	Er. Narinder Dutt	SDO	9463998245
2.	Sh. Sikandar Shah	J.E.	9888336515
3.	Sh. Chandar Mohan	Charge Man G-I	9417648034
4.	Sh. Suresh Kumar	Charge Man G-Ii	8699757877
5.	Sh. Satish Chand	Charge Man G-I	9459081292
6.	Sh. Harbhajan Singh	Charge Man G-I	9464679205
7.	Sh. Manjinder Singh	Supervisor	9464733636
8.	Sh. Raman Kumar	Ch/Man	9417243592
9.	Sh. Tarsem Singh	Turner	-
10.	Sh. Ramesh Chander	Mechanic (D)	-
11.	Sh. Jagdish Raj	Fitter	
12.	Sh. Avtar Singh	Beldar	
13.	Sh. Jaswant Singh	Turner	9446167300
14.	Sh. Jagir Singh	Jr. Turner	9417678294
15.	Sh. Ram Chandar	Carpenter G-I	9781838247
16.	Sh. Raj Mal	Carpenter	7837436330
17.	Sh. Pardeep Kumar	Painter G-Ii	9041314106
18.	Sh. Krishan Chand	Equipment Mech.	9418428200
19.	Sh. Jamal Singh	Mechanic	9463945482

20.	Sh. Ashok Kumar	Mechanic	9417648071
21.	Sh. Surinder Pal	Mechanic	9463773988
22.	Sh. Sunny	D/ Mechanic	9464841684
23.	Sh. Pritam Singh	Welder	9878862190
24.	Sh. Ashok Kumar	Fitter	7696453199
25.	Sh. Rikhi Ram	Cook	9417887509
26.	Sh. Chatter Pal	Beldar	9463164012
27.	Sh. Pawan Kumar	Beldar	9464635168
28.	Sh. Radhey Sham	Beldar	9464137034
29.	Sh. Kewal Krishan	Beldar	9988016715
30.	Sh. Ajit Singh	Beldar	9988624744
31.	Sh. Sat Pal	Beldar	9465696475
32.	Sh. Surinder Kumar	Beldar	7696216586
33.	Sh. Mohinder Singh	Beldar	9814041268
34.	Sh. Tilak Raj	Beldar	9417330658
35.	Sh. Balwinder Kaur	Beldar	9780406240
36.	Sh. Prem Singh	Chowkidar	8699030503
37.	Sh. Chotte Lal	Chowkidar	9814111908
38.	Sh. Sharif Din	Chowkidar	9780177441
39.	Sh. Avtar Singh	Auto Electrician	9463878437
40.	Sh. Rakesh Kumar	Supervisor	8837707322

#### TRANSPORTATION SUB DIVISION

Sr. No.	Name of Employee S/Shri	Designation	Contacts No.
1.	Er. Dheeraj Kumar	S.D.O.	9464241877
2.	Er. Dharminder Singh	J.E.	-
3.	Sh Anil Kumar	B/Conductor	9465385170
4.	Sh. Balkar Singh	-Do-	9463814758
5.	Sh. Bahadur Singh	-Do-	9478337722
6.	Sh. Tilak Raj	-Do-	8054347420
7.	Sh. Chander Mohan	B/Conductor	9465370714
8.	Sh. Diwan Chand	Driver	9878038970
9.	Sh. Deepak Kumar	-Do-	9417349225
10.	Sh. Des Raj	-Do-	9464056528
11.	Sh. Gurpal Singh	-Do-	9463878426
12.	Sh. Gopal Singh	-Do-	9872874074
13.	Sh. Jagdev Singh	-Do-	81463744834
14.	Sh. Jaswinder Singh	B/Conductor	9417362985
15.	Sh. Kailash Chand	Driver	9417075010
16.	Sh. Kamal Kishor	-Do-	9417756880
17.	Sh. Manohar Lal	-Do-	9417915344



18.	Sh. Mohinder Singh	Driver	9530997170
19.	Sh.Mohinder Kumar	B/Conductor	8054012303
20.	Sh. Pawan Kumar –Ist	-Do-	9464028013
21.	Sh.Pawan Kumar-IIInd	-Do-	8288867055
22.	Sh.Puran Singh	-Do-	9417839608
23.	Sh. Pushkar Singh	-Do-	9463153858
24.	Sh.Pritam Singh	-Do-	9463526010
25.	Sh. Rajinder Singh- Ist	-Do-	9417044357
26.	Sh. Rajesh Kumar	-Do-	9463706150
27.	Sh. Ranbir Singh	-Do-	9463438827
28.	Sh. Runi Dass	-Do-	9463988643
29.	Sh. Rajinder Singh	Bus Conductor	9872988714
30.	Sh. Roshan Lal	-Do-	9463443409
31.	Sh. Raman Kumar	Supervisor	9417913581
32.	Sh. Satwinder Singh	B/Conductor	9463463221
33.	Sh. Sanjay Kumar	Driver	9646500722
34.	Sh. Rajinder Parshad	B/Conductor	9417667230
35.	Sh. Sadhu Singh	Driver	9478734456
36.	Sh.Sohan Singh	-Do-	9463154492
37.	Sh. Shiv Deyal	-Do-	9463473229
38.	Sh.Surinder Singh	-Do-	9463945277
39.	Sh. Shamsheer Singh	-Do-	9464116454
40.	Sh. Satnam Singh	-Do-	9417074987
41.	Sh. Tilak Raj	-Do-	9463706297
42.	Sh. Tara Chand	-Do-	9417516612
43.	Sh.Vijay Kumar	B/Conductor	9888983837
44.	Sh. Vijay Kumar	Driver	9417389093
45.	Sh. Joginder Singh	-Do-	9888196362
46.	Sh.Balkar Singh	-Do-	9780824849
47.	Sh. Radhey Sham	-Do-	8054160547
48.	Sh. Prem Kumar	Beldar	9872045763
49.	Sh. Mohan Lal	B/Conductor	7837096867
50.	Sh. Harjinder Singh	Driver	9464445582
51.	Sh. Gurmeet Singh	F/Man	9417876066
52.	Sh. Jasbir Singh	-Do-	9888020206
53.	Sh. Dharub Singh	Mechanic	9463285375
54.	Sh. Ajaib Singh	Work Mistry	9464650151
55.	Sh. Shamsheer Singh	Mechanic	9814075855
56.	Sh. Paramjit Singh	Mechanic Auto	9779954696
57.	Sh. Gargesh Kumar	-Do-	9464511223
58.	Sh.Romel Singh	-Do-	9463225899
59.	Sh. Vidhya Parkash	-Do-	9463706256

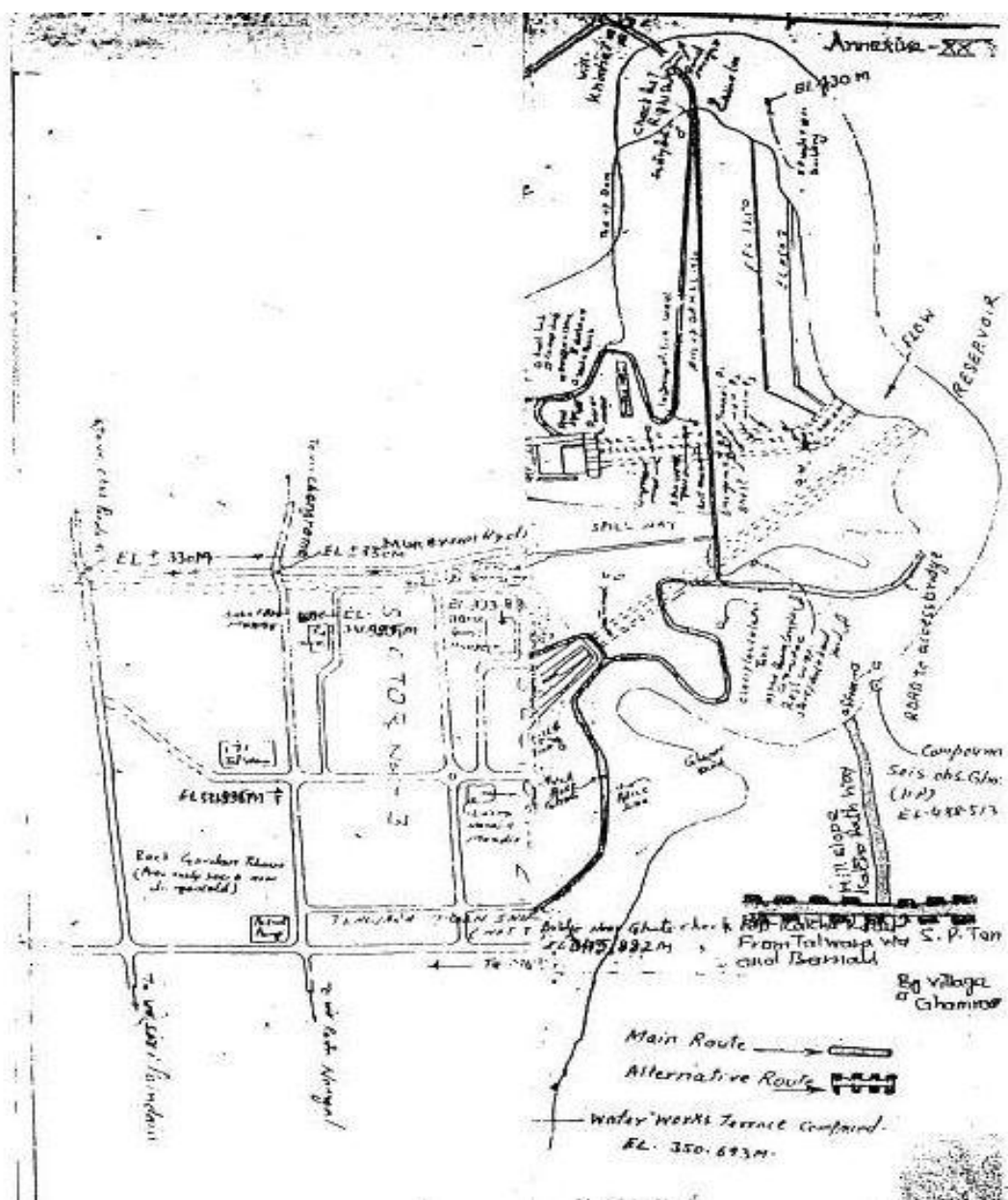
60.	Sh. Ashok Kumar	-Do-	9417675807
61.	Sh. Bakhtawar Singh	-Do-	9465232189
62.	Sh. Sukhpal Singh	Mechanic Diesel	9041604095
63.	Sh. Gian Chand	Welder	9417068721
64.	Sh. Bodh Raj	Fitter	9888781670
65.	Sh. Gopal Dass	Painter G.-I	9646235498
66.	Sh. Som Nath	Auto Elect.	9464317296
67.	Sh. Anil Kumar	-Do-	9418534127
68.	Sh. Surinder Singh	-Do-	7837795366
69.	Sh. Chaman Lal	Beldar	9878769460
70.	Sh. Ramesh Lal	-Do-	8556981769
71.	Sh. Arjun Singh	-Do-	9478844102
72.	Smt. Darshna Devi	Lady Beldar	9646353469
73.	Sh. Ramesh Kumar	Mechanic Diesel	9041620890
74.	Sh. Davinder Singh	Beldar	8968409061
75.	Sh. Kishore Singh	Driver	8437691920
76.	Sh. Pawan Bhakri	Supervisor	7889169502

### **Township Division**

<b>Sr. No.</b>	<b>Name of Employee S/Shri</b>	<b>Designation</b>	<b>Contacts No.</b>
1.	Er. Satnam Singh	Addl. SE	9417202086
2.	Er. Bhogi Lal	SDO	-
3.	Er. Ram Babu Sharma	SDO	9478618310
4.	Er. Satpal	SDO	-
5.	Er. T.P.S. Phull	SDO	9417202096

### **Procurement Store and Disposal Division**

<b>Sr. No.</b>	<b>Name of Employee S/Shri</b>	<b>Designation</b>	<b>Contacts No.</b>
1.	Er. Suresh Maan	Xen	9417206231
2.	Er. S.K. Dadhich	SDO	9417206939
3.	Er. Hitesh Dubey	ASP-1	9417011109



**ANNEXURE-XXI**

**LIST OF MACHINERY WITH XEN BHAKRA MECHANICAL DIVISION,**  
**NANGAL**

Sr. No.	Description	Qty	Present condition	Remarks
1.	Dozer (1986) (2002)	2		
	i)Chain Dozer A-62 A-64	1	Working	
	ii)Wheel Dozer A-63(1989)		-do-	
2.	Loaders 07Q(1989) 06P(1975)	2	-do-	
3.	Excavator cum loader C73 JCB(2003)	1	-do-	
4.	Hydraulic excavator C72(1998)	1	-do-	
5.	Dragline C68(1987)	1	-do-	
6.	Mobile Cranes C521(1994) C26(1971)	2	-do-	
7.	Crawler Crane C32 Power	1	-do-	
8.	Motor Grader J2 & J 6 (1952)	2	1 No. working	
9.	Trailor R232	1	Working	
10.	Water Sprinkler R223(1994)	1	Working	

**The machinery is generally stationed at El-1400 Bhakra Dam when not in use or for repair & maintenance work. Quarter wise the machinery is deployed/ stationed at work site for which job order is received by Sub Division Officer, Field.**

Note: List machinery received from SE, NMC, BBMB, Nangal.

## ANNEXURE-XXII

### LIST OF MACHINERY / EQUIPMENTS WITH BSL PROJECT SUNDERNAGAR

<b>Sr. No.</b>	<b>Nomenclature of Equipment</b>	<b>Total number of Remarks machinery</b>
-----		
a)	Heavy Earthmoving Equipments	
1.	L &T Poclain shovel	3 No
2.	Caterpillar wheel dozer	1 No
3.	Crawler Tractor	2 No
4.	Motor grader	1 No
5.	Excavator Point end loader	2No
b)	<b>Tunneling Equipment</b>	
1.	G.D. Grout Pump	2No
c)	<b>Construction Equipment</b>	
1.	Drilling machine	5No
2.	Cranes	3No
3.	Pumps	45No.V.T.5Pumps, SS Type Pump, Submersible Pump, Bare Hole Pump & Sump Pumps etc.
4.	Air compressor	4No
5.	Generating set	3No
6.	Concrete mixer	1No
(d)		
1.	TMB Tipper	9No
2.	Water sprinkler	1No
3.	Road Roller	1No
Note the above machinery will be available. If free from repair /maintenance work		

### **ANNEXURE-XXIII**

#### **MECHANICAL DIVISION BBMB, TALWARA TOWNSHIP**

##### **List of Machinery / Equipment's with Beas Dam, BBMB Talwara**

<b>Sr. No</b>	<b>Name of Machinery</b>	<b>No. of Machinery</b>	<b>Remarks</b>
1.	JCB CB-60	1	Working Condition
2.	Pocklain CB-59	1	-do-
3.	Wheal Dozer AB-129	1	-do-
4.	Derrick Crane	1	-do-
5.	CB-49 Crane	1	Major Break Down categorized-"C"
6.	Gourav Motor Boat	1	Working Condition
7.	Barrage	1	-do-
8.	Tug UL-2 & UI-4	1	Repair of Tug Boat UL-2 has been done and is to be launched in reservoir
9.	Tipper RB-178	5	Working Condition
10.	Tipper RB-162		-do-
11.	Tipper RB-163		-do-
12.	Tipper RB-164		-do-
13.	Tipper RB-165		-do-
14.	Tipper RB-160	1	Brake Down
15.	Tipper RB-161	1	-do-
16.	V.T.Pump 200 H.P.	5	4 No. pumps in working condition and installed in pumping station and 1 No. pump Break Down.
17.	V.T.Pump 125 H.P.	1	-do-
18.	Centrifugal pumps 100 H.P.	4	2 No. pumps at pumping station & 2 No. pumps in workshop.
19.	Centrifugal pumps 20 H.P.	2	Working condition
20.	Centrifugal pumps 5 H.P.	2	-do-
21.	Air Compressors (Electric)	3	-do-
22.	Air Compressors (Portable)	1	-do-
23.	Centrifugal pumps 45 H.P.	4	-do-
24.	Centrifugal pumps 7 H.P.	2	-do-
25.	Welding Set	4	-do-

List of machinery received vide Xen Mech. Divn. BBMB Talwara letter No. 3621 - 22/4-P dated 09.07.2014

**ANNEXURE-XXIV**

**LIST OF CONTRACTORS**

<b>Sr. No.</b>	<b>Name &amp; address</b>	<b>Contact No.</b>
1.	The Shivalik Co-op.L&C Society Ltd.Vill. Bheora. Po.Rangilpur. Distt. Ropar.	9818115100
2.	Sh. Vijay Singh Contractor, Village &P.O. Changerwan. P.O.Talwara, The. Mukerian, Hoshiarpur (Pb)	9417134399
3.	Sh. Ranjit Singh Randhawa, Contractor. Village Bararowal, P.O. Safdarpur. Dasuya.	9463708641
4.	M/S Eight Arms, near Nav Bharat Transport Company Sarna, Pathankot	9988656464
5.	M/S Jai Maa Construction Co.T-3/242 Shahpurkandi RSD Jugiul PTK.	9216363530
6.	M/S Liak Ahmad ( Prop) Sh. Akhil Ahmad R/o Thermal By-Pass Assandah Road Near Devi Lal Chok Panipat Haryana.	9541484866 9017501023
7.	The Chetanpura Co-op.L&C Society Ltd.Vill. Chetanpura.Teh. Ajnala Distt. Amritsar.	9855551681

**LIST OF FIRMS**

1. M/s Gammon India Ltd Gammon House. Veer Savarkar Marg Prabhadeve  
Mumbai- 4000250 022-56614000
2. M/s Maducon Projects Ltd D-27. East of Kailash New Delhi-110065 Tel. 011  
26425507/26425820
3. M/s Malana Power Company Ltd (MPCL) Bhilwara Towers . A-12.  
Sector-01. Noida -201301, NCR Delhi Tel. 0120-2536784. 4390300
4. M/s Larsen & Toubro Ltd, ECC Division. Mount Poonamalle Road.  
Post box No979. Manapakkam. Chennai-600089 Tel.No) 04422526000/25280000
5. M/s GMR Energy Ltd. J-3 Dhanwandeep Building. 6-Jantar Mantar  
Road, New Delhi. Tel. 011-23342701
6. AFCONS Infrastructure Ltd, 16 Shah Industrial Estate, Veera Desai  
Road, Azad Nagar, Andheri West, Mumbai -400053, Tel. 022-66773100
7. M/s Essar Power Ltd, (EPOL), Essar House, P.O.7495, Mahalaxmi, Mumbai-  
400034 Tel. 022-66601100/24950606
8. M/s Tata Power Company Limited, Business Development Department, A-Block  
Corporate Centre, 34-Sant Tukaram Road, Carnac Bandhar, Mumbai-9, Tel. 022-  
66658811
9. M/s Torrent Power AEC Ltd. (TPAL), Jayesh Desai, Torrent Pvt. Ltd Torrent  
House, Opp. Ashram Road, Ahmedabad-380009 Tel. 079-26585090
10. M/s Reliance Energy Ltd, Reliance Energy Centre Santacruz (E) Mumbai- 400055.  
Tel. 022-30099526.
11. M/s Kudos Agrohole Ltd, 1620. Sector 18-D, Chandigarh Tel. 0172-2784219.
12. M/s Jai Parkesh Associate Ltd. JA House, 63. Besant Lok, Vansant Vihar, New  
Delhi Tel. 011-26141540.
13. M/s HEG Ltd Bhilwara Towers, A-12. Sector -01. Noida -201301. NCR Delhi. Tel.  
0120-2541810.
14. M/s Deccan Cement Ltd 3<sup>rd</sup> Floor, Deccan Chambers, 6-3-666/B. Somajiguda  
Hyderabad- 5000082
15. M/s Kineta Power Pvt Ltd. 40, Ravi Shankar Shukla. New Delhi- 01. Tel.011  
23782633.



**ANNEXURE-XXVI**  
**List Of Offices To Be Informed Of Flood Message/Warning**

S.No	Name of Office	Contact No.
1.	Flood Control Room, Civil Secretariat Chandigarh	0172-2749901
2.	Financial Commissioner, Revenue, Punjab Chandigarh	0172-27443854
3.	Chief Engineer, Drainage, Punjab, Chandigarh.	0172-2549635
4.	Chief Engineer, Canals, Punjab, Chandigarh.	0172-2549130
5.	Central Flood Control Room, Sinchai Bhawan Sector-18, Chandigarh.	0172-2724552
6.	Deputy Commissioner, Hoshiarpur,	01882-220301-O 01882-220302-R
7.	Executive Engineer, Shah Nehar Head Works Divn, Talwara	01883-236044-O 01883- 236184-R
8.	Junior Engineer, Naushehra Mirthal, (via Xen, GPR)	01874-220840
9.	Commissioner, Jalandhar Division Jalandhar	0181-2224549-O 0181-2459661-R
10.	Commissioner, Patiala Division Patiala	0-2311324-O 0-2212052-R
11.	Commissioner, Faridkot Division Faridkot	01639-250009-O 01639-253435-R
12.	Commissioner, Ferozepur Division Ferozepur	01632-44004-O 01632-44005-R
13.	Deputy Commissioner, Jalandhar.	0181-2224783-O 0181-2459664-R
14.	Deputy Commissioner, Gurdaspur.	01874-247500-O 01874-224501-R
15.	Deputy Commissioner, Amritsar.	01883-2226161-O 01883-2226162-R
16.	Deputy Commissioner, Kapurthala.	01822-233777-O 01822-233780-R
17.	Deputy Commissioner, Ferozepur	01632-244008
18.	Deputy Commissioner, Faridkot	01639-251051-O 01639-251000-R
19.	Deputy Commissioner, Moga	01636-234400-O 01636-225401-R
20.	Deputy Commissioner, Tarn Taran.	01852-224101-O 01852-222751-R
21.	Sub Division Officer, (Civil), Mukerian.	01883-244441-O 01883-244442-R
22.	Sub Division Officer, (Civil), Dasuya.	01883-285024

S.No	Name of Office	Contact No.
1.	Superintending Engineer, U B D C Circle, Amritsar.	0183-2566252
2.	Superintending Engineer Drainage Circle, Amritsar.	0183-2229954
3.	Superintending Engineer, Drainage Circle, Jalandhar.	0181-2254633
4.	Superintending Engineer, Ferozepur Canal Circle, Ferozepur.	01632-244907 01632-244697
5.	Superintending Engineer, Drainage Circle, Ferozepur.	01632-245188
6.	Executive Engineer, Phagwara Drainage Division Jalandhar	0181-2254297
7.	Executive Engineer, Eastern Division Ferozepur	01632-246215
8.	Executive Engineer, Harike Division Ferozepur	01632-246210
9.	Member, Irrigation, BBMB, Sector 19-B, Chandigarh	0172-2548931 0172-2661499
10.	Secretary, BBMB Sector 19-B Chandigarh	0172-5011759 0172-2661912
11.	Chief Engineer, Beas Dam BBMB Talwara Township	01883-237131-O 01883-237133- R
12.	Director, Water Regulation, BBMB, Nangal Township	01887-223758-O 01887-223026-R
13.	Tehsildar, Dasuya, Punjab	01883-285024
14.	Tehsildar, Mukerian, Punjab	01883-244813
15.	Flood Control Room, o/o District Revenue Officer, Hoshiarpur	01882-220412
16.	Flood Control Room o/o Tehsildar, Mukerian	01883-244813
17.	Executive Engineer, Discharge Division, (I.B.), SCO No. 32, Phase No. 1 S.A.S. Nagar, Mohali	0172-2225597
18.	Executive Engineer, Drainage Division, Hoshiarpur	01882-252733
19.	Deputy Commissioner Kangra at Dharmshala (H.P.)	01892-222103-O 01892-224950-R
20.	Sub Divisional Officer (Civil) Nurpur, (H.P.)	01893-220024
21.	Sub Divisional Officer (Civil), Dehragopipur (H.P.)	01970-233102
22.	Sub Divisional Officer (Civil), Jawali, (H.P.)	01893-264310
23.	Tehsildar, Indora, (H.P.)	01893-241248
24.	Tehsildar, Fatehpur, (H.P.)	01893-256614
25.	Executive Engineer, Shah Nehar, Division, Sansarpur Terrace, (H.P.)	01970-256469
26.	Executive Engineer, Shah Nehar, Division, Badukhar, (H.P.)	01893-257472

**ANNEXURE-XXVII****List of Persons deployed at discharge sites - U/S & D/S of Pong Dam of R.M.  
Division, BBMB Talwara**

<b>Sr. No.</b>	<b>Name Of Employees S/Shri</b>	<b>Designation</b>	<b>Discharge Site</b>	<b>Contact No.</b>
1.	Sethi Singh	S.Obs.	Harsar	98824-02412
2.	Moti Lal	ALA	Dehra Gopipur	86268-11248
3.	Satish Kumar	ALA	Dada Siba	94183-30722
4.	Ram Krishan	Beldar	Nagrota Surian	9805242329
5.	Bidhi Chand	Beldar	Jawali	9805162715

**ANNEXURE-XXVIII**

**LIST OF ALTERNATIVE CONTACTS OF PERSONS TO BE NOTIFIED  
AS PER N. F.C.**

Sr. No.	Person to be Notified	Alternative Contact
1.	SDO Pong Dam Sub Division	SDO SST Sub Division, Talwara - 94172-02093
2.	Xen Pong Dam Division	SDO PD/Sub Division, Talwara- 94635-02157
3.	XEN, Electrical Division	SDO Elect. & Accts. Sub Division Talwara 9417012049
4.	Xen, HRD/Env. Division	SDO, Arrear Sub Division Talwara 9417070540
5.	Xen Township Division	SDO, Estate Sub Division Talwara 9463262377
6.	Supdt.(Xen), PS & D Division	ASP-I 9417011109
7.	Xen, Mechanical Division	SDO, Gates & Gearing Sub Division Talwara 9417469567
8.	Xen, RM Division	SDO, Land Dispute Sub Division Talwara 9417456978
9.	SDE, Water Regulation Division	ADE, Water Regulation Sub Division Talwara 7589344653
10.	Director, Water Regulation Nangal	SDE, Water Regulation Talwara 94179-14786
11.	SE/HQ, Beas Dam	SE/Pong Dam Circle 9418092177
12.	SE/Pong Dam Circle	SE/Talwara Circle -
13.	SE/Talwara Circle	Xen Township Divn. 94172-02086
14.	SE/PPH Circle	RE/PPH Circle 94172-01130
15.	RE/PPH Circle	SDO Civil, PPH Circle 9815633859
16.	C.E. Beas Dam Talwara	SE/HQ, Beas Dam Talwara 9418092177
17.	C.E. Bhakra Dam Nangal	SE/HQ, Bh./ Dam Nangal 01887223164
18.	C.E. BSL, Sunder Nagar	SE/HQ, BSL, S/ Nagar 019072-62730
19.	D.C. Hoshiarpur	ADC, Hoshiarpur 01882-220306-07
20.	SSP Hoshiarpur	DSP, Hoshiarpur 01882-247504
21.	Secy. Irrigation BBMB Chandigarh	Dy. Secy. Irrigation BBMB Chandigarh 0172-5011767
22.	Member Irrigation BBMB Chandigarh	Member. Power BBMB Chandigarh 0172-5011755
23.	Chairman BBMB Chandigarh	Member. Irrigation BBMB Chandigarh 0172-5011752-53