Visit Report

On

Chaskaman Dam

Department Of Civil Engineering,

Dr. D. Y. Patil School Of Engineering,Lohegaon.

(Be-Civil)

(On 25th Jan. 2017)

The department of Civil Engineering, Dr.D. Y. Patil School of Engineering, Lohegaon, Pune, organized a one day educational visit to, Chaskaman Dam, on 25th Jan. 2017 for B.E Civil Engineering students. Visit was organized as per Pune university guidelines and recommendations regarding syllabus of B.E Civil Engineering

Visit was organized with the prior permission and guidance of honorable Director of DYPTC, Lohegaon. Dr.S.S.Sonawane by the initiative and hard efforts of Head of Department of Civil Dr.A.R.Kolhe, & Subject Teacher Prof.J.d.Dalvi, guide the students during visit. Along with the staff members, students of B.E Civil specially, Naresh Chaudhary, Niteen Survase, Shubham Tapkir, Aditya Pol, Rajat Katekar, Amit Mote, Ashish Valesha, Lavan Deshetty takes hard efforts and initiative under the continuous guidance of Prof.J.D.Dalvi, which makes this visit a grand success.

- **LOCATION :-**

  Chaskaman Dam, Tq.Khed, Dist.Pune.

- **DAY & DATE :-**

  Wednesday, 25th JANUARY 2017.

- **GUIDE BY :-**

  Prof. J.D.Dalvi sir

- **OBSERVATION ON SITE :-**

To observe study the of dam , its construction, components and working as well as working of hydropower plant is also studied in this visit.

➢ INTRODUCTION :-

As per B.E.CIVIL engineering syllabus consideration in academic year-2016-17, of subject Dams and Hydraulic structures (DHS).B.E.CIVIL students visited dam site for understanding and getting knowledge about the dams construction, working of dam and its componentnts as well as working of hydropower plant.

The Chas Kaman Dam is one of the important dams of Maharashtra and is built on the Bhima River at Rajgurunagar in Pune district. The dam is a major tourist destination for tourists traveling to Pune because of the picturesque surroundings and backwaters. The place is an ideal monsoon retreat as the rains enhance the abundant green patches significantly. The main purpose of this Planning Commission approved project was to improve irrigation and supply of electricity to the nearby villages.

➢ HISTORY

The Chas Kaman Irrigation project was approved by the Planning Commission of India in 1977 and a budget of Rs. 22.47 Crore was approved for building this irrigation and hydroelectric project. The project includes the earthen dam which is about 738 meters in length and the masonry dam of 220 meters length. The maximum height of the dam from its lowest foundation level is approximately 46 meters. The dam has five radial gates with a spillway of approximately 72 meters. The reservoir holds about 241 MCM of water of which 214 MCM is approved for use for irrigation purpose. The depth of the dam is about 150 meters.

It is estimated that the Chas Kaman Dam can irrigate about 32824 ha of land of the villages nearby. The final cost of completion of the dam is believed to be around Rs.388 crores. A large number of villages in the Pune district get benefited by the dam directly. The dam and the surrounding areas receive rainfall from southwest monsoon from the month of June to September.

➢ CHASKAMAN HPP

Chaskaman Hydro-Power Plant is a 3 MW power station located at Chaskaman Dam on Bhima river near Rajgurunagar in Maharashtra, India.

This is the second greenfield Hydel Power Project developed by the Company.

Presently the plant supplies power to M/s. Tata Consultancy Services, utilizing the Maharashtra State Electricity Board grid, under open access policy.

The power is evacuated on a 33KV line and injected in Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL) substation at Kadus

Location	**Dam to power project on Chaskaman Dam**
District	Pune
Installed capacity	1 x 3 MW
River Stream	Bhima
Penstock	1 in number
Turbines	1 no. horizontal double regulated Kaplan
Rated Discharge	19.4 cumecs
Rated Head	18.4 m.
Generators	1 No. Synchronous type
Power House	24.5 m (L) x 8.5 m (B) x 20 m (H)
Commissioned	June 2002

➢ CONCLUSION :-

From this site visit we understood the details abut the dam and its working and as well as we got the knowledge about the hydropower plant.

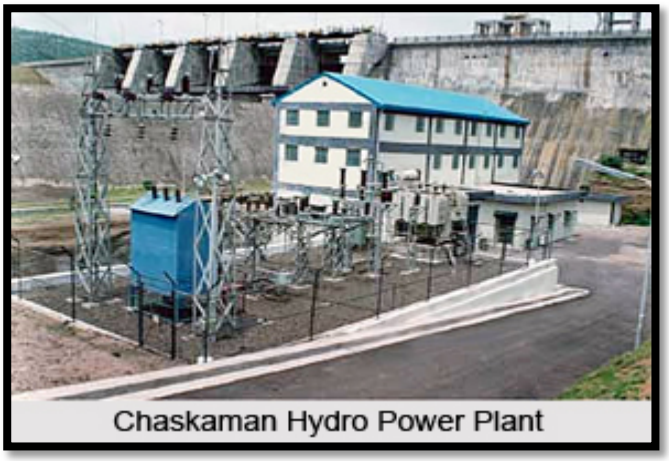
➢ SALIENT FEATURES OF CHASKAMAN DAM

Attribute	Value	Attribute	Value
Name of the Dam	Chaskaman Dam	**Dam Status**	Completed
River	Bhima	**Purpose**	Hydroelectric,Irrigation
Nearest City	Khed	**Commencement Year**	-
District	Pune	**Completion Year**	1999
State	Maharashtra	**Operating and Maintainance Agency**	WRD,GOM
Basin Name	Krishna		
Seismic Zone	Seismic Zone-III		
Dam Type	Earthen / Gravity / Masonry	**Max Height above Foundation(m)**	46.28
Length of Dam (m)	956	**Total Volume content of Dam (TCM)**	2903
Type of Spillway	OG	**Type of Spillway Gates**	Radial
Length of Spillway (m)	72	**Number of Spillway Gates**	5
Crest Level of Spillway	653	**Size of Spillway Gates (m X m)**	12 x 8
Spillway Capacity (cumec)	3962	**Mode of Operation**	-
Design Flood (cumec)	3962		
No. of River Sluice	-	**Size of Sluice(M X M)**	-
Sluice Purpose	-		

➢ SALIENT FEATURES OF CHASKAMAN RESERVOIR

Attribute	Value		Attribute	Value
Name of Reservoir	Chaskaman Reservoir		**Status**	-
State	Maharashtra		**Basin**	Krishna
River	Bhima			
Maximum Water Level (m)	650.44		**Live Storage Capacity(MCM)**	213.38
Full Reservoir Level (m)	649.53		**Dead Storage Capacity(MCM)**	28.31
Minimum Draw Down Level(m)	627.89		**Submergence Area(Th.Ha.)**	1.89
Gross Storage Capacity(MCM)	241.69		**Catchment Area(Sq.Km.)**	305.56
Water Allocation - Irrigation(MCM)	238.146		**Water Allocation - Industrial(MCM)**	39.927
Water Allocation - Hydroelectric (MCM)	-		**Water Allocation - Ecology(MCM)**	-
Water Allocation - Drinking(MCM)	5.097		**Water Allocation - Thermal(MCM)**	-
Land Affected - Total(Th.Ha.)	-		**Towns and Villages Affected**	28
Land Affected - Culturable(Th.Ha.)	2.0043		**Number of Families Affected - Total**	2640
Land Affected - Forest(Th.Ha.)	.0257		**Number of Families Affected - SC**	71
Land Affected - Others(Th.Ha.)	-		**Number of Families Affected - ST**	799
Reservoir Sedimentation Survey Done	-		**Recreation activities at Reservoir**	-
Aggrement on Sharing of Water	-			

➢ Photos:-



Chaskaman Hydro Power Plant

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(H.O.D.)

Civil Department (SOE)