

Himachal Pradesh
I&PH Department

No.SE.IPH.P&I-I-D-I Tech. Committee/2017-18-
To

2139-53

Dated:- 8.3.2018

✓ The Chief Engineer,
I&PH Department, (S/Z),(M/Z),(H/Z),(D/Z) &
CE- Cum- Director WSSO Dhalli.

Director (UD),
Palika Bhawan, Talland,
HP Shimla-171001

Director (RDD)
SDA Complex, Block No. 27,
Shimla-9

Sr. Environmental Engineer/
Sr. Scientific Officer,
HP PCB Phase-III,
New Shimla-09

Dr. Arvind Kumar Nima,
Dr. B.J.Alappat
Professors,
Civil Engineer Department,
IIT New Delhi.

Executive Officer,
M.C. Palampur & Mandi,
Distt. Kangra & Mandi HP.

Subject:- 2nd meeting of State Level Technical Committee for Scrutiny and approval
of DPRs for Sewerage Scheme in HP.

Enclosed please find herewith the minutes of 2nd meeting of State Level
Technical Committee for Sewerage, held on 15-02-2018 under the Chairmanship of E-in-C (IPH) in Jal
Bhawan, Kasumpti Shimla-9, for your kind information and further necessary action with the rider that
cost indicated with individual cases is not in the mandate of committee and the approval is only for
process/ technologies to be adopted.

DA:-Minutes of Meeting

— sd —
Member Secretary-Cum-
Superintending Engineer
P&I-I Jal Bhawan,
Kasumpti, Shimla-9.

Copy to:

1. The Secretary (IPH) to the Government of HP Shimla-2 for information please.
2. The Engineer-in-Chief, IPH Department, US Club, Shimla-1 for information please.
3. The Joint Controller (F&A) IPH Department U.S Club, Shimla-1 for information please.

Member Secretary-Cum-
Superintending Engineer
P&I-I Jal Bhawan,
Kasumpti, Shimla-9.

Minutes of 2nd Meeting of State Level Technical Committee for the year 2017-18, for technical scrutiny and approval of DPRs for sewerage schemes, held on 15-02-2018 at 11:00 AM under the Chairmanship of Engineer-In-Chief (IPH), in Jal-Bhawan Shimla-09.

List of participants is enclosed at Annexure –A.

At the outset the Chairman welcomed the participants .

The committee had an overview of the present status of functioning of various STPs in the State and observed that the performance is by and large satisfactory except for occasional deviations in some cases. The Chairman desired that periodic inspections be made by senior officers as well to ensure optimum performance of these STPs.

Superintending Engineer, GSWSS Circle informed the committee that the ministry of Environment, Forest and climate change has published a notification regarding new norms for effluent standards from STP's. The notification has been published in the digital gazette of Gol dated, 13th October, 2017. The snapshot of the notification is attached as below for ready reference.

MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE

NOTIFICATION

New Delhi, the 13th October, 2017

G.S.R. 1265(E).—In exercise of the powers conferred by sections 6 and 25 of the Environment (Protection) Act, 1986 (29 of 1986), the Central Government hereby makes the following rules further to amend the Environment (Protection) Rules, 1986, namely:—

1. Short title and commencement.—(1) These rules may be called the Environment (Protection) Amendment Rules, 2017.

(2) They shall come into force on the date of their publication in the Official Gazette.

2. In the Environment (Protection) Rules, 1986, in Schedule - 1, after serial number 104 and the entries relating thereto, the following serial number and entries shall be inserted, namely:—

Sl. No.	Industry	Parameters	Standards	
1	2	3	4	
			Effluent discharge standards: (applicable to all mode of disposal)	
105	Sewage Treatment Plants (STPs)		Location	Concentration not to exceed
			(a)	(b)
		pH	Anywhere in the country	6.5-9.0
		Bio-Chemical Oxygen Demand (BOD)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Tripura Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir, and Union territory of	20

		Andaman and Nicobar Islands, Dadar and Nagar Haveli, Diu and Daman and Lakshadweep	
		Area/regions other than mentioned above	30
	Total Suspended Solids (TSS)	Metro Cities*, all State Capitals except in the State of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, Sikkim, Himachal Pradesh, Uttarakhand, Jammu and Kashmir and Union territory of Andaman and Nicobar Islands, Dadar and Nagar Haveli, Diu and Daman and Lakshadweep	50
		Area/regions other than mentioned above	100
	Fecal Coliform (FC) (Most Probable Number per 100 millilitre, MPN/100ml)	Anywhere in the country	1000
<p>*Metro Cities are Mumbai, Delhi, Kolkata, Chennai, Bengaluru, Hyderabad, Ahmedabad and Pune</p> <p>Note :</p> <p>(i) All values in mg/l except for pH and Fecal Coliform.</p> <p>(ii) These standards shall be applicable for discharge into water bodies as well as for land disposal/applications.</p> <p>(iii) The standards for Fecal Coliform shall not apply in respect of use of treated effluent for industrial purposes.</p> <p>(iv) These standards shall apply to all STPs to be commissioned on or after the 1st June, 2019 and the old/existing STPs shall achieve these standards within a period of five years from date of publication of this notification in the Official Gazette.</p> <p>(v) In case of discharge of treated effluent into sea, it shall be through proper marine outfall and the existing shore discharge shall be converted to marine outfall, and in cases where the marine outfall provides a minimum initial dilution of 100 times at the point of discharge and a minimum dilution of 1000 times at a point 100 meters away from discharge point, then, the existing norms shall apply as specified in the general discharge standards.</p> <p>(vi) Reuse/Recycling of treated effluent shall be encouraged and in cases where part of the treated effluent is reused and recycled involving possibility of human contact, standards as specified above shall apply.</p> <p>(vii) Central Pollution Control Board/State Pollution Control Boards/Pollution Control Committees may issue more stringent norms taking account to local conditions under section 3 of the Environment (Protection) Act, 1986.</p>			

[F. No. Q-130170/2008-CPW]

ARUN KUMAR MEHTA, Addl. Secy.

The online notification was placed before the committee. It was observed that these norms are similar to the previous norms (except for Fecal coliform), which formed the basis for the design of all the STP's in the state. The chairman of the committee requested the member from H.P., Pollution Control Board to comment on the notification of the GoI. It was confirmed by PCB representative that revised norms have been notified and he further advised the committee to maintain the notified standards on all the STP's in the state with specific emphasis on the new parameter i.e Fecal Coliform count. The Committee member from IIT Delhi Prof. B.J. Alappat brought to the knowledge of the committee that the notified norms refers to the effluents which have to meet the water bodies such as streams, Rivers. In case the effluent is to be used for irrigation purposes, then it is to be further polished to meet the laid down standards by FSSAI for edible and non edible crops. The department can co-ordinate with Agriculture and Horticulture departments for reference of standards. The committee further opined that further upgradation of STPs has to be done keeping in view these standards as well as usage of water in downstream of effluent disposal point so as to eliminate the slightest possibility of water pollution or outbreak of

water borne disease. Besides, measures should be taken to prevent pollution of ground water as well. Moreover, to meet the new standards of Fecal Coliform (less than 1000 MPN per 100 ml.) appropriate upgradation as per the STP's requirement can be considered.

Thereafter the agenda items were taken up for discussion one by one.

The proposals received from all four zones were presented before the committee and the comments/observations/decisions taken is as under:-

DHARAMSHALA ZONE

1. Modernization / Up gradation of existing sewerage treatment plant 1.40 MLD at Govt. Medical college Tanda in Tehsil Nagrota Bagwan Distt. Kangra H.P.

The officer from IPH division Dharamshala presented the proposal. The main features of the proposal are as below:-

Present status	Proposed Up gradation	Estimated cost of proposal (in lacs)	Proposed New Units
1. Capacity: 1.4 MLD	1.4 MLD	59.25/-	<ul style="list-style-type: none"> • Wetland unit • Multi grade filter unit • Bio film enhancer • CW Macrophytes • O & M for one year
2. Process: Extended Aeration	Existing + Tertiary treatment (wetland Technology)		

Comments of the Committee:-

The committee was informed that the proposal pertains to liquid waste from Tanda Hospital and funds for the proposed tertiary treatment have already been received. The committee observed that though STP Tanda is functioning satisfactorily and there is no urgent requirement of tertiary treatment yet keeping in view the characteristics of the Bio-chemical discharge from the hospital premises the proposal presented before the committee was considered and approved in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are adhered to while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STPs /2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z)

SHIMLA ZONE

Superintending Engineer GSWSS Circle Shimla Municipal Corporation presented the following proposal for consideration and approval:

S.N.	Name of the Project	Present Capacity of Plant	Technology Proposed
1	Dhalli	0.76 MLD	SBR Technology
2	Sanjouli-Malyana	Installed 3.22 MLD	SBR Technology
		Designed 4.44 MLD	
3	Lalpani	Installed 13.78 MLD	SBR Technology
		Operational Capacity 11.0 MLD (considering with closure of UASB)	
		Designed 19.35 MLD	

Proposed new STP's

S.N.	Name of the Project	Capacity of Plant	Technology Proposed
4	Totu	3.5 MLD	SBR Technology
5	Panthaghati-Ashwinikhad	3.1 MLD	SBR Technology
Year - Designed		Year	2035

The upgradation of STPs with the SBR technology was approved with the following conditions:

1. It should have multiple basins to adjust for flow variations.
2. Side water depth should not be more than 6 meter.
3. Treatment in the STP should be followed by tertiary treatment by means of DMF or PSF followed by ACF. Expert also recommended that the protocol for maintaining and replacement of filter media for the tertiary treatment must be prepared and implemented.
4. Proper disinfection systems to be implemented.
5. It should have a centrifuge system for the better sludge dewatering system.

During discussion an important issue regarding usage of existing structures ,which still have considerable useful life left, after completion of proposed up gradation having new civil structures was highlighted by the members.

It was explained that on completion of this up gradation the existing units will be upgraded/ retrofitted to meet with the ultimate requirements of this projects. However some of the existing units will be used as chlorine contact tank and sludge digestion tanks. Keeping in view the clarification given by the Superintending Engineer and urgency explained by him, the committee approved the proposals subject to above mentioned conditions.

6. Providing sewerage system to Nalagarh town in Tehsil Nalagarh Distt. Solan HP

CE (S/Z) sent the proposal for up gradation of STP 3.62 MLD Cap. for Nalagarh Town, Tehsil Nalagarh Distt. Solan HP., vide CE (S/Z) letter No. IPH-CE(S/Z)-WA-I Sewerage scheme in Nalagarh /2017-18-12180-82 dated 13/02/2018.

EE Nalagarh gave the power point presentation of the proposal and the main features of the proposal are given in table below:-

Present status	Proposed Up gradation	Estimated cost of proposal (in lacs)	Proposed New Units
1. Capacity: 3.62 MLD	3.62 MLD	58.00/-	1. Filter feed tank
2. Process: Extended Aeration	Tertiary treatment		2. Dual Media filter 3. Activated carbon filters 4. Back washing arrangements

Comments of the Committee:-

The committee approved the project proposal in principal keeping in view the urgent need to maintain ground water quality in this industrial town with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

7. Plan proposal for sewerage system to Solan Town (SH: Up gradation & modification of 2.90 MLD STP using MBBR Technology by considering half of capacity i.e. 1.45 MLD at Zone-B in Tehsil & Distt. Solan).

CE (S/Z) sent the proposal for up gradation of STP 2.90 MLD Cap. for Solan Town, Tehsil Solan Distt. Solan HP., vide CE(S/Z) letter No. IPH-CE(S/Z)-WAI-Sewerage scheme Solan Town(444)/2018-12183-84 dated 13/02/2018.

EE Solan gave the power point presentation of the proposal and the main features of the proposal are given in table below:-

Present status	Proposed Up gradation	Estimated cost of proposal (in Rupees)	Proposed New Units
1. Capacity: 2.90 MLD	2.90 MLD	5445500/-	1. Tertiary Treatment with auto dosing chlorination system
2. Process: Extended Aeration	Existing + Tertiary treatment (MBBR Technology)		2. Multi stage Tube settlers

EE Solan also explained that proposed treatment is required to maintain the health of downstream stream which is an tributary of Giri river.

Comments of the Committee:-

The committee approved the project proposal in principal considering the explanation offererd by the EE with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z)

8. Up gradation of STP 1.00 MLD Cap. at Khopri, Tehsil Rampur Distt. Shimla HP. SH: C/O reduce the Parameters of effluent as per latest guideline of CPHEEO.

CE (S/Z) had sent the proposal for up gradation of STP 1.00 MLD Cap. at Khopri, Tehsil Rampur Distt. Shimla HP., vide CE(S/Z) letter No.IPH-CE(S/Z)-WAI-Plan Proposal (438)/2016-12123-24 dated 09/02/2018.

Comments of the Committee:-

The committee observed that since the existing STP is working satisfactorily, upgradation is not required in lieu of the gazette notification of 13th October, 2017 Gol.

9. Up gradation of STP 0.50 MLD Cap. at Chuhabag under Rampur Town Tehsil Rampur Distt. Shimla HP. SH: C/O reduce the Parameters of effluent as per latest guideline of CPHEEO.

CE (S/Z) had sent the proposal for up gradation of STP 0.50 MLD Cap. at Chuhabag, Tehsil Rampur Distt. Shimla HP., vide CE(S/Z) letter No. IPH-CE(S/Z)-WAI-Plan Proposal (438)/2016-12123-24 dated 09/02/2018.

Comments of the Committee:-

The committee observed that since the existing STP is working satisfactorily, upgradation is not required in lieu of the gazette notification of 13th October, 2017 Gol.

10. Up gradation of STP 1.00 MLD Cap. At Jhakhri, Tehsil Rampur Distt. Shimla HP.

CE (S/Z) had sent the proposal for up gradation of STP 1.00 MLD Cap. at Jhakhri, Tehsil Rampur Distt. Shimla HP., vide CE(S/Z) letter No. IPH-CE(S/Z)-WAI-Plan Proposal (438)/2016-12123-24 dated 09/02/2018.

Comments of the Committee:-

The committee observed that since the existing STP is working satisfactorily, upgradation is not required in lieu of the gazette notification of 13th October, 2017 Gol.

11. Proposal for up gradation of Sewerage Schemes Sarahan Town in Tehsil Rampur Distt. Shimla HP.

CE (S/Z) had sent the proposal for up gradation of STP 0.50 MLD Cap. at Sarahan, Tehsil Rampur Distt. Shimla HP., vide CE (S/Z) letter No. IPH-CE(S/Z)-WAI-Plan Proposal (437)/2016-12125-26 dated 09/02/2018.

EE Rampur gave the power point presentation of the proposal and the main features of the proposal are given in table below:-

Present status	Proposed Up gradation	Estimated cost of proposal (in Rupees)	Proposed New Units
1. Capacity: 4 No. Septic tanks (300 users each)	0.50 MLD	2750000/-	STP Plant with MBBR Technology compact type pre-fabricated
2. Process: Anearobic Process	Existing + Tertiary treatment (Pre fabricated STP with MBBR reactors)		

Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z)

AGENDA ITEM No. 2

New Proposals

Shimla Zone

1. Providing Sewerage to balance and additional urbanizable area of Solan town

CE (S/Z) had sent a proposal for up gradation of STP at Zone I -1.00 MLD Cap. (additional), Zone II -2.50 MLD Cap., Zone III - 1.60 MLD Cap. of Solan Town, Tehsil Solan Distt. Solan HP. , vide CE (S/Z) letter No. IPH-CE(S/Z)-WAI-Sewerage Solan Town (442)/2018-12185-86 dated 13/02/2018.

EE Solan gave the power point presentation of the proposal and the main features of the proposal are given in table below:

Present status	Estimated cost of proposal (in Rupees)	Proposed Technology
1. Capacity: Zone I- 1.00 MLD Zone II- 2.50 MLD Zone III- 1.60 MLD	716154000/-	SBR Technology

2. Process: SBR technology		
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Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP. s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z)

AGENDA ITEM No. 3

The following proposals were received during the course of the meeting without the recommendations of the concerned Chief Engineers:

1. Up gradation of sewerage treatment plant Reckong peo from 1.00 MLD to 1.50 MLD.

EE Reckong Peo gave the power point presentation of the proposal and the main features of the proposal are given in table below:

Present status	Proposed Up gradation	Estimated cost of proposal (in Lacs)	Proposed New Units
3. Capacity: 1.00 MLD	1.50 MLD	200.00	<ul style="list-style-type: none"> • Anaerobic Tank • Anoxic tank • Tube Settlers • Addition of ACF and PCF
4. Process: Extended Aeration	MBBR Technology		

Comments of the committee:-

The cost of the proposal was estimated to be approximately 2 Crores. The committee desired that that component wise cost shall be worked out for the project to be placed before the committee.

2. Sewerage scheme Nahan town himachal Pradesh.(New Proposal). Estimated cost-Rs.100.22 Cr.

EE Nahan gave a power point presentation of the proposal with main features as under:

Proposed Capacity	Estimated cost of proposal (in Lacs)	Proposed Technology
Zone 1: 2.00 MLD Zone 2: 2.50 MLD Zone 3: 1.00 MLD	10022.00	MBBR Technology

Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

3. Providing sewerage schgeme to Rajgarh town. (New Proposal). Estimated cost-17.98 crores.

EE Nahan gave the power point presentation of the proposal and the main features of the proposal are given in table below:

Proposed Capacity	Estimated cost of proposal (in Laacs)	Proposed Technology
2.50 MLD	1798.00/-	Latest (MBBR/FBBR/MBR) shall be decided at the time of working estimates.

Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

4. Upgradation of Existing STP of Sewerage Scheme Kotkhai, 0.35 MLD.,163 MLD. Estimated cost-Rs.225 Laacs.

EE Jubbal gave the power point presentation of the proposal.

Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

5. Proposal of Sewerage scheme Hatkoti 0.65 MLD, Estimated cost-Rs.206 Laacs

EE Jubbal gave the power point presentation of the proposal.

Comments of the committee:-

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

AGENDA ITEM No. 4

Mandi Zone

1. Sewerage Scheme Banjar Town in Tehsil Banjar Distt. Kullu (HP)

The A/A & E/S sewerage scheme Banjar town was accorded vide Add. Secretary (UD) letter no. UD-C(17)1/2014-1 Dated 21-11-2015 for Rs. 516.68. It is now proposed to construct the STP with MBBR technology which will cost Rs. 88 Lakh against the A/A & E/S provision of 68 lakh.

The main components proposed are:-

1. Bar Screen
2. Oil and grease trap
3. Collection cum Equalization tank
4. MBBR Reactor
5. Settling section
6. Chlorination Pressure Sand filter
7. Activated carbon filter
8. Sludge Disposal

Comments of the committee:

The committee approved the project proposal in principal with the condition that CE/SE will ensure that all the guidelines of CPHEEO Manual, instructions issued by the higher offices from time to time and HPPCB and CPCB regulations are to be adhered while submitting/approving DPRs. Guidelines for preparation of DPR should also be in agreement with the recommendation of the committee formed by Engineer-in-Chief HPIPH vide order No. IPH-STP, s/2016/1638-93 dated 08/02/2016 under the chairmanship of CE (H/Z).

During concluding discussion it was observed by the members that agenda items should be circulated in advance so that sufficient time is available for detailed study of the proposal before taking a final view. It was, therefore, desired by the chairman that in future all proposals, duly checked by the concerned Zonal Offices, must reach the office of Member Secretary at least one week in advace.

The chairman expressed sincere thanks to external experts for taking time out of their busy schedule to attend the meeting .

Meeting ended with vote of thanks to & from the chair.