

## NJS ENGINEERS INDIA PVT. LTD.

ISO 9001 Certificate No. RQ91/9493

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Ref No: NJSEI/BLR/Hebbal STP/PRO/F2/P4/180/2018-19

Date: 26/04/2018

Executive Engineer (STP) Hebbal Valley Bangalore Water Supply and Sewerage Board Opp. Nagavara Lake, BDA Ring Road, Bangalore-560024

OIC

Project: Construction of 100 MLD Capacity STP at Hebbal, Bengaluru

Subject: Basic Engineering Package-BEP-Rev-2

Ref.: Contractor's letter ENVIRO/BWSSB/HEBBAL/2018/087 dated 9 April 2018

Dear Sir,

We refer to the subject and reference cited above. The Contractor has submitted the Basic Engineering Package (BEP)-Rev-2 for the above said works.

The document has been reviewed and recommended for approval under Code 'B'. The comments are enclosed in vide Doc. No.NJSEI-HEBBAL-PRO-2018-011.

Five (5) copies of the document are enclosed and the transmittal No. 180 contains the code.

After BWSSB has completed signing, please distribute the copies of the document as follows:

- 1 No. EE (STP) Hebbal Valley
- 1 No. for Contractor
- 3 Nos. for NJSEI

We will distribute the three NJSEI copies as below,

- ➤ 1 No. for Admin File
- ➤ 1 No. for Design Engineer
- > 1 No. for Site office

Kindly return NJSEI's three copies of the signed document to us.

Further BEP will be approved in Code-A only after finalizing the equipment Data Sheet and related approvals.

Please advise the Contractor to revise and submit the drawings for further approval.

Yours faithfully,

Team Leader

NJS Engineers India Pvt. Ltd.

Encl: Transmittal, 1 page

NJSEI comment sheet, 2 pages

Document, 5 copies

c.c: CE(WWM), Cauvery Bhavan, for information (no enclosures)

ACE (WWM-1), Cauvery Bhavan, for information (no enclosures)

NJSEI-180 Basic Engineering Package (BEP)-Rev 2

Registered Office: CIN: U74210PN2007PTC129798

Reply to H-275 PRO/F2\* SRK\* RLH\* DYG\* GN\* Site Office\*



### NJSEI TRANSMITTAL

Bangalore Water Supply and Sewerage Board

Project: Design and Construction of 100 MLD Capacity STP at Hebbal, Bengaluru

Transmittal No: NJSEI/180, dated 26.04.2018

We herein convey our approval/comments on the documents enclosed Transmittal. Approval/comments conveyed herein neither relieves the vendor/contractor of his contractual obligations and his responsibilities for correctness of dimensions, materials of construction, weights, quantities, design details, assembly fits, performance requirements and conformity of the supplies with the Indian Statutory Laws as may be applicable, nor does it limit the purchaser's rights under the contract.

#### **CODES**

A – Approved, manufacture/construction may commence.		B – Acceptable subject to changes indicated. Resubmit for approval but manufacture/construction may commence.			
C – Amend as comments indicated and resubmit for Approval.		D – Comments noted in Letter/memo attached to forwarding transmittal NrdatedAmend as comments indicated and resubmit for approval.			
E – Amend as comments indicated resubmit for record.		F – Comments noted in Letter/memo attached to forwarding transmittal NrdatedAmend as comments indicated and resubmit for record.			
	rawing of this category is for information and not required to be approved.				
SI. No.	Title	Contractor Reference	Revision	Code	
1	Basic Engineering Package	ECAIPL/BWSSB/STP/HEB/P/BEP	2	В	

## **NJSEI Comments Sheet**

Doc. No.: NJSEI-HEBBAL-PRO-2018-011

DOC: 1103: 1103:E1-11EDDAL-1 RO-2010-011		Date: 26-04-2018	
Contractor Letter Ref No.	ENVIRO/BWSSB/HEBBAL/2018/087	Date	09/04/2018
NJSEI Received	H-275	Date	09/04/2018

#### Plant: Design & Construction of 100MLD SBR STP at Hebbal

# $Document\ Description:\ Basic\ Engineering\ Package-Rev.\ 2$

SI. No.	Comments	Document No.	Status/ Action
	General		71CHOM
1	Contractor to list all references mentioned in the BEP. Ref 14 is mentioned in Sec 3.2.5 but is not listed under references.		
2	Contractor to print and include all references used in the BEP and submit along with revision.		
	Basic Engineering Package – Rev. 2	ECAIPL/BWSSB/STP /HEB/P/BEP	Code - B
3	Section 1.4.2: Contractor to include addition of the new Intermediate Chamber-3, the alum dosing facility as well as the Alum Dispersion Mixer in the technical description as discussed and agreed during meeting on 28th March, 2018.		
4	Section 1.4.3: Contractor to update and revise the arrangement of poly dosing tanks, poly dosing pumps as well as their configuration and capacity as discussed and agreed during meeting on 28th March, 2018.		
5	Section 3.2.5: Contractor to justify revision of HRT to 46.8sec from 65.8sec.		
6	Section 3.2.6: Contractor to justify revision of the dimensions of the individual grit chamber outlet channel.		
7	<b>Section 3.3.6:</b> Contractor to include details of submersible mixers for COTDM Feed Sump.		
8	Section 3.4.2a(i): Contractor to confirm if height of each 50kg polyelectrolyte bag is 0.25m or 0.15m.		
9	Section 3.4.2a(iv): Contractor to provide operating philosophy for sludge from existing STP as already commented upon in Doc. No. NJSEI-HEBBAL-ICA-2018-010, Sl. No. 11.		
10	Section 3.4.2b(i): Contractor to confirm if height of each 50kg polyelectrolyte bag is 0.25m or 0.15m.		
11	Annexure IV, Section 15: Contractor to confirm if SBR inlet channel (3 nos.) are capable of handling additional flow during peak condition in the case wherein 1 SBR basin is offline.	~	
12	Annexure IV, Section 15: Contractor to provide operating philosophy with flow calculations for normal SBR operation and in the case wherein 1 SBR basin is offline.		
	The following comments (Sl. No. 13-16) were given for BEP-Rev.1 ( <i>Ref.</i> Letter No. NJSEI/BLR/Hebbal-STP/PRO/FI/P3/067/2017-18 and Doc. No. NJSEI-HEBBAL-PRO-2017-006 dated 14/12/2017). Contractor to		

	incorporate the comments and update the BEP accordingly.	3-
13	Primary clarifier effluent/overflow: The values of NH3-N and Org-N have been interchanged.	
14	SBR: Flow rate around SBR is not balanced	
15	Mechanical Screw Thickener: Flow rate around Mechanical Screw Thickener is not balanced	
16	Mechanical Screw Thickener & COTDM: Please specify Poly electrolyte dosing (Unit: kg/day)	