

To  
The Additional Secretary to Govt,  
Department of Water Resources,  
Rajiv Bhawan,  
Bhubaneswar

Sub: On line water Application No 2023062541000543 Query No1

Sir,

In inviting a reference to the above cited subject we are to intimate that the Details of information as desired by you is furnished below for your kind intimation and necessary action

Sl no	Observation	Compliance
1	The industry has to mention the period of drawal of surface water (i.e., for 0.88 cu sec) for operational purpose.	The company intends to draw water From September 2023 taking into consideration of plant operations.
2	Note on scheme of drawl of water	Submitted along with this letter below
3	Note on quantity calculation in favour of 0.88 cu sec of water for operational purpose.	Already submitted along with online application however the same is once again furnished herewith for your kind reference.

#### Note on scheme of drawl of water

- Raw Water Requirement for this 1x60 MW (IPP) Power plant has been estimated as 0.88 cusec.
- Source is River Brahmani at 3.5 km away on road from the plant site.
- Department of water resource, Government of Odisha have approved the site of intake well on the Right bank of village kharagprasad and have already allocated 4 cusecs of drawl for the existing FAP&PP.
- Further requirement of water @0.88 cusec for the 60 MW.
- The existing intake well structure, Both Pipe lines and Raw water Reservoir will be used for the proposed drawal (0.88 cusec) which shall meet the drawl requirement of 0.88 cusec.
- The silent features of the existing intake has been discussed in detail in Water management Report has been presented below.

➤ Salient features of present Intake Arrangements

(a) River (Daata 2006)

- Observed HFL	-	RL 53.00 m
- Lean season water level (Minm. Observed)	-	RL 43.60 m
- River Bed level	-	RL 43.10 m
- NSL at right bank	-	RL 51.265 m

(b) Jack well:

- R.C.C well structure
- Diameter – Internal Dia = 5.00 m  
External Dia = 7.00 m
- Well sunk to hard rock foundation — RL 35.00
- Service floor elevation (above HFL)- RL 54.00 m
- Roof top elevation — RL 58.50 m
- Inlets 3 no. of 700mm dia pipes at different elevations.

(c) Collector Wells:

- 2 nos. R.C.C well structure constructed out of 3 nos. designed
- Diameter of well — 5.00 (Internal)
- Sunk to elevations — RL 35.00 m
- Top elevation of collector wells (below river bed)= RL 43.10M

[The above features are shown in the Sectional Elevation [DRG No 1] attached in this document]

(d) Hydro-mechanical Installations

- \* Pumps used - 2 nos. main pumps
- \* Type of pump - Vertical Turbine pumps
- \* Discharging capacity - 550 m<sup>3</sup>/hour/each
- \* Standby pumping unit- 2 nos. Centrifugal pumps.
- \* Electrical switch Board & other installations.

(e) Rising Mains:

At present comprises of two pipes.

- \* Diameter of main pipe line = 500mm
- \* Diameter of other pipe line = 300mm
- \* Material of the pipe line = MS pipes
- \* Sluice valves, DJ and non-return valves (NV) provided

(f) Flow meter

- \* Flow meters from standard manufactures have been used in the Rising mains to record quantity of drawal by the authorized officers of the Water Resources Department. Regular payment of water rent has been made for the quantity of drawal in respect of the existing unit.



Note on quantity calculation in favour of 0.88 cu sec of water for operational purpose.

NAVA Ltd. formerly known as NAVA BHARAT VENTURES LTD.(NBVL) located at village, KharagPrasad in Dhenkanal Dist. has set up 150 MW Power plant (90 MW CPP+60 MW IPP) and 75000 MTA FerroAlloy plant.

The total water requirement for Power Plants and Ferro Alloy Plant workout to be 4.88 cusec per month, earlier, Department Of Water Resources Govt of Odisha have already allocated 4.0 cusec of water for drawl from river Brahmani in favour of the company for the existing FAP and PP vide Letter no.15028/WR dt. 15.04.2008, copy enclosed for reference.

For the additional requirement of 0.88 cusec water, the company had approached IPICOL and after discussion of the proposal in the state level single window clearance authority (SLSWCA) on 31st March 2023, SLSWCA has approved 0.88 cusec of additional water in favour of the company. Subsequently IPICOL recommended to Additional Secy. Govt of Odisha, Dett. Of Water Resources for allocation of 0.88 cusec additional water in favour of the company vide letter dt. 01.05.2023, copy enclosed for reference.

The existing intake well & pipe line shall be used for drawl of additional 0.88 cusec water.

The existing raw water reservoir and the storage pond is well designed to accommodate the additional 0.88 cusec water to meet the lean season requirement

The tabulation of Water Requirement has been presented below for assessment and allocation

The calculation is as follows:

- 1.At present we have 04 cusec (9786.3033 M3/day) (293589 M3/Month) agreement for water drawl from Irrigation division which is sufficient for 2 units operation.
- 2.Considering operation of all three units, FAP the total water requirement of plant and the details are given below:

S. No	Area of consumption	Water requirement	Remarks
1	FAP(O) considering both furnaces, colony, canteen & hostel	24000 M <sup>3</sup> /Month	NA
2	PP(O) Units-1,2&3	334800 cubic meter/month (3.10 lts/KWHx150 MW=465/hrx24 hrs=11160x30=334800 cubic meter/Month)	It is estimated @3.10 M <sup>3</sup> /MWH which is based on last three years average data
Total		358800 M <sup>3</sup> / month which is equivalent to 4.88 cusec	The total water requirement for Power Plants and Ferro Alloy Plant workout to be 4.88 cusec per month, earlier, Department of Water Resources Govt of Odisha have already allocated 4.0 cusec of water for drawl from river Brahmani in favour of the company for the existing FAP and PP vide Letter no.15028/WR dt. 15.04.2008,
	Balance Water Requirement	0.88 cusec	Applied for

From the above figures we require additional is the minimum 0.88 cusec requirement for smooth operation of all PP units.

Hence, we Request to Department of water Resources for approving the additional water Requirement at the earliest possible time.

Thanking you,

For Nava Limited,

(Commodore. G Prakash)

Vice-President -Odisha Works

