

# **PATRATU VIDYUT UTPADAN NIGAM LIMITED**

(A subsidiary of NTPC Limited in Joint Venture with Jharkhand Bijli Vitran Nigam Limited)

Ref. No.: PVUNL/FEB/2016/TS/ENV/02

Date: 30.04.2016

Director - IA (Thermal),  
Ministry of Environment & Forests & Climate Change,  
India Paryavaran Bhawan,  
Jor Bagh, Aliganj,  
NEW DELHI  
110 003.

**Sub: Reconsideration for accord of Terms of Reference (TOR) for carrying out EIA Study for the proposed Patratu Super Thermal Power Project Phase-I (3x800 MW) located in Tehsil Patratu, Ramgarh Dist. of Jharkhand.**

Ref: Our Online proposal no. : IA/JH/THE/32025/2015

Dear Sir,

This has reference to Minutes of Meeting of EAC held on 29.02.2016 regarding approval of Draft Terms of Reference (TOR) for carrying out EIA Study of proposed Patratu Super Thermal Power Project, Phase-I (3x800 MW), located in Tehsil Patratu, Ramgarh Dist. of Jharkhand.

The above proposal for approval of TOR was deferred and EAC sought certain information/documents regarding Transfer of Assets to PVUNL, Layout plan, Dismantling plan of existing units and action plan on recommendation of Sub-group of EAC visit at site on 28.01.2013.

The desired information and documents are attached herewith Annexure-I. Further, NTPC response to ER's letter is attached at Annexure-II.

In view of above, it is again requested that accord of TOR for EIA Study for establishing Patratu Super Thermal Power Project Phase-I (3x800 MW) may kindly be reconsidered in the forthcoming EAC meeting.

Thanking you,

Yours faithfully,  
For & on behalf of PVUNL,

  
30/04/16

(Tarun Kumar Konar)

Addl. General Manager (TS), PVUNL

Encl.: As above.

**Point wise Reply of PVUNL for 52<sup>ND</sup> EAC Meeting held on 29.02.2016**

**ITEM NO.-2.2 :      **Patratu Super Thermal Power Project, Phase-I (3 x 800 MW) by M/s PVUNL reg. reconsideration of TOR****

<b>SL. No.</b>	<b>ISSUES RAISED</b>	<b>COMPLIANCE</b>
2.2.2	The assets (including land for main plant, ash dykes I & II and for the railway track totaling 1190.267 acres) had not yet been transferred to PVUNL.	Transfer Scheme has been issued vide notification no. 888, Ranchi dated 01.04.2016 by Govt. of Jharkhand, to transfer the specified assets of PTPS to PVUNL. Details attached as <b>Annex. A.</b> (Transfer Scheme)
2.2.3	a) The site for the earlier proposal of 2X660 MW and for the present proposal of 3 x 800 MW were overlapping to some extent. b) A sub-committee had visited site before issuing earlier TOR to M/S PEL. They had made a report. Reply against the sub-committee recommendations is sought for.	a) NTPC LTD / JUUNL / JBVNL and Govt. of Jharkhand has selected this location to avoid dismantling of large nos. of civil structures and also to avoid diversion of Patratu-Ramgarh road which has been notified as major district road. b) Compliance of the recommendations of Sub-committee is attached at <b>Annex. B.</b>
2.2.4	There is no clarity regarding the State govt.'s approval to the phasing out/closure plan of the existing units of Patratu Energy Ltd. In addition, the EAC further noted that significant environmental damage has already been caused by the existing TPP. Hence, an action plan to rectify the same needs to be submitted.	Action has been initiated by JUUNL (GoJ) for phasing out of various units of PTPS. Unit # 1,2,3,5 & 8 and Boiler 6A to be phased out immediately. Units # 4 & 6 to be phased out during 12 <sup>th</sup> Five year plan (by 2017) / after commissioning of unit # 7 & 9. Units # 7, 9 & 10 to be phased out after commissioning of all new units of Phase – I expansion i.e. in the year 2021-22. Action plan to rectify the environmental damage is at <b>Annex. B</b>
2.2.5	It was also noted that there was no senior level representation from either of the two JV partners i.e. NTPC and JBVNL. This needs to be taken care of for all future cases involving either of the JV partners.	It will be ensured in future.
2.2.6	A detailed reply to the issues raised by ERC, New Delhi in their communication to the EAC shall also be submitted.	The reply is attached in <b>Annexure II.</b>

GOVERNMENT OF JHARKHAND  
ENERGY DEPARTMENT

NOTIFICATION

Annex-A

Notification No. 888.....

Ranchi, Dated. 01.04.2016

THE JHARKHAND STATE ELECTRICITY REFORMS (TRANSFER OF  
PATRATU THERMAL POWER STATION) SCHEME, 2015

In exercise of the powers conferred by section 131, 133 and other applicable provisions of the Electricity Act, 2003, the Government of Jharkhand notified the Jharkhand State Electricity Reforms Transfer Scheme, 2013 for giving effect to the provisional transfer of properties, interests, rights, assets, liabilities, obligations, proceedings and personnel of the Jharkhand State Electricity Board vide its notification dated 6<sup>th</sup> January 2014.

The Government of Jharkhand further notified "The Jharkhand State Electricity Reforms Revised Transfer Scheme, 2015" vide its notification dated 20.11.2015, vide which the earlier provisional period of one year was extended upto 31.03.17 for giving effect to the final transfer of properties, interests, rights, assets, liabilities, obligations, proceedings and personnel of Board. The Revised Transfer Scheme, 2015 provided that Patratu Thermal Power Station Undertaking shall be vested into Government of Jharkhand under sub-section (1) of Section 131 of the Electricity Act, 2003 and shall be re-vested by way of subsequent transfer scheme.

The Government of Jharkhand being desirous of performance improvement of existing capacity and capacity expansion of PTPS, accordingly have caused JBVNL to enter into an agreement with NTPC and signed a Joint Venture Agreement with NTPC on 29<sup>th</sup> July, 2015 ("JV Agreement") to incorporate a Joint Venture Company between NTPC and JBVNL with 74:26 percentage ownership respectively for undertaking the objectives and terms and conditions set out therein.

In exercise of the powers conferred under sub-section (2) of Section 131 of the Electricity Act, 2003 and other applicable provisions, the Government of Jharkhand hereby makes the following Scheme for providing and giving effect to the transfer of specified properties, interests, rights, assets, obligations, proceedings and Specified Personnel of Patratu Thermal Power Station to Patratu Vidyut Utpadan Nigam Limited and for matters incidental and ancillary thereto. The residual assets after transfer of the Specified Assets of PTPS shall vest in JUUNL.

1. *Short Title and Commencement:* -
  - 1.1 This scheme may be called the Jharkhand State Electricity Reforms (Transfer of Patratu Thermal Power Station) scheme, 2015 ("**Transfer Scheme**").
  - 1.2 The Scheme shall come into force with effect from the date of its notification in the official gazette.

2. *Definitions – In the Scheme, unless the context otherwise requires :-*
- (a) **“Act”** means the Electricity Act, 2003 (36 of 2003) and any subsequent amendments thereto;
  - (b) **“Approval”** shall mean any permit, permissions, approvals, consents, authorisations, government approvals, clearance, waiver, grant, franchise, concession, no objection certificate, certificate, exemption, order, registration, declaration, filing, report, notice, validations, confirmations, licenses and other authorisation of whatever nature and by whatever name called (whether regulatory or otherwise), if any;
  - (c) **“Assets”** means all assets & properties including power systems, plant, machinery, land, building, offices, stores, furniture, fixtures, vehicles, residential quarters and guest houses and amenities and installations pertaining and attached thereto and other movable and immovable assets, cash in hand, cash at bank, investments, book debts - corporeal and incorporeal, tangible and intangible assets, benefits, licenses, consents, authorities, registration, patents, trademarks and powers of every kind, nature and description whatsoever, privileges, liberties, easements, advantages, benefits and approvals, contracts, deeds, schemes, bonds, agreements and other instruments and interest of whatever nature and wherever situated and including the contingent assets, which may arise in regard to dealings before the Effective Date;
  - (d) **“Board”** means Jharkhand State Electricity Board constituted under Section 62 of The Bihar Reorganization Act 2000 and functioning under the Electricity (Supply) Act, 1948 (54 of 1948);
  - (e) **“Business Day”** shall mean any day other than a Saturday or Sunday or a public holiday, as declared and observed by the JVC;
  - (f) **“Company”** means a company incorporated under the Companies Act, 1956 or the Companies Act 2013;
  - (g) **“Deemed Loan Amount”** means the meaning attributed to it under clause 3.8 of the Transfer Scheme;
  - (h) **“Effective Date”** means the date of notification of Transfer Scheme in the Official Gazette after fulfillment of terms and conditions agreed between JBVNL and NTPC as per the JV Agreement upon which the control, management and operations of Specified Assets of the PTPS as mentioned in Schedule A shall be duly and validly transferred in the PVUNL for all purposes as per this Transfer Scheme;
  - (i) **“Encumbrance”** shall mean and include any encumbrance including, without limitation, any claim, deed of trust, right of others, security

interest, title defect, title retention agreement, indebtedness, lease, covenant, mortgage, pledge, charge, hypothecation, lien, encroachment, public right, easement, common right, way leave, or transfer restriction in favour of any person, any adverse claim as to title, possession or use, any provisional or executorial attachment and any other interest held by a third party or any agreement, arrangement or obligation to create any of the foregoing; and the term "Encumber" shall be construed accordingly.

- (j) **"Existing Units"** means existing 10 units of PTPS with a total installed capacity of 840 MW (de-rated capacity of 770 MW);
- (k) **"Existing PPA"** means the existing power purchase agreement between the JUUNL and JBVNL dated 02.05.2015;
- (l) **"First Tranche Amount"** shall mean the NTPC First Tranche Amount and the JBVNL First Tranche Amount referred to collectively;
- (m) **"JBVNL First Tranche Amount"** shall have the meaning attributed to it in Clause 3.6 of the Transfer Scheme.
- (n) **"Jharkhand Bijli Vitran Nigam Ltd"** or **"JBVNL"** means the Distribution Company, to which the Distribution Undertakings of the Board was transferred;
- (o) **"Jharkhand Urja Utpadan Nigam Ltd"** or **"JUUNL"** means the Generating Company to which the Generating Undertakings (excluding PTPS) of the Board was transferred;
- (p) **"Jharkhand Urja Sancharan Nigam Ltd"** or **"JUSNL"** means the Transmission Company to which the Transmission Undertakings of the Board was transferred;
- (q) **"Jharkhand Urja Vikas Nigam Ltd"** or **"JUVNL"** or "the Holding Company" means the holding company owning all shares of. Jharkhand Urja Utpadan Nigam Ltd, Jharkhand Urja Sancharan Nigam Ltd and Jharkhand Bijli Vitran Nigam Ltd;
- (r) **"Joint Venture Company"** or **"JVC"** means the "Patraru Vidyut Utpadan Nigam Limited" or **"PVUNL"**, a company incorporated under the Companies Act, 2013 as a joint venture company of NTPC and JBVNL, and having its registered office at NTPC Bhawan, Core-7, SCOPE Complex, 7, Institutional Area, Lodi Road, New Delhi-110003;
- (s) **"JV Partner"** shall mean NTPC and JBVNL referred to individually and **"JV Partners"** shall mean NTPC and JBVNL referred to collectively;
- (t) **"Land to be transferred to PVUNL"** shall mean the specified and identified land as indicated in schedule A, Part- I, 2 (ii).

- (u) "**Liabilities**" include all liabilities, debts, duties, obligations and other out-standings including statutory liabilities and Government levies of whatever nature and contingent liabilities which may arise in regard to the dealings before the Effective Date of the transfer in respect of the Undertakings, transferred under this scheme;
- (v) "**New Units**" shall mean the new units proposed to be incorporated by way of Phase I and Phase II.
- (w) "**NTPC Limited**" or NTPC means NTPC Limited a company incorporated under the Companies Act 1956, having its registered office at NTPC Bhawan, SCOPE Complex, 7, Institutional Area, Lodhi Road, New Delhi-110003 and engaged in generation of power;
- (x) "**NTPC First Tranche Amount**" shall have the meaning attributed to it in Clause 3.5 of the Transfer Scheme.
- (y) "**Patratu Thermal Power Station**" or, "PTPS" or "Project" or PTPS Undertakings means the Patratu Thermal Power Generating Station of the Board/ Jharkhand Urja Utpadan Nigam Ltd, vested in the State Government and being re-vested into PVUNL by way of this Transfer Scheme;;
- (z) "**Percentage Ownership**" shall mean (the number of shares of PVUNL registered in the name of NTPC and JBVNL whose percentage ownership is being computed divided by the total number of issued and allotted shares of PVUNL ) \* (multiplied by) 100.
- (aa) "**Performing Existing Units**" means unit numbers 7, 9 and 10 of PTPS with a total de-rated capacity of 325 MW;
- (bb) "**Phase-I**" means expansion of capacity of PTPS through 3 (three) new units of 800 MW each;
- (cc) "**Phase-II**" means expansion of capacity of PTPS through 2 (two) new units of 800 MW each, after dismantling the Existing Units (including the Performing Existing Units);
- (dd) "**Proceedings**" means the proceedings of whatever nature including suits appeals, complaints, petitions, applications, conciliatory, arbitration whether civil or criminal or otherwise, in which Board/JUUNL is one of the parties;
- (ee) "**Specified Assets**" means the assets, including Land, specified in Part II of Schedule A of the Transfer Scheme;

- (ff) **"Specified Personnel"** means the meaning attributed to it under clause 4.2 of the Transfer Scheme;
- (gg) **"Specified Agreement"** means the agreements enlisted in Schedule-B of the Transfer Scheme;
- (hh) **"Schedules"** means the Schedules appended to this Scheme;
- (ii) **"State"** means the State of Jharkhand;
- (jj) **"State Government"** means the Government of Jharkhand;
- (kk) **"Transferee"** means Patratu Vidyut Utpadan Nigam Ltd and Jharkhand Urja Utpadan Nigam Ltd as the case may be.
- (ll) **"Terminal Benefits"** means the GPF(FW),GSS, Gratuity, Pension, Dearness Allowance, Leave Encashment and other applicable benefits including the right to have appropriate revisions in the above benefits consistent with the practice that were prevalent in the Board;
- (mm) **"Undertaking (s)"** mean the functions, business and a block or blocks of properties, interest, rights, assets, liabilities, obligations, proceedings and personnel to the extent and in the manner specified as a part of the undertakings of the Board and such other properties, interests, rights, assets, liabilities, obligations and proceedings and wherever the context so admits shall include the Personnel as specified in this Scheme relevant to the functions;

Words and expressions which are used in the Scheme and also defined in the Act but not specifically defined in this Scheme shall have the same meaning as assigned to them in the Act.

3. *Transfer of Undertaking by the State :-*

In exercise of the powers conferred by sub-section (2) of Section 131 and other applicable provisions of the Electricity Act, 2003, the State Government hereby re-vests the PTPS Undertaking as under:

- 3.1 With effect from the Effective Date, the Specified Assets, Power Purchase Agreement and Fuel Supply Agreement (including items specifically set out in Part I of Schedule-A hereto) and the Specified Agreements (as set out in Schedule-B hereto) pertaining to PTPS Undertakings shall be transferred to and vest in PVUNL without any further act, deed or thing to be done by the State Government or any other person and it shall not be necessary to obtain the consent of any third party or persons who are parties to any contract or arrangement by

virtue of which any obligations have arisen in order to give effect to this provisions.

- 3.2 With effect from the Effective Date, any statutory licence, permissions or approvals or consents held by JUUNL/JUVNL in respect of PTPS to carry on the operations of power generation shall stand vested in or transferred to PVUNL without any further act, deed or thing to be done by the State Government or any other person and shall be appropriately transferred to in favor of PVUNL and benefits of all statutory, regulatory permissions, environmental approvals and consent, registration and other licences, rights and titles shall vest in and become available to the PVUNL.
- 3.3 On such transfer and vesting of the functions, business, Specified Assets, Approvals and Specified Agreements as above and except as otherwise provided, PVUNL shall be responsible for all rights under the Specified Agreements relating to the functions of PTPS for generation of electricity and all matters there to transferred to it to which the erstwhile Board or JUUNL or the State Government was a party, subsisting or having effect on the Effective Date, in the same manner as the erstwhile Board or JUUNL or the State Government was entitled immediately before the Effective Date, and the same shall remain in force in favour of PVUNL and may be enforced effectively as if PVUNL had been a party thereto. Provided that any liability, of whatsoever nature, in relation to such functions, business, Specified Assets and Specified Agreements for the period prior to the Effective Date shall be the responsibility of the State Government/Board or JUUNL without any recourse to PVUNL.
- 3.4 The Specified Assets are vested in PVUNL as per the transfer value given in 'Schedule A Part-II' (Specified Asset Transfer Consideration).
- 3.5 NTPC shall pay and remit to the bank account of PVUNL through normal banking channels, an aggregate sum of Rs. 360,00,00,000 (Rupees Three Hundred and Sixty Crores only) ("**NTPC First Tranche Amount**") as subscription consideration for the issuance and allotment of 36,00,00,000 (Thirty Six Crores) equity shares to NTPC ("**NTPC First Tranche Shares**") in accordance with and subject to the terms agreed to between NTPC and JBVNL in this regard.
- 3.6 An aggregate amount of Rs. 126,48,64,860 (Rupees One Hundred Twenty Six Crores Forty Eight Lakhs Sixty Four Thousand Eight Hundred and Sixty only) ("**JBVNL First Tranche Amount**") shall be deducted from the Deemed Loan Amount (*as subsequently defined*) as and towards subscription consideration for the issuance and allotment of 12,64,86,486 (Twelve Crores Sixty Four Lakhs Eighty Six Thousand Four Hundred and Eighty Six) equity shares to JBVNL ("**JBVNL First Tranche Shares**").
- 3.7 Out of the Specified Asset Transfer Consideration, PVUNL shall, within 21 (Twenty one) business days of the Effective Date, pay the Government of Jharkhand or its designated affiliates, as the case may be, an aggregate amount of



Rs. 360,00,00,000 (Three hundred and sixty crores only), to discharge the current liabilities in the books, as on the Effective Date, in respect of the Project.

- 3.8 The difference between the Specified Assets Transfer Consideration and the First Tranche Amount shall be held as notional value in the books of account of PVUNL and shall be treated as an interest bearing deemed loan from the State Government to PVUNL ("**Deemed Loan Amount**") to be utilized as consideration for subsequent issuance and allotment of shares of PVUNL to JBVNL in its Percentage Ownership as prescribed in JV Agreement. This Deemed Loan Amount shall include and carry interest at the rates (quarterly rest) specified below: (i) 10% per annum from the Effective Date until the date of the investment approval from the Board of PVUNL for Phase-I; and (ii) equivalent to weighted average cost of borrowing of PVUNL subject to ceiling of 10% per annum, on the then outstanding Deemed Loan Amount, from the date of the investment approval from the Board of PVUNL for Phase-I until the time this Deemed Loan Amount has been exhausted.
- 3.9 NTPC shall maintain its Percentage Ownership as prescribed in JV Agreement in PVUNL by remittance of subscription consideration to PVUNL for issuance and allotment of shares.
- 3.10 Any award, decree or order of any Authority in respect of the Specified Assets and/or the Project, passed after the Effective Date in respect of any matter, claim or dispute which pertains to the period prior to the Effective Date, shall be to the account of JUUNL, JBVNL and/ or State Government as the case may be. PVUNL shall not bear any contingent liability or other liability pertaining to the period prior to the Effective Date.
- 3.11 As per JV Agreement, the Specified Assets free from encumbrance shall be validly transferred in the name of PVUNL.
- 3.12 The remaining assets and liabilities of PTPS Undertakings as on the Effective Date, after transfer of the Specified Assets to PVUNL shall vest into JUUNL, except balance land of PTPS undertaking, which will continue to vest with State Government. On commencement of Phase-II, part Land(625 acre) as specified in Schedule A, Part I, (2) will be transferred to PVUNL at a prevailing circle rate on the date of transfer of said land through a subsequent transfer scheme and the remaining land will be transferred to JUUNL. The value of remaining assets and liabilities to be vested into JUUNL will be notified subsequently.
- 3.13 The Government of Jharkhand confirms and undertakes to provide a reasonable and appropriate guarantee, in the form and content finalized by the parties, to secure payment from JBVNL towards the purchase of electricity from the PVUNL.
4. *Transfer of Personnel :-*
- 4.1 The transfer of personnel shall be subject to the terms and conditions contained in

section 133 and other applicable provisions of the Act.

- 4.2 PVUNL shall absorb the entire manpower on the regular rolls of PTPS as on January 31, 2015 ("**Specified Personnel**"). However, right to exercise the option for absorption in PVUNL shall be given to the Specified Personnel. The terms and conditions of the employment including pay and benefit structure of the Specified Personnel shall be decided by PVUNL. However, the pay and benefit structure of the Specified Personnel absorbed by PVUNL shall either be intact or shall be more favorable than current pay and benefit structures applicable to them.
- 4.3 These Specified Personnel shall continue to render services after absorption by PVUNL, on the same terms and conditions of employment, including pay, benefit structure and continuity of service as applicable to them. After the formulation of human resources policies of PVUNL, which shall be intact or shall be more favorable than current pay and benefit structures, the Specified Personnel shall have the option to continue with the existing terms and conditions of their employment or switch over to new human resources policy. The employees who have opted for the new human resources policy of PVUNL shall be entitled to the benefit of all career prospects and services in PVUNL including continuity of service without discrimination.
- 4.4 The Specified Personnel presently posted at PTPS shall be initially deputed at PVUNL from the effective date on secondment basis on the same terms and conditions as of PTPS till finalization of the option exercised by the specified Personnel as mentioned in the terms of para 4.2 & 4.3 of this scheme. List of Specified Personnel who have exercised the option for absorption in PVUNL will be notified separately by Energy Department, Government of Jharkhand no later than ninety (90) days from the Effective Date. Such specified personnel shall be deemed to have been absorbed by PVUNL from the Effective Date and cease to be employees of JUUNL/JUVNL. The Specified Personnel who have not exercised the option for absorption in PVUNL within the prescribed time will continue to remain employees of JUUNL/JUVNL and will be repatriated back.
- 4.5 The Specified Personnel absorbed in PVUNL shall discharge the duties and functions as may be assigned to them from time to time by PVUNL and PVUNL shall have the power to exercise all administrative and disciplinary control over Specified Personnel transferred to it as per this Scheme.
- 4.6 All terminal / superannuation liability of the Specified Personnel, in relation to their services, rendered prior to the Effective Date shall be to the account of and borne by the Government of Jharkhand, JUVNL and/or JUUNL. The liabilities relating to termination / superannuation of the Specified Personnel, for the period of service rendered during employment with PVUNL after the Effective Date, shall be met by PVUNL. In this regard, PVUNL shall submit the terminal liability contribution for the service from the Effective Date, rendered by the Specified Personnel absorbed by PVUNL during employment with PVUNL, based on actuarial value to the account of the existing Employee Trust of JUUNL/JUVNL (Jharkhand State Electricity Employees Master Trust) and the existing employee trust shall be responsible to settle the claims of the Specified Personnel at the time of their termination and/ or superannuation for their entire service period, both prior to as well as after the Effective Date.

- 4.7 The transfer of Specified Personnel shall be subject to the following further conditions, namely-

*[Note: As the clause specifically pertains to Specified Personal, consequent changes in usage of the expression have been made.]*

- (a) All such Specified Personnel shall have continuity of service in all respects;
  - (b) All benefits of service accrued before the said Effective Date shall be fully recognized and taken into account for all purposes including the payment of terminal benefits;
  - (c) To any orders that may be passed by the Courts in the proceedings pending on the said Effective Date in regard to any service matters or other matters concerning the service conditions of the Specified Personnel;
  - (d) Subject to this Scheme, the Specified Personnel shall cease to be in the service of the Board/JUVNL/JUUNL and shall not assert or claim any benefit of service not covered in the Scheme.
- 4.8 Subject to the Act and this Scheme, PVUNL shall be entitled to frame regulations governing the conditions of Specified Personnel transferred to it.
- 4.9 All the personnel on the secondment from JUUNL to PTPS and who have not opted for absorption in PVUNL, stand repatriated to JUUNL.
5. *Rights and obligations of third parties restricted: -*

The transfer being effected in accordance with the Act and this Scheme, the rights and obligations of all persons, arising out of the operations of PVUNL after the effective date of transfer of all Specified Assets and Specified Agreements etc. shall be restricted to PVUNL (with respect to the Specified Assets and Specified Agreements transferred to it) and the person shall not claim any right or interest against the State Government or the Board or JUUNL or the State Government.

6. *Pending suits, Proceedings, etc.:-*

6.1 All Proceedings of whatever nature by or against the Board/JUUNL pending on the Effective Date shall not abate or discontinue or otherwise in any way prejudicial be affected by reason of the transfer under this Scheme and the proceedings shall be continued, prosecuted and enforced by or against the Board/JUUNL in accordance with this Scheme and orders issued there under.

6.2 The proceedings covered under sub-clause 6.1 above shall be continued in the same manner and to the same extent as it would or might have been continued, prosecuted and enforced by or against the Board/ JUUNL if the transfers specified

in this Scheme had not been made.

7. *Transfer by operation of law:-*

The transfer under this Scheme shall operate and be effective pursuant to action of the State Government by publishing this Scheme and Orders issued in terms of this Scheme and without any further act, deed or thing to be done by the State Government, JUVNL and JUUNL or any other person, subject to the terms and conditions of this Scheme.

8. *Amendment of scheme :-*

8.1 If any doubt, dispute, difference or issue arises in regard to the transfer of Specified Assets, Specified Agreements and Specified Personnel etc. subject to the provisions of the Act, the same shall be mutually resolved by the State Government and PVUNL.

8.2 The State Government, in respect of Clause 8.1, with the consent of PVUNL, may by order publish in the *Official Gazette*, amend this Scheme and make such provisions, not inconsistent with the provisions of the Act, as may appear to be necessary for removing the difficulties arising in implementing the transfers under this Scheme.

8.3 In respect of assets, liabilities, properties, rights, obligations and personnel transferred to Jharkhand Urja Utpadan Nigam Ltd other than the Specified Assets and Specified Personnel transferred to Patratu Vidyut, Utpadan Nigam Limited, the State Government, may, by an order to be issued for the purpose, amend, vary, modify, add, delete or otherwise change the terms and conditions specified in this Scheme and/or Schedules at any time.

9. *Exemption of Duty :-*

The Government of Jharkhand will allow suitable dispensation to PVUNL i.e. for providing waiver of all charges,, duties, levies, taxes, etc. contingent upon transfer of the Specified Assets and Land to PVUNL in line with the extant provisions of the Government of Jharkhand.

Order:-Ordered that this notification be published in Jharkhand Gazette Extraordinary issue for information to general public.



*By order of the Governor of Jharkhand*

Sd/-

(S.K.G.Rahate)

Principal Secretary, Energy Department

Memo No - .....

Ranchi, Dated.....

Copy with CD forwarded to Superintendent, Government Press, Ranchi, Jharkhand to publish in forthcoming extraordinary issue of Jharkhand gazette.

It is requested to make available 100 copies of the published gazette to Energy Department, Government of Jharkhand.

Sd/-

(S.K.G.Rahate)

Principal Secretary, Energy Department

Memo No - .....

Ranchi, Dated.....

Copy forwarded to Chief Secretary, Jharkhand / Principal Secretary to Hon'ble Governor, Jharkhand / Principal Secretary to Hon'ble Chief Minister, Jharkhand / Secretary, Cabinet Secretariat & Coordination Deptt., Jharkhand / Accountant General, Jharkhand, / Addl. Chief Secretary/ Principal Secretary/ Secretary of all Departments of Government of Jharkhand / All Heads of Department, Jharkhand / Divisional Commissioner, North Chhotanagpur division, Hazaribagh / All Divisional Commissioners, Jharkhand / Deputy Commissioner, Ramgarh / All Deputy Commissioners, Jharkhand / Registrar General, Jharkhand High Court, Ranchi for information and necessary action.

Sd/-

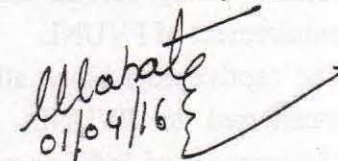
(S.K.G.Rahate)

Principal Secretary, Energy Department

Memo No - 889

Ranchi, Dated...01.04.2016

Copy forwarded to Secretary, Ministry of Power, Government of India, New Delhi / Secretary, Ministry of Coal, Government of India, New Delhi / Chairman, CEA / Chairman, CERC / Chairman-cum-Managing Director, NTPC Ltd. / Chairman, Jharkhand State Electricity Regulatory Commission / Chairman-cum-Managing Director, Jharkhand Urja Vikas Nigam Limited / Chairman, Managing Committee of PTPS, GoJ / Managing Director, Jharkhand Urja Utpadan Nigam Limited / Managing Director, Jharkhand Urja Sancharan Nigam Limited / Managing Director, Jharkhand Bijli Vitran Nigam Limited / CEO, Patratu Vidyut Utpadan Nigam Limited for information and necessary action.

  
01/04/16

(S.K.G.Rahate)

Principal Secretary, Energy Department

SCHEDULE 'A' PATRATU THERMAL POWER STATION  
UNDERTAKINGS

PART I

1. The Specified Assets are transferred to PVUNL as per the valuation given in Schedule-A Part-II including inter-alia the assets stated in this schedule as enumerated below.
2. Land Assets:
  - (i) The Government of Jharkhand and JUUNL transfer and hand over physical possession of the Land, free and clear of all Encumbrances to PVUNL.
  - (ii) Out of the total land of PTPS undertaking measuring 6325.72 acres, land area measuring 1859 acres are identified for PVUNL. Land area measuring 1234 acres are presently vested into PVUNL. Remaining land area measuring 625 acres identified for Phase II expansion shall be transferred to PVUNL at the time of commencement of Phase-II at the circle rate prevailing at the time of commencement of Phase-II and will be notified by a subsequent transfer scheme.
  - (iii) Out of the specified land measuring 625 acres above, land measuring about 200 acres on which the Existing Units are running is leased by the Government of Jharkhand to PVUNL, at a lease value of Re. 1/- and lease rent of Rs 10 (Ten) Lacs per annum until the commencement of Phase-II.
3. Specified assets include all assets, including the Land, allocation of water (for Existing Units as well as New Units) from reservoir, rights, specified leaseholds/freeholds land, powers, authorities and privileges and all specified properties both movable and immovable, including buildings, offices, stores, machinery and equipment, instruments, office furniture, stationery, office equipment and installations pertaining thereto and other rights and interests in or arising out of such specified properties and aforesaid specified assets as were existing immediately before the Effective Date in the ownership, possession and control of the Government of Jharkhand, JUUNL and/or JBVNL, whether within the Project area or outside and all records, drawings, registers and other documents as available of whatever nature relating thereto, including but not limited to the feasibility report, drawings, manuals etc.
4. Notwithstanding anything contained in this scheme, in the event of any variance in the valuation of the Land, as included in the Specified Asset Transfer Consideration and as accepted by the CERC, the Parties and State Government shall mutually discuss and agree in writing on the modalities of the funding requirement of PVUNL.
5. The captive coal block allocated to JUUNL for end use of the Project shall be transferred to PVUNL, subject to the approval of the Ministry of Coal, Government of India as per the extant provisions. As and when the approval is received from the Ministry of Coal, the coal block shall be transferred to PVUNL through a subsequent transfer scheme. In case the transfer of coal block is not allowed by the Ministry of Coal, Government of India, the allocated mine block shall be developed by JUUNL co-terminus with the Project Development

- Schedule and appropriate link sufficient to meet the coal requirement of the Project shall be provided on terms and conditions mutually agreed in writing by and between PVUNL and JUUNL.
6. In case the coal link is provided to PVUNL, JUUNL shall supply the entire coal extracted from the coal block allocated for the operations of the Project. In case the coal requirement exceeds the available coal from the coal block allocated to JUUNL for the Project, the Government of Jharkhand shall request to Ministry of Coal, Government of India to provide additional coal as per the requirements for operation of the New Units.
  7. Government of Jharkhand assigns Fuel Supply Agreement of JUUNL in favour of PVUNL for Existing Units.
  8. Assignment of existing agreement between Government of Jharkhand/JUUNL with the coal company to PVUNL for supply of coal for the Existing Units;
  9. The State Government, JUVNL and JUUNL shall re-route the existing 10 nos. of 220/132 kV lines emanating from existing 220/132 kV PTPS in consultation with NTPC Limited and Power Grid Corporation of India Limited which are crossing over the Land for Phase-I. Since these grid lines would be controlled by the State Government and if these grid lines are to be retained by Jharkhand Urja Sancharan Nigam Limited, these lines will be shifted to the upcoming 400/220 kV sub-station near Patratu so that the control of these lines remains with the State Government and the Land for Phase-I is vacated. If these grid lines are not required to be retained by JUSNL, these lines shall be dismantled by PVUNL.
  10. JUUNL and/or the State Government owns and controls a water reservoir at Patratu. JUUNL and/or the State Government supplies water to the Project and to the other entities in the vicinity from this water reservoir. JUUNL has entered into agreements with these other entities for supply of water from water reservoir and JUUNL shall, if required, suitably revisit these agreements, in order to meet the requirements of water for the New Units.
  11. PVUNL shall require and the State Government shall undertake and provide: (i) approx. 30 (thirty) cusecs of water for the Existing Units; (ii) 27 (twenty seven) cusecs of water for Phase - I of New Units with the air-cooled condenser based technology; and (iii) 13 (thirteen) cusecs of water for Phase - II of New Units with the air-cooled condenser based technology. However, to further increase the efficiency of the New Units and to reduce the cost of the station, PVUNL shall explore the feasibility of using a 'water-cooled condenser technology' in respect of the New Units, in place of the air-cooled condenser technology. In the event of use of the water-cooled condenser technology for the Project, Government of Jharkhand shall explore the feasibility for the availability of additional water of approximately 80 (eighty) cusecs and subject to feasibility, ensure the availability of additional water of approximately 80 (eighty) cusecs and total requirement for the New Units would be 72 (seventy two) cusecs of water for Phase - I and 47 (forty seven) cusecs of water for Phase - II. Any charges, cess, royalty on water payable by PVUNL for the Project shall be a pass through in the tariff at actuals.
  12. PVUNL shall be responsible for water supply arrangements starting at the downstream of intake chamber from where water supply commences for the

- Project. Ownership of the entire water supply system for the Project and related plant and equipment(excluding the water reservoir), including the water treatment plant, shall be that of PVUNL and after the asset transfer, PVUNL shall maintain, take care and use the same. The additional facility including addition of plant, equipment etc. for enhanced requirement (if any) and drawl of water shall be the responsibility of PVUNL and to be arranged by PVUNL at their own cost.
13. The charges / cess / royalty for supply of water to PVUNL shall be payable by PVUNL to JUUNL and/or the Government of Jharkhand. Any charges/cess/royalty on water payable by PVUNL for the Project shall, additionally, be a pass through in the tariff, at actuals.
  14. Existing Power Purchase Agreement between the generating company i.e. JUUNL and the distribution company i.e. JBVNL, in respect of the sale of power of the Project is assigned in favour of PVUNL.
  15. All rights, allocations, Approvals including, concurrence of the CEA, coal linkage approvals/sanctions etc. obtained and/or committed for the PTPS, the Land, supply of water, environment and forest etc, as available to JBVNL and/or JUUNL/JUVNL or the State Government are transferred and handed over by JBVNL and/or JUUNL/JUVNL or the State Government to PVUNL as of the Effective Date. JBVNL and/or JUUNL/JUVNL or the State Government, without any liability on and to PVUNL, shall duly notified the Authorities in respect of such transfer of Approvals, as required.
  16. All data, records and documents related to the Project, as available with JBVNL and/or JUUNL/JUVNL or the State Government is transferred by JBVNL and/or JUUNL/JUVNL or the State Government to PVUNL.
  17. JUUNL and/or the Government of Jharkhand has entered into agreements with third parties in respect of running and management of the PTPS. The list of such Third Party agreements is provided in Schedule B (Specified Agreements) and the Government of Jharkhand assigns these Specified Agreements to PVUNL.
  18. All municipal taxes, duties, cess, levies chargeable on the assets and properties of the PTPS up to the Effective Date shall be borne by Government of Jharkhand.
  19. JBVNL and /or the Government of Jharkhand, shall extend all possible help for the smooth operation of the Project, including during renovation of the existing units and development of the New Units, without any hindrance.

*lll*



SCHEDULE 'A' PATRATU THERMAL POWER STATION UNDERTAKINGS

PART - II

(DETAILS OF SPECIFIED ASSETS AND SPECIFIED ASSETS TRANSFER CONSIDERATION\*)

SUMMARY OF VALUE OF SPECIFIED ASSETS OF PTPS TRANSFERRED TO PVUNL

SI No	Item	Total Value Rs. in Crores
<b>A</b>	<b>Fixed Assets</b>	
1	Plant & machinery	482.04
2	Plant civil & structural buildings	245.89
3	Land (1234 acres) **	836.65
	<b>Total (A)</b>	<b>1564.58</b>
<b>B</b>	Current Assets***	137.59
<b>C</b>	Value of Scrap Material lying within Plant Premises***	3.32
	<b>Grand Total</b>	<b>1705.49</b>

Note:

\* Specified Assets Transfer Consideration is based on valuation carried out by MECON and as elaborated in JV Agreement..

\* The Specified Assets Transfer Consideration shall be subject to acceptance by CERC and shall be adjusted accordingly by issue of a separate order.

\*\* The value of 625 acres of land identified for phase II expansion shall be transferred to PVUNL at the time of commencement of Phase-II expansion through subsequent transfer scheme as per the prevailing circle rates on the date of transfer of said land.

\*\*\* The value of current assets and Value of Scrap Material lying within Plant Premises shall be revised as per the value as on the Effective Date to be determined jointly by PVUNL and JUUNL and the Specified Asset Transfer Consideration will be adjusted accordingly.

*lll*

Land to be transferred to PVUNL

SI. No.	Item	Land Area (Acres)		
		Ph-I	Ph-II*	Total
1	Plant area			
2	Ash pond	475	225	700
	Permanent ash dam I	400		400
	Permanent ash dam II	300		300
	Temporaray ash pond	25		25
	Additional area for Ph-II ash pond		400	400
	Sub-total (2)	725	400	1125
3	Land on railway track	34	-	34
	Grand Total	1234	625	1859

\*The land measuring 625 acres will be transferred to PVUNL at the time of commencement of Phase-II through subsequent transfer scheme at the prevailing circle rate on the date of transfer of the said land.

*lll*

**SCHEDULE 'A' PATRATU THERMAL POWER STATION UNDERTAKINGS**  
**PART III**  
**OBJECTS AND BUSINESS OF JOINT VENTURE COMPANY**

The objects and business of PVUNL will be as detailed in the clauses of the Memorandum of Association and Articles of Association of the Company as originally framed or as altered from time to time.

Main objects and business of PVUNL are:

1. To acquire, establish, operate, maintain, revive, refurbish, renovate and modernize the Performing Existing Units and tie-lines, sub-stations and main power transmission lines connected therewith and setting up of the New Units.
2. To operate and maintain such power generating stations, tie-lines, sub-stations and main power transmission lines as are assigned to it by the Government of Jharkhand, switchyard of JVC project shall abide by SLDC/ERLDC, as applicable.
3. To carry on all or any of the business of generation, co-generation, supply, distribution, transformation, conversion, production, manufacture, processing, accumulation, development, receiving, producing, improving, buying, selling, re-selling products derived from or connected with any other form of energy including without limitation, heat, solar, wind, geothermal and biological or any other source of energy developed or invented in future or otherwise deal in electrical power or any product or services or products derived from or connected with electrical power/electricity.
4. Development and operation of coal mines.
5. Any other object which may be mutually agreed upon.
6. To be responsible for water supply arrangements starting at the downstream of intake chamber from where water supply commences for the Project. Ownership of the entire water supply system for the Project and related plant and equipment (excluding the water reservoir), including the water treatment plant, shall be that of the PVUNL and after the asset transfer, the PVUNL shall maintain, take care and use the same. The additional facility including addition of plant, equipment etc. for enhanced requirement (if any) and drawl of water shall be the responsibility of PVUNL and to be arranged by the PVUNL at their own cost.

**Compliance status of the EAC Sub-Committee recommendations dated 28.01.2013.**

Undernoted is the status / compliance of the recommendations made by the EAC Sub-Group Committee comprising members Sh. J.L. Mehta, Sh. M.S. Puri, Sh. T.K. Dhar and chaired by Sh. C.R. Babu during their visit of PTPS, Patratu on 28.01.2013 in regard to issuance of ToR to M/s PEL (2 x 660 MW)

<b>Sl. No.</b>	<b>Observation</b>	<b>Recommendations</b>	<b>Compliance / Remarks</b>
1.	The stack emissions of unit 4 & 6 suggest that the ESPs are not functioning efficiently; the ash handling system and cooling towers are in defunct state.	The efficiency of ESPs of the operating units should be installed/improved to prevent air pollution.	<p>As per the guidelines of CEA, both these units are slated to be phased out during 12<sup>th</sup> five year plan i.e. by 2017.</p> <p>Unit # 4 is not functioning since June 2014 because of problem in generator excitation system and unit # 6 is not functioning from August 2015 due to problem in boiler pressure parts.</p> <p>Insufficient space on site and installation are the major hurdles in installation of high efficiency / new ESP. However, existing ESPs will be inspected and necessary rectification will be carried out before starting of the units. Ammonia flue gas conditioning will be adopted as a short term measure, if required. Efficient O&amp;M procedures are being put in place to reduce emission.</p>
2.	The cooling towers being petty old are not at all efficient as was evident by the warm water discharged from ash dykes. Cooling tower blow down for ash handling is being tapped from warm side. The filtering system installed in the shaft in ash pond 2 is not efficient. The fine fly ash is found to be deposited all along the streams and rivulets – white coloured and turbid discharge from the ash dykes.	<p>1. CT blow down is to be tapped from cold side.</p> <p>2. Under no circumstances, the warm water should be discharged into streams.</p> <p>3. Ash effluent in the dyke is to be kept for a longer period or drained into cooling ponds or guard ponds, newly constructed.</p>	<p>i) Appropriate modification from cold end side of CT blow down at Station A will be carried out before start-up of the units of Stn. A viz. Units 4 &amp; 6 which are non-operational since 11.04.2014 and 11.08.2015 respectively.</p> <p>ii) In Stn. B, makeup water for ash sump is being tapped from the colder side of the CW recirculation line.</p> <p>iii) For longer retention of ash effluent in the ash dyke, as a short term measure, ash slurry pipes have been extended from previous middle location to the farthest point of ash dyke to increase settling time of ash and proper cooling. Height of the bund of ash dyke has also been raised.</p> <p>As a temporary contingency measure, to cater to the need of operational unit(s), one part of the dyke will be used for ash water disposal and decanted cold &amp; clear water will be discharged in nallah till other part is reconstructed.</p> <p>After studying the system in details, long term action plan has been prepared. A scheme has been developed in which the ash dyke-II will be divided into two parts</p>

			<p>with spill way and decantation channel to recirculate clear water to plant for re-use.</p> <p>Detailed design of the system under development in Engg. Div. of NTPC Ltd.</p> <p>This scheme is being planned for implementation by PVUNL in nine months approx.</p>
3.	<p>The water from ash effluent is not recycled in spite of the fact that clean water from the reservoir is used. The local communities use fly ash effluent water for bathing and washing. The stream bed is covered with fly ash and the water is covered with blue green algae that may produce toxins.</p>	<p>PTPS should provide potable water for local communities. The pollution of surface water bodies due to inefficient and ineffective ash management should be stopped. Damodar river should be dredged and ash deposition is to be removed. The effluent discharge from ash dyke should be made to pass through cascade system for settling of ash.</p>	<ol style="list-style-type: none"> <li>1. As replied at point no.-2, the ash water recirculation and cascading system of ash settling will be completed within nine months.</li> <li>2. JUUNL had already provided tube wells for potable water to local communities.</li> <li>3. Dredging of ash from Damodar river and its tributary Nalkari river is to be carried out in coordination with Water Resources Department (WRD) of GoJ—<b>ANNEX:B(i)</b></li> </ol>
4.	<p>The recirculation of effluent from neutralizing pit and the pit receiving drain water from CHP area is to be reused</p>	<p>The scheme is to be proposed and implemented.</p>	<p>Action has been initiated for interconnection of the neutralization pits of Stn. A and Stn. B so that the chemical effluent get enough time for effective neutralization and its subsequent re-use as spray water for fugitive dust suppression in CHP area and as ash water makeup.</p> <p>Appropriate ETP shall be constructed with Phase-I expansion.</p>
5.	<p>Many brick kiln farmers are using good earth for making bricks.</p>	<p>The owners of the brick kilns should be given all necessary facilities to utilize ash for making bricks.</p>	<p>Awareness and capacity building program for local brick kiln farmers regarding usage &amp; advantages of fly ash bricks have been organised in coordination with District Administration.</p> <p>Necessary logistic support for lifting dry ash for making bricks etc. also to be provided whenever needed.—<b>ANNEX:B(ii)</b></p>
6.	<p>There is no continuous monitoring of air, surface and ground water pollution.</p>	<p>Immediate mitigation measures should be taken to reduce particulate matter from stack emissions and use of cascade system resorted to sediment fine particulate matter from ash dyke effluent.</p>	<p>Action already initiated. Tender for procurement of CEMS (2), EQMS (2) and AAQMS (1) is issued. Meanwhile, efficient O&amp;M procedures are being put in place to reduce emission.----- <b>ANNEX:B(iii)</b></p> <p>Ground water pollution is being periodically tested.----- <b>ANNEX:B(iv)</b></p>
7.	<p>The aluminium recovery plant from fly ash has no proven record of successful operation and its technology.</p>	<p>The techno-feasibility of the plant needs to be re-examined by competent experts.</p>	<p>After getting permission from JSPCB, various equipments of the plant were installed by the firm, M/s Fly Ash Remediation Pvt. Ltd. However, the plant could not be commissioned and operated.</p> <p>Action has been initiated for cancellation of</p>

			the land lease agreement executed with them. After cancellation of the agreement the land allocated to the firm will be got vacated and handed over to the JV Company for ash dyke.
8.	Large nos. of villagers located along the banks of Nalkari river depends upon the river for domestic and agricultural use.	A minimum ecological flow (7.5 cusec) should be released into down streams to sustain biological systems and to meet the needs of downstream communities.	Adequate water is being released by JUUNL. Necessary documentary evidence is attached. ---- <b>ANNEX:B(V)</b>
9.	Taking into account the contours of the landscapes, the main plant may be located in the elevated areas of the proposed site.	The plant boundary to be kept at sufficient distance not less than 200m from nearby stream / downstream of dam/reservoir; existing ash dykes and coal handling site without disturbance of network of streams and rivulets.	Will be taken care of during engineering & implementation of Phase-I (3x800 MW) expansion project.



**झारखण्ड ऊर्जा उत्पादन निगम लिमिटेड**  
**JHARKHAND URJA UTPADAN NIGAM LIMITED**  
 (CIN: U40108JH2013SGC001703)  
 Regd. Office: - Engineering Building, H.E.C, Dhurwa, Ranchi - 834004.  
 Telephone: - 0651-2400827 / 799 & Fax:- 0651-2446055

Letter No. \_\_\_\_\_

Date \_\_\_\_\_

From : Rahul Kumar Purwar, IAS  
 Managing Director,

To,

Principal Secretary,  
 Water Resource Department,  
 Govt. of Jharkhand,  
 Nepal House, Doranda,  
 Ranchi - 834002.

**Sub : Assessment of Ash deposition in river Damodar near PTPS, Patratu and its dredging.**

*Ref: Minutes of 52<sup>nd</sup> meeting of Expert Appraisal Committee (EAC) on Environmental Impact Assessment (EIA) of Thermal Power and Coal Mining Projects.*

Sir,

As per the decision of Govt. of Jharkhand, a Thermal Power Plant of 4000 MW is to be established at PTPS, Patratu in 2 (two) phases by Patratu Vidyut Utpadan Nigam Limited (PVUNL), a JV Company of GoJ (JBVNL) and NTPC, under expansion plan. In this connection PVUNL requested MoEF & CC, GoI for award of Terms of Reference (ToR) for expansion Phase - I i.e. 3 x 800 MW.

MoEF & CC, GoI directed PVUNL for compliance of report of sub-committee of Expert Appraisal Committee (EAC) that had visited PTPS, Patratu on dated 28.01.2013 regarding award of ToR for establishment of 2 x 660 MW Thermal Power Plant by Patratu Energy Limited (PEL), a subsidiary of erstwhile JSEB. It is to mention that earlier there was a proposal for establishment of 2 x 660 MW TPP at PTPS, Patratu by PEL through tariff based competitive bidding. Accordingly JSEB had requested MoEF for award of ToR which was consequently awarded to PEL by MoEF on the condition of compliance of report of the sub-committee. Later on, GoJ took decision to establish 4000 MW expansion plant for which the earlier proposal of 2 x 660 MW was dropped. For award of ToR, to PVUNL, MoEF & CC, GoI has stressed for compliance of the observations contained in the report of the Sub-committee (copy of minutes is enclosed) as the land area for expansion Phase - I i.e. 3 x 800 MW is partially overlapping with the site of earlier 2 x 660 MW TPP.

ToR is essential for expansion Phase - I, therefore compliance of the report of Sub-committee of EAC is to be ensured. One of the observations of Sub-committee reads :  
*"The ash deposited along streams and rivers, including Damodar river should be dredged and deposited in fly ash dykes or used in road constructions and / or brick making. Before the effluent is discharge into water bodies from the dyke, the effluent should be made to pass through tasked systems that enable to settle the ash".*

During the last meeting of EAC on 29<sup>th</sup> February - 1<sup>st</sup> March 2016 for ToR for phase-I expansion, the EIA Resources & Response Centre (eRc), New Delhi also raised the issue of

Nalkari river (a tributary of Damodar river) and submitted that Nalkari river has turned into a waste water canal and carries huge quantities of oil and ash discharged by PTPS and EAC directed to submit a detailed reply in this regard also.

It is therefore, requested to suggest measures to be adopted for assessment of deposition of ash etc. in river Damodar and Nalkari and their dredging so that necessary remedial action may be taken by JUUNL / PVUNL in co-ordination with Water Resources Department & EAC may be apprised accordingly.

Next date of hearing at MoEF & CC is fixed on 05.05.2016.

With Regards.

Encl. : As above.

Yours faithfully

Sd/-

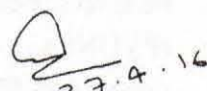
(Rahul Kumar Purwar)

Memo No. 13/MD

Dated 27.4.2016

Copy forwarded to Principle Secretary, Energy, GoJ with enclosure for information and necessary action.

Encl. : As above

  
27.4.16  
(Rahul Kumar Purwar)



विद्युत उत्पादन विभाग लिमिटेड  
ताराव  
(एन0टी0पी0सी0 लिमिटेड एवं झा0बि0वि0नि0 लिमिटेड का संयुक्त उपक्रम) के सौजन्य से

फ्लाई ऐश (Fly Ash) से ईट निर्माण हेतु जागरूकता अभियान

दिनांक 02.05.2016

## पतरातू विद्युत उत्पादन निगम लिमिटेड, पतरातू

### ॥ आमंत्रण पत्र ॥

मान्यवर,

अपार हर्ष के साथ सूचित करना है कि पतरातू विद्युत उत्पादन निगम लिमिटेड, (एन०टी०पी०सी० लिमिटेड एवं झा०बि०वि०नि० लिमिटेड का संयुक्त उपक्रम) के सौजन्य से फलाई ऐस (Fly Ash) से ईट निर्माण हेतु जागरूकता अभियान का आयोजन दिनांक 02.05.2016 को 11:00 बजे पूर्वाह्न से सुनिश्चित किया गया है।

इस आयोजन में आप सादर आमंत्रित हैं।

**आयोजन स्थल : व्याख्यानशाला (Lecture Hall) ताप गृह के अंदर**

निवेदक :

पी०भी०यु०एन०एल०

# सीनाहातू के कस्तूरबा स्कूल में लगाए गए सीसीटीवी कैमरे

सोजसतू प्रतिनिधि

प्रखंड स्थित कस्तूरबा वालिका आवासीय विद्यालय अब सीसीटीवी कैमरे की निगरानी में होगा। विद्यालय के मुख्य द्वार सहित अन्य तीन जगहों में सीसीटीवी कैमरे लगाये गये हैं। विद्यालय में हर आने-जाने के अलावे हर छात्राओं को गतिविधियां कैमरे में कैद होनी। कैमरे में रिकार्डिंग एक माह तक सुरक्षित रहेगा। हाल में गोनू जिले के एक स्कूल में हुई घटना

के बाद सर्व शिक्षा अभियान की राज्य परियोजना निदेशक राजेश्वरी श्री के आदेशावरुप पत्रक जेईसी 54 के आलोक में विद्यालय में सीसीटीवी कैमरा लगाया गया है।

पत्र में साफ कथा गया है कि छात्रावास में किसी भी पुरुष का प्रवेश बंद रहेगा। स्कूल में अधिवाचक 10 बजे से 4 बजे तक ही जा सकते हैं। अन्य पुरुष को स्कूल में जाने के लिए सक्षम पदाधिकारी की अनुमति आवश्यक होगी।

**सी डी सी प्रगत संगणन विकास केंद्र, नोएडा**

अभियान की अधिकृत आगंतुक सूचना  
निविदा नं. 162000168(1)/2016-Ed(II)

सी डी सी नोएडा द्वारा सचिव बैंक सेनलवेट रिजर्व (सीबीएनएल) के प्रशासक को लागू करने हेतु सिस्टम इम्प्लीमेंटेशन फार्म से मुख्यकर्मचारी अभियान की अधिकृत (ईओएम) अधिनियम की जाती है।

सोपना अर्थात् पूरा करने वाली इच्छुक कर्म लिफ्टिंग बागवत कार्य का निष्पादन किया है जो विद्युत विधियां देनावेज का सेट [www.cdac.in](http://www.cdac.in) अथवा [www.aprocure.gov.in](http://www.aprocure.gov.in) से सजजनित कर सकते हैं। सम्पूर्ण रूप से मरा गया प्रारम्भिक दंड (मिथकनी) सी डी सी, अनुसंधान नवम्, सी-58/1 इस्टीमेट/प्रारम्भिक एप्लिकेशन सीकर-82, नोएडा-201307, फोन: 0120-3063311-13 को 11.05.2016 को अप. 2:00 बजे तक पूर्णतः वापस कर दिया जाये। प्रकीर्ण, परिधि अपार होगा जो सिर्फ वेबसाइट पर प्रकाशित किया जाएगा।

ANNEX-B(iii)

**BHARAT SANCHAR NIGAM LIMITED**  
(A Govt. of India Enterprise)  
OFFICE OF THE ZONE DIRECTOR, BUNRA, 615001

**FOR TENDERING**

With reference to Tender No. D-3/Tender/OFC/DMO/2015-16/03 dated at Durnka the 19/02/2016, the date extension for the above subject as follows:-

S.N.	Tender No.	Name of Work	Scheduled
1.	No. D-3/Tender/OFC/DMO/2015-16/03 Dated at Durnka Dt 19/02/2016	OFC construction work in SSA Durnka.	Date of tender : 03/05/2016 upto 14:00 hrs. during working hour. Crossing of bid : Up to 14:00 hrs. on 04/05/2016, till closing : at 15:00 hrs. on 04/05/2016.

For Detail & Tender Documents please visit our Website : [www.bsnlband.bsnl.co.in](http://www.bsnlband.bsnl.co.in)

Sd/- DE (SA)  
O/o the ZDM, Durnka

**Bharat Heavy Electricals Limited**  
(A Govt. of India Enterprise)

एनपीएन, इलाहाबाद-502 032 (उत्तर)  
फोन: 042-2318 3126 / 2390, फैक्स: 042-23156014

**निविदा सूचना**

पुस्तक नं. ESA1P68737 के तहत प्राप्त प्रवेश के लिए एनपीएन और प्रो-ग्राहकों के डेटा क्लर के साथ इसे हेड को अर्द्ध हेड या सेलुलर से सुसज्जित अर्थव्यवस्था को जारी है किन्तु एक निविदा प्रकृति की निविदा 11.05.2016 को पूर्ण 12:00 बजे से पहले है तथा जो सभी दिन अपर 2:00 बजे खोली जाये।  
को, स्थित: एन-वेस्ट गार्डर तथा निविदा नं. जारी की विस्तृत सूची हेतु, कृपया वेबसाइट [www.bhel.com](http://www.bhel.com) पर [www.aprocure.gov.in](http://www.aprocure.gov.in) देखें।  
हिंदी में सम्बन्धित: अर्थात् अर्थव्यवस्था में सम्बन्धित को। नवी मुद्रित या विवर लिखने के विचार केवल तब ही वेबसाइट पर जले जाये।  
सहित प्रबंधक/कर्मचारी/एनपीएन सूचना प्रदान करें।  
मेल आसानी पुरान इलाहाबाद-502032

**ARMY WELFARE HOUSING ORGANISATION (AWHO)**  
New Delhi

**NOTICE FOR PRE-QUALIFICATION OF TENDERERS FOR CONSTRUCTION OF RESIDENTIAL ACCOMMODATION FOR AWHO PROJECT AT VILLAGE NISTOLI, GHAZIABAD (UP)**

Managing Director, AWHO, Kashmir House, Rajaji Marg, New Delhi-110011 invites applications from Firms/Contractors of repute to reach HQ AWHO within 21 days from the date of publication of this advertisement for pre-qualification for issue of tender for construction of 14 storey configuration residential accommodation alongwith ancillary buildings, internal & external services except Lift & External Electrification for AWHO Project at Village Nistoli, Ghaziabad, (UP). The work shall be constructed in 2 Parts Part 'A' and Part 'B'. Part 'A' consisting of DUs 15.00 Lacs Sq ft and 4.30 Lacs Sq ft basement and still area and Part 'B' consisting of DUs 13.20 Lacs Sq ft and 3.40 Lacs Sq ft basement and still area of a total covered area of 35,90,000 Sq ft (approx). The completion period of work shall be 36 months from the date of award.

Note: Full details of the advertisement with prequalification requirements and documents to be enclosed with application can be seen/downloaded from the "Tender" Page of AWHO website [www.awhosena.in](http://www.awhosena.in).

**Jharkhand Urja Utpadan Nigam Ltd.**  
(CIN: U40108JH2013SGC001703)  
Engineering Building, HEC, Daurwa, Ranchi-4

**Due date Extension of Tender Notice No. 58/PR/JUUNL/2015-16**

Due date of NIT No. 58/PR/JUUNL/2015-16 for:-

A. Supply, Erection, Installation, Testing and Commissioning of Online real time data transfer for continuous ambient air quality monitoring system (01 No.) & stack emission monitoring system (02 No.) with continuous data transmission to Central Pollution Control Board and State Pollution Control Board HQ, Ranchi on turnkey basis.

B. Supply, Testing, Commissioning & Installation of Effluent quality monitoring system (02 No.) at PTPS with continuous data transmission to Central Pollution Control Board and State Pollution Control Board HQ, Ranchi on turnkey basis has been extended in following manner:-

1. Date of Sale of BOQ: Up to 03.05.16 at 13:00 Hrs.
2. Date of submission of Bid: Up to 03.05.16 at 15:00 Hrs.
3. Date of opening of Part-I: On 03.05.16 at 15:30 Hrs.

All other terms and conditions of the NIT will remain the same.  
Sd/- GE (Generation)

PR No- 139237  
PR- 141026 (Jharkhand Urja Utpadan Nigam Ltd) 16-17

हेतुसूचना-20/04/16

ESE (Generation)

A. Dewary  
20/04/16

आयुक्त ने रेलवे को गलत नीतियों के खिलाफ नाराजगी की। ए प्रतिनिधिमंडल चक्रधरपुर रेल मंडल प्रबंधक एम.एस. प्रसाद से मिलकर मांगपत्र भी सौंपा। डीआरएम से मांगे पर सकारात्मक कार्रवाई का आग्रह किया।

पदस्थापन किया गया। जिनका प्रमाण पत्र को जाली पाया गया है, उनमें उमा अंधियल, प्रदीप कुमार यादव, अर्जुन कुमार त्रिपाठी, नरेश यादव, सुनीता कुमारी व संजय पंडेय शामिल हैं।

कुम्पा के नटखट रूप का... ने साम में आए दशक-श्रेताओं को गुदगुदने के साथ सामाजिक विस्थापितों पर ध्यान बांधकर कुछ देर सोचने के लिए बाध्य किया। इसी ठिठोली के बीच गरीबों में भीड़ों को भी धोखा बरलवा

1108

### सवा दो किलो गांजा के साथ तस्कर गिरफ्तार

भास्कर न्यूज | मेदिनीनगर

पलामू पुलिस ने गांजा के एक बड़े तस्कर को गिरफ्तार किया है। बुधवार को डीएसपी घोआर बरवार ने प्रेस कॉन्फ्रेंस कर जानकारी दी कि जिला मुख्यालय से करीब 20 किमी दूर पांकी रोड पर स्थित लोहरसी गांव से हजारत गोंड को गिरफ्तार किया गया। उसके पास से सवा दो किलो गांजा बरामद हुआ है। मेदिनीनगर बाजार में इसकी कोमत लगभग 15 हजार रुपए है। उन्होंने बताया कि पिपराटांड धाना के कादरी गांव निवासी हजारत बस पकड़ने के लिए मुख्य सड़क के किनारे पीपल पेड़ के नीचे छिड़ा था। तभी पांकी धाना प्रभारी निराद अहमद और एसआई बदल मुर्मू ने गुप्त सूचना पर उसे गिरफ्तार किया। हजारत को गांजा तस्कारी मामले में 2007 में मेदिनीनगर पुलिस ने तथा 2010 में बालुआ पुलिस ने भी गिरफ्तार कर जेल भेजा गया था।

### पुरस्कृत होंगे बड़े अपराधियों को पकड़ने वाले पुलिसकर्मी

ऑलिंपिक रिपेटर | रांची

पुलिस मुख्यालय विभिन्न जिलों में घातित एक दर्जन कुख्यात अपराधियों को अभियान चला कर गिरफ्तार करने वाले पुलिसकर्मीयों को पुरस्कृत करेगा। इन अपराधियों को गिरफ्तार करने में 12 टीमों के 85 पुलिस अफसर एवम् पुलिसकर्मीयों ने उल्लेखनीय भूमिका निभाई। प्रत्येक टीम को पुरस्कार में 50-50 हजार रुपए दिए जाएंगे। इसके अलावा हर पुलिसकर्मी के सर्विस बुक में सुमेधांक भी अंकित होगा। डीजीपी के निर्देश पर सीआईटी ने विभिन्न जिलों में सक्रिय एवं चंटेड 259 अपराधियों की सूची तैयार की थी। इसके बाद गिरफ्तारी के लिए पुलिस टीम का गठन किया गया। इन टीमों ने 12 कुख्यात अपराधियों रांची जिला में अभय झा, बिनोद बिसौरी सिंह, विपिन शर्मा, गढ़वा में सोनु खान, सिमडेगा में अभय कुंजर और हेलो साहू, दुमका में नरेश कवट, धनबाद में एकबाल खान, हजारतवांग में दशरथ महतो, सपकेवला में विमल डे और सागर लोहरा को गिरफ्तार किया है।

### Jharkhand Urja Utpadan Nigam Ltd

(CIN: U40108JH2013SGC091793)  
Regd. Office:- Engineering Building H.E.C, Dhurwa, Ranchi- 04

#### NOTICE INVITING TENDER

Sealed Tenders in duplicate in two parts separately technical & commercial offer (Part-I) and price offer (Part-II) are invited by Jharkhand Urja Utpadan Nigam Limited from reputed and experienced manufacturers, authorized dealer, EPC contractor having adequate manufacturing/supplying capacity and financially sound firms:-

NIT No.	Description of materials
58/PRU JUUNL/2015-18	Supply, Erection, Installation Testing and Commissioning of Online real time data transfer for continuous ambient air quality monitoring system (01 No.) & stack emission monitoring system (02 No.) with continuous data transmission to Central Pollution Control Board and State Pollution Control Board HQ, Ranchi on turnkey basis
	Supply, Testing, Commissioning & Installation of Effluent quality monitoring system (02 No.) at PTPS with continuous data transmission to Central Pollution Control Board and State Pollution Control Board HQ, Ranchi on turnkey basis

- Last date of submission of tender: 12.04.16 upto 15:00 hrs.
- Date & time of opening of Part-I of tender: 12.04.16 at 15:30 hrs.
- Tender document can be purchase from the office of the Chief Engineer (General), JUUNL, Engineering Building, HEC, Dhurwa, Ranchi-04 from 10:00 am to 05:00 pm on all working days. For any clarification contact over telephone No. 0851- 2400818/ Mobile No. 8294357884/9834148558.

Sd/  
CE(Gen),  
JUUNL, Ranchi

PR-139237 (Jharkhand Urja Utpadan Nigam Ltd) 2015-18

### झारखण्ड राज्य

तृतीय तम

निविदा आभवन सूचना-09 /

1. भरमाति कार्य के पैकेज का नाम नि

पैकेज क्रमांक / बिल / आभवन संख्या	व
JH-M-0903(A) (गोंड)	1. पीपलकुंडी
JH-M-0904 (गोंड)	1. पीपलकुंडी 2. लोहरसी रोड
JH-M-1201 (A) (III) (जलवायु)	1. कालाबाग युवा कालाबाग रोड
JH-M-1201 (IV) (जलवायु)	1. कालाबाग रोड
JH-M-1202 (A) (III) (जलवायु)	1. कालाबाग रोड
JH-M-0402 (A) (सिंचन)	1. जीन्टी रोड 2. पीपलकुंडी रोड
JH-M (II)-1109 (इलाहाबाद)	1. एन.ए. रोड

- निविदा प्रारंभ की अवधि दिनांक / समय 2 बजे साइट में निविदा प्रकाशन दिनांक 23.04.16 दिनांक रात्रि, रायच पत्र एवं अध्यापन जल तकनीकी निविदा खोजने की तिथि 22.04.16 निविदा आभवन पर्याप्तता की नमूना एकांक/पीपी/मदत, धुरवा, रांची।
- ई-निविदा कार्यालय / सेल का सम्पर्क अपने विस्तृत जानकारी हेतु वेबसाइट पर PR-139216 (JSRDA) 2015-16

### कार्यालय, जि

कार्य

पुलक द्वारा Mash Feed (Formula तृतीय वर्ष 2016-17 में गढ़वा जि (Formulated Spawn Feed) 200 04.16 साम 5000 बजे तक आभवन किए निविदा की शर्त:-

- निविदादाता की निविदा को साधा यथा साईज प्रोटीन की मात्रा 1 मिक्सचर का प्रकार, तभी की मा उसमें प्रोटीन न्यूनतम 30 प्रतिशत लाईफ अण्डि होना चाहिये।
- निविदादाता को पैन 100 की अति करना होगा।
- निविदा की सामग्री का सीलबंद एनालिसिस प्रमाण पत्र (Chem निविदादाता के द्वारा निविदा को जो किसी राष्ट्रीयकृत बैंक के द्वारा सफल निविदादाता को Feed 2 समय सीमा के अंदर पहुंचा व निविदादाता को फालो सूची में 2 अधिगतम 200 मात्रक मीक जया यदि प्रधान सफल निविदादाता 1 जका कर ही जाएगी तथा उक्त न्यायालय में किसी प्रकार के वि किभाग रिह में निविदा की शर्तों करने, स्वीकृत करने अध्यापन 2016-17 में निविदा की तिथि 02.04.16 समस साहायतालय में निर्धारित

PR-139241 (Fish) 2015-18

### कार्यपालक अभियंता, जलपथ प्रमण्डल, हजारतवांग, -साह-पुर्नवास पदाधिकारी, भेस्वा जलाशय योजना

#### अल्पकालीन ई-प्रोक्योरमेंट निविदा सूचना

निविदा की शर्तें: Jharkhand Urja Utpadan Nigam Ltd 2015-18 15-03-2016

क्र.सं.	वस्तु का नाम	वस्तु का विवरण	अंदाजित कीमत
1	ग्राहकित राशि	...	...
2	ग्राहकित राशि	...	...
3	ग्राहकित राशि	...	...
4	ग्राहकित राशि	...	...
5	ग्राहकित राशि	...	...
6	ग्राहकित राशि	...	...
7	ग्राहकित राशि	...	...
8	ग्राहकित राशि	...	...
9	ग्राहकित राशि	...	...
10	ग्राहकित राशि	...	...
11	ग्राहकित राशि	...	...
12	ग्राहकित राशि	...	...

नोट-वेबसाइट-वेबसाइट को ही मायाया तो जावेगी। ग्राहकित राशि घट/बढ़ सकती है। अन्य जानकारी के लिए वेबसाइट http://jarkhandtenders.gov.in देखें। कार्यपालक अभियंता, जलपथ प्रमण्डल, हजारतवांग, -साह-पुर्नवास पदाधिकारी, भेस्वा जलाशय योजना

PR-139235 (Water Resource) 2015-18

# MONTHLY REPORT

ON

MONITORING OF ENVIRONMENTAL PARAMETRES LIKE  
AMBIENT AIR QUALITY, STACK EMISSION & EFFLUENT  
DISCHARGE AT PTPS

*Sponsored by*

PTPS, JSEB, RANCHI

Jharkhand



*Project No: CNP/4343/2015-2016*

ENVIRONMENTAL MANAGEMENT GROUP  
CSIR-Central Institute of Mining & Fuel Research  
(Council of Scientific and Industrial Research)  
Barwa Road, Dhanbad – 826 015, Jharkhand

**January and February 2016**

*R. K. Singh 25/04/16*

**Table 4: Surface Water Quality of Nalkari Dam for the month of January 2016,  
Date of Sampling: 20.01.2016 to 26.01.2016**

S. N.	Parameters	Station Code
		SW1
1.	pH	8.49
2.	Colour, Hazen Units	Clear
3.	Total Dissolved Solids	117
4.	Dissolved Oxygen	7.6
5.	BOD ( 5 days at 20°C)	0.7
6.	Chloride (as Cl <sup>-</sup> )	20.0
7.	Boron (as B)	0.17
8.	Sulphate (as SO <sub>4</sub> )	152.3
9.	Nitrates as NO <sub>3</sub>	22.2
10.	Free ammonia as N	BDL
11.	Conductivity (µs/cm)	165.4
12.	Arsenic (as As)	Nil
13.	Iron (as Fe)	0.08
14.	Fluorides (as F <sup>-</sup> )	0.21
15.	Lead (as Pb)	BDL
16.	Copper (as Cu)	0.01
17.	Zinc (as Zn )	0.24
18.	Sodium absorption Ratio	2.18
19.	Coliform Organism (MPN /100 ml)	29
<b>Classification</b>		<b>A</b>

**Note :** All parameters are expressed in mg/l except pH and Colour.  
As per classification of inland surface water (CPCB standard)  
CL : Colourless

*BDL - Below Detection Limit.*

**Table 5: Ground Water Quality of PTPS Area for the month of  
February 2016  
Date of Sampling: 24.02.2016 to 26.02.2016**

S.N.	Parameters	Station Code	IS : 10500
		GW1	
1	Colour (Hazen units)	unobjectionable	unobjectionable
2	Odour	unobjectionable	unobjectionable
3	Taste	agreeable	agreeable
4	Turbidity (NTU)	clear	10.0 NTU
5	pH	7.49	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> )	254.0	300.0
7	Iron (as Fe)	0.20	0.3
8	Chloride (as Cl <sup>-</sup> )	56.0	250
9	Residual Free Chlorine	Nil	0.2
10	Total Dissolved Solids	347.0	500.0
11	Calcium (as Ca)	172.0	75.0
12	Magnesium (as Mg)	19.9	30.00
13	Copper (as Cu)	0.02	0.05
14	Manganese (as Mn)	0.13	0.1
15	Sulphates (as SO <sub>4</sub> <sup>-</sup> )	159.6	200.0
16	Nitrate (NO <sub>3</sub> )	34.4	45.0
17	Fluorides as (F <sup>-</sup> )	0.17	0.6-1.2
18	Phenolic compound (C <sub>6</sub> H <sub>5</sub> OH)	Nil	0.001
19	Mercury (as Hg)	Nil	0.001
20	Cadmium (as Cd)	0.001	0.01
21	Selenium (as Se)	Nil	0.01
22	Arsenic (as As)	Nil	0.05
23	Cyanide (as CN <sup>-</sup> )	Nil	0.05
24	Lead (as Pb)	Nil	0.1
25	Zinc (as Zn)	1.3	5.0
26	Anionic detergents (as MBAS)	Nil	0.2
27	Chromium (as Cr <sup>+6</sup> )	Nil	0.05
28	Mineral oil	Nil	NS
29	Pesticides	Nil	Absent
30	Alkalinity	144.0	--

*All parameters are expressed in mg/l except pH.*

**Table 5: Ground Water Quality of PTPS Area for the month of January 2016, Date of Sampling: 20.01.2016 to 26.01.2016**

S.N.	Parameters	Station Code	IS : 10500
		GW1	
1	Colour (Hazen units)	unobjectionable	unobjectionable
2	Odour	unobjectionable	unobjectionable
3	Taste	agreeable	agreeable
4	Turbidity (NTU)	clear	10.0 NTU
5	pH	7.49	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> )	92.0	300.0
7	Iron (as Fe)	0.19	0.3
8	Chloride (as Cl <sup>-</sup> )	56.0	250
9	Residual Free Chlorine	Nil	0.2
10	Total Dissolved Solids	364.0	500.0
11	Calcium (as Ca)	60.0	75.0
12	Magnesium (as Mg)	7.78	30.00
13	Copper (as Cu)	0.04	0.05
14	Manganese (as Mn)	0.15	0.1
15	Sulphates (as SO <sub>4</sub> <sup>-</sup> )	142.6	200.0
16	Nitrate (NO <sub>3</sub> )	32.4	45.0
17	Fluorides as (F <sup>-</sup> )	0.13	0.6-1.2
18	Phenolic compound (C <sub>6</sub> H <sub>5</sub> OH)	Nil	0.001
19	Mercury (as Hg)	Nil	0.001
20	Cadmium (as Cd)	0.001	0.01
21	Selenium (as Se)	Nil	0.01
22	Arsenic (as As)	Nil	0.05
23	Cyanide (as CN <sup>-</sup> )	Nil	0.05
24	Lead (as Pb)	Nil	0.1
25	Zinc (as Zn)	1.1	5.0
26	Anionic detergents (as MBAS)	Nil	0.2
27	Chromium (as Cr <sup>+6</sup> )	Nil	0.05
28	Mineral oil	Nil	NS
29	Pesticides	Nil	Absent
30	Alkalinity	140.0	--

*All parameters are expressed in mg/l except pH.*



**Table 5: Ground Water Quality of PTPS Area for the month of  
February 2016**

**Date of Sampling: 24.02.2016 to 26.02.2016**

S.N.	Parameters	Station Code	IS : 10500
		GW1	
1	Colour (Hazen units)	unobjectionable	unobjectionable
2	Odour	unobjectionable	unobjectionable
3	Taste	agreeable	agreeable
4	Turbidity (NTU)	clear	10.0 NTU
5	pH	7.49	6.5-8.5
6	Total Hardness (as CaCO <sub>3</sub> )	254.0	300.0
7	Iron (as Fe)	0.20	0.3
8	Chloride (as Cl <sup>-</sup> )	56.0	250
9	Residual Free Chlorine	Nil	0.2
10	Total Dissolved Solids	347.0	500.0
11	Calcium (as Ca)	172.0	75.0
12	Magnesium (as Mg)	19.9	30.00
13	Copper (as Cu)	0.02	0.05
14	Manganese (as Mn)	0.13	0.1
15	Sulphates (as SO <sub>4</sub> <sup>-</sup> )	159.6	200.0
16	Nitrate (NO <sub>3</sub> )	34.4	45.0
17	Fluorides as (F <sup>-</sup> )	0.17	0.6-1.2
18	Phenolic compound (C <sub>6</sub> H <sub>5</sub> OH)	Nil	0.001
19	Mercury (as Hg)	Nil	0.001
20	Cadmium (as Cd)	0.001	0.01
21	Selenium (as Se)	Nil	0.01
22	Arsenic (as As)	Nil	0.05
23	Cyanide (as CN <sup>-</sup> )	Nil	0.05
24	Lead (as Pb)	Nil	0.1
25	Zinc (as Zn)	1.3	5.0
26	Anionic detergents (as MBAS)	Nil	0.2
27	Chromium (as Cr <sup>+6</sup> )	Nil	0.05
28	Mineral oil	Nil	NS
29	Pesticides	Nil	Absent
30	Alkalinity	144.0	--

*All parameters are expressed in mg/l except pH.*

Minimum 7.5 cusec of water released through gate in downstream side to maintain Ecological balance.

PTPS Dam was constructed over Nalkari River consisting 2450 acre of land at full reservoirs level with gross storage of 87000 acft.

A spill way consisting 08 (Eight) gates of size (35'-0" X 23'-6") each.

The following data about P.T.P.S. Dam are as follows:-

- |      |                              |                   |
|------|------------------------------|-------------------|
| I.   | Water spread area at FRL     | - 2450.00 acre    |
| II.  | FRL/MWL                      | - 1332.50 ft.     |
| III. | Crest of spill way           | - 1310.00 ft.     |
| IV.  | Size of spillway gate (Each) | - 35'-0" X 23'-6" |

As per available designed data (Enclosed) at RL of 1322 ft. while opening of 1" of one spillway gate the total discharge of 69.9 cusec water has to be discharge. Accordingly one spillway gate has been permanently opened 3mm (approx) to discharge a flow of minimum 7.5 cusec (approx.) of water to the downstream to meet the needs of downstream communities and to sustain the biological system.

*J. E.*  
28/04/16  
J.E (CIVIL)  
P.T.P.S.

*Prabhu*  
28/04/16  
EE (Civil)  
PTPS

*Hansan*  
28/4/16  
SECC  
P.T.P.S

*G. M.*  
28.4.16  
G.M/PTPS.

SALIENT FEATURES OF HALKARI DAM & APPURTENMENT WORKS

1. Catchment area :	81.32 Sq. miles
2. Lowest bed level of Halkari river at Dam site :	El : 1223.00
3. F.R.L & M.W.L. ;	El : 1332.50
4. Crest of Dam :	El : 1342.50
5. Operating platform :	El : 1370.00
6. Road width :	20 ft. clear with two foot paths 2' 6" wide each with parapet : total width 26 ft. over spillway.
7. Total gross storage at F.R.L. :	37,000 ac.ft.
8. Minimum draw down level :	El : 1272.00
9. Dead storage :	6100.00 ac.ft.
10. Live storage :	80,900 acft.
11. Maximum rain water level :	El. 1250.00
12. Water spread area at F.R.L.	2,450 acres.
13. Maximum height of dam above river bed :	119.50 ft.
14. Total length of dam <del>above</del> <sup>at</sup> river crest level.	10,620 ft.
15. Crest of masonry spillway .	El. 1310.00
16. length of spillway :	349 ft. (8 spans of 35'-0" and piers of 12'-0" each & 3 <del>times</del> piers of 7 ft. each.
17. Discharging capacity of spillway at M.W.L.	1,00,000 cusecs.
18. Vertical lift gates :	35'0" x 23'6" (clear)
19. Sill level of scour sluice :	El. 1240.00
20. No. of scour sluice :	4 nos. 6'0" x 4'6"
21. Total discharging capacity of 4 nos. scour sluice :	4,120 cusecs.
22. Discharging capacity of one scour sluice :	1030 cusecs.
23. Length of transition left bank & right bank.	150 ft. & 157 ft. respectively
24. Length of intake structure :	75 ft. (clear).
25. Top width of earth dam :	20'0".
26. Upstream slope " "	4:1 upto to El.1302.5 & 2.5:1 upto El.1332.50 & 2:1 upto crest with 2 berms of 10 ft. at El.1272 &

- 27. Dam stream slope " " 2:1 upto top of rock toe  
2.50:1 upto El. 1322.50 and  
2:1 upto crest with a berm of  
10 ft. at El. 1292.50 and  
a berm of 5 ft. at El. 1322.50
- 28. Sill level of intake for cooling water; El. 1270.00
- 29. Do for water supply to colony and NCDC : El. 1260.00
- 30. Maximum draw off from reservoir : 110 cusecs.
- 31. Total cost of the project : Rs. 547.85 lacs

Chief Engineer  
Irrigation Dept.  
PARNA.

**Response of PVUNL for EIA Resource & Response Centre's (eRc) letter send to the EAC thermal meeting on 29 February-1 March 2016.**

They raised some issues as follows:-

<b>Sl. No.</b>	<b>ISSUES RAISED</b>	<b>REPLY</b>
01	Jharkhand state Pollution Control Board (JSPCB) has identified PTPS among several industries which are serious offenders and causing extreme pollution	JSPCB has issued consent to operate unit no.-10 with certain conditions such as cascade system of ash dyke, monitoring of air and flue gas. Compliance has been started by adopting short term measures. However, its full compliance will take 09 months.
02	Hardly 10 per cent operation of the 840 MW	The 840 MW plant is derated to 770MW. CEA has already recommended to phase out Unit no.- 1, 2, 3, 5 & 8. As per CEA policy Unit-4 & 6 to be phased out by the year 2017 (12 <sup>th</sup> Plan) and Unit No.-7, 9 & 10 by the year 2022 (13 <sup>th</sup> Plan) after commissioning of phase – I. PVUNL, a Joint Venture Company of NTPC & GoJ, will improve the performance of running Unit no.4, 6, 7, 9 & 10 by taking efficiency improvement measures as per JV Agreement.
03	Less than 5% land and employees would be enough to run this capacity	GoJ & NTPC has formed a JV Company, PVUNL on 15.10.2015 for performance improvement of existing operating units of PTPS and capacity expansion of 4000 MW. Capacity expansion is to be done in two phases i.e. 3 x 800 MW and 2 x 800 MW. 3 x 800 MW plant will be set up only on 1234 acres land i.e.0.514 acre per MW capacity (excluding township) and PVUNL will maintain Man MW ratio by less than 1.0.
04	The Nalkari river, Tributary of Damodar has turned into a waste water canal. It carries huge quantity of oil and ash discharged by PTPS	Corrective action has been initiated and will get completed in nine months GoJ / PVUNL will work in co-ordination with Water Resources Department (WRD) in this regard.
05	Shifting a Nallah	Will be taken care of during engineering & implementation of Phase-I (3 x 800 MW) expansion project.