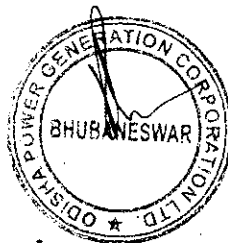


Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

21. Other Financial Liabilities

Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
a) Capital Creditors			
b) Security Deposits		12.13	16.88
c) EMD and Retention Money	134.55	395.38	133.73
d) Payable to Government	191.63	132.78	52.14
	185.58	185.58	185.58
Total	511.76	725.87	388.33

- (i) Government Grant of Rs 185.58 lakhs were received from Ministry of Non-conventional Energy, Govt. of India for construction of Mini Micro Hydel Projects. The Company has impaired four Hydel projects during the year which were continued under Capital Work-in progress. Henceforth, grant has been reclassified as payable to government during the year ended March 31, 2017. Any unfulfilled conditions and other contingencies attaching to government assistance has not been reviewed and recognized.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

22. Provisions

Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
Employee Benefits			
- Gratuity	521.47	715.43	41.06
- Leave benefits	3,307.92	3,148.55	2,398.60
Total	3,829.39	3,863.98	2,439.66

(i) Provision for employee benefits include Gratuity, Leave Benefits & Sick Leave

(ii) Movement in provision balances are analysed below:

As at March 31, 2017		(Rupees in Lakhs)	
Balance Sheet Analysis	Gratuity	Sick Leave	Leave benefits
Present Value of the obligation at end	3,990.99	864.19	2,573.64
Fair Value of plan assets	3,469.52	-	-
Unfunded Liability/ provision in Balance Sheet	521.47	864.19	2,573.64
Unfunded Liability recognised in Balance Sheet	521.47	864.19	2,573.64

As at March 31, 2016		(Rupees in Lakhs)	
Balance Sheet Analysis	Gratuity	Sick Leave	Leave benefits
Present Value of the obligation at end	3,566.73	786.38	2,428.95
Fair Value of plan assets	2,717.81	-	-
Unfunded Liability/ provision in Balance Sheet	848.92	786.38	2,428.95
Unfunded Liability recognised in Balance Sheet	848.92	786.38	2,428.95

1. Defined Contribution Plan

The Company participates in a number of defined contribution plans on behalf of relevant personnel. Any expense recognised in relation to these schemes represents the value of contributions payable during the period by them at rates specified by the rules of those plans. The only amounts included in the balance sheet are those relating to the prior months contributions that were not due to be paid until after the end of the reporting period. The total cost charged to statement of profit and loss during the year on account of defined contribution plans amounted to Rs 495.70 lakhs (2016: Rs 982.91). The major defined contribution plans operated by the Company are as below:

a. Provident fund

In accordance with Indian law, eligible employees of the Company are entitled to receive benefits in respect of provident fund, a defined contribution plan, in which both employees and the Company make monthly contributions at a specified percentage of the covered employees' salary.

The contributions, as specified under the law, are made to the provident fund set up as an irrevocable trust by the Company

2. Defined benefit plans

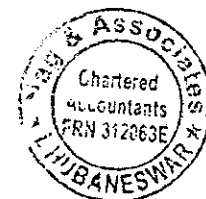
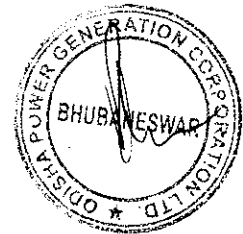
a. Retiring gratuity

The Company has an obligation towards gratuity, a defined benefit retirement plan covering eligible employees. The plan provides for a lump-sum payment to vested employees at retirement, death while in employment or on termination of employment in OPGC Ltd as per Rules of the Group Gratuity Scheme of the company. Vesting occurs upon completion of five years of service. The Company makes annual contributions to Life Insurance Corporation of India towards the gratuity contribution. The Company accounts for the liability for gratuity benefits payable in the future based on an actuarial valuation.

(iii) The following table sets out the amounts recognized in the financial statements for retiring gratuity plans in respect of the Company.

Change in defined benefit obligations:	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
(a) Obligation as at the beginning of the year	3,566.73	2,646.13
(b) Current service cost	183.18	170.46
(c) Interest cost	279.99	209.04
(d) Remeasurement (gains)/losses	2.60	613.77
(e) Benefits paid	(41.51)	(72.67)
Obligation as at the end of the year	3,950.99	3,566.73

Change in plan assets:	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
(a) Fair value of plan assets as at beginning of the year	2,717.81	2,566.52
(b) Interest income	214.56	210.32
(c) Remeasurement gains/(losses)	-	-
(d) Employers' Contributions	578.66	13.64
(e) Benefits paid	(41.51)	(72.67)
Fair value of plan assets as at end of the year	3,469.52	2,717.81



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

(Rupees in Lakhs)		
Amount recognised in the balance sheet consists of:	Year ended March 31,2017	Year ended March 31,2016
(a) Fair value of plan assets as at end of the year	3,469.52	2,717.81
(b) Present value of obligation as at the end of the year	3,990.99	3,566.73
(c) Amount recognised in the balance sheet (i) Retirement benefit liability - Non current	521.47	848.92

(Rupees in Lakhs)		
	Year ended March 31,2017	Year ended March 31,2016
Costs recognised in the statement of profit and loss consist of:		
(a) Current service cost	183.18	170.46
(b) Net interest expense/(income)	66.64	6.29
Costs recognised in the statement of profit and loss:	249.82	176.75
Costs recognised in the statement of other comprehensive income consist of:		
(c) The Return on plan assets (excluding amounts included in net interest expense)	1.21	7.56
(d) Actuarial gains and (losses) arising from changes in demographic assumption	17.35	(19.43)
(d) Actuarial gains and (losses) arising from changes in financial assumption	(3.78)	(570.45)
(e) Actuarial gains and (losses) arising from changes in experience adjustments	(16.17)	(23.90)
Costs recognised in the statement of other comprehensive income	(1.39)	(606.21)

- (iv) The fair value of company's retiring gratuity plan assets as of March 31, 2017 and March 31, 2016 by category are as follows:

	Year ended March 31,2017	Year ended March 31,2016
Assets category (%)		
(a) Equity instruments	-	-
(b) Debt instruments	-	-
(c) Funds Managed by insurer	100%	100%

The Company's policy is driven by considerations of maximizing returns while ensuring credit quality of the debt instruments. The asset allocation for plan assets is determined based on investment criteria prescribed under the Indian Income Tax Act, 1961, and is also subject to other exposure limitations. The Company evaluates the risks, transaction costs and liquidity for potential investments. To measure plan asset performance, the Company compares actual returns for each asset category with published benchmarks.

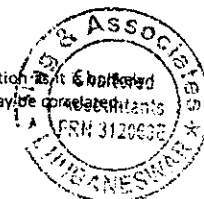
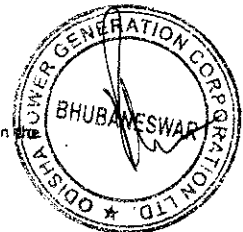
- (v) The assumptions used in accounting for retiring gratuity are set out below:

	As at March 31, 2017	As at March 31, 2016
(a) Discount rate	7.44	7.85
(b) Rate of escalation in salary	8.40	8.80

- (vi) The Company expects to contribute Rs. 240.12 lakhs to the plan in fiscal year 2018.
(vii) The table below outlines the effect on defined benefit obligation in the event of a decrease/increase of 0.50% in the assumed rate of discount rate and salary escalation rate.

As at March 31, 2017		
Assumption	Change in assumption	Impact on scheme liabilities
Discount rate	Increase by 0.50%	(127.71)
	Decrease by 0.50%	134.36
Salary escalation	Increase by 0.50%	132.51
	Decrease by 0.50%	(127.17)

The above sensitivities may not be representative of the actual change in the defined benefit obligation as it is assumed that the change in assumptions would occur in isolation of one another as some of the assumptions may be correlated.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

24. Trade and other Payables

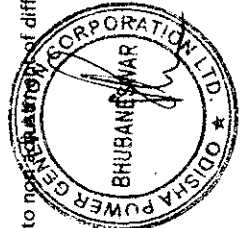
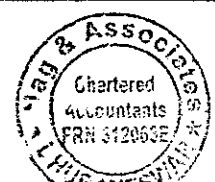
Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
Trade Payables			
Total outstanding dues of micro enterprises and small enterprises	3.66	23.25	3.45
Total outstanding dues of creditors other than micro enterprises and small enterprises	913.30	2,183.27	974.50
Other Payables			
Liabilities for Expenses	4,553.79	5,672.31	3,862.99
Payable to employees	1,296.09	1,409.72	921.19
Total	6,766.84	9,288.53	5,762.13

(i) Payable to employees includes Rs 513.75 lakhs for 7th pay revision (March 31, 2016: Nil)

(ii) The amount due to Micro and Small Enterprises as defined in the "The Micro, Small and Medium Enterprises Development Act, 2006" has been determined to the extent such parties have been identified on the basis of information available with the Company. The disclosures relating to Micro and Small Enterprises are as under:

Description	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
i. The principal amount remaining unpaid to supplier as at the end of the year	3.66	23.25	3.45
ii. The interest due thereon remaining unpaid to supplier as at the end of the year	-	-	-
iii. The amount of interest due and payable for the period of delay in making payment (which have been paid but beyond the appointed day during the year) but without adding the interest specified under this Act	-	-	-
iv. The amount of interest accrued during the year and remaining unpaid at the end of the year	-	-	-

Trade Payables includes Rs 211.64 lakh (Previous year Rs 28.28 lakh) (net) in MCL account which is due to non-payment of differential entry tax, quantity difference, pumping charges of water supplied and credit allowed in un-graded coal etc at their end.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

25. Other Financial Liabilities

Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
a) Interest accrued on borrowings	4,370.86	2,054.44	973.31
b) Others:			
Deposits & Retention Money	2,473.23	2,689.14	2,087.02
Capital Creditors	1,80,997.79	1,76,293.25	71,132.41
Total	1,87,841.88	1,81,036.83	74,192.74

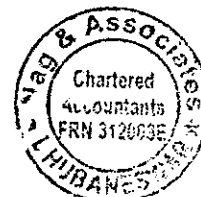
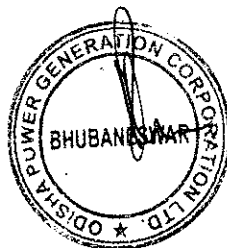
26. Other Current Liabilities

Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
a) Advances from Customers & others	139.18	71.00	25.20
b) Statutory Dues Payables	1767.96	929.88	628.01
Total	1,907.14	1,000.88	653.21

- (i) Statutory dues includes payables in respect of excise duties, service tax, sales tax, VAT, tax deducted at source among others.

27. Provisions

Particulars	(Rupees in Lakhs)		
	As at March 31, 2017	As at March 31, 2016	As at April 1, 2015
Employee Benefits			
- Gratuity	-	133.49	38.54
- Leave benefits	173.16	97.75	68.21
Total	173.16	231.24	106.75



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

28. Revenue from Operations

(Rupees in Lakhs)

Particulars	Year ended March 31, 2017	Year ended March 31, 2016
(a) Sale of Power	72,178.28	62,753.49
Total	72,178.28	62,753.49

(i) Sale has been accounted for in accordance with the tariff approval by OERC for FY 2016-17.

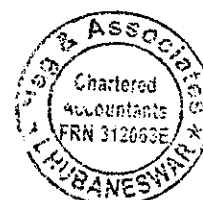
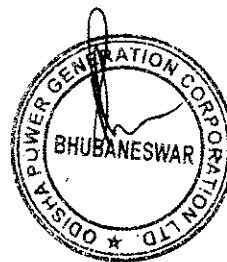
(ii) Sale does not include internal consumption of 349.211 MU including transformer loss of 11.994 MU for the reporting year (previous year 344.496 MU including transformer loss of 16.218 MU), the cost of which has been determined at Rs 6910.87 lakh (previous year Rs 5835 lakh) approximately.

(iii) In absence of power purchase agreement, 0.293 MU net (previous year 0.342 MU net) of energy generated from Mini Hydel Projects (Kendupatana and Biribati) has not been accounted.

(iv) Particulars of Generation, Auxiliary Consumption and Sale of power

(Rupees in Lakhs)

Particulars	2016-17	2015-16
Generation (MU)	3,234.88	3,117.32
Sale (MU)	2,885.67	2,772.82
Internal consumption (MU)	349.21	344.50
Sale (Net) (Rs in lakh)	72,178.28	62,753.49
Internal consumption (Rs in lakh)	6,910.87	5,835.00



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

29. Other Income

		(Rupees in Lakhs)	
	Particulars	Year ended March 31, 2017	Year ended March 31, 2016
a)	Interest Income		
	Interest income from Bank Deposits at amortised Cost	2,552.63	6,653.21
	Interest income from loans to related parties at amortised cost	711.28	805.85
	Others	27.14	20.51
		3,291.05	7,479.57
b)	Other non-operating income (net of expenses directly attributable to such income)		
	Sale of Scrap / residual materials	120.53	37.69
	Miscellaneous Incomes	206.15	269.82
	Exchange Gain	0.20	0.95
	Liability/Provision written back	12.80	51.34
		339.68	359.80
c)	Other gains and losses		
	Gain/(loss) on disposal of PPE	-	2.53
		-	2.53
	Total	3,630.73	7,841.90

(i) Miscellaneous income includes

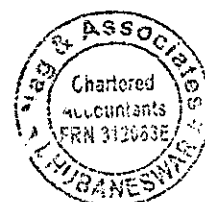
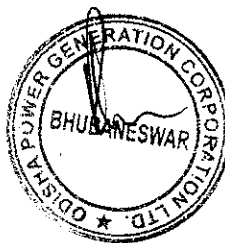
(a) Township recoveries of Rs 20.73 lakhs (previous year RS 71.67 lakhs)

(b) Rs 29.77 lakh (previous year Rs 68.77 lakh) liquidated damage and penalty recovered from contractors and others.

(c) Rs 8.18 lakh (previous year [Rs 28.90 lakh]) towards forfeiture of security deposits, earnest money deposits, retention money and writing back of old liabilities.

(ii) Excess Provision written back related to

Provision for Debtor	-	25.23
Obsolete stores/spares	-	-
Employee benefits and expense	10.74	0.39
Generation and other expenses	1.67	13.26
Administrative expenses	0.39	12.46



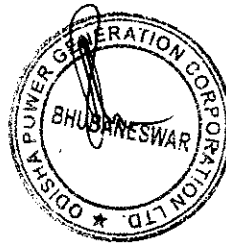
Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

30. Cost of raw material consumed

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
Imported	-	-
Indigenous	47,103.35	35,225.15
Total	47,103.35	35,225.15

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
Coal	46,747.02	34,626.33
FO / LDO	356.33	598.82
Total	47,103.35	35,225.15

- (i) Shortage of coal of 1,287.35 MT amounting to Rs 24.10 lakh (Previous year shortage of 10,505.81 MT amounting to Rs 163.31 lakh) found during physical verification has been charged to cost of raw material consumed as per the policy Note No-3.12.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

31. Employee Benefit Expenses

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
Salaries and Wages	8,176.86	8,038.84
Contribution to provident and other funds	664.33	605.90
Staff Welfare expenses	667.73	625.21
Total (A)	9,508.92	9,269.95
Less :		
Allocated to fuel cost	489.52	559.33
Amount included in the cost of qualifying assets	3,220.38	3,068.62
Total (B)	3,709.90	3,627.95
Net (A-B)	5,799.02	5,642.00

- (i) The Company has recognised in the statement of profit and loss, an amount of Rs 37.89 lakhs(2015-16:Rs 31.39 lakhs) as expenses with respect to key managerial personnel. The details of such expenses are as below:

Particulars	Year ended March 31, 2017	Year ended March 31, 2016
(a) Short term employee benefits	37.89	31.39
(b) Post employment benefits	-	-
(c) Other long term employee benefits	-	-

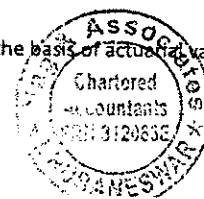
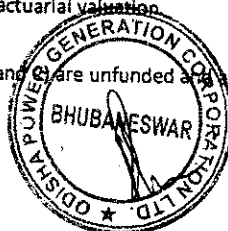
- (ii) It includes an amount of Rs 729.36 lakh (previous year Rs 706.43 lakh) towards provision for Variable Pay of the employees under approved performance management system of the company.
- (iii) Disclosure as per IND AS-19 in respect of provision made towards various employee benefits are given as follows.

A. Provident Fund: Company pays fixed contribution to provident fund at predetermined rates to a separate trust, which invests the funds in permitted securities. The contribution to the fund for the year is recognised as expense and is charged to the Statement of Profit and Loss. The obligation of the Company is to make such fixed contribution and to ensure a minimum rate of return to the members as specified by Govt.of India. As per report of the actuary, overall interest earnings and cumulative surplus is more than the statutory interest payment requirement. Hence, no further provision is considered necessary.

B. Gratuity: The Company has a defined benefit gratuity plan. Every employee who has rendered continuous service of five years or more is entitled to gratuity at 15 days salary (15/26 X last drawn basic salary plus grade pay & dearness allowance) for each completed year of service subject to a maximum of 20 months salary on superannuation, resignation, termination, disablement or on death. The actuarial valuation has been made by taking into account maximum gratuity @ 15 days salary for each completed year of service subject to maximum 20 months salary as specified in OPGC Ltd Rule for Group Gratuity Scheme.

C. Leave:The Company provides for earned leave benefit (including compensated absences) and half-pay leave to the cadre employees of the Company which accrue annually at 30 days and 10 days respectively. Similarly the company also provides benefit to Market Based Salary structure employees (MBS) which accrued annually at 24 days. Earned leave and half pay leave is not encashable during service. However total earned leave that can be encashed on superannuation / separation shall be restricted to 300 days incase of cadre employees and 60 days in case of MBS employees. Commutation of half-pay leave shall be permissible. These schemes are unfunded and the liability for the same is recognised on the basis of actuarial valuation.

- (iv) The above mentioned schemes (A and C) are unfunded and are recognised on the basis of actuarial valuation.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

32. Finance Costs

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
(a) Interest Expense		
Interest on term loan		
Interest on short term loans from scheduled bank	26,345.53	12,631.67
(b) Other Borrowing Cost		465.42
Guarantee Commission		
Total Finance Cost	977.19	
Less : amount included in the cost of qualifying assets	27,322.72	13,097.09
Total	26,345.53	12,631.67
	977.19	465.42

- (i) Other borrowing cost represents Rs 977.19 lakhs paid during the year to Govt of Odisha towards outstanding Govt guarantee fees related to loan availed in earlier years for construction of Unit 1 & 2.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

33. Depreciation & amortisation expenses

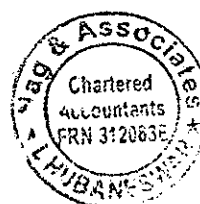
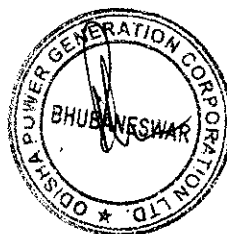
(Rupees in Lakhs)

Particulars	Year ended March 31, 2017	Year ended March 31, 2016
Depreciation & amortisations	1,983.57	2,433.62
Less :		
Allocated to fuel cost	21.31	20.65
Amount included in the cost of qualifying assets	509.31	220.92
Total	1,452.95	2,192.05

34. Impairment losses

(Rupees in Lakhs)

Particulars	Year ended March 31, 2017	Year ended March 31, 2016
Impairment of CWIP (Mini Micro Hydel Projects)	1,106.57	-
Total	1,106.57	-



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement
35. Other Expenses

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
Generation Expenses:		
Consumption of Stores, spares & chemicals	1,240.24	1,672.93
Electric Power, Electricity Duty and Water	1,761.37	1,562.98
Contract Job outsourcing expenses	1,154.20	1,691.11
Insurance	73.24	70.14
Other generation expenses	360.15	443.16
Repairs to buildings	284.29	419.87
Repairs to Machinery	46.74	62.28
	4,920.23	5,922.47
Selling and Distribution Expenses:		
Rebate in the nature of cash discount to customer	1,096.77	1,151.81
Administrative Expenses:		
Rent	269.06	266.98
Professional Fees and expenses	48.70	12.55
General expenses	3,324.96	2,169.25
Management Service Charges	29.84	27.65
Rate, Taxes & Cess	48.84	220.76
Other Repairs	61.73	65.22
Travelling expenses	271.33	252.23
Watch and Ward expenses	494.08	431.77
Township development expenses	353.66	140.80
	4,902.20	3,587.21
Other Expenses		
Payment to Auditors	11.59	10.14
Peripheral development expenses	2.51	12.17
Donation	93.60	132.60
Trade Receivables Written Off (Net)	30.10	6.06
Loss on Sale of Fixed Assets	15.15	-
Inventories / assets written off / written back(net)	1.30	29.75
	154.25	190.72
Corporate Social Responsibility	324.33	268.34
Less: Allocated to Fuel Cost	695.61	581.19
Amount included in the cost of qualifying assets	2,568.50	1,777.29
	3,264.11	2,358.48
Total	8,133.67	8,762.06

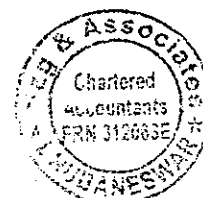
(i) Payment to Auditors As:

	2016-17	2015-16
(a) As Auditors		
Statutory Audit Fees	6.33	6.33
Statutory Audit expenses	1.13	1.01
(b) Tax Audit Fees	1.06	0.75
(b) Certification fee	1.52	0.74
(c) As Cost Auditors		
Cost Audit Fees	1.21	1.03
Cost Audit expenses	0.35	0.29
TOTAL	11.59	10.14

(ii) In terms of section 135 of the companies act 2013, the company is required to make an expenditure on Corporate Social Responsibility for an amount of Rs 394.85 lakh during the reporting year .

(iii) Out of Rs 394.85 lakh, the company spent as follows during the year

PARTICULARS	Yet to be paid in		
	In Cash	Cash	Total
Construction / acquisition of any asset			
On purpose other than (i) above	296.87	27.46	324.33
Total	296.87	27.46	324.33



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

Cost of Qualifying Assets(Unit 3 & 4)		2016-17		2015-16	
A.	EMPLOYEE BENEFIT EXPENSES				
	Salaries & Wages	3,077.96		2,933.63	
	Contribution to				
	Provident fund	87.15		115.80	
	Gratuity fund				
	Staff Welfare Expenses	55.27	3,220.39	19.20	3,068.62
B.	FINANCE COST				
	Interest Expenses	26,345.53		12,631.67	
	Other borrowing Cost		26,345.53		12,631.67
C.	DEPRECIATION AND AMORTISATION EXPENSES				
	Depreciation	509.31	509.31	220.92	220.92
D.	ADMINISTRATIVE AND OTHER EXPENSES				
	Administrative Expenses				
	Rent	109.88		141.55	
	Professional Fees and expenses				
	General expenses	2,255.56		1,443.42	
	Rate, Taxes & Cess	17.04		8.74	
	Travelling expenses	77.86		81.94	
	Watch and Ward expenses	89.65		85.49	
	Community development and welfare expenses	15.99		4.96	
	Peripheral development expenses	2.50		11.19	
	Donation		2,568.50		1,777.29
	CSR expenditure in compliance to Environmental Clearance	327.53	327.53	201.62	201.62
	Total		32,971.25		17,900.12



Odisha Power Generation Corporation Limited
Notes forming part of the financial statements

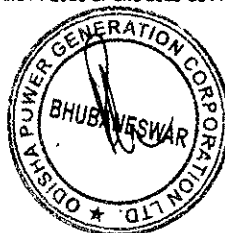
36. Related party transactions

Odisha Power Generation Corporation Ltd (the Company) controlled by the Government of Odisha (GoO) . GoO holds 51% ownership interest in the Company and balance 49% ownership interest is jointly held by AES India Pvt Ltd and AES OPGC Holding (incorporated in Mauritius) as on March 31, 2017. The Company's related parties principally consist of GoO, OPGC Ltd Provident Fund Trust, AES India Pvt Ltd , AES OPGC Holding and OCPL as its Joint venture. The Company routinely enters into transactions with these related parties in the ordinary course of business at market rates and terms.

(Rupees in Lakhs)

Transactions	OCPL	AES India Pvt. Ltd	AES OPGC holding	Key Management Personnel	Relatives of Key Management Personnel	PF Trust	Government of Odisha
Finance provided							
FY 2016-17	10,659.41						
FY 2015-16	9,615.20						
Interest on loan given							
FY 2016-17*	2,891.77						
FY 2015-16	1,829.41						
PF Contribution							
FY 2016-17						921.86	
FY 2015-16						750.14	
Employee Benefits expenses in respect of deputed employees under reciprocal sharing of resources							
FY 2016-17		946.52					
FY 2015-16		825.80					
Management Services Charges							
FY 2016-17		29.84					
FY 2015-16		27.65					
Remuneration							
FY 2016-17				37.89			
FY 2015-16				31.39			
Dividend paid							
FY 2016-17		963.53	477.71				1,500.07
FY 2015-16		1,204.21	597.03				1,874.76
Guarantee commission paid							
FY 2016-17							977.19
FY 2015-16							
Equity share capital received							
FY 2016-17			23,765.00				24,735.00
FY 2015-16							
Guarantee outstanding							
FY 2016-17	12,229.00						
FY 2015-16	12,229.00						
Outstanding receivable							
FY 2016-17	24,732.98						
FY 2015-16	26,913.32						
Outstanding payables							
FY 2016-17						93.34	
FY 2015-16						56.50	

* It includes interest on PFC loan availed by OPGC for the FY 2016-17 and 2015-16 . For details refer Note-15.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

37. Earning per share (EPS)

The following table reflects the income and shares data used in the basic and diluted earnings per share computations.

Particulars	(Rupees in Lakhs)	
	Year ended March 31, 2017	Year ended March 31, 2016
Profit after tax	6,792.91	11,836.02
Less: Amount to be paid for diluted portion (net of tax)	-	-
Profit attributable to ordinary shareholders - for Basic & Diluted EPS	6,792.91	11,836.02
Weighted average no. of Ordinary Shares for Basic & Diluted EPS	52,07,790	49,02,174
Nominal value of Ordinary Shares (Rs)	1,000.00	1,000.00
Basic & Diluted Earnings per Ordinary Share (Rs)	130.44	241.44

38. Segment Reporting

The company has more than one business segment but not reportable segment since generation from Mini Hydel Projects has not been recognized in absence of power purchase agreement. In view of above fact, segment information required as per Ind AS 108 is not provided.

39. Commitments and Contingencies (To the extent not provided for)

(i) Commitments

Estimated amount of contracts remaining to be executed on capital contracts and not provided for (net of advances) Rs 3,25,000.16 lakhs (March 31, 2016: Rs 5,56,671.55 lakhs).

(ii) Contingencies

Particulars	Opening balance as on April 01, 2016	During the year 2016-17		Balance as on March 31, 2017
		Additions	Reversal	
a) Claims against the Company not acknowledged as debt				
(i) Income tax demands	1,161.68	-	(80.47)	1,081.21
(ii) Indirect tax demands	15.90	-	-	15.90
(ii) Claims of contractors & others	1,018.70	17.51	-	1,036.21
(b) Outstanding letter of credit and guarantees	9,823.62	-	(4,483.30)	5,340.32
(c) Other money for which the Company is contingently liable	12,229.00	-	-	12,229.00
Total	24,248.90	17.51	(4,563.77)	19,702.64

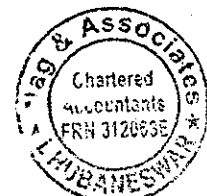
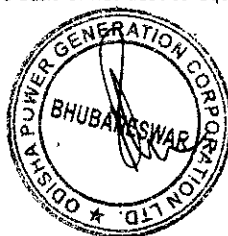
- (i) Interest on above demands wherever applicable is not ascertained and hence not included in the above.
- (ii) A demand of Rs 722 lakh was raised by OHPC Ltd, towards compensation against water drawal from Hirakud reservoir with reference to letter No.6140 dtd July 31, 2012 of Additional Secretary to Govt., Dept. of Energy, Govt. of Odisha on formulation of policy for utilization of water in the reservoirs by industrial units. This amount was not recognized in the accounts of the year of demand in absence of confirmation from customer for reimbursement of the same in the tariff as per power purchase agreement and also not having any financial impact in the profitability of the Company. In view of above no contingent liability also provided for.
- (iii) Other money for which the company is contingently liability includes corporate guarantee of Rs 12,229.00 lakhs and outstanding letter of credit and guarantees includes pledge of fixed deposit of Rs 1,539.20 lakhs given to Yes Bank as security for issue of bank guarantee for Rs 15,392.00 lakhs in favour of nominated authority Ministry of Coal, GOI on behalf of subsidiary company i.e. Odisha Coal and Power Ltd.

40. Capital Management :-

The Company's capital management is intended to create value for shareholders by facilitating the meeting of long term and short term goals of the Company.

The Company determines the amount of capital required on the basis of annual business plan, coupled with long term and short term strategic investing plan. The funding requirements are met through equity and other long term and short term borrowings. The Company's policy is aimed at combination of short term and long term borrowings.

The Company monitors the capital structure on the basis of net debt to equity ratio and maturity profile of the overall debt portfolio of the Company.



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

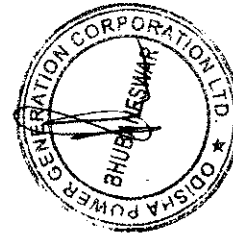
41. Disclosure on Financial Instruments

This section gives an overview of the significance of financial instruments for the Company and provides additional information on balance sheet items that contain financial instruments. The details of significant accounting policies, including the criteria for recognition, the basis of measurement and the basis on which income and expenses are recognized, in respect of each class of financial asset, financial liability and equity instrument are disclosed in note 17 to the financial statements.

(a) Financial assets and liabilities

The following table presents the carrying amount and fair value of each category of financial assets & liabilities as at March 31, 2017

As at March 31, 2017		(Rupees in Lakhs)					
	Fair value through statement of profit & loss	Fair value through OCI	Derivative instruments in hedging relationship	Derivative instruments not in hedging relationship	Amortised Cost	Total Carrying Value	Total Fair Value
Financial assets							
Cash and bank balances					29,940.55	29,940.55	29,940.55
Trade receivables					12,775.74	12,775.74	12,775.74
Loans					1,165.76	1,165.76	1,165.76
Other financial assets					25,420.02	25,420.02	25,420.02
Total					69,302.07	69,302.07	69,302.07
Financial liabilities							
Trade and other payables					6,766.84	6,766.84	6,766.84
Borrowings					3,78,681.12	3,78,681.12	3,78,681.12
Other financial liabilities					1,88,353.64	1,88,353.64	1,88,353.64
Total					5,73,801.60	5,73,801.60	5,73,801.60



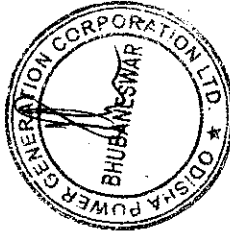
Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

(Rupees in Lakhs)

	Fair value through statement of profit & loss	Fair value through OCI	Derivative instruments in hedging relationship	Derivative instruments not in hedging relationship	Amortised Cost	Total Carrying Value	Total Fair Value
As at March 31, 2016							
Financial assets							
Cash and bank balances					50,147.62	50,147.62	50,147.62
Trade receivables					9,014.58	9,014.58	9,014.58
Loans					10,123.92	10,123.92	10,123.92
Other financial assets					27,741.75	27,741.75	27,741.75
Total					97,027.87	97,027.87	97,027.87
Financial liabilities							
Trade and other payables					9,288.53	9,288.53	9,288.53
Borrowings					1,62,141.26	1,62,141.26	1,62,141.26
Other financial liabilities					1,81,762.70	1,81,762.70	1,81,762.70
Total					3,53,192.49	3,53,192.49	3,53,192.49

(Rupees in Lakhs)

	Fair value through statement of profit & loss	Fair value through OCI	Derivative instruments in hedging relationship	Derivative instruments not in hedging relationship	Amortised Cost	Total Carrying Value	Total Fair Value
As at April 1, 2015							
Financial assets							
Cash and bank balances							
Trade receivables					84,896.61	84,896.61	84,896.61
Investments					4,375.72	4,375.72	4,375.72
Loans					454.03	454.03	454.03
Other financial assets					1,251.38	1,251.38	1,251.38
Total					90,977.74	90,977.74	90,977.74
Financial liabilities							
Trade and other payables					5,762.13	5,762.13	5,762.13
Borrowings					83,239.22	83,239.22	83,239.22
Other financial liabilities					74,581.07	74,581.07	74,581.07
Total					1,63,582.42	1,63,582.42	1,63,582.42



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

(b) The following provides an analysis of financial instruments that are measured subsequent to initial recognition at fair value, grouped into Level 1 to Level 3:
 Quoted prices in an active market (Level 1): This level of hierarchy includes financial assets that are measured by reference to quoted prices (unadjusted) in active markets for identical assets or liabilities. This category consists of investment in quoted equity shares, quoted corporate debt instruments and mutual fund investments.

Valuation techniques with observable inputs (Level 2): This level of hierarchy includes financial assets and liabilities, measured using inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices). This level of hierarchy includes Company's over-the-counter (OTC) derivative contracts.

Valuation techniques with significant unobservable inputs (Level 3): This level of hierarchy includes financial assets and liabilities measured using inputs that are not based on observable market data (unobservable inputs). Fair values are determined in whole or in part, using a valuation model based on assumptions that are neither supported by prices from observable current market transactions in the same instrument nor are they based on available market data. The main items in this category are investment in unquoted equity shares, measured at fair value.

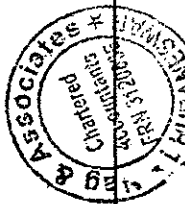
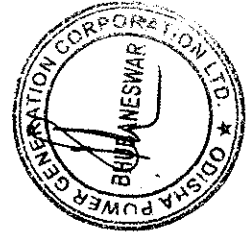
- (i) The short-term financial assets and liabilities are stated at amortized cost which is approximately equal to their fair value.
- (ii) The fair value in respect of the unquoted equity investments cannot be reliably measured.
- (iii) Management uses its best judgment in estimating the fair value of its financial instruments. However, there are inherent limitations in any estimation technique. Therefore, for substantially all financial instruments, the fair value estimates presented above are not necessarily indicative of all the amounts that the Company could have realized or paid in sale transactions as of respective dates. As such, the fair value of the financial instruments subsequent to the respective reporting dates may be different from the amounts reported at each year end

(iv) There have been no transfers between Level 1 and Level 2 for the years ended March 31, 2017, 2016 and April 1, 2015

- (c) **Financial risk management**
 in the course of its business, the Company is exposed primarily to interest rates, liquidity and credit risk, which may adversely impact the fair value of its financial instruments.
 - (i) By creating a stable business planning environment and reducing the impact of currency and interest rate fluctuations on the Company's business plan.
 - (ii) By achieving greater predictability to earnings and determining the financial value of the expected earnings in advance.
 - (iii) **Market Risk** :- Market risk is the risk of any loss in future earnings, in realizable fair values or in future cash flows that may result from a change in the price of a financial instrument. The value of a financial instrument may change as a result of changes in the interest rates, foreign currency exchange rates, equity price fluctuations, liquidity and other market changes. Future specific market movements cannot be normally predicted with reasonable accuracy.
 - (iv) **Credit Risk** :- Credit risk is the risk of financial loss arising from counterparty failure to repay or service debt according to the contractual terms or obligations. Credit risk encompasses both the direct risk of default and the risk of deterioration of creditworthiness as well as concentration risks.
 - (v) **Liquidity Risk**: Liquidity risk refers to the risk that the Company cannot meet its financial obligations. The objective of liquidity risk management is to maintain sufficient liquidity and ensure that funds are available for use as per requirements.

(d) The following table shows a maturity analysis of the anticipated cash flows including interest payable for the Company's non derivative financial liabilities on an undiscounted basis.

	As at March 31, 2017				(Rupees in Lakhs)	
	Carrying amount	Contractual cash flows	Less than 1 year	Between 1 - 5 years	More than 5 years	
Non- derivative financial liabilities						
Borrowings including interest thereon	3,83,051.98	3,83,051.98	3,965.96	92,388.88	2,86,697.15	
Trade payables	6,766.84	6,766.84	6,766.84			
Other financial liabilities	1,88,353.64	1,88,353.64	1,87,841.88	511.76		
Total non- derivative financial liabilities	5,78,172.46	5,78,172.46	1,98,574.68	92,900.64	2,86,697.15	



Odisha Power Generation Corporation Limited
Notes forming part of the financial statement

	(Rupees in Lakhs)			
	As at March 31, 2016			
	Carrying amount	Contractual cash flows	Less than 1 year	Between 1 - 5 years
Non- derivative financial liabilities				More than 5 years
Borrowings including interest thereon	1,64,195.70	1,64,195.70	1,625.36	26,167.76
Trade payables	9,288.53	9,288.53	9,288.53	-
Other financial liabilities	1,81,762.70	1,81,762.70	1,81,036.83	725.87
Total non- derivative financial liabilities	3,55,246.93	3,55,246.93	1,91,950.72	26,893.63
				1,36,402.57

	(Rupees in Lakhs)			
	As at April 1, 2015			
	Carrying amount	Contractual cash flows	Less than 1 year	Between 1 - 5 years
Non- derivative financial liabilities				More than 5 years
Borrowings including interest thereon	84,212.53	84,212.53	520.05	8,595.64
Trade payables	5,762.13	5,762.13	5,762.13	-
Other financial liabilities	74,581.07	74,581.07	74,192.74	388.33
Total non- derivative financial liabilities	1,64,555.73	1,64,555.73	80,474.92	8,983.97
				75,096.84

The cost of unquoted investments approximate the fair value because there is a wide range possible fair value measurements and the cost represents estimate of fair value within that range.

42. Previous year figures has been reclassified/ regrouped wherever necessary.

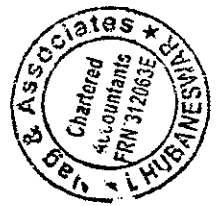
43. Events after reporting period

The authorised share capital of the company has been increased from existing Rs 100,000 lakhs to Rs. 300,000 lakhs consisting of 30,000,000 no. of equity shares of Rs.1000/- each w.e.f August 28, 2017.

For Nag & Associates
 Chartered Accountants

(S. P. Padhi)
 Partner

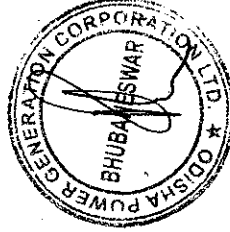
FRN : 310962E
 Membership No. 053292
 Place : Bhubaneswar
 Date : 04-11-2017



For and on behalf of the Board

(M. R. Mishra)
 Company Secretary

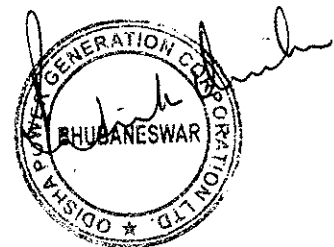
(Indranil Dutta)
 Managing Director



Annexure – 4

Annexure 4 : Reconciliation of Assets addition in 2015-16 as considered for True Up Petition with Audited Accounts

S.No	Description	As per Audited Accounts (Rs)	Considered for True-Up (Rs)	Not Considered for True-Up (Rs)
1	Renovation of conference hall & other works			
2	BEETEL M59 CD TELEPHONE	779808	779808	0
3	BEETEL M78 I+I PLAN TELEPHONE	5345	0	5345
4	BPL 7110 TELEPHONE	3799	0	3799
5	LENOVO THINK PAD MODEL 20CLA0HIG NO X250	505	0	505
6	ACQUAGUARD MODEL SCPR 700	257219	257219	0
7	2 Ton AC + Stabilizer and Inst	24990	0	24990
8	Installation of Fire fighting Equipment in Zone-A	55400	0	55400
9	supply of Office chairs & tables	425101	425101	0
10	Ash Recycling T/F 4.5MVA 33KV/6.9KV 50HZ	690226	0	690226
11	Augment of kitchen block of Canteen at ITPS(Civil)	4047280	4047280	0
12	Augment of kitchen block of Canteen at ITPS(Temp)	3613857	0	3613857
13	Dev. of Ground Floor Service Bldg. at ITPS(Civil)	239321	0	239321
14	Dev of Ground Floor Serv Bldg. at ITPS(Temp struc)	1206961	0	1206961
15	Dev. Ground Floor Serv Bldg. at ITPS(Temp shed)	1982115	0	1982115
16	ASH POND A	90674	0	90674
17	300 LPD Solar Water Heater (ETC Type)	71738655	71738655	0
18	Noise Level Transmitter	119678	119678	0
19	Upgradation of air blower in STP	1022973	1022973	0
20	Construction-CT Effluent collection tank	223074	223074	0
21	Capacity enhancement of oil centrifuge	559802	559802	0
22	Ash Recycling Switch Gear Breaker	2518992	2518992	0
23	AD Line	2572488	2572488	0
24	Sound system- Ahuja Make	21847675	21847675	0
25	Moulded plastic chair	29690	0	29690
26	LED TV 32"	14750	0	14750
27	Table with one under shelve	107401	0	107401
28	Table with Sink & 1 undershelve	45840	0	45840
29	Hand Wash	30560	0	30560
30	Four Door Refrigerator	12033	0	12033
31	Loading Table with 1 undershelve	119375	0	119375
32	Over Head Shelve for Basket-OS 60"x10"	17190	0	17190
33	Pre Rinse Unit-SS OS 48"x24"x34"+6"	4297	0	4297
34	Unloading Table with Basket Rack-OS 48"x24"x34"+6"	34380	0	34380
35	Over Head Shelve for Basket-OS 72"x14"x2"	13751	0	13751
36	Thali Rack-OS 60"x30"x60"	4297	0	4297
37	Three Sink Unit-78"x24"x30"+6"	32661	0	32661
38	Pot Wash (Std)	30942	0	30942
39	Receiving Table with 1 undershelve-OS 36"x24"x34"+6"	23207	0	23207
40	Pre Wash sink unit-OS 48"x24"x34"+6"	10314	0	10314
41	Walk in Rack-OS 36"x18"x72"	21487	0	21487
42	Storage Rack for 5 Shelves-OS 33"x18"x72"	154710	0	154710
43	Cutting Table-60"x24"x34"+6"	240660	0	240660
44	Exhaust Ducting & fan as per present site conditio	17190	0	17190
45	Augment of kitchen block of Canteen at ITPS(F&F)	137520	0	137520
46	Development of Ground Floor Serv Bldg. at ITPS(F&F)	506123	0	506123
47	2 TON ROOM SPLIT AIR CONDITIONER	71323	0	71323
48	Room air cooler	217440	0	217440
49	Water Cooler with purifier	86401	0	86401
50	Water Cooler	43812	0	43812
51	Water purifier	44850	0	44850
52	Dr. Aquaguard Mawna HD	8200	0	8200
53	SEV MACHINE FOR CANTEEN	17490	0	17490
54	2 TON Room Split Air Conditioner	26240	0	26240
55	Black Berry Mobile Phone	87800	0	87800
56	Pesto Flash	228000	0	228000
57	WINDOW AC FOR CEMS, 1 ST	12481	0	12481
58	Sigree 15-20 Kg- 28" Dia	28481	0	28481
59	Sigree 20-25 Kg- 36" Dia	146115	0	146115
60	Hood with Filters (SS) -OS 36"x28x20"	154710	0	154710
61	Chapati Plate with Puffer	41256	0	41256
62	Idiy Steamer 150-200 Nos	32470	0	32470
63	Twin Deep Fat Frier 6l	51570	0	51570
64	Dough Kneader 35l Capacity	34380	0	34380
65	Potato Peeler	71625	0	71625
66	Puree Machine	34380	0	34380
67	Moving Container	114600	0	114600
68	GN Pan Trolley	34380	0	34380
69	Dish Washer (Std)	25785	0	25785
70	Weighing Scale-20 Kg	343800	0	343800
71	Bin for Potato & Onion-36"x36"x36"	19768	0	19768
72	Hot Case-36"x16"x18"	51570	0	51570
73	Baine Marie (Without GN Pans) Provision of 6 Conta	103140	0	103140
74	Tilting Bulk Cooker-Capacity 100 ltrs	68760	0	68760
75	Hood with Filters without (Duct/ Fan/Blower)-48"x3	137520	0	137520
76	9 lit foam stored pressure type extinguisher	13751	0	13751
77	50 lit foam stored pressure type extinguisher	62157	0	62157
78	Refrigerator 215 Ltrs	37613	0	37613
79	installation & commissioning of 800va inverter	18680	0	18680
80	Augment of kitchen block of Canteen at ITPS(OE)	99132	0	99132
81	Development of Ground Floor Serv Bldg. at ITPS(OE)	671014	0	671014
82	Dev. of Ground Floor Service Bldg. at ITPS(Fire I)	731475	0	731475
83	concrete road infront of mist cooling	166973	0	166973
84	Construction of drain (workshop/Canteen)	721121	721121	0
85	Augment of kitchen block of Canteen at ITPS(Elec)	1103849	1103849	0
86	Development of Ground Floor Serv Bldg. at ITPS(Ele)	695061	0	695061
87	SAP LAN & NETWORK	1279390	0	1279390
88	Bio Metric Attendance System	27597362	27597362	0
89	Weigh bridge software up gradation	106335	0	106335
90	SAP SOFTWARE	1278547	1278547	0
	Total	83612004	83612004	0
		236167128	220425628	15741500



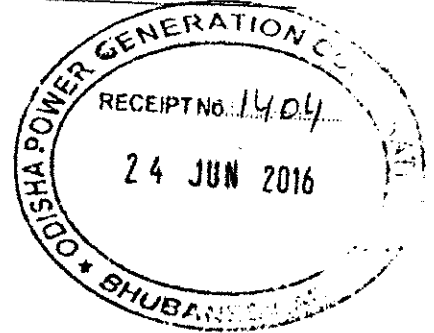
Annexure – 5

GOVERNMENT OF ODISHA
FINANCE DEPARTMENT

No.FIN-CI-SG-0009-2015 13963 /F, Dated 07.05.2016

From
Shri B.K.Das
Special Secretary to Government.

To
The Principal Secretary to Government/
Commissioner-cum-Secretary to Government/
ST & SC Development Department/
Industries Department/ Energy Department/
Fisheries & ARD Department/ Electronics & I.T. Department/
Co-operation Department/H & U.D. Department/
Handlooms Textiles & Handicrafts Department



Sub: - Payment of outstanding guarantee fee by the Public Sector Undertakings/ Co-operatives/ Urban Local Bodies and other Institutions etc. - Issue of Demand Notice thereon for realization of guarantee fee.

Sir/Madam,

I am directed to send herewith a statement (Demand Notice) showing the guarantee fee outstanding as on 31.03.2016 against different Public Sector Undertakings/Co-operatives/ULBs etc. under your administrative control and to say that some organizations are not paying prescribed annual guarantee fee for which the amount of guarantee claim is accumulating gradually. As the State Government are pursuing a proactive policy for resource mobilization, the Administrative Departments are requested to issue suitable directions to the organizations under their administrative control for deposit of the outstanding guarantee fees in the Head of Account indicated at enclosed Annexure - 'A' by 30th June, 2016 positively, failing which Finance Department may be constrained either to disallow further budgetary support to the concerned organizations or to adjust the claim out of the budgetary support to be released by the Government during the current financial year 2016-17.

I would, therefore, request that immediate steps may kindly be taken for realization of the outstanding guarantee fee from the borrowing organizations under the administrative control of your Department by 30th June, 2016 at the latest and copy of the treasury challan may please be provided to Finance Department for necessary record and adjustment. Any discrepancy appearing in the claim amount may be reconciled in the C & I Branch of Finance Department with supporting papers within 30th June, 2016 otherwise the outstanding amount communicated herewith shall be treated as final.

Action taken in the matter may kindly be intimated to this Department.

Yours faithfully,

Special Secretary to Government

Sr. GM(F)

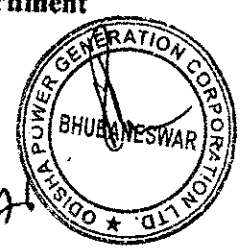
urgent

Sr J Das

Pl. forward a reply by 15th June 2016

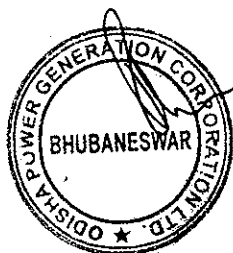
id 24.6.16

24/6/2016



Memo No. 13964 /F., dt. 07-05-2016

Copy along with the copy of statement (Demand Notice) on Government Guarantee forwarded to the O.B.C. Finance & Development Co-operative Corporation, Qr. No.-A/6, Unit-V, Near Rajeev Bhawan, Bhubaneswar/ Odisha S.C & S.T Development Finance Co-operative Corporation, Kalpana Area, Bhubaneswar/ Odisha Rural Housing and Development Corporation Ltd., Bhubaneswar/ Odisha State Housing Board, Sachivalaya Marg, Bhubaneswar/ Odisha Water Supply and Sewerage Board, Satyanagar, Bhubaneswar/Sundergarh Municipality, Sundergarh/ Sonapur Municipality, At/PO/Dist- Sonapur/ Rourkella Municipality, P.O- Rourkella, Dist- Sundergarh/ Bolangir Municipality, At-PO-Bolangir, Dist-Bolangir/ Dhenkanal Municipality, At/P.O/Dist-Dhenkanal/ Berhampur Municipal Corporation, At/P.O- Berhampur, Dist- Ganjam/ Balasore Municipality, At/P.O/Dist- Balasore/ Bhadrak Municipality, At/PO/Dist-Bhadrak/ Nayagarh N.A.C, At/P.O/Dist- Nayagarh/ Puri Municipality, At/P.O/Dist- Puri/ Bhubaneswar Municipal Corporation, Bhubaneswar/ Jatni N.A.C, At/P.O- Jatni, Dist- Khurda/ Chhatrapur N.A.C, At/P.O-Chhatrapur, Dist-Ganjam / Bargarh Municipality, At/P.O/Dist- Bargarh/ Khallikote N.A.C., At/P.O- Khallikote, Dist- Ganjam/ Konark N.A.C, At/PO- Konark, Dist- Puri/ Gopalapur N.A.C, At/P.O- Gopalapur, Dist- Ganjam/ Kabisurya Nagar N.A.C., At/P.O- Kabisurya Nagar, Dist-Ganjam/ Rajgangpur Municipality, At/P.O- Rajgangpur, Dist- Sundergarh /Odisha Industrial Development Corporation, IDCOL House, Ashok Nagar, Unit-2, Post Box No-78, BBSR/ Odisha Tea Plantation Ltd., 26 - Shakespeare Sarani, Kolkata/ GRIDCO , Janapath, Bhubaneswar/ OPTCL, Janapath, Bhubaneswar/ O.P.G.C., Aloka Varati Complex, Sahidnagar, Bhubaneswar/ O.H.P.C., Police Housing Corporation Building, Vani Vihar Square, Bhubaneswar/ Odisha State Handloom Development Corporation Ltd., Janpath, Bhubaneswar/ O.T.M., Ltd, At/P.O- Choudwar, Dist- Cuttack/ Kalinga W.C.Spining Mills, At/P.O/Dist- Dhenkanal/ Utkal W.C.Spining Mills Ltd, At/P.O/Dist- Khurda/ Shree Jagannath W.C.S. Mills Ltd, At- Nuapatna, P.O- Athagarh, Dist- Cuttack - 754 035/ Gangapur W.C.S. Mills, C/o Joint Director Textile Western Zone, At/P.O/Dist- Bargarh/ Shree Sarala W.C.S. Mills, At/P.O- Tirtol , Dist- Jagatsinghpur/ Shree Gopinath W.C.S Mills, At/P.O- Baliapal, Dist- Balasore/ Odisha State Powerloom S.C.S. Ltd., Hastatanta Bhawan, Janapatha, BBSR/ Odisha W.C.S. Mills, Bargarh, At/P.O/Dist- Bargarh/ OMFED Ltd., Sahid Nagar, Bhubaneswar/ Jagatsinghpur R.C.M.S, At/P.O/Dist- Jagatsinghpur/Padampur R.C.M.S, At/P.O- Padampur, Dist-Bargarh/ Angul R.C.M.S, At/P.O/Dist- Angul/ Sambalpur- Bamra R.C.M.S., Bamra, At/P.O- Bamra, Dist- Sambalpur/ Bolangir RCMS, At/P.O/Dist-Bolangir/ Gopabandhu Sital Vandar, At/P.O/Dist- Jagatsinghpur/ Banki P.G.S and M.C.S., At/P.O- Banki, Dist- Cuttack/Chanarpada- Denua P.G.S & M.C.S, At -Denua, P.O- Nimapara, Dist- Puri/ Secretary, Danpur J.M.C.S.,Ltd, Jobra, Cuttack - 753 003/ Bapuji P.G.S & M.C.S, At/P.O- Bahugram, Dist- Cuttack/ Bargarh Co-operative Sugar Mill Ltd., At/P.O- Bargarh, Dist-Bargarh/ Odisha Co-operative Housing Corporation Ltd, Jawaharlal Nehru Marg, Bhubaneswar/ MARKFED-ODISHA, Old Station Road, Bhubaneswar-751006/ Konark T.V.,Ltd, Shed No.201, 202, Mancheswar Industrial Estate, Bhubaneswar/ C.E.O., Elmarce Ltd, Mancheswar Industrial Estate, OSEC Campus, Bhubaneswar/ Ipitron Times Ltd., Mancheswar Industrial Estate, OSEC Campus, Bhubaneswar/ Elcomos Electronics Ltd., Mancheswar Industrial Estate, OSEC Campus, Bhubaneswar/Authorized Officer, OSEDC Ltd, Mancheswar Industrial Estate, OSEC Campus, BBSR for information and necessary action.



[Signature]
6/5/16
Under Secretary to Government

Memo No. 13965 /F.,dt. 07.05.2016

Copy along with copy of Guarantee Fee Claim Statement forwarded to Works-I/ Works-II/ E.S-I/ E.S-II/ E.S-III/ SS-II Branches of Finance Department for information and necessary action.

They are requested to take steps for realization of Guarantee fee or to adjust the guarantee fee from out of the financial assistance to be released to the concerned organization during the current financial year, 2016-17.

Amul
6/5/16

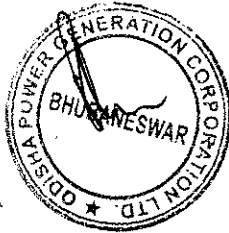
Memo No. 13966 /F.,dt. 07.05.2016

Under Secretary to Government

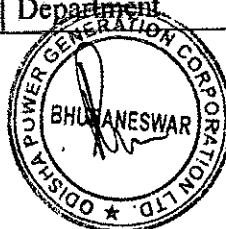
Copy forwarded to W & M Branch/ Resource Branch of Finance Department for information.

Amul
6/5/16

Under Secretary to Government



Sl No	Name of the Department	Head of Account for deposit of Guarantee fee.
1	S.T. & S.C. Development.	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES - 0123-Realisation of Guarantee fees - 02217-ST/SC Development Department.
2	Housing & Urban Development.	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02166 - Housing & Urban Development Department.
3	Energy	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02184- Energy Department.
4	Industries	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02064 - Industries Department.
5	H. T. & H	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02221- H. T. & H Department.
6	Fisheries & Animal Resource Development	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02218- Fisheries & Animal Resource Development.
7	Co-operation	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02033- Co-operation Department.
8	Women & Child Development	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02220- Women & Child Development Department.
9	Information & Technology	0075-MISCELLANEOUS GENERAL SERVICES-108-GUARANTEE FEES-0123-Realisation of Guarantee fees-02219-Information & Technology Department.



-76-

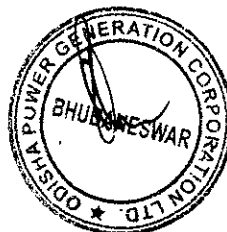
DEMAND NOTICE

Name of the Department ENERGY DEPARTMENT
 Name of the undertaking in whose favor guarantee has been sanctioned O.P.G.C. Ltd., BBSR

Guarantee fee charged as on 1/4/2016

(Figures in Rs.)

Sl. No.	G.O. Nos Date	Maximum amount of guarantee sanctioned	Rate of guarantee fee	Annual of guarantee fees dues	No. of years for which fees charge	Total Guarantee fee dues	Guarantee fee realised	Guarantee fee outstanding	Liquidated date
1	2	3	4	5	6	7	8	9	10
	203 13/Apr/1991	300000000	0.5	1500000	16	24000000	22284116	1715884	15/Jul/2006
	7090 02/Apr/1993	200000000	0.5	1000000	16	16000000	14916339	1083661	15/Apr/2008
	3409 21/Sep/1990	300000000	0.5	1500000	9	13500000	11100000	2400000	16/Dec/1998
	6698 29/Mar/1993	700000000	0.5	3500000	17	59500000	39200000	20300000	15/Jan/2008
	24677 14/Nov/1994	410000000	0.5	2050000	17	34850000	20910000	13940000	15/Jan/2010
	19837 20/Oct/1995	500000000	0.5	2500000	17	42500000	22873000	19627000	15/Jan/2011
	5738 22/Mar/1992	800000000	0.5	4000000	17	68000000	37222500	30777500	15/Jan/2007
	21561 19/Sep/1994	500000000	0.5	2500000	5	12500000	7500000	5000000	27/Mar/1999
	5377 14/Mar/1995	375000000	0.5	1875000	4	7500000	5875000	1625000	11/Feb/1998
	3948 22/Feb/1994	400000000	0.5	2000000	3	6000000	4750000	1250000	31/Mar/1996
	Total	4485000000		22425000		284350000	186630955	97719045	



Annexure – 6

GOVERNMENT OF ODISHA
DEPARTMENT OF ENERGY

No 1032 /En., dated, Bhubaneswar the 8th February, 2017
BT(Exp)-08/2017 (pt)

From

Sri Bijay Kumar Behera, OFS (SAG),
FA-cum-Additional Secretary to Government.

To

The Director (Finance),
Odisha Power Generation Corporation Ltd,
Bhubaneswar.**Sub:- Release of Rs.247.35 crore as equity for OPGC Expansion Project Unit- 3 & 4.****Ref: Your letter No.OPGC/214/WE dated 27.01.2017.**

Sir,

I am directed to invite to your letter dated 27.01.2017 on the subject referred above and to say that the proposal had been submitted to Finance Department for consideration and concurrence for release of equity share of Rs.247.35 crore in favour of OPGC. In the proposal, Finance Department observed (copy of extracts OSWAS Notings enclosed) that Finance Department may agree for release of share capital investment amounting to Rs.247.35 crore in favour of OPGC subject to –

- (i) Recovery of outstanding Government dues i.e. outstanding guarantee fees amounting to Rs.9,77,19,045/-,
- (ii) Opening of Escrow Account and
- (iii) Approval of Project Approval Committee.

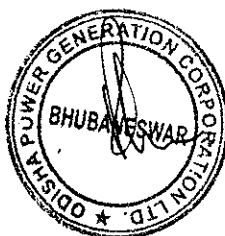
You are, therefore, requested to comply the observation of Finance Department immediately in order to release equity share of Rs.247.35 crore in favour of OPGC.

An immediate compliance in this matter is requested.

Yours faithfully,

FA-cum-Additional Secretary to Govt.

Encl: As above



08/02/2017

Notings by Rupa Narayan Das Joint Secretary

▼ Noting 9 on Wed 08/02/2017 11:10:54 AM

Preceding notes.

2. The Energy Department are seeking concurrence of Finance Department for release of Share Capital Investment amounting to Rs. 247.35 Cr in favour of OPGC.

3. Budget provision of Rs.247.35 Crore has been taken in the Supplementary Budget under State Plan in Demand No.30 towards share capital investment in OPGC.

4. As per **Para-14 of Finance Department Circular No.14915/F dated 18.05.2016** on "Regulation of Expenditure out of the Annual Budget for the year 2016-17", the Administrative Departments are authorized to sanction release of share capital to PSUs **subject to recovery of outstanding Government dues, opening of Escrow Account and with prior approval of Project Approval Committee.**

5. The meeting of Project Approval Committee (PAC) was held under the Chairmanship of Chief Secretary on 06.02.2017 to consider release of Share Capital Investment amounting to Rs. 247.35 Cr in favour of OPGC. It appears that the present proposal was sent to Finance Department before the meeting of Project Approval Committee (PAC) for which minutes of the meeting has not been attached.

6. Government dues i.e. outstanding Guarantee Fees amounting to Rs.9,77,19,045/- is outstanding against OPGC as on 31.03.2016.

7. As such Finance Department may agree for release of Share Capital Investment amounting to Rs. 247.35 Cr in favour of OPGC subject to recovery of outstanding Government dues i.e. outstanding Guarantee Fees amounting to Rs.9,77,19,045/-, opening of Escrow Account and approval of Project Approval Committee.

▼ Notings by CHANDIKA PRASAD MOHANTY .Special Secretary

▼ Noting 10 on Wed 08/02/2017 11:56:20 AM

As proposed in Para 7 of Noting 9.

Submitted for kind approval.

▼ Notings by Tuhin Kanta Pandey .Principal Secretary

▼ Noting 11 on Wed 08/02/2017 12:01:50 PM

Approved.

▼ Notings by CHANDIKA PRASAD MOHANTY .Special Secretary

▼ Noting 12 on Wed 08/02/2017 12:04:15 PM

Order above.

▼ Notings by Rupa Narayan Das .Joint Secretary

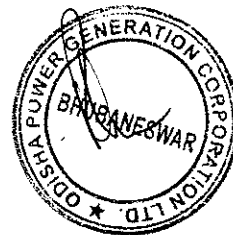
▼ Noting 13 on Wed 08/02/2017 12:08:25 PM

▼ by Satya Priya Rath .Deputy Secretary

▼ Noting 14 on Wed 08/02/2017 12:12:28 PM

▼ Notings by

▼ Noting 15 on Wed 08/02/2017 12:12:34 PM



Annexure – 7



Government of Odisha

e-Challan

1. Name of Depositor	odisha power generation corporation Ltd
2. Depositor Address	7th floor fortune towers, bhubaneswar, Orissa, 751023
3. District	Khurda
4. Amount (In Rs.)	97719045/-
In Words	Rupees Nine Crore Seventy Seven Lakh Nineteen Thousand Forty Five Only.

Department specific information if any

--	--

For multiple HoA

Description	Head of Account	Amount
Realisation of Guarantee fees of Energy Dept.	0075-00-108-0123-02184	97719045
	Total Amount	97719045

For use in Bank only

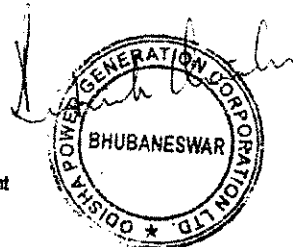
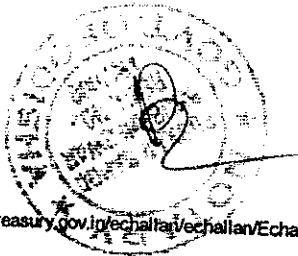
Bank Transaction Id	290802201700040
Bank Transaction Date & Time	08/02/2017 05:04:25 PM
Bank Transaction Status	Successful Transaction
This is computer generated receipt and do not required any signature or stamp.	

For use in Treasury only

e-Challan Reference Id	27A13BA787
Challan No. & Date	0075/1-09/02/2017
Treasury Officer	

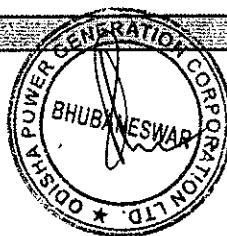
Payment Remarks

GURANTEE FEE O/S

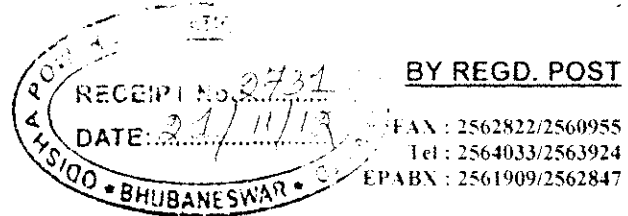


Annexure - 8

Annexure 8: Estimated Capitalisation for FY 2017-18		
S. No	Description	Amount (Rs. Crore)
A	For compliance with Change in Law	
1	Construction of Ash Pond C	17.72
2	Ash Pond C HDPE Lining	15.88
	sub-total	33.60
B	Necessary for operation of Plant	
1	Hydrogen Drier	0.13
2	Numerical Relay with GPS System for time Synchronisation (New)	0.13
3	Apex Energy Meters in Switchyard-New	0.11
4	Safety Equipments	0.05
5	Installation of Soloar system at ash Pond-C (LED Street light system) (60 nos)	0.30
6	LED Street Lighting system for ITPS Colony (200 nos)	0.05
7	Wagon (MGR type BOBR wagon complete of payload of 63.75)	1.20
8	Main Plant fire detection system	0.70
9	Hydrogen Purity Analyser - New system	0.20
10	Pi / Etapro Software for Performance Calculation	1.24
11	Silica Analyser for SWAS-I&2 - New instrument	0.14
12	DF DS in CHP (excluding Track hopper portion)- new	1.00
13	All along conveyor guarding (Phase - 2)	1.10
14	Fire detection & alarm system in CHP	0.80
15	Replacement of FRP Deck Plate	0.52
16	Ash Disposal Line - Change in pipe line material	1.50
17	Dust suppression at ASH pond-A	0.70
18	Installation of new pump to enhance the capacity of fly ash high pressure & fly ash low pressure systems	0.25
19	Installation of higher capacity new Jockey Pump (Additional)	0.15
20	Capacity increase of Ash Pond by Raising Bund Height of Ash Pond-A	1.00
21	Capacity increase of Ash Pond A (Construction of Ash mound in Ash Pond B)	1.50
22	Third party Consultancy for Quality and Quantity certification of Ash Pond Construction works including IIT Consultants (M/s IR Class Systems and Solutions Pvt. Ltd.)	0.30
23	Piezometer Installation	0.04
24	Strengthening of north and west bund of PST for ash pond-A	0.30
25	Supply and installation of security porta cabins at ash pond	0.04
26	Construction of operator room at Ash Water Recycling System (AWRS)	0.05
27	Procurement of safety item .	0.05
28	Security System	0.20
29	Procurement of New Deptt. Vehicle	0.06
30	Desktop ,Laptop	0.40
31	Software License	0.50
32	SAP & Infra implementation	1.00
33	Procurement of Unmanned Aerial Vehicle (called as DRONE)	0.04
34	Installation of solar panles system above switch yard building & Canteen	0.25
35	LED lighting system	0.50
36	V-Sat Equipment & Internet	0.02
37	Software under development - Installation of Pay package	0.01
38	EDP Machines	0.10
39	EDP & Networking Equipments	0.02
40	Biometric Access Control System	0.02
41	Fire Protection System	0.10
	Sub-Total	16.77
	Total	50.37



Annexure – 9



STATE POLLUTION CONTROL BOARD, ODISHA

(Department of Forest & Environment, Govt. of Odisha)
Paribesh Bhawan, A/118, Nilakanthanagar, Unit-VIII
Bhubaneswar - 751012

No. 22812 /Ind-II-NOC - 5500

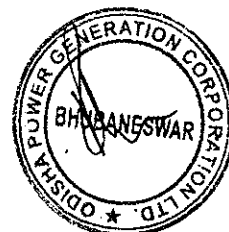
Date 12. 11. 13

OFFICE MEMORANDUM

In consideration of the application for obtaining Consent to Establish of **Ib Thermal Power Station of M/s Orissa Power Generation Ltd.**, the State Pollution Control Board has been pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 for construction of Ash Pond-C, over an area of **115.92 Acres in between existing Ash Pond A & B of M/s. Orissa Power Generation Ltd., (Plot Nos & Khata No. as mentioned in the application form) at Banharpali** in the district of Jharsuguda with the following conditions.

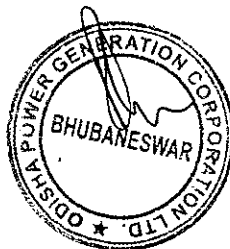
GENERAL CONDITIONS.

1. **This Consent to establish is valid for construction of ash pond and method of ash disposal as mentioned in the application form. This order is valid for five years, which means the proponent shall commence construction of the project within a period of five years from the date of issue of this order. If the proponent fails to do substantial physical progress of the project within five years then a renewal of this consent to establish shall be sought by the proponent.**
2. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under Environment Protection Rule, 1986 or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.
3. All emission from the industry as well as the ambient air quality and noise are to conform to the standards as laid down under Environment (Protection) Act. 1986 or as prescribed by Central Pollution Control Board/State Pollution Control Board or otherwise stipulated in the special conditions.
4. Adequate method of disposal of solid waste is to be adopted to avoid environmental pollution.
5. The proponent shall comply to the provisions of Environment Protection Act, 1986 and the rules made there under with their amendments from time to time such as the Hazardous Waste Management, Handling & Transboundary Movement Rules 2008, Hazardous Chemical Rules, /Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 etc. and amendments there under. The proponent shall also comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
6. The proponent shall apply for grant of Consent to operate under section 25/26 of Water(Prevention & Control of Pollution)Act, 1974 & Air (Prevention & Control of Pollution)Act, 1981 at least 3 (three) months before the commercial production and obtain Consent to Operate from this Board.
7. **This consent to establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.**



SPECIAL CONDITIONS :-

1. The proponent shall inform MoEF, Govt. of India for inclusion of ash pond-C as same was not part of the original proposal for which environmental clearance have been obtained from MoEF, Govt. of India and shall take additional protection measures required in any as advised by the MoEF, Govt. of India.
2. The industry shall provide adequate channels for rain water run off as well seepage water from the existing pond.
3. The existing primary settling ash pond-A will also be used on primary settling tank for the new ash pond. The pond dyke shall be constructed with adequate safety margin. Once the proposed area shall be covered with bunds, the catchment water flowing through that area towards reservoir will be blocked. They should have proper catchments water alternative flow provision through periphery drains all around the ash ponds.
4. The industry shall furnish hydrogeological report of the area within 2 months from the issue of consent to establish order.
5. The dyke shall be constructed as per the design by Department of Civil Engineering, IIT, madras and the quality control during the construction shall be verified by third party agencies of repute and competence.
6. Necessary preventive measures shall be taken during construction phase of ash pond so that the ambient air quality including noise shall conform to National Ambient Air Quality Standards and standards for noise in industrial area.
7. The construction material which has potential to be air borne shall be transported in covered trucks.
8. Care shall be taken to prevent flow of excavated materials/ silt to the nearby water bodies during construction phase of ash dyke and laying of pipe line. The earth excavated during laying of pipeline shall be used to filled up the excavated root to give a natural slope with respect to existing land at the site in such a way that other features in the surrounding shall not be affected. Excavated earth from ash disposal area shall be used in dyke construction.
9. The internal and external slope of dykes with stone rip rap, turfing etc. shall be adequately protected to take care of erosion.
10. The foundation shall be prepared by removal of weak and organic materials, compaction by rolling, filling the voids and controlling the moisture on land surface. The dykes shall be constructed in layers not exceeding 200 mm thickness compacted with rollers appropriate type of soil suited to achieve a dry density of above 95%.
11. The project proponent shall provide well designed decanting system with progressively rising vertical shaft allowing any water deposition to sedimentation tanks. The filtered water from sedimentation tank shall be recycled through pumping system in return pipe line for optimal use of water.
12. Internal drainage arrangements like vertical sand chimney, horizontal sand filter, rock toe etc. shall be provided to guide seepage water flow to the downstream side without any erosion.
13. Adequate free board of 2m shall be provided in the ash dyke to avoid overflow of rain water.

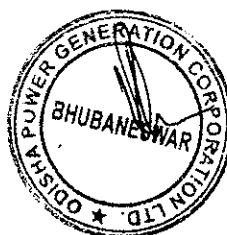


14. Garland drain and toe dykes shall be provided all around the ash dyke for collection of surface runoff. Adequate size of settling pond with bund shall be constructed for collection and treatment of surface run-off. The treated surface run-off shall be pumped back to power plant for reuse in ash handling. In no case same shall be discharged to nearby surface water bodies.
15. Toe drain water shall be monitored regularly with respect to fluoride and other parameters and monitoring report shall be submitted to the Board quarterly.
16. Regular monitoring of ash water shall be carried out with respect to fluoride contain and monitoring report shall be submitted to the Board quarterly.
17. Ash pond shall be lined with HDPE or any other suitable impermeable lining such that no leachate takes place at any point of time adequate safety measures shall also be implemented to protect the ash dyke from getting breached.
18. The ash pond area shall be provided with fencing and unauthorized entry within this ash pond area shall be strictly prohibited. Security guards shall be engaged for vigilance of the ash dyke area round the clock. The entire dyke perimeter shall have accessible roads. The entire dyke area shall be provided with street lights or flood lights for inspection during night time. A site office shall be constructed with a full time engineer responsible for inspection and monitoring of the ash dyke.
19. Hydrogeological status of the area shall be reviewed annually and result shall be submitted to the Board. In case adverse impact on ground water quantity and quality and nearby surface water bodies quality is observed. Immediate mitigation measures to contain any adverse impact on ground water as well as surface water bodies shall be undertaken.
20. Regular monitoring of ground water level shall be carried out by establishing a network of existing wells and constructing new piezometers. Monitoring around the ash pond area shall be carried out particularly for heavy materials (F, Cd, Hg, Cr, As, Pb) and records shall be maintained and submitted to the Board. The data so obtained should be compared with the baseline data so as to ensure that the ground water quality is not adversely affected due to the project.
21. After reaching the desired filling height, the disposal area shall be thoroughly compacted, graded followed by soil cover at least 45 m for proper reclamation of the land and appropriate plantation (choosing the local species at least 80% survival rate) will be carried out.
22. Board reserves the right to revoke this permission if conditions stipulated are not implemented to the satisfaction of the Board.

Sda
12/10/12
MEMBER SECRETARY

To,

✓ Sri Indranil Dutta, Director (Operation),
1b Thermal Power Station of
M/s Orissa Power Generation Ltd.,
Zone-A, 7th Floor, Fortune Tower, Bhubaneswar, Odisha.

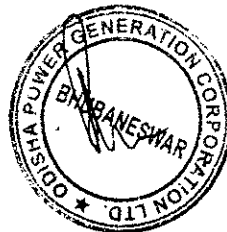


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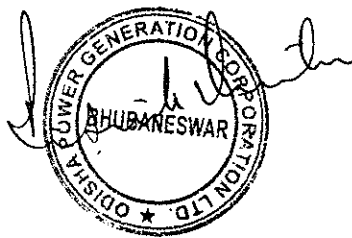
1. The District Magistrate & Collector, Jharsuguda
2. District Industries Centre, Jharsuguda
3. The Director of Factories & Boiler, Bhubaneswar
4. DFO, Jharsuguda
5. Sr. Environment Engineer (C)
6. Regional Officer, SPC Board, Sambalpur
7. Copy to Guard file

ENV. ENGINEER

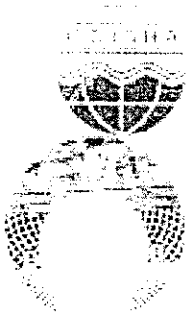


Annexure – 10

Annexure 10: Proposed Capitalisation for FY 2017-18		
Sl No	Description	Amount (Rs. Crore)
A	For compliance with Change in Law	
1	ESP Upgradation	43.00
	Sub-total (A)	43.00
B	Necessary for operation of Plant	
1	Material upgradation of existing of ash slurry disposal system	3.40
2	Raising of pond A	0.80
3	Construction of Ashmound	2.50
4	Beck Actuator for SADC Fan for Unit-1&2-48nos.	0.20
5	Construction of Car Garage for D' type Quarters (48 Nos in each phase: Phase I, II, III) , (48 nos. for D & E type in Phase IV) ,(48 nos. for E Type in Phase V)	1.07
6	Scrapers in Conveyor Belts	0.30
7	FRP Deck Sheets	0.52
8	Transit house equipments/Trainees Hostel Expenses.	0.04
9	ITPS HOUSE Equipment	0.08
10	Upgradation of asbestos sheets with colour coated steel sheets from the roof of the conveyor belt TH-2 to TH-04.	0.30
11	DCS Cards	0.30
12	Upgradation of Bus Bar differential Relay	0.24
13	Panel AC in VFD Panels	0.25
14	LED Lights	0.50
15	Jacks & Boiler Scaffolding Pipes	0.25
16	IT Infrastructure	0.30
17	Medical Equipment	0.15
18	Solar Panel above Canteen & Switchyard	0.25
19	Cooling tower cell renovation for performance improvement	0.60
20	Consultancy charges for IIT Chennai	0.10
21	Piezometer Installation	0.04
22	Installation of Solar LED Street Light system (80 nos) at different key locations in ITPS Township	0.40
23	Installation of LED Street Light system in ITPS Colony (450 nos)	0.10
24	Safety Equipments	0.05
25	Provision of chain link fence from Rajiv Gandhi Chowk to Officers Club with installation of sliding gates in 3 openings to prevent outsider entry into Township Residential area.	0.20
26	Drone	0.05
	sub-total (B)	12.99
	Total (A+B)	55.99



Annexure – 11



STATE POLLUTION CONTROL BOARD, ODISHA

A/118, Nilakantha Nagar, Unit-VIII, Bhubaneswar-751012
Phone-2561909, Fax: 2562822, 2560955

CONSENT ORDER

No. 10701 / IND-I-CON-104 Dt. 10.06.13

CONSENT ORDER NO. 878

Sub : Consent for discharge of sewage and trade effluent under section 25/26 of Water(P&CP) Act, 1974 and for existing/new operation of the plant under section 21 of Air(P&CP) Act, 1981.

Ref : Your application No. 242 , dtd.30/04/2013.

Consent to operate is hereby granted under section 25/26 of Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act, 1981 and rules framed thereunder to

Name of the Industry M/s. OPGC Ltd. Ib Thermal Power Station

Name of the Occupier & Designation Mr. Indranil Dutta, Director (Operation)

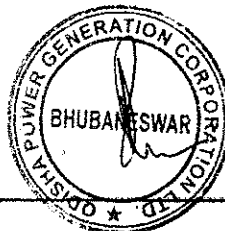
Address- At/po-Banharpali, Dist-Jharsuguda , Odisha-768234

This consent order is valid for the period up to 31.03.2014.

This consent order is valid for the product quantity, specified outlets, discharge quantity and quality, specified chimney/stack, emission quantity and quality of emissions as specified below. This consent is granted subject to the general and special conditions stipulated therein.

A. Details of Products Manufactured

Sl.No.	Product	Quantity
01	Electricity Power	2 X 210 MW





B. Discharge permitted through the following outlet subject to the standard

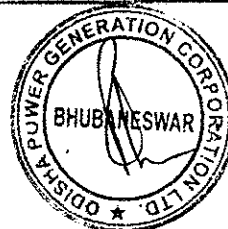
Outlet No.	Description of outlet	Point of discharge	Quantity of discharge KLD or KL/hr	Pre-scribed Standard		
01	Ash pond over flow	100% recirculation				
02	Industrial effluent	Settling pond				
03	Domestic effluent generated from plant	Septic tank followed by soak pits				
04	Domestic effluent generated from colony	STP -To be used for plantation/ gardening				

C. Emission permitted through the following stack subject to the prescribed standard

Chimney Stack No.	Description of Stack	Stack height (m)	Quantity of emission	Prescribed Standard		
				PM	SO ₂	NO _x
1	Stack attached to boiler No.1	220	12.6×10 ⁵ m ³ /hr	100 mg/Nm ³		
2	Stack attached to boiler No. 2	220	12.6×10 ⁵ m ³ /hr	100 mg/Nm ³		

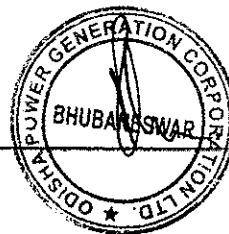
D. Disposal of solid waste permitted in the following manner

Sl.No.	Type of Solid waste	Quantity generated (TPD)	Quantity to be reused on site(TPD)	Quantity to be reused off site(TPD)	Quantity disposed off (TPD)	Description of disposal site.
1.	Fly Ash	10.5 lakh MT/year	-	-	-	Ash pond and utilization as per fly ash notification



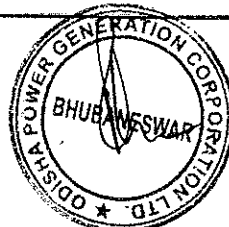
**E. GENERAL CONDITIONS FOR ALL UNITS**

- The consent is given by the Board in consideration of the particulars given in the application. Any change or alternation or deviation made in actual practice from the particulars furnished in the application will also be the ground liable for review/variation/revocation of the consent order under section 27 of the Act of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 and to make such variations as deemed fit for the purpose of the Acts
2. The industry would immediately submit revised application for consent to operate to this Board in the event of any change in the quantity and quality of raw material / and products / manufacturing process or quantity /quality of the effluent rate of emission / air pollution control equipment / system etc.
 3. The applicant shall not change or alter either the quality or quantity or the rate of discharge or temperature or the route of discharge without the previous written permission of the Board.
 4. The application shall comply with and carry out the directives/orders issued by the Board in this consent order and at all subsequent times without any negligence on his part. In case of non-compliance of any order/directives issued at any time and/or violation of the terms and conditions of this consent order, the applicant shall be liable for legal action as per the provisions of the Law/Act.
 5. The applicant shall make an application for grant of fresh consent at least 90 days before the date of expiry of this consent order.
 6. The issuance of this consent does not convey any property right in either real or personal property or any exclusive privileges nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Central, State laws or regulation.
 7. This consent does not authorize or approve the construction of any physical structure or facilities or the undertaking of any work in any natural water course.
 8. The applicant shall display this consent granted to him in a prominent place for perusal of the public and inspecting officers of this Board.
 9. An inspection book shall be opened and made available to Board's Officers during their visit to the factory.
 10. The applicant shall furnish to the visiting officer of the Board any information regarding the construction, installation or operation of the plant or of effluent treatment system / air pollution control system / stack monitoring system any other particulars as may be pertinent to preventing and controlling pollution of Water / Air.
 11. Meters must be affixed at the entrance of the water supply connection so that such meters are easily accessible for inspection and maintenance and for other purposes of the Act provided that the place where it is affixed shall in no case be at a point before which water has been tapped by the consumer for utilization for any purposes whatsoever.
 12. Separate meters with necessary pipe-line for assessing the quantity of water used for each of the purposes mentioned below:
 - a) Industrial cooling, spraying in mine pits or boiler feed.
 - b) Domestic purpose
 - c) Process





27. The liquid effluent arising out of the operation of the air pollution control equipment shall be treated in the manner to meet the prescribed standards by the Board in accordance with the provisions of Water (Prevention and Control of Pollution) Act, 1974 (as amended).
28. The stack and ambient monitoring system installed by the applicant shall be opened for inspection to this Board at any time.
29. There shall not be any fugitive or episodal discharge from the premises.
30. In case of such episodal discharge/emissions the industry shall take immediate action to bring down the emission within the limits prescribed by the Board in conditions/stop the operation of the plant. Report of such accidental discharge /emission shall be brought to the notice of the Board within 24 hours of occurrence.
31. The applicant shall keep the premises of the industrial plant and air pollution control equipments clean and make all hoods, pipes, valves, stacks/chimneys leak proof. The air pollution control equipments, location, inspection chambers, sampling port holes shall be made easily accessible at all times.
32. Any upset condition in any of the plant/plants of the factory which is likely to result in increased effluent discharge/emission of air pollutants and / or result in violation of the standards mentioned above shall be reported to the Headquarters and Regional Office of the Board by fax / speed post within 24 hours of its occurrence.
33. The industry has to ensure that minimum three varieties of indigenous species of trees are planted at the density of not less than 1000 trees per acre. The trees may be planted along boundaries of the industries or industrial premises. This plantation is stipulated over and above the bulk plantation of trees in that area.
34. The solid waste such as sweeping, wastage packages, empty containers residues, sludge including that from air pollution control equipments collected within the premises of the industrial plants shall be disposed off scientifically to the satisfaction of the Board, so as no to cause fugitive emission, dust problems through leaching etc., of any kind.
35. All solid wastes arising in the premises shall be properly classified and disposed off to the satisfaction of the Board by :
- i) Land fill in case of inert material, care being taken to ensure that the material does not give rise to leachate which may percolate into ground water or carried away with storm run-off.
 - ii) Controlled incineration, wherever possible in case of combustible organic material.
 - iii) Composting, in case of bio-degradable material.
36. Any toxic material shall be detoxicated if possible, otherwise be sealed in steel drums and buried in protected areas after obtaining approval of this Board in writing. The detoxication or sealing and burying shall be carried out in the presence of Board's authorized persons only. Letter of authorization shall be obtained for handling and disposal of hazardous wastes.
37. If due to any technological improvement or otherwise this Board is of opinion that all or any of the conditions referred to above requires variation (including the change of any control equipment either in whole or in part) this Board shall after giving the applicant an opportunity of being heard, vary all or any of such condition and thereupon the applicant shall be bound to comply with the conditions so varied.
38. The applicant, his/heirs/legal representatives or assignees shall have no claim



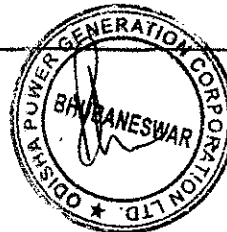


whichever to the condition or renewal of this consent after the expiry period of this consent

39. The Board reserves the right to review, impose additional conditions or condition, revoke change or alter the terms and conditions of this consent.
40. Notwithstanding anything contained in this conditional letter of consent, the Board hereby reserves to it the right and power under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 to review any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Act by the Board.
41. The conditions imposed as above shall continue to be in force until revoked under section 27(2) of the Water (Prevention & Control of Pollution) Act, 1974 and section 21 A of Air (Prevention & Control of Pollution) Act, 1981.
42. The industry shall comply to all the conditions stipulated under Charter on Corporate Responsibility for Environmental Protection (CREP) guidelines in a time bound manner as envisaged there in. (if applicable)
43. The industry shall comply to the conditions stipulated in CTE order issued by ODISHA State Pollution Control Board and conditions stipulated in Environmental Clearances issued by MoEF, Govt of India.
44. The industry shall abide by E(P) Act, 1986 and Rules framed there-under
45. In case the consent fee is revised upward during this period, the industry shall pay the differential fees to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the adequate amount within the period stipulated by the Board the consent order will be revoked without prior notice.
46. The Board reserves the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/ stipulate additional conditions as deemed appropriate

GENERAL CONDITIONS FOR UNITS WITH INVESTMENT OF MORE THAN Rs 50 CRORES, AND 17 CATEGORIES OF HIGHLY POLLUTING INDUSTRIES (RED A).

1. The applicant shall analyse the emissions every month for the parameters indicated in TABLE B & C as mentioned in this order and shall furnish the report thereof to the Board by the 10th of the succeeding month.
2. The applicant shall provide and maintain at his own cost three ambient air quality monitoring stations for monitoring Suspended Particulate Matter, Sulphur Dioxide, Oxides of Nitrogen, Hydro-Carbon, Carbon-Monoxide and monitor the same once in a day/week/fortnight/month. The data collected shall be maintained in a register and a monthly extract be furnished to the Board.
3. The applicant shall provide and maintain at his own cost a meteorological station to collect the data on wind velocity, direction, temperature, humidity, rainfall, etc. and the daily reading shall be recorded and the extract sent to the Board once in a month.
4. The applicant shall forward the following information to the Member Secretary, State Pollution Control Board, ODISHA, Bhubaneswar regularly.
 - a. Report of analysis of stack monitoring, ambient air quality monitoring meteorological data as required every month.
 - b. Progress on planting of trees quarterly.
5. The applicant shall install mechanical composite sampling equipment and continuous flow measuring / recording devices on the effluent drains of trade as well as domestic





effluent. A record of daily discharge shall be maintained

5 The following information shall be forwarded to the Member Secretary on or before 10th of every month

- a Performance / progress of the treatment plant
- b Monthly statement of daily discharge of domestic and/or trade effluent

7. **Non-compliance with effluent limitations**

- a) If for any reason the applicant does not comply with or is unable to comply with any effluent limitations specified in this consent, the applicant shall immediately notify the consent issuing authority by telephone and provide the consent issuing authority with the following information in writing within 5 days of such notification
 - i) Causes of non-compliance
 - ii) A description of the non-compliance discharge including its impact on the receiving waters.
 - iii) Anticipated time of continuance of non-compliance if expected to continue or if such condition has been corrected the duration or period of non-compliance.
 - iv) Steps taken by the applicant to reduce and eliminate the non-complying discharge and
 - v) Steps to be taken by the applicant too prevent the condition of non-compliance.
- b) The applicant shall take all reasonable steps to minimize any adverse impact to natural waters resulting from non-compliance with any effluent limitation specified in this consent including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
- c) Nothing in this consent shall be construed to relieve the applicant from civil or criminal penalties for non-compliance whether or not such non-compliance is due to factors beyond his control, such as break-down, electric failure, accident or natural disaster.

8. The applicant shall at his own cost get the effluent samples collected both before and after treatment and get them analysed at an approval laboratory every month for the parameters indicated in Part-D and shall submit in duplicate the report thereof to the Board.

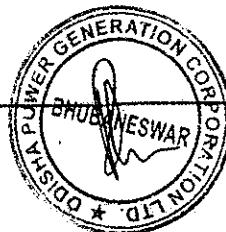
9. The addition of various treatment chemicals should be done only with mechanical dosers and proper equipment for regulation of correct dosages determined daily and for proper uniform feeding. Crude practices such as dumping of chemicals in drains or sumps or trickling of acids or alkalies arbitrarily and utilizing poles for stirring etc. should not be resorted to.

10. In the disposal of treated effluent on land for irrigation, the industry shall keep in view of the need for:

Rotation of crops

Change of point of application of effluent on land

A portion of land kept fallow.



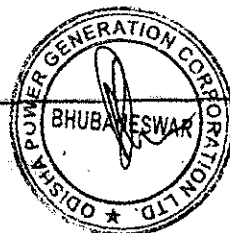


11. The adoption of these would avoid soil becoming sick or stale. The industry may ensure this in consultation with the Agriculture Department.
12. It is the sole responsibility of the industry to ensure that there are no complaints at any time from the royats in the surrounding areas as a result of discharge of sewage or trade effluent if any.
13. Proper house keeping shall be maintained by a dedicated team.
14. The industry must constitute a team of responsible and technically qualified personnel who will ensure continuous operation of all pollution control devices round the clock (including night hours) and should be in a position to explain the status of operation of the pollution control measures to the inspecting officers of the Board at any point of time. The name of these persons with their contact telephone numbers shall be intimated to the concerned Regional Officer and Head Office of the Board and in case of any change in the team it shall be intimated to the Board immediately.

F SPECIAL CONDITIONS

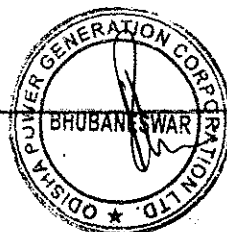
F1 (Air Pollution Control)

1. All steps shall be taken to improve the performance of ESPs such that the particulate matter emission from the stack attached to the ESPs of the boilers shall conform to the prescribed standard of $100\text{mg}/\text{Nm}^3$.
2. The unit shall comply with the action points of CEPI action plan in a time bound manner including the condition to bring down the PM emission below $50\text{ mg}/\text{Nm}^3$.
3. Interlocking arrangement between ESPs and boilers shall be provided so as to ensure continuous operation of ESP with the process.
4. The industry shall install continuous online monitoring at all major stacks to measure gases and particulate matter and AAQ monitoring system (at least 4 stations) of USEPA approved equipment for parameters like PM_{10} , $\text{PM}_{2.5}$, SO_2 , NO_x , CO etc. continuously. Installation of digital display system at main gate for public information shall be completed by June 2013.
5. The unit shall install data logger at all online monitoring stations supported with multi-port connectivity for transmission of real time data of stack monitoring and AAQ monitoring stations through GPRS modem/ link to the server of SPCB, Bhubaneswar in consultation with Board.
6. Inventory of at least 30% excess spare parts shall be in the store to meet emergency need of ESPs/bag filters/other air pollution control systems.





7. Fugitive emission from all possible sources like coal handling plant and other transfer points shall be minimized by suitable dust extraction/suppression measures
8. All the measures including sufficient water sprinkling & developing green belt around the coal handling plants coal stack yard etc which are potential source of fugitive emission shall be taken to mitigate dust pollution.
9. Roads used for transportation of coal and in the township area shall be black topped and cleaned regularly.
10. All raw materials and waste materials shall be transferred through covered vehicles without any spillage on the road: the materials/wastes shall be lifted by the industry and suitably disposed off in designated solid waste dumping area.
11. All the internal roads shall be Black topped/concreted.
12. Dry ash collection and storage facilities shall be operated along with dust suppression/dust extraction system in order to control fugitive dust emission during handling of fly ash.
13. Ambient air quality shall conform to the National Ambient Air Quality Standard for this purpose, the township as well as the area out side the factory premises shall be treated as residential area and the area outside the factory premises shall be treated as residential area and the area inside factory premises shall be treated as industrial area.
14. Care shall be taken so that the ambient noise level shall conform to the standards prescribed under Environmental Protection Act, 1986. For this purpose the township and the area outside the factory premises shall be treated as residential area and the area inside factory premises shall be treated as industrial area.
15. In case the consent fee is revised upward during this period, the industry shall pay the differential fee/arrears to the Board (for the remaining years) to keep the consent order in force. If they fail to pay the amount within the period stipulated by the Board the consent order will be revoked without prior notice.

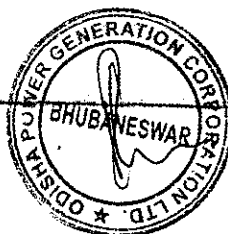




- 16 The Board reserve the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/stipulated additional conditions as deemed appropriate
- 17 The industry shall take appropriate action and utmost care during start up and shut down of boilers so that such abnormality as well as the emission during that period remains at minimum

F-2 (Water Pollution Control)

1. Under no circumstances there shall be any discharge of effluent to outside the factory premises.
2. The unit shall take full proof preventive and maintenance actions to safeguard the ash pond system against any breach of ash dykes and maintain proper free board in the ash ponds. Steps shall be taken to prevent leakage from the ash slurry pipe line. Action plan shall be submitted to the Board within two months to replace the existing pipes with cast Basalt pipes to avoid frequent puncture & leakage.
3. The main as well as peripheral bunds of ash pond shall be continuously monitored for its behavior and any distress conditions noticed like seepage, subsidence slip etc. shall be immediately attend to and the bund section restored immediately under intimation to his office. The toe drains all along the down stream of bunds shall be properly maintained.
4. The unit shall strengthen the ash pond security system by increasing frequency of watch and improving supervision facility by the use of flash light, binocular and communication facility. Physically checking the ash slurry pipe line and ash pond condition on daily basis.
5. Prompt communication facility shall be provided so that message of minor leakage/defect/lapse can be communicated to control room without any delay.
6. The unit shall provide necessary arrangements for recycling of the seepage water of the ash pond.
7. Concrete parapet wall of adequate height should be provided all along the concreted drains on its both the sides with rain cuts at regular intervals to prevent





entry of dust/ash from the road and work zone into the drainage system. All the industrial drains shall be cleaned regularly

- 8 No trees or branches shall be planted on the slop and on the top of the bunds; only grass turfing shall be done.
- 9 The domestic effluent generated from plant shall be discharged to septic tank followed by soak pit.
- 10 The domestic effluent generated from colony shall be treated in a full-fledged sewage treatment plant and the treated effluent after meeting the above norms shall be utilized for planation inside the premises.
- 11 The blow down of power plant shall meet the following standards before it is discharged to the common monitoring basin and shall be reused for ash handling, dust suppression and green belt.

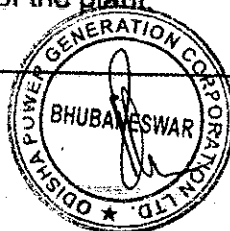
Boiler blow down

Suspended solids	-	100.0 mg/l(Max)
Oil & Grease	-	20.0 mg/l(Max)
Copper (Total)	-	1.0 mg/l(Max)
Iron (Total)	-	1.0 mg/l(Max)

Cooling Tower Blow down

Free available Chlorine	-	0.5 mg/l(Max)
Zinc	-	1.0 mg/l(Max)
Chromium (Total)	-	2.0 mg/l(Max)
Phosphate	-	0.2 mg/l(Max)

12. Acidic/Alkaline effluent generated from DM water plant shall be properly neutralized and taken to common basin.
13. The industrial drain effluent shall be treated properly and treated effluent shall be reused for industrial uses & in no circumstance effluent shall be discharged to Hirakud reservoir.
14. Fly ash utilization by cement industries and fly ash brick making and other avenues shall be explored and implemented. Bottom ash shall be disposed of in a suitably designed landfill as per CPCB guidelines to prevent leaching to the sub-soil and underground aquifer.
15. The unit shall comply with the provision of fly ash notification 1999 and amendment thereafter and a comprehensive fly ash management plan shall be submitted before operation of the plant.

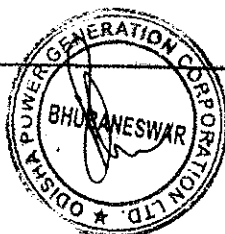




16. A green belt of adequate width and density preferably with local species along the periphery of the plant shall be raised so as to provide protection against particulates and noise. It must be ensured that at least 33% of the total land area shall be under permanent green cover. The proponent shall ensure the maintenance of green belt throughout the year and for all time to come. It is advised that they may engage professionals in this field for creation and maintenance of the green belt. An action plan for this purpose shall be prepared and shall be submitted accordingly.
17. The industry shall abide by E(P) Act, 1986 and Rules framed there-under.
18. The industry is required to submit a water balance diagram, affix separate water meters at the intake points/for different purposes of consumption, furnishes monthly returns in prescribed format every month and make up-to-date payment against the assessment made by the Board.
19. The Board reserve the right to revoke/refuse consent to operate at any time during period for which consent is granted in case any violation is observed and to modify/stipulate additional conditions as deemed appropriate.
- Additional conditions to be complied within a month;**
1. The industry shall apply for consent to establish for the ash mound proposed to be made on pond B.
 2. The additional land which is now being acquired by the industry shall be used for ash filling only after obtaining consent to establish from the Board.
 3. Ash mound which is partly constructed must be covered with soil and compacted to avoid wind borne dust and provided with necessary dust suppression system in the ash pond area and ash mound area to control nuisance during the dry season to avoid public discontentment residing around the ash pond.
- The occupier must comply with the conditions stipulated in section A,B,C,D,E and F to keep this consent order valid.

To
 The Director (Operation)
 M/s. OPGC Ltd.
 1b Thermal Power Station
 Banharpali
 Jharsuguda-768 234


 MEMBER SECRETARY
 STATE POLLUTION CONTROL BOARD, ODISHA





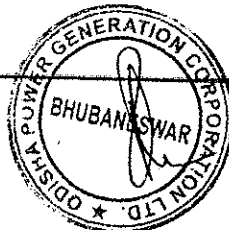
Memo No. _____ /Dt. _____

- i) Regional Officer, State Pollution Control Board, Sambalpur
- ii) District Collector, Jharsuguda
- iii) Director, Mines, Odisha
- iv) D.F.O. Sambalpur
- v) EE, Cess (Head Office)
- vi) Consent Register
- vii) Sr. Env. Scientist (L)

SR. ENV. ENGINEER (C)
STATE POLLUTION CONTROL BOARD, ODISHA

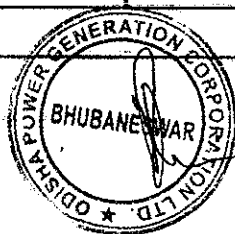
General Standards for discharge of environment pollutants
PART-A: EFFLUENTS

Sl.No.	Parameters	Standards			
		Inland surface	Public sewers	Land for irrigation	Marine Coastal Areas
		(a)	(b)	(c)	(d)
1	Colour & odour	Colourless/Odourless as far as practicable	----	See 6 of Annex-1	See 6 of Annex-1
2	Suspended Solids (mg/l)	100	600	200	For process wastewater - 100 b For cooling water effluent 10% above total suspended matter of influent.
3	Particular size of SS	Shall pass 850	----	----	
5	pH value	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0	5.5 to 9.0
6	Temperature	Shall not exceed 5°C above the receiving water temperature	----	----	Shall not exceed 5°C above the receiving water temperature
7	Oil & Grease mg/l max.	10	20	10	20
8	Total residual chlorine	1.0	----	----	1.0
9	Ammonical nitrogen (as N) mg/l max.	50	50	----	50
10	Total Kjeldahl nitrogen (as NH ₃) mg/l max.	100	----	----	100



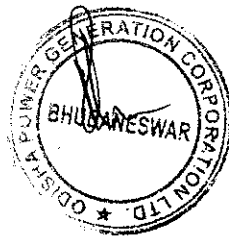


11.	Free ammonia (as NH ₃) mg/l max.	5.0	----	-----	5.0
12.	Biochemical Oxygen Demand (5 days at (20°C) mg/l max.	30	350	100	100
13.	Chemical Oxygen Demand, mg/l max.	250	----	-----	250
14.	Arsenic (as As) mg/l max.	0.2	0.2	0.2	0.2
15.	Mercury (as Hg) mg/l max.	0.01	0.01	-----	0.001
16.	Lead (as pb) mg/l max.	01	1.0	-----	2.0
17.	Cardmium (as Cd) mg/l max.	2.0	1.0	-----	
18.	Hexavalent Chromium (as Cr + 6) mg/l max.	0.1	2.0	-----	1.0
19.	Total Chromium (as Cr) mg/l max.	2.0	2.0	-----	2.0
20.	Copper (as Cu) mg/l max.	3.0	3.0	-----	3.0
21.	Zinc (as Zn) mg/l max.	5.0	15	-----	15
22.	Selenium (as Sc) mg/l max.	0.05	0.05	-----	0.05
23.	Nickel (as Nil) mg/l max.	3.0	3.0	-----	5.0
24.	Cyanide (as CN) mg/l max.	0.2	2.0	0.2	0.02
25.	Fluoride (as F) mg/l max.	2.0	15	-----	15
26.	Dissolved Phosphates (as P) mg/l max.	5.0	-----	-----	-----
27.	Sulphide (as S) mg/l max.	2.0	-----	-----	5.0
28.	Phenolic compounds as (C ₆ H ₅ OH) mg/l max.	1.0	5.0	-----	5.0
29.	Radioactive materials a. Alpha emitter micro curie/ml. b. Beta emitter micro curie/ml.	10 ⁷ 10 ⁵	10 ⁷ 10 ⁵	10 ⁹ 10 ⁷	10 ⁷ 10 ⁵
30.	Bio-assay test	90% survival of fish after 98	90% survival of fish after	90% survival of fish after	90% survival of fish after 96 hours in 100% effluent





		hours in 100% effluent	96 hours in 100% effluent	96 hours in 100% effluent	
31	Manganese (as Mn)	2 mg/l	2 mg/l	-----	2 mg/l
32	Iron (Fe)	3 mg/l	3 mg/l	-----	3 mg/l
33	Vanadium (as V)	0.2 mg/l	0.2 mg/l	-----	0.2 mg/l
34	Nitrate Nitrogen	10 mg/l	-----	-----	20 mg/l





PART- B: NATIONAL AMBIENT AIR QUALITY STANDARDS

Sl. No.	Pollutants	Time Weighted Average	Concentration of Ambient Air		
			Industrial Residential, Rural and other Area	Ecologically Sensitive Area (notified by Central Government)	Methods of Measurement
(1)	(2)	(3)	(4)	(5)	(6)
1.	Sulphur Dioxide (SO ₂), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	50 80	20 80	-Improved west and Gaeke - Ultraviolet fluorescence
2.	Nitrogen Dioxide (NO ₂), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	40 80	30 80	- Modified Jacob & Hochheiser (Na-Arsenite) - Chemiluminescence
3.	Particulate Matter (size less than 10 μm) or PM ₁₀ , $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	60 100	60 100	-Gravimetric - TOEM - Beta Attenuation
4.	Particulate Matter (size less than 2.5 μm) or PM _{2.5} , $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	40 60	40 60	-Gravimetric - TOEM - Beta Attenuation
5.	Ozone (O ₃), $\mu\text{g}/\text{m}^3$	8 Hours ** 1 Hours **	100 180	100 180	- UV Photometric - Chemiluminescence - Chemical Method
6.	Lead (Pb), $\mu\text{g}/\text{m}^3$	Annual * 24 Hours **	0.50 1.0	0.50 1.0	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper. - ED-XRF using Teflon filter
7.	Carbon Monoxide (CO), mg/m^3	8 Hours ** 1 Hours **	02 04	02 04	- Non Dispersive Infra Red (NDIR) Spectroscopy
8.	Ammonia (NH ₃), $\mu\text{g}/\text{m}^3$	Annual* 24 Hours**	100 400	100 400	-Chemiluminescence - Indophenol Blue Method
9.	Benzene (C ₆ H ₆), $\mu\text{g}/\text{m}^3$	Annual *	05	05	-Gas Chromatography based continuous analyzer - Adsorption and Desorption followed by GC analysis
10.	Benzo (a) Pyrene (BaP)- Particulate phase only, ng/m^3	Annual*	01	01	-Solvent extraction followed by HPLC/GC analysis
11.	Arsenic (As), ng/m^3	Annual*	06	06	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper
12.	Nickel (Ni), ng/m^3	Annual*	20	20	-AAS/ICP method after sampling on EPM 2000 or equivalent filter paper

** Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals.

** 24 hourly or 08 hourly or 01 hourly monitored values, as applicable, shall be complied with 98% of the time in a year, 2% of the time, they may exceed the limits but not on two consecutive days of monitoring.

