VALUATION

OF

PLANT AND MACHINERY

(04 NO'S OF OXYGEN PLANTS OF 3065 TPD CAPACITY)

BELONGING TO

BRACE IRON AND STEEL PRIVATE LIMITED

LOCATED AT

VILLAGE MERAMANDALI, DISTT. DHENKANAL, ODISHA

PREPARED FOR

STATE BANK OF INDIA

IFB BRANCH, TOLSTOY MARG, NEW DELHI

PREPARED BY

ITCOT CONSULTANCY AND SERVICES LIMITED

(*Formerly* Industrial and Technical Consultancy Organization of Tamil Nadu Limited)
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NOVEMBER – 2018

Contents

EXECUTIVE SUMMARY

<table>
<tr><td>Introduction</td><td>ITCOT was requested by State Bank of India, IFB Branch; vide its letter dated 8 August, 2018 to carry out the Valuation of plant and machinery belonging to Brace Iron & Steel Private Limited lying at Village Meramandali, Distt. Dhenkanal, Odisha.</td></tr>
<tr><td>Objective</td><td>Valuation of Plant and Machinery belonging to Brace Iron & Steel Private Limited lying at Village Meramandali, Distt. Dhenkanal, Odisha</td></tr>
<tr><td>Authority to ITCOT</td><td>Letter dated 08 August, 2018 by SBI, IFB Branch, New Delhi</td></tr>
<tr><td>Date of Site Visit</td><td>11 October, 2018</td></tr>
<tr><td>Location of Plant and Machinery</td><td>Integrated steel plant of Bhushan Steel Limited, located at Village Meramandali, Distt. Dhenkanal, Odisha</td></tr>
<tr><td>Details of Plant & Machinery</td><td>4 Nos. Oxygen Plant having a combined installed capacity of 3065 TPD
<table>
<tr><th>Sr. No.</th><th>Particulars</th><th>Make</th><th>Year of Commissioning</th></tr>
<tr><td>1</td><td>340 TPD Oxygen Plant</td><td>Linde</td><td>2009</td></tr>
<tr><td>2</td><td>405 TPD Oxygen Plant</td><td>Air Liquide</td><td>2010</td></tr>
<tr><td>3</td><td>1200 TPD Oxygen Plant</td><td>Air Liquide</td><td>2013</td></tr>
<tr><td>4</td><td>1120 TPD Oxygen Plant</td><td>Linde</td><td>2017</td></tr>
</table></td></tr>
<tr><td>Valuation of Methodology Adopted for Asset</td><td>a) Income Approach
b) Cost Approach</td></tr>
<tr><td>Valuation Summary</td><td>The Fair Market Value arrived using both approach is given below:
Fair Market Value as per Income approach : Rs. 1068.00 Cr.
Fair Market Value as per Cost approach : Rs. 751.69 Cr.
Since, the asset is income generating asset so the asset has been valued based on income approach to arrive at Fair Market Value. Thus the Fair Market value of the 04 no's of oxygen plants belonging to Brace Iron and steel Private Limited, situated at Meramandali, Distt Dehkanal, Odisha is valued at Rs. 1068.00 Crores (Rupees One Thousand Crore and Sixty Eight Lakh) only.</td></tr>
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INTRODUCTION

Brace Iron and Steel Private Limited ('BISPL' or 'Company'), having corporate identity no U27200DL2012PTC233625, was incorporated on 29th March 2012 at Delhi with the objective of purchasing, selling, letting on leasing or hire in any part of India and abroad all kind of machinery, tools, part, oxygen plans and related auxiliaries.

The Company has been floated by SREI Alternate Investment Trust (SAIT), and had purchased four oxygen plants which were a part of Bhushan Steel Limited's integrated steel facility at Odisha. Bhushan Steels Limited had simultaneously entered into an arrangement with Brace Iron & Steel Private Limited whereby Bhushan Steel Limited has taken the oxygen plants on lease from Brace Iron & Steel Private Limited for its existing operations at the integrated steel facility located at Meramandali (Odisha). As per the part of the agreement, Brace Iron & Steel Private Limited shall be receiving monthly lease rental from Bhushan Steel Limited.

It has been reported that the company was delaying servicing of its debt obligations on account of delay in the receipt of lease rentals from its lessee; Bhushan Steels Limited.

As Bhushan Steel Limited was classified as NPA and was referred to the Bankruptcy Court by State Bank of India over unpaid dues. The Company was admitted in New Delhi Bench of the National Company Law Tribunal (NCLT) and the Corporate Insolvency Process for the Company under Insolvency and Bankruptcy Code, 2016, was initiated with delivery of order on 26 July, 2017.

Consequent to the aforementioned process under IBC, 2016, Bhushan Steel Limited was acquired by Tata Steels Limited via. its subsidiary in 2018. After takeover of Bhushan Steel Limited by Tata Steels Limited, it has been reported that the lease rentals are being paid regularly by the lessee and debt is being serviced by the company on regular basis.

State Bank of India, Industrial Finance Branch, New Delhi, via its work order dated 08 August, 2018, appointed ITCOT Consultancy & Services Limited (a Joint Venture of SIDBI, IFCI, SIPCOT, TIIC, SIDCO & Banks), to estimate the value of the assets, specifically 4 nos. of oxygen plants having installed capacity of 340 TPD, 405 TPD, 1120 TPD & 1200 TPD respectively, belonging to Brace Iron & Steel Limited, installed and running in the premises of Bhushan Steel Limited, at Meramandali, Odisha.

ABOUT ITCOT

ITCOT CONSULTANCY AND SERVICES LIMITED

*Industrial and Technical Consultancy Organization of Tamilnadu Limited (**ITCOT**), was incorporated as a company under the Companies Act, 1956, on 17th July 1979 as a joint venture of leading financial institutions, State Development Corporations, and Commercial Banks.*

The Registered Office of the company is located at 50-A, Greams Road, Chennai, 600 006. The name of the company was changed to ITCOT Consultancy and Services Limited with effect from 4th October 2004 to offer services as an adjunct to consultancy. The company still continues to be known by its popular name, ITCOT.

PROMOTERS OF ITCOT

Commercial Banks
Bank of Baroda
Canara Bank
Central Bank of India
Indian Bank
Indian Overseas Bank
State Bank of India
Syndicate Bank
The Laxmi Vilas Bank Limited
The Karur Vysya Bank Limited
Union Bank of India

State Development Institutions
State Industries Promotion Corporation of Tamilnadu Ltd. (SIPCOT)
Tamilnadu Industrial Investment Corporation Ltd. (TIIC)
Tamilnadu Small Industries Development Corporation Ltd. (SIDCO)

All India Financial Institutions
IFCI Ltd
SIDBI (originally IDBI)

Techno Economic Feasibility Studies	Project Evaluation and Restructuring	Implementation of Power Projects	Skill Up gradation Programs
Strategic Plans	Lender's Engineers	Implementation of Wind Mill Projects	Seminars
Detailed Project Reports	Technology Sourcing	Project Appraisals	Industry Meets
Market Survey	Energy Audits	Project Management	
Market Research	Implementation of Solar Power Projects	Entrepreneur Training Programs	

APPROVALS / EMPANELMENT

ITCOT is in the panel of major banks and other Government Agencies as listed below for conducting either TEV study, Lenders Engineers, Valuation, NPA resolution or all the mentioned services.

Banks
Allahabad Bank
Andhra Bank
Bank of Baroda
Bank of India
Bank of Maharashtra
Central Bank of India
Corporation Bank
Dena Bank
Exim Bank
IDBI Bank
Indian Bank
Indian Overseas Bank
Lakshmi Vilas Bank
Oriental Bank of Commerce
Punjab & Sind Bank
SIDBI
South Indian Bank
State Bank of India
Syndicate Bank
United Bank of India
Karnataka Bank

Ministries/ GOI Departments
Bureau of Energy Efficiency
Technology Development Board
Modular employment Skill Programme, DGET, GOI

Others
Receiver / Valuers for High Courts / DRT / Banks / FI
Bharat Petroleum Corporation Ltd.
Power Finance Corporation
ARCIL

PURPOSE OF VALUATION

In line with the work order dated 08 August, 2018, issued by State Bank of India, Industrial Finance Branch, the objective of the report is to value the plant and machinery, lying at Meramanali, Distt. Dhenkanal, Odisha.

For the purpose of this report both Fair Market Value and Orderly Liquidation Value or Distress Sale Value has been arrived at.

SCOPE OF VALUATION

As per the Letter of Appointment dated 08August, 2018, issued to ITCOT Consultancy & Services Limited by State Bank of India, Industrial Finance Branch, the scope of work has been defined as following:

ITCOT Consultancy & Services Limited has been engaged for the verification and valuation of plant and machinery of M/s. Brace Iron and Steel Private Limited, which are lying at village Meramandali, Distt. Dhenkanal, Odisha. The plant and machinery has been specifically defined as

Sr. No.	*Plant Details*	*Location*
1	*340 TPD Oxygen Plant*	*Village Meramandali, Distt: Dhenkanal, Odisha*
2	*405 TPD Oxygen Plant*	*Village Meramandali, Distt: Dhenkanal, Odisha*
3	*1120 TPD Oxygen Plant*	*Village Meramandali, Distt: Dhenkanal, Odisha*
4	*1200 TPD Oxygen Plant*	*Village Meramandali, Distt: Dhenkanal, Odisha*

Further, the following has been defined as the summary of the scope of work

- *Physical verification of the plant and machinery and carrying out valuation of the same*
- *Certify the physical verification and valuation of plant and machinery*

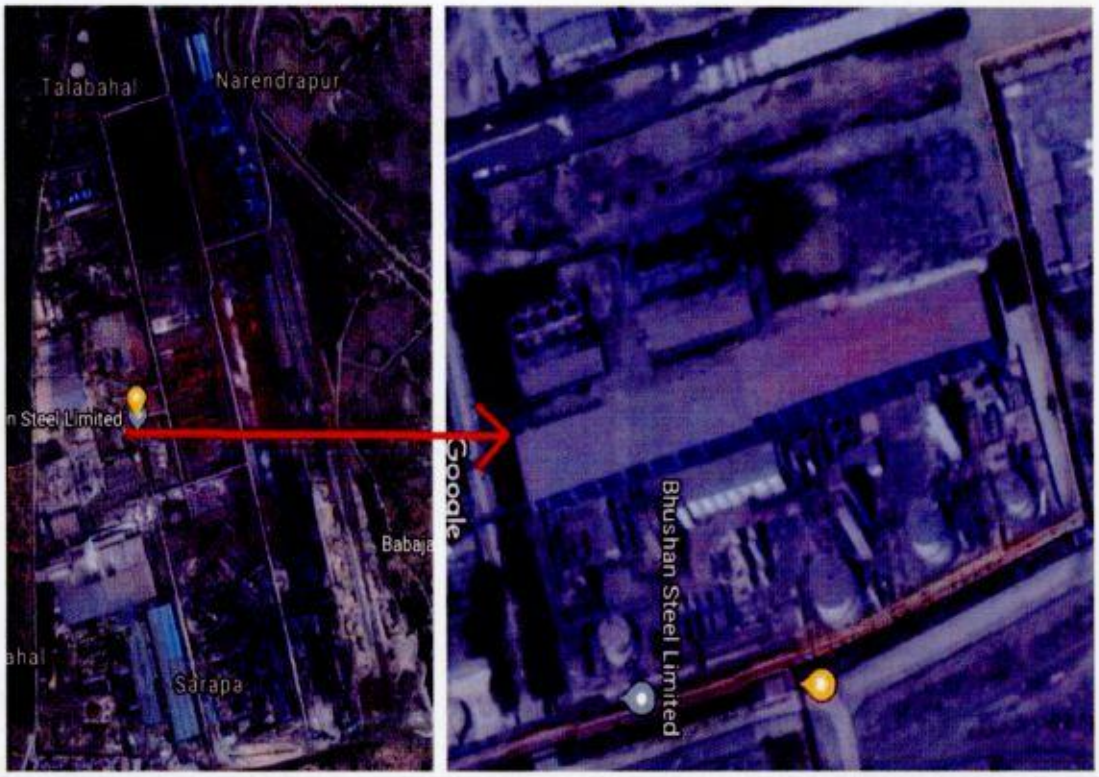
ITCOT Consultancy and Services Ltd. DELHI

ASSETS BEING VALUED

In line with the work order, the current report includes Fair and Orderly Liquidation Value of 4 Nos. of oxygen plants, belonging to Brace Iron & Steel Limited, located at the integrated steel factory of Bhushan Steel Limited, located at Village Meramandali, Distt. Dhenkanal, Odisha.

Factory GPS Location: 20.803630, 85.255144

Following map shows the location of the aforementioned assets in the integrated steel complex.



SITE VISIT TO THE ASSET

The report pertains to the valuation of 4 Nos. of Oxygen Plants, installed and operational in the integrated steel complex of the Bhushan Steel Limited, located at Village Meramandali, Distt. Dhenkanal, Orissa. The assets were physically verified in a limited site visit on 11 October, 2018.

BASES OF VALUE

International Valuation Standards (IVS) 104 describes the Bases of Value, which is the fundamental premises on which the reported values are based. It is critical that the basis of value be appropriate to the terms and purpose of the assignment. The bases of value influence the valuer's selection of methods, inputs and assumptions and the ultimate opinion of value.

In line with the work order dated 08 August, 2018, issued to ITCOT Consultancy & Services Limited, this report takes "Fair Market Value" and "Orderly Liquidation Value" as the bases of value.

For the purpose of this report the aforementioned bases have been defined as following:

FAIR MARKET VALUE

Section no. 100 & 110 of IVS 104 define the Fair Market Value as following:

Fair Market Value (OECD Definition): The OECD defines Fair Market Value as the price a willing buyer would pay a willing seller in a transaction on the open market.

Fair Market Value (US IRS): The fair market value is the price at which the property will change hands between a willing buyer and willing seller, neither being under any compulsion to buy or to sell and both having reasonable knowledge of relevant facts.

Fair Market Value assumes that the equipment/ asset would fall under normal exposure in market place before being sold for what is perceived as the fair price to both buyers and sellers. There is no serious time limit on how long the equipment would be offered for sale, so it would be sold for a higher price than in liquidation scenario.

ORDERLY LIQUIDATION VALUE

The term Orderly Liquidation Value is defined under Section no. 160 of IVS; as Value of group of assets that could be realized in a liquidation sale, given a reasonable period of time to find a purchaser, with the seller being compelled to sell on an as-is, where-is basis.

VALUATION APPROACH AND METHOD

IVS 105 defines the following three principal valuation approaches

Market Approach	Income Approach	Cost Approach
• Comparable Transaction Method • Guideline Publicly traded Compareable method	• Discounted Cash Flow Method	• Replacement Cost Method • Reproduction Cost Method • Summation Method

APPROACH AND METHODS FOLLOWED IN THE CURRENT REPORT

An endeavor has been made to evaluate the subject plant and machinery under the following approaches.The methods utilized under each approach are as following

Income Approach	Cost Approach
• Discounted Cash Flow Method	• Replacement Cost Method

ASSUMPTIONS AND LIMITING CONDITIONS

During the course of this valuation the following limitations and assumptions were made, which require a special mention.

- This valuation is only valid for the purpose mentioned in this report; neither intended and nor valid for any other purpose.
- The report has been prepared on the basis of information as provided to ITCOT (both verbal and written), together with the observations made during the site visit.
- **The assets have been valued on "As is Where is" basis**
- The analysis of this report is based on publicly available information, industry **benchmark/standards and ITCOT's professional judgment, as the case may be, where** the information has not been furnished by the Company.
- The assets covered under this report have been valued with the understanding that they are owned by the Brace Iron & Steel Pvt. Ltd. and have clear marketable title.

- The condition assessment and the estimation of useful life are based on visual observation during the site visit, reported service and maintenance undertaken and ITCOT's professional judgment. ITCOT has not carried out any detailed mechanical inspection with regards to plant and machinery.
- The useful life for oxygen plant has been considered as 30 years.
- The Fixed Asset Register provided by the company capitalizes all the machinery (4 Nos. of Oxygen Plant) under the single head of plant and machinery, it does not contain the machine wise and year wise descriptive data, and hence the working of plant and machinery is purely on the basis of the physical verification and ITCOT's professional judgment.
- The details such as year of purchase, whether new or second hand machine was purchased, capacity, specifications of the machinery is based on physical observation during site visit and data furnished by the client in verbal or written form.
- This report has been prepared for the purpose of determining / estimating the Fair Value of the income generating assets lying at Meramandali, Distt. Dhenkanal, Odisha of the Company based on the international / generally accepted valuation methodologies for the purpose of financial reporting.
- It has been assumed that operating lease for the subject asset shall be renewed after the expiry of lease period.
- The valuation is based on the company's provisional financial statements as on 31st March, 2018 and Projections of BISPL for the period from April 2019 till March 2025 submitted by the management.
- By this report ITCOT is not purporting to advice the investor or investee companies on the prudence of the investment.
- For the purpose of this report the Orderly Liquidation Value and Distress Sale Value have been used interchangeably.

VALUATION OF MACHINERY AND EQUIPMENT

INTRODUCTION

ITCOT Consultancy & Services Limited deputed its team of professionals to the integrated steel factory of Bhushan Steel Limited, located at Village Meramandali, Distt. Dhenkanal, Odisha, on 11th October, 2018. The mentioned integrated steel plant consists of 4 nos. of oxygen plant belonging to M/s. Brace Iron & Steel Private Limited, leased out to Bhushan Steel Limited. This section of the report deals with the valuation of the plant & machinery as observed during the site visit.

DOCUMENTS SHARED

- Copy of Memorandum of Association (MOA)
- Audited Balance Sheet FY 2014-15, FY 2015-16 & FY 2016-17
- Provisional Balance Sheet FY 2017-18
- Copy of term loan sanction letters
- Copy of operating lease agreement dated 26.02.2015
- Copy of Agreement to Transfer dated 23.02.2015.
- Copy of Purchase Invoice of Oxygen Plant set from Bhushan steel dated 26.02.2015
- Financial Projections as shared by BISPL

DETAILS OF MACHINERY AND EQUIPMENT

The machinery and equipment observed during the site visit includes 4 Nos. of Oxygen Plant with the following installed capacity

- 340 TPD Oxygen Plant
- 405 TPD Oxygen Plant
- 1120 TPD Oxygen Plant
- 1200 TPD Oxygen Plant

SITE VISIT OBSERVATION

Understanding Cryogenic Oxygen Plant

Modern steelmaking relies heavily on the use of oxygen to enrich air and increase combustion temperatures in blast furnaces and open hearth furnaces as well as to replace coke with other combustible materials. During the steel making process, unwanted carbon combines with oxygen to form carbon oxides, which leaves as gas. Oxygen is used to allow greater use of scrap metal in electric arc furnaces.

In order to evaluate the subject plant and machinery it is necessary to understand about the working of the Cryogenic Oxygen Plant.

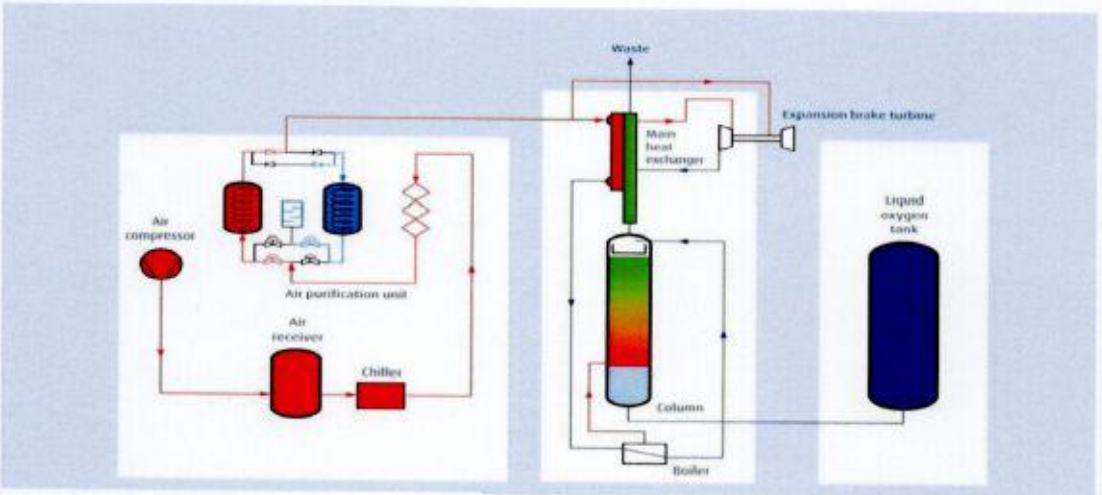
A cryogenic oxygen plant is an industrial facility that creates molecular oxygen at relatively high purity. This process was pioneered by Dr. Carl von Linde in 1902.

The raw material for the plant is atmospheric air, the earth's atmosphere include

- Nitrogen – 78%
- Oxygen – 21%
- Argon – 0.93%
- Carbon Di Oxide – 0.4%
- Trace amount of neon, helium, methane, krypton, hydrogen as well as water vapor

The cryogenic air separation process achieves high purity oxygen of more than 99.5%. The resulting high purity product can be stored as liquid or gas.

The cryogenic oxygen plant comprises of



Warm End Container

- Compressor
- Air Receiver
- Chiller (Heat Exchanger)
- Pre Filter

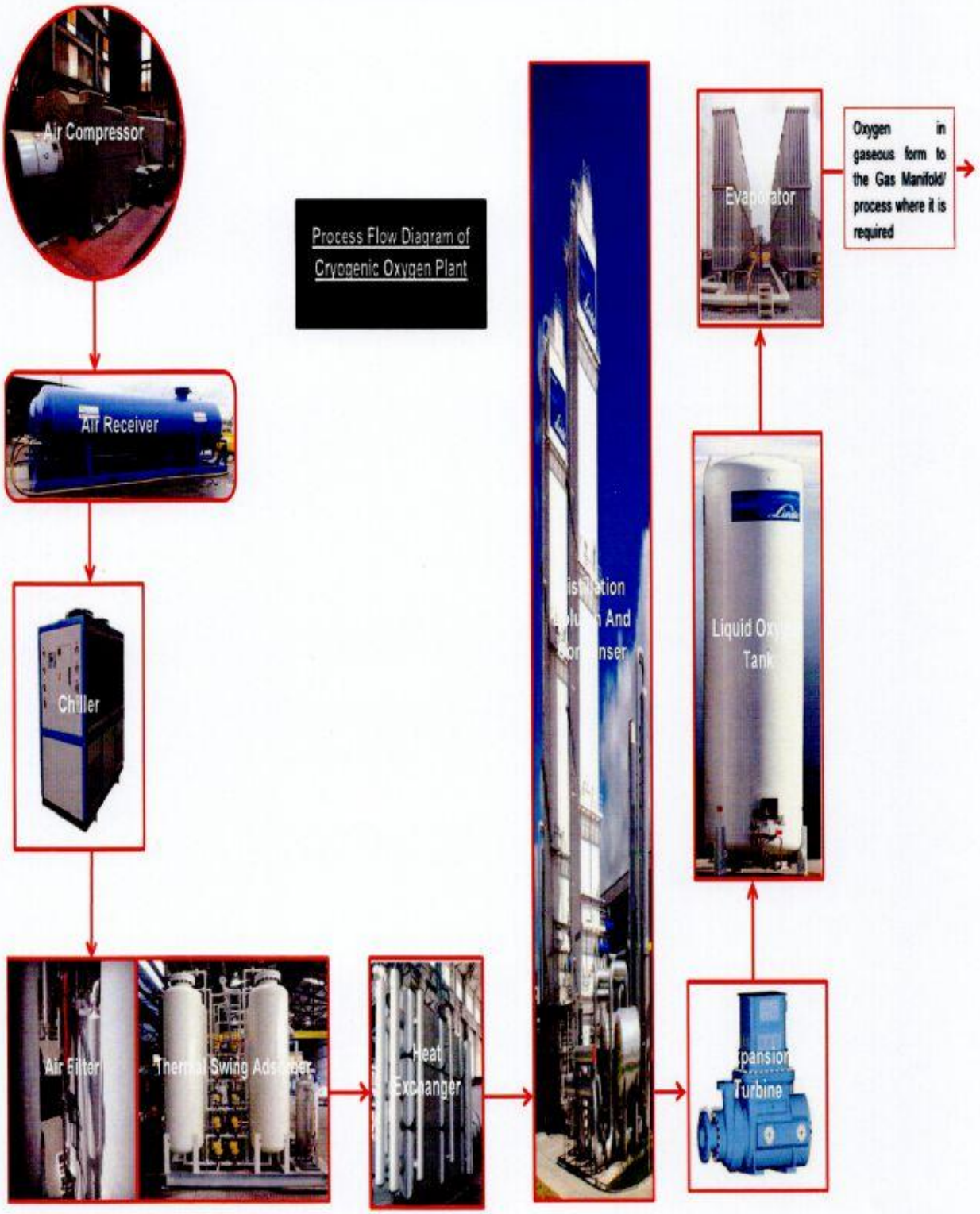
Cold Box

- Heat Exchanger
- Boiler
- Distillation Column
- Expansion Brake Turbine

Storage

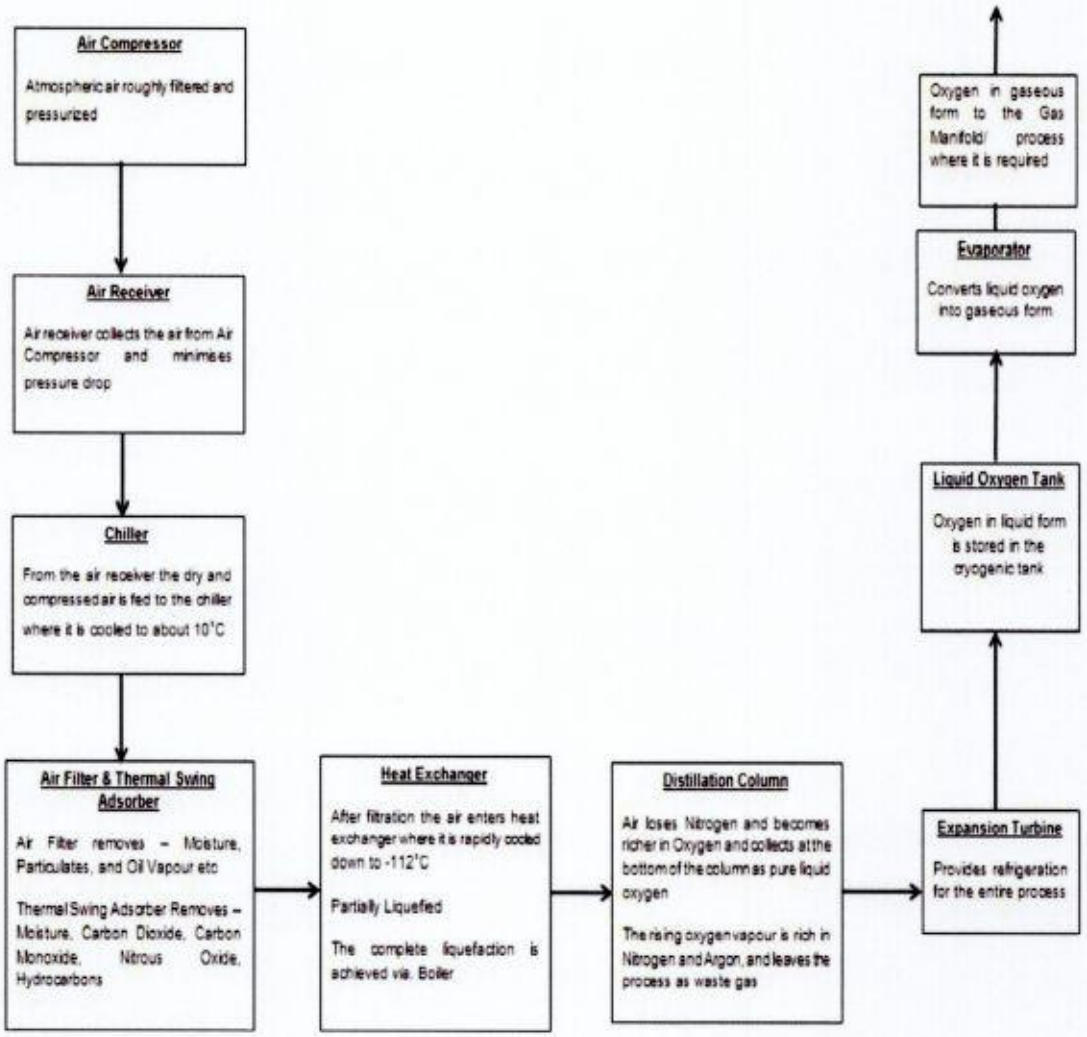
- Liquid Oxygen Tank
- Vaporizer
- Filling Station

In order to understand the theoretical process flow of air being converted into liquid or gaseous oxygen of high purity and to identify the various major equipment which are a part of the oxygen plant, the following flow diagram has been prepared; the flow diagram illustrates the flow of the air through various equipment to finally give high purity oxygen. The flow diagram has been prepared through secondary research.



Process Flow Diagram of Cryogenic Oxygen Plant

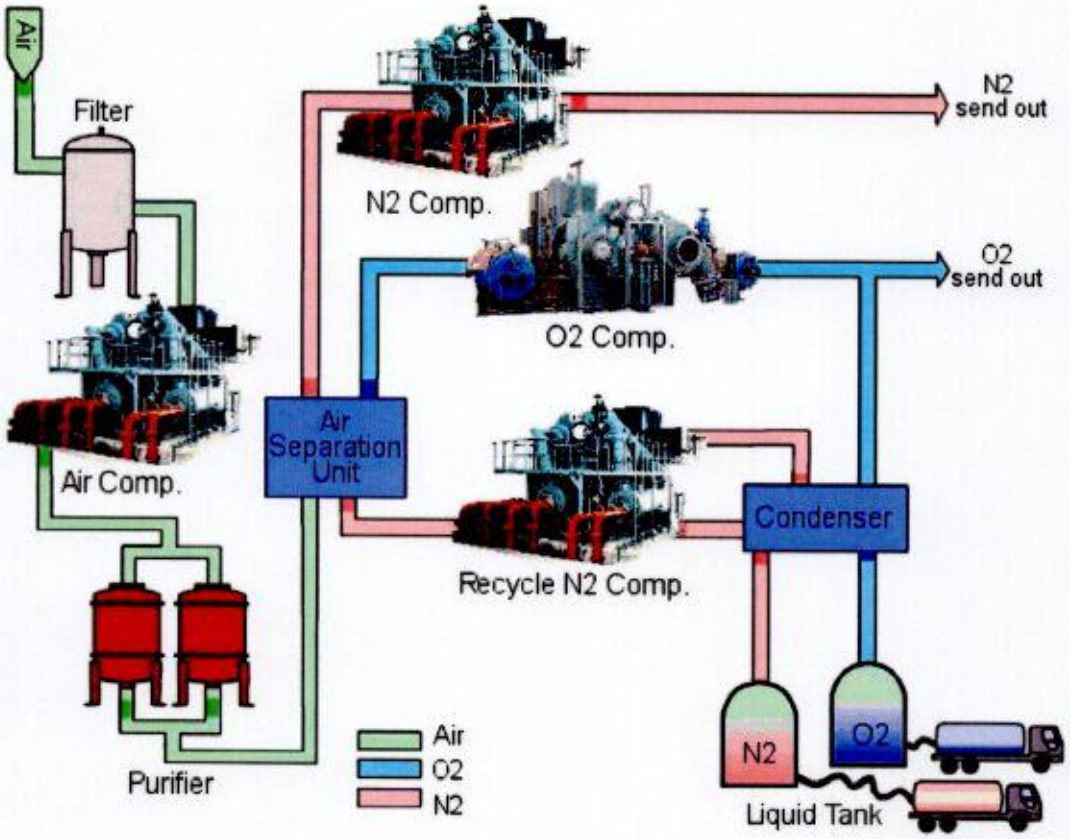
The following flow chart briefly explains the use of each of the aforementioned equipment



From the process flow diagram it can be inferred that during the production of oxygen, Nitrogen gas is also produced as a waste, the same can either be bleed to the atmosphere as waste or can be piped to the process. Steel making has also intensive use of nitrogen gas, a brief of the same has been provided as below:

- Nitrogen is an inert gas and is used as blanketing gas, Nitrogen blanketing finds application in safeguarding flammable liquids and solids from the dangers of oxidation.
- Protects metals against corrosion
- Nitrogen is used in brazing and cutting
- Nitrogen is used during the welding process
- Nitrogen is used in laser cutting

Similar to the process of production of oxygen in oxygen plant, cryogenic nitrogen plants also exist which work on the same principle with minor changes. Considering the fact that nitrogen also finds usage in the steel plant, there exist arrangements where both nitrogen and oxygen can be separated and stored. A setup like that may have the following process flow:



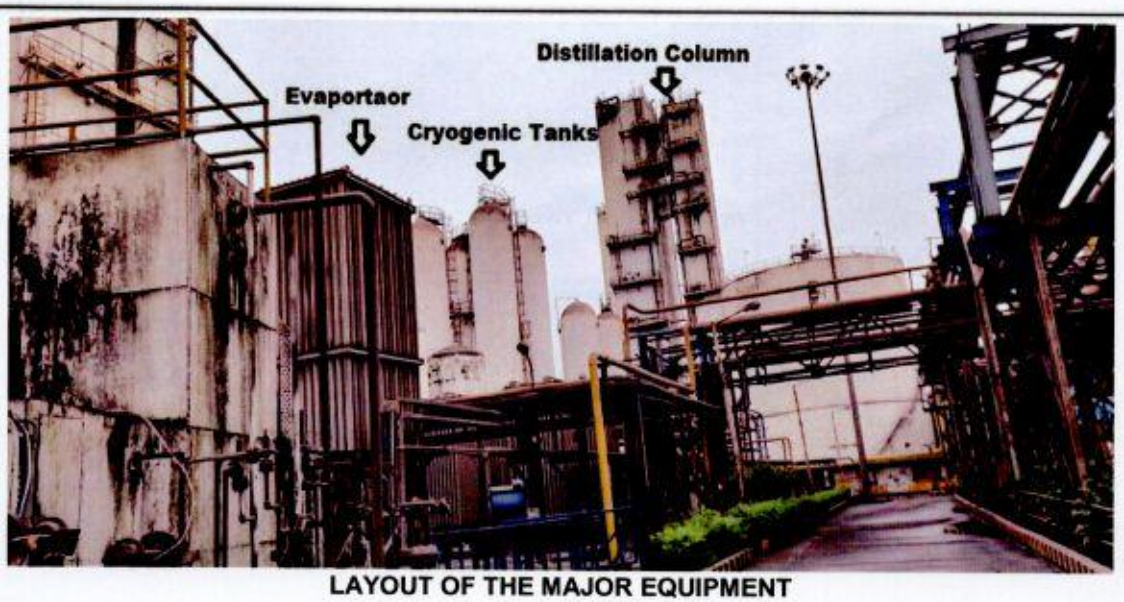
Site Visit Observation

Based on the visit to the premises housing the subject machinery and equipment on 11 October, 2018, and discussions with Sh. Sumit Das, responsible for the operations of the subject oxygen plants, the following observations have been recorded:

Sr.No.	Particulars	Make	Type of Process	Year of Commissioning	Refurbished/ New	Current Status
1	340 TPD Oxygen Plant	Linde	Cryogenic Oxygen Plant	2009	Refurbished machinery	Not Operational/ Breakdown
2	405 TPD Oxygen Plant	Air Liquide	Cryogenic Oxygen Plant	2010	New	Operational
3	1200 TPD Oxygen Plant	Air Liquide	Cryogenic Oxygen Plant	2013	New	Operational
4	1120 TPD Oxygen Plant	Linde	Cryogenic Oxygen Plant	2017	New	Operational

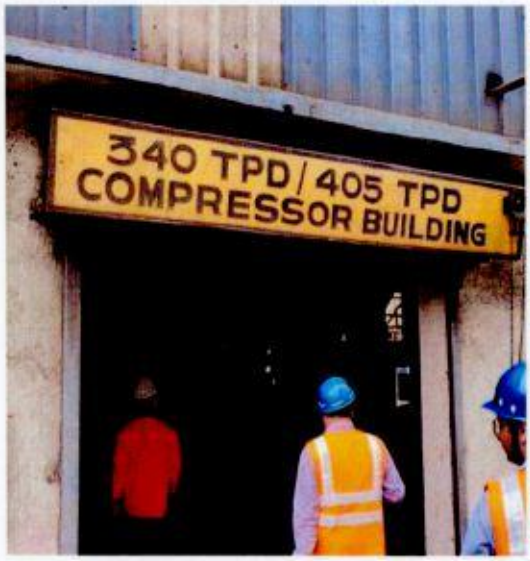
- 340 TPD plant has been reported to be purchased as refurbished machinery. The original year of manufacturing for the plant has been reported as 1970, the refurbished plant has been reported to be commissioned in 2009.
- The 340 TPD plant is reported to be non-operational since August 2018, owing to breakdown of a compressor.
- As reported the company foresees a capital expenditure to the tune of Rs. 65 Crore for operationalizing the 340 TPD oxygen plant.
- Owing to the breakdown of the 340 TPD plant, out of the daily requirement of 3500 tons of oxygen, only about 2500 Tons is met
- The maintenance activity per oxygen plant is reported to be carried out once in 6 months with a 12 – 24 hour shut down of the respective plant. It has been reported that the maintenance undertaken in such a manner is inadequate.

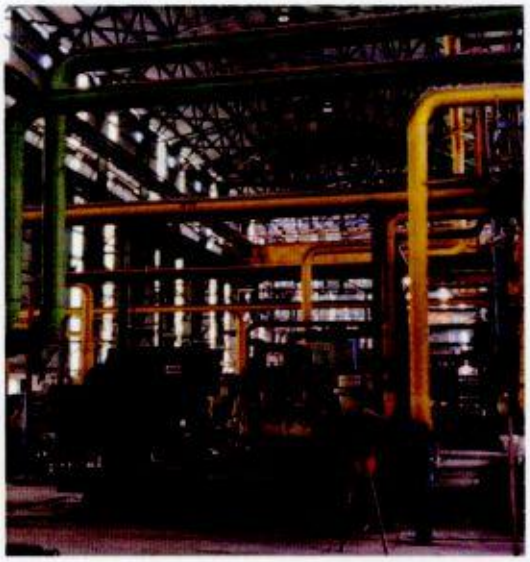
Following photographs taken during the site visit illustrate various parts and condition of the subject equipment.



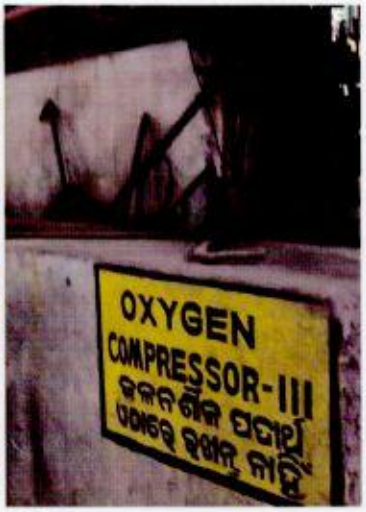
LAYOUT OF THE MAJOR EQUIPMENT

SCADA CONTROL FOR ALL THE OXYGEN PLANTS

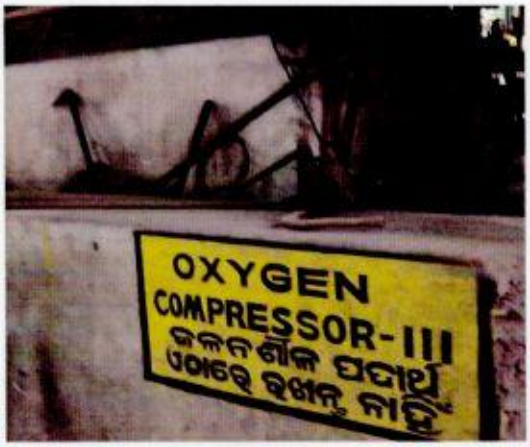




VIEW OF COMPRESSOR BUILDING

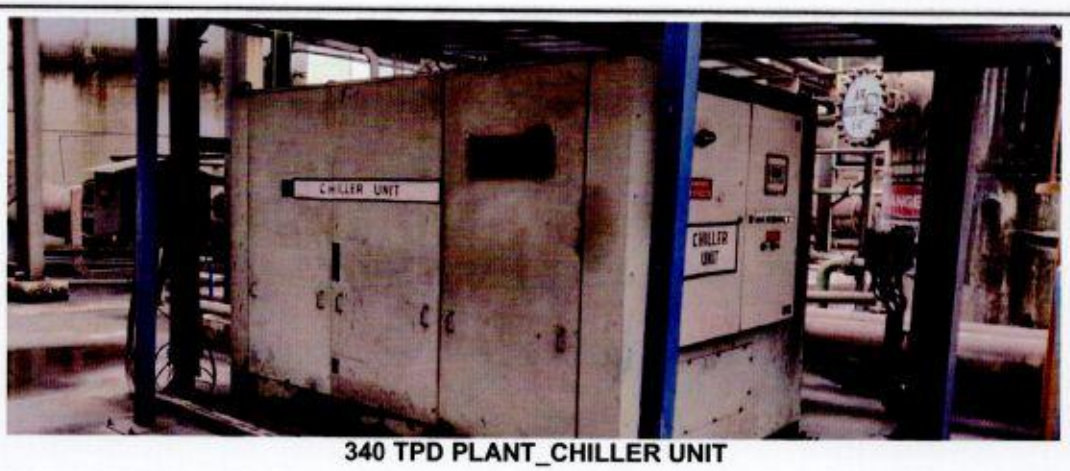


340 TPD PLANT_OXYGEN COMPRESSORS



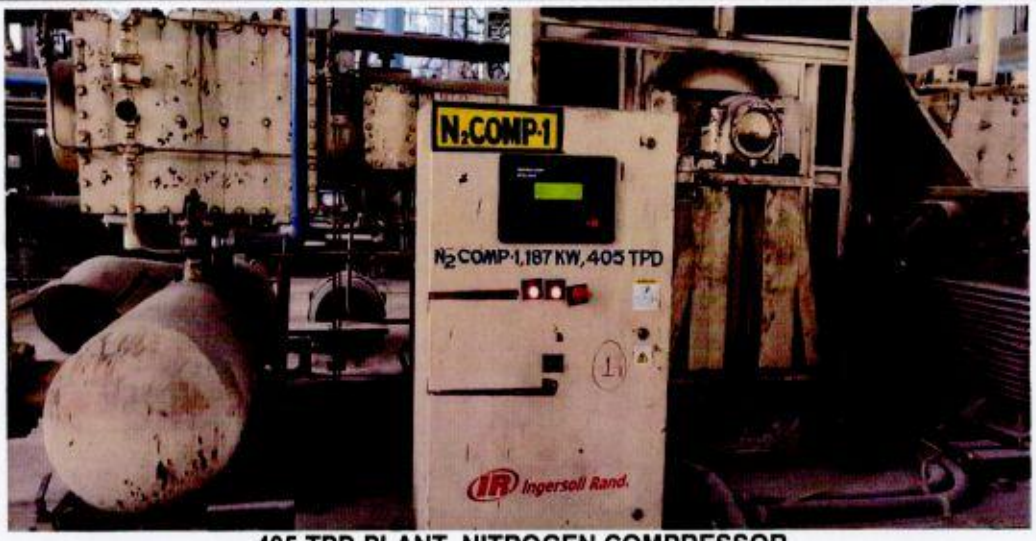
340 TPD PLANT_OXYGEN COMPRESSOR IN BREAKDOWN

340 TPD PLANT_NITROGEN COMPRESSORS



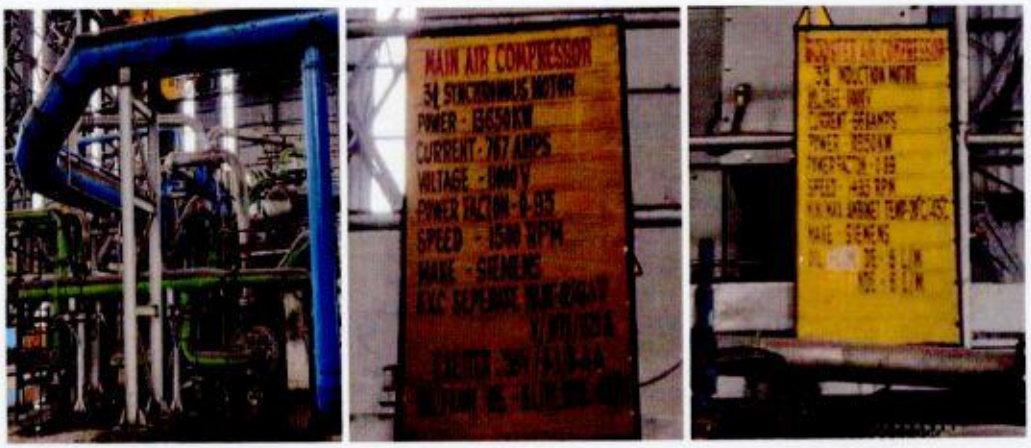
340 TPD PLANT_CHILLER UNIT

405 TPD PLANT_MAIN AIR COMPRESSORS



405 TPD PLANT_NITROGEN COMPRESSOR

405 TPD PLANT_RESIDUAL AIR COMPRESSOR



1120 TPD PLANT

1200 TPD PLANT

METHODOLOGY AND APPROACH

As stated elsewhere in the report "Cost Approach" and "Income Approach" have been utilized for developing an indication of value of each term.

COST APPROACH

Section 70 of IVS 300 state that the Cost Approach is commonly adopted for plant and equipment, particularly in case of specialized or special use facilities.

REPLACEMENT COST METHOD

In line with the Section 70 of IVS 300, the cost of replacing the subject assets has been estimated. The replacement cost is either the cost of obtaining an alternative asset of equivalent utility; this can either be a modern equivalent providing the same functionality or the cost of reproducing the exact replica of the subject asset. After concluding the replacement cost, the value is adjusted to reflect the impact on value of physical, functional, technological and economic obsolescence.

INCOME APPROACH

Usually under the Income Based Approach, the methods that maybe applied are Discounted Cash Flow

DCF METHOD

Under DCF approach, the future free cash flows of the business are discounted to the valuation date to arrive at the present value of the cash flows of the business or capitalized using a discount rate depending on the capital structure of the company. This approach also takes into account the value of the business in perpetuity by the calculation of terminal value using the exit multiple method or the perpetuity growth method, whichever is appropriate.

The dynamics of the business of BISPL is such that the operations generate incomes which are reflective of the value of its business in perpetuity In view of the management the projections of future cash flows are reasonably achievable, therefore, it was considered appropriate to use DCF approach to determine the fair value of the income generating assets i.e plant and machinery of BISPL under the Income Approach

VALUATION OF PLANT AND MACHINERY – COST APPROACH

On the basis of the mentioned site visit observations, methodology and assumptions, the Fair Market & Orderly Liquidation Value of plant and machinery has been estimated. The replacement cost of the machinery discounted for allowable depreciation over the useful life of the subject machine/equipment; the discounting factor also reflects the impact of the present condition of the machine to give out the Fair Market Value of the subject machine/equipment.

The Fair Market Value is considered as the base for arriving at the Orderly Liquidation Value/ Distress Sale Value. The Fair Market Value is discounted appropriately towards Freight, Tax, Duties, Insurance and Payment Discounts to give out Orderly Liquidation Value, which has been estimated as Rs. 638.94 Crores.

The Fair Market Value and Distress Sale Value are tabulated as below:

S. No	Description of the Asset	Total Replacement Cost (Rs. In Crore)	Total Fair Market Value (Rs. In Crore)	Distress Sale Value (Rs. In Crore)
1	Oxygen Plant with a combined capacity of 3065 TPD	1024.33	751.69	638.94
	Total	**1024.33**	**751.69**	**638.94**

The Total Fair Market Value of the movable assets i.e. machinery & equipment belonging to Brace Iron & Steel Private Limited, situated at Meramandali, Distt. Dhenkanal, Odisha is estimated at Rupees Seven Hundred & Fifty One Crore and Sixty Nine Lakh only.

The Total Distress Sale Value of the movable assetsi.e. machinery & equipment belonging to Brace Iron & Steel Private Limited, situated at Meramandali, Distt. Dhenkanal, Odisha is estimated at Rupees Six Hundred & Thirty Eight Crore and Ninety Four Lakh only.

VALUATION OF PLANT AND MACHINERY – INCOME APPROACH

Discounted Cash Flow Method (DCF)

Under this technique the future free cash flows are discounted to the date of valuation in order to arrive at the Present Value of the Business, the following variables need to be determined before deriving the value of the business:

Free Cash Flows After Tax form business operations:

The Future Free Cash flows have been determined based on the projections of the next 7 years (FY 2018-19 to FY2024-25), assumed to be reasonable. (subject to Statement of limiting condition)

Capex for the future years: Capex has been assumed with an understanding that the major expenses for an oxygen plant are electricity expenses and capital goods, hence an expense of Rs. 2.00 crore has been considered every year. Also, a lump sum expense of Rs. 50 crore has been assumed in the seventh year of the projected operations towards unforeseen breakdowns and up gradation of the machinery for the rest of years.

The following table depicts the statement of free cash flows of the income generating asset of BISPL:

(Rs.Cr.)

Particulars	2018	2019	2020	2021	2022	2023	2024	2025
	Prov	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.	Proj.
Total Sales	173.1	180	180	216	216	216	216	216
EBIDTA	172.08	178.88	178.77	214.64	214.51	214.36	214.19	214.01
Dep	60.28	60.28	60.28	60.28	60.28	60.28	60.28	60.28
EBIT	111.80	118.60	118.49	154.36	154.23	154.08	153.91	153.73
Less: Taxes	-	6.12	7.81	17.59	24.93	26.54	32.96	35.71
Invested capital net income		112.47	110.67	136.77	129.30	127.54	120.95	118.03
Add: Dep		60.28	60.28	60.28	60.28	60.28	60.28	60.28
Less: incremental WC		-	-	-	-	-	-	-
Less: Capex		65.00	2.00	2.10	2.21	2.32	2.43	50.00
Free Cash Flow		107.75	168.95	194.95	187.37	185.50	178.80	128.31

In order to determine the fair value of the business under the DCF method the Capital Asset Pricing Model (CAPM) has been used. This model discounts the future free cash flows based on a weighted average cost of capital i.e. WACC.

WACC = Ke*E/(D+E) + Kd*D/(D+E)

Where,

D= Debt Funds

E= Equity Shareholders Funds

Accordingly, the key variables of the WACC are explained below :

Cost of Equity (Ke)

The cost of equity is the minimum rate of return that an equity shareholder expects on his investment. It is calculated as per formula as given below:

$$K_E = R_F + \beta * R_P + RP_Z$$

The various components of the above-mentioned formula are described below:

RISK FREE RATE

The risk free rate has been considered @ 7.88% based on the return from 10 year Government securities of Government of India.

BETA(β)

Beta is a measure of volatility, or systematic risk of the return on a particular security to the return on a market portfolio. To determine the beta, we have considered average of the publicly traded company which is engaged in a similar business.

While deriving the Beta from the beta of the comparable, it was unlevered using its Debt/ Equity ratio and then re-levered, using the debt/equity ratio. Accordingly, the Beta (β) was determined at 1.33.

MARKET RISK PREMIUM(R_P)

Market Risk Premium is the premium earned on equities issued in India over and above the risk free return(Rf) earned i.e. Rp = (RM-Rf). The average rate of return on Equity (RM) is taken on the basis of the Moody's ratings accordingly, the Market risk premium is 7.27%.

COMPANY SPECIFIC RISK PREMIUM (RP_Z)

The current lease period for the subject assets is 10 years which shall come to end on 26th February 2025. As per the submitted Operating Lease deed after the expiry of the lease period by 2025, the option of renewal is with Lessee only. Keeping in the view of the same and factors like past payments of lease rent by Bhushan steel etc, ITCOT has assumed, Company Specific Risk Premium @ 3%. Accordingly, the Ke- Return on Equity of 20.50% has been arrived.

Cost of Debt (Kd)

The cost of debt is the minimum rate of return that a lender expects on his investment after tax adjustment as the interest paid on debt is tax deductible expenses. It is calculated as per formula as given below:

K d = Interest Rate (1- Tax Rate)

- INTEREST RATE

It is the minimum rate of return that a lender expects on his investment and is generally equal to the coupon rate of interest. In the case of BISPL there is a total debt of Rs. 764.22 Crores as on March 2017 carrying an average interest rate of 12.50% (As informed by Management/Representatives of BISPL and Bank)

Accordingly a Cost of Debt (Kd) of 8.75% has been computed based on Weighted Average Interest rate of 12.50% and effective tax rate of ~30.00%.

Thus, WACC as per the Capital Assets Pricing Model (CAPM) has been computed as 13.00%

Growth Rate in Perpetuity

In addition to the WACC the Terminal Value growth rate in perpetuity needs to be determined. As details gathered from the management of the company, there are very low chances of increasing the lease rental. The growth has been considered as zero.

Present Value of Business of the Company

Present Value of the business of the Company is the sum of future discounted free cash inflow that is expected to be realized from the business in perpetuity. Based on the Valuation analysis the Present Value of the free cash flow of the Company based on a 7 years projected period in our opinion is Rs. 723.35 Crores

On the last projected year's free cash flow, a growth rate in perpetuity of zero and the discount rate (WACC) of 13.00% has been applied to determine the present value of the terminal cash flow which stands at Rs. 344.84 Crores

Thus, the present value of the business is present value of future cash flows plus the present value of the terminal value amounting to Rs. 1068.00 Crores

Conclusion based on DCF Approach

On the basis of above analysis, as per DCF approach the best valuation estimate of fair value from the income generating asset would be Rs. 1068.00 Crores as on valuation date 11th Oct, 2018.

COMPARISON OF VALUATION WITH MARKET TRANSACTIONS

The value arrived can easily be compare with transactions which have already taken place between seller and buyers. One such transaction has occurred between Jindal Power & Steel Limited and SREI Equipment Finance Limited. As per Jindal Power & Steel Limited's press release dated 09 October, 2017, states, Jindal Power and Steel sold its two oxygen plant installed at Raigarh and Angul unit for Rs. 1121 Crore to SREI Equipment Finance Limited. A verbal inquiry with SREI Equipment Finance Limited, gave the installed capacity of the mentioned oxygen plants as 3600 TPD.

VALUATION OF PLANT AND MACHINERY – CONCLUSION

In the current valuation workings, an endeavor had been made to determine the value of the assets using cost approach as well as income approach.

The Fair Market Value arrived using both approaches is given below:

Approach	**Fair Market Value**
Cost Approach	Rs. 751.69 Crores
Income Approach	**Rs. 1068.00 Crores**

Since, the asset is income generating asset so the asset has been valued based on income approach to arrive at Fair Market Value. Thus the Fair Market value of the 04 no's of oxygen plants belonging to Brace Iron and steel Private Limited, situated at Meramandali, Distt Dehkanal, Odisha is valued at Rs. **1068.00 Crores (*Rupees One Thousand Crore and Sixty Eight Lakh***) *only.*