Indian Oil Corporation Limited Requires

200 Experienced Engineers for Projects, Process Design & Engineering Cell and Boiler Operations

Indian Oil Corporation Limited, the largest commercial undertaking in India and a Fortune "Global 500" company requires bright, result-oriented engineers with initiative and enterprise for its various projects, Process Design & Engineering Cell and Boiler Operations.

Applications are invited from engineering graduates in the specified disciplines with minimum 2 years experience of working in Hydrocarbon Sector (viz. Engineering / Projects / Contract Cell and Inspection Departments of Petroleum & Petrochemical companies) OR with minimum 3 years experience of working with Project Service Providers like Project Management Consultants / EPCC (LSTK) Contractors / field engineers of major Equipment Suppliers for DCS, Gas Turbines, Rotary equipments etc. related to Hydrocarbon sector/Fertilizer/Power Plant and associated facilities. This manpower requirement is presently for its projects at refinery sites (Digboi, Guwahati, Barauni, Haldia, Panipat, Mathura, Vadodara & Paradip Refinery Project site) as well as Head Office at New Delhi.

The positions and Experience domains for **PROJECTS** are as under:

(POSITION CODE NO. 01) Chemical Engineer (Projects)

Experience of working in process units or Technical Services function of refinery / petrochemical plants comprising process design, engineering support for operational trouble-shooting, process monitoring with knowledge of technoeconomic project evaluation; Engineers having experience of technology selection, process design of columns, vessels, Heat Exchangers, thermal / hydraulic design of Heat & Mass Transfer equipments will have added advantage.

(POSITION CODE NO. 02) Electrical Engineer (Projects)

Experience in basic system design, equipment specifications, engineering for procurement & construction, technical evaluation of bids, review of vendor drawing & data; candidate shall be conversant with HT & LT power distribution system, equipments like transformers, switchgears, Motors, Switchgears, UPS, cables; earthing, industrial illumination system, HVAC, Fire Alarm & Communication system; assistance in construction, testing & commissioning; planning & monitoring of projects using software like MS Project / Primavera.

(POSITION CODE NO. 03) Mechanical Engineer (Projects)

Experience in equipment / piping layout, specifications for procurement of piping, Boilers, Heat Exchangers, Columns, Vessels, Tanks and Rotary equipments such as Compressors, Gas/Steam Turbines, Pumps; Technical evaluation of bids, review of vendor drawing & data; Knowledge of Stress analysis of piping and 3-D Modeling of Plant using relevant software, codes & standards; planning & monitoring of projects using software like MS Project / Primavera

(POSITION CODE NO. 04) Instrumentation Engineer (Projects)

Experience in basic system design, specifications for instruments & systems, engineering for procurement & construction, technical evaluation of bids, review of vendor drawing & data; candidate shall be conversant with installation, testing & commissioning of Instrumentation Control systems like DCS, PLC with electronic field instrumentation, loop configuration, cable scheduling, earthing etc.; planning & monitoring of projects using software like MS Project / Primavera.

(POSITION CODE NO. 05) Civil Engineer (Projects)

Experience of design / engineering / construction of foundations / buildings & industrial structures & other infrastructure works; supervision of construction works involving RCC works, structures for heavy equipment, road works, buildings; planning & monitoring of projects using software like MS Project / Primavera. Candidates having knowledge of concrete batch mixing plant, quality control and system design of refractory, insulation & painting will have added advantage.

Indian Oil also requires Chemical / Mechanical /Electrical/Instrumentation and Civil Engineers having minimum 3 years of proven experience in the areas of Thermal Design and Detailed Engineering for its Process Design and Engineering function.

The specific experience domain is being sought for in this area are as under :

(POSITION CODE NO. 06) Chemical Engineer (Detailed Process Design) Candidates should be conversant with all relevant design standards and codes applicable to Refining & Petrochemical plants such as API, TEMA, ASME, OISD etc. and be able to use heat, mass balance & Stream summary data from simulation results for preparation of equipment data sheets such as heat exchanger, Fired Heater, Column, pumps, instruments etc., and development of PFDs / P&IDs along with control logics and Material of Construction (M.O.C), be conversant with Process Design Questionnaire (PDQ) and Basic Engineering Design Questionnaire (BEDQ) and prepare the same.

The candidate should have knowledge of calculation of line pressure drop & circuit wise hydraulic design for single phase, 2-phase flow, process calculations and selection of pumps/compressors/blowers, their characteristic curves & family curves etc., design of 2-phase / 3-phase separators, review and certify P&IDs, Equipment data sheets etc., prepared by PMC /LSTK & Equipment manufacturers.

(POSITION CODE NO. 07) Chemical/Mechanical Engineer (Thermal Design)

Candidates should be conversant with all relevant standards and codes applicable to Refining & Petrochemical plants such as API, TEMA, ASME, OISD etc. and be able to perform thermal and mechanical design / rating of Heat Exchangers (Shell and tube, Double Pipe, Air cooler, Water coolers, condensers and all type of reboilers). Should be conversant with commercial design softwares such as HTRI or its equivalent.

Candidates should also be able to carry out API Fired heater design / rating (including air pre-heaters); generate Thermal and Mechanical data sheets, prepare PFD, P&ID, Plot plan, GAD for Fired Heater; mechanical design of Heat exchangers, Air coolers & Fired heaters with its structural and generate detail drawing of the sections; perform mechanical design of Pressure Vessels, API storage tanks as per applicable codes; interpret GAD, Isometric drawings; check, review and certify Equipment data sheets, drawings prepared by manufacturers & fabricators.

Knowledge on instrumentation and environmental norms pertaining to Heat transfer equipments is desirable

(POSITION CODE NO. 08) Mechanical Engineer (Detail Engineering)

Candidate should have knowledge and experience of lining up contractors for execution (LSTK/PMC); Mechanical Design with relevant codes & standards (ASME. API etc) for Pressure Vessels/Horton Spheres, Columns, Tanks, Piping of all types including high temperature/cryogenic services, Stress Analysis for piping system, Heat Exchangers, Structural/Supports, 3-D modeling of plant etc.

Candidates should also be able to carry out costing of equipments from relevant data and make estimation of cost of Plant / modification; develop / guide preparation of piping isometrics / GAD of Plant / Modification based on P & ID / Process Scheme; review of drawings/documents prepared by LSTK/PMC and certify the same for execution; advise welding details, based on metallurgy & MOC.

(POSITION CODE NO. 09) Electrical Engineer (Detail Engineering)

Candidates should have knowledge of electrical system configurations, electrical network calculations, electrical equipment sizing and electrical bulk material management, estimation, material costing & purchasing, tendering & specifications for projects; lining up of contractor for execution (LSTK/PMC); area classification & codes and standards.

Candidates should also be able to carry out costing of equipments & appliances from relevant data and make estimates of electrical cost of Plant / modification; develop & prepare single line, three line diagrams and protection system for electrical power distribution equipment/systems; prepare specifications for high, medium and low voltage electrical power distribution equipment such as HT/LT switch gear, Transformers etc.; review drawings/documents prepared by LSTK/PMC and certifying them for execution

Candidates with ability to perform detail electrical design of high, medium and low voltage power distribution system; knowledge of design calculations for cable sizing, short circuit, lighting, etc. will have added advantage.

(POSITION CODE NO. 10) Instrumentation Engineer (Detail Engineering) Candidate should have knowledge of detailed engineering of instrumentation & control systems related with process engineering, Instrument classification, international standards and engineering capabilities like flow orifice / Control valve / safety valve sizing calculation & selection, area classification & codes and standards; instrument data sheet & specifications; proposal / tender documentation & development of tender cost estimates including equipment, material and manpower calculations; instrument design specifications, packaged equipment specification such as compressors & fired heaters, online analyzers, machinery monitoring system; Preparation of layout drawings, installation hook-up drawings and material take off datasheet, safety instrumentation specification; Ability to read and interpret P&I diagram.

Candidates should also have the knowledge of Distributed control system (DCS), its engineering / configuration, PLC specifications & development of logic diagram.

(POSITION CODE NO. 11) <u>Civil Engineer (Detail Engineering)</u>

Candidates should have knowledge and experience of lining up contractor for execution (LSTK/PMC); relevant code & standard; Foundation & structural design.

Candidates should be able to carry out costing of civil and structural works from relevant data and make estimation of civil & structural cost of Plant / modification; estimate pilling based on soil testing report; reinforced concrete structural design, steel work structural design, civil works detailed engineering; develop Layout Plan of process plants in accordance with OISD; design storm water drain system & oily water drain system

Candidates should also be conversant with site data, site preparation/development based on soil testing report and ability to review the drawings/documents prepared by LSTK/PMC and certify the same for execution.

(POSITION CODE NO. 12) Boiler Operation Engineer

Minimum 2 years post BOE experience of operating large size Thermal Power Plant having a Coal/Oil/Gas fuelled Boiler.

Eligibility criteria:

- **QUALIFICATION** Full Time Regular Course BE/ B.Tech/ B.Sc(Engg). in Chemical/ Mechanical/ Electrical/Instrumentation/Civil Engineering from a recognized Indian University/Institute with minimum of 65% marks (pass class for SC/ST candidates). Percentage of marks obtained in the Bachelor's Degree Examination will be reckoned for the purpose of eligibility.
- Qualification for the post of Boiler Operation Engineer Bachelor's Degree in Engineering/Technology in Electrical or Mechanical with Boiler Operation Engineer's Certificate (1st Class proficiency) .The requirement of minimum 65% marks in the degree examination is not applicable.

UPPER AGE LIMIT- 30 years as on 31.12.2007. (Relaxation in age to SC/ST/ OBC/ PH/ Ex-Servicemen will be as admissible as per Govt. Directives.

- **Reservation** Reservation of posts for SC/ST/OBC (Non-Creamy Layer)/PH/EXSM candidates and relaxations thereof as per Govt. Directives
- Selection Methodology The candidates meeting the prescribed eligibility criteria/ experience requirement shall be subjected to Personal Interview
- Grade and Scale of Pay: The selected candidates will be inducted as grade "A" officer in the scale of Pay of Rs 12,000 -17,500. Besides Basic Pay and industrial pattern of DA, the other allowances/ benefits include HRA / subsidized housing accommodation (depending upon place of posting), Medical Facilities, Productivity Linked Incentive, Gratuity, Contributory Provident Fund, Employees Pension Scheme, Group Savings Linked Insurance, Group Personal Accident Insurance, Leave Encashment, Leave Travel Concession, Contributory Superannuation Benefit Fund Scheme, House Building Advance, Conveyance Advance/Maintenance Reimbursement, Professional Updation Allowance, Home Desk-Top PC, Children's Education Allowance etc., as per rules.Merit Increments may be considered in respect of deserving candidates.

The selected candidates shall have all-India transfer liability and may be posted to any Division / Unit / Subsidiary Company / Office of the Corporation. They will have to execute a bond of Rs.One Lakh (Rs.25000/- for SC/ST/OBC/PH candidates) to serve the Corporation for a minimum period of three years from the date of joining.

General Instructions

- 1. Wherever CGPA/OGPA or Letter Grade is awarded in the degree examination, its equivalent percentage of marks must be indicated in the application form as per the norms adopted by University / Institute.
- 2. Candidates belonging to OBC category but coming in creamy layer and thus not entitled to OBC reservation should indicate their category as "GENERAL" provided they meet the age criteria specified for 'General' Category candidates.
- 3. Candidates presently employed in Govt. Deptt. / PSUs / Autonomous Bodies shall submit their printed applications (after online registration) through proper channel and submit the NOC at the time of interview.
- 4. Copies of certificates pertaining to age, qualification, experience and Caste (wherever applicable), must be attached along with the application.
- 5. General & OBC candidates are required to send a NON-REFUNDABLE crossed Demand Draft for Rs.300/- as Application Fee drawn on State Bank of India, Service Branch (Code No.7687) in favour of INDIAN OIL CORPORATION LIMITED (REFINERIES DIVISION) payable at New Delhi. Candidates must write name and address on the reverse of Demand Draft. MO / IPO or any other mode of payment or DD drawn on banks other than SBI stated above will not be accepted. SC/ST candidates are exempted from payment of application fee.
- 6. Applications of General and OBC candidates without Demand Draft will be rejected.
- 7. Write **"Application for the post of Experienced Engineers 2007**" along with the Position Code and Post Applied for on the top left-hand corner of the envelope.
- 8. The online registration commences on 20th December 2007 and closes on 10th January 2008.

Before registering "online", candidates must ensure that they are ready with the following documents/information :

- 1. e-mail id (plus an alternate e-mail id) with a minimum validity for the next six months.
- 2. Details of Caste certificate for SC/ST/OBC candidates like name of the caste/sub-caste, date of issue, name of issuing authority, State of origin, etc. since the same are required to be mentioned in the online application.
- 3. Percentage of marks obtained in the prescribed qualification i.e., B.E./ B.Tech/B.Sc Engg.

4. General & OBC candidates must have crossed Demand Draft for Rs.300/- as Application Fee drawn on State Bank of India, Service Branch (Code No.7687) in favour of INDIAN OIL CORPORATION LIMITED (REFINERIES DIVISION) payable at New Delhi.

After successfully completing the registration process "online", the candidates must take a print out of the filled in application form, affix his passport size photograph, put his signature at the specified place and send the same along with Original Demand Draft/Pay Order, attested copies of certificates pertaining to Qualification, Age, Experience, Caste and Disability (as applicable) to the Advertiser, Post Box No. 3098, Lodhi Road Head Post Office, New Delhi - 110 003 only by ordinary post so as to reach latest by 16th January 2008.

For online application, please <u>click here</u>