

## Mr S. Gupta

**NATIONALITY:** Indian

### SUMMARY

Environment, Risk & Safety professional having wide experience of more than 23 years with the background qualification of chemical engineering with specialization in Industrial Pollution Abatement. Have wide experience of working in Oman, Iraq, UAE, Yemen, Nigeria, Sri Lanka, South Korea, Myanmar and India and thorough understanding and experience of IFC, World Bank & ADB and statutory bodies of respective countries. Also have wide experience of execution of Environment project execution for various industrial sectors as per the details given below:

- **Environmental Impact Assessment/Management Plan;**
- **Risk Management and Disaster Management Plan;**
- **HAZOP**
- **HSE due diligence and compliance audit**
- **Environmental Risk;**
- **Solid/Hazardous/Bio-Medical waste Management;**
- **Waste water treatment;**
- **Water Audit & water resource management;**
- **Verification and certification;**
- **Corporate Social Responsibility Plan;and**
- **Social Assessment.**

Trained on ISO 14000, 9000, TQM and a certified Internal Quality Auditor. Also got training on Environmental Risk management. Ex-Approved Chartered Engineer by Uttaranchal Environment Protection & Pollution Control Board, Dehradun.

Also has expertise of using AEROMOD, ISCST3, TANK4.09 software of USEPA for dispersion of pollutant in air as point, area and volume source, CALINE for assessment of air quality for highways and Phast Micro version 5.2 software of DNV Technica for Consequences Analysis SAFETI for risk summation and ALOHA for toxicity as a part of the Risk Assessment. Also used INM7.0, noise assessment for aircrafts.

## EDUCATION

- M.E. (Chemical) with specialisation in Industrial Pollution Abatement from IIT, Roorkee (year 1990) –obtained marks 78%
- B.E. (Pulp & Paper) from IIT, Roorkee (year 1988) –obtained marks 70%

## EMPLOYMENT RECORD

### From September 2011 – Present

**Working as freelance consultant**

### From October 2008 – September 2011

**SGS India Pvt Ltd, Gurgaon**

**Head – Environment Consultancy**

(SGS India Private Limited (thereafter referred to as **SGS**) is member of SGS group, Geneva)

### From February 2002 – October 2008

**OM Envirotech Consultants, Bulandshahr**

**Director (Technical), M/s OM Envirotech Consultant** is started in August, 2001 to work as a freelance consultant under company head.

Presently associated with number of multinational environment consulting organizations like M/s ERM India, Holtec Consulting Pvt Ltd, SENES Consultants India Pvt. Ltd, SSE Environics in India, HMR Consultants in Oman and EIC, Dubai in UAE (Worked for Environment International Consultants (EIC), Dubai, UAE under contract on regular basis)

### From Jan. 2000 to February 2002

**ERM India Pvt Ltd, New Delhi**

Senior Consultant

(M/s ERM India Pvt Ltd is a part of the world wide known Environment Resources Management (ERM) Group.)

**From May 1996 to December 2000**

**Holtech Consulting Pvt Ltd, New Delhi**

Manager Consulting

(M/s Holtech Consulting Pvt Ltd was associated company of Holderbank ( one of the largest cement producer in the world).

**From April 1995 to April 1996**

**Nuchem Ltd (R& D Center), Faridabad**

Manager (Environment)

(M/s Nuchem Ltd is a group of industries producing wood fibreboard, resins, water treatment plant etc. R& D Center is serving inhouse industries as well as other industries with analytical facilities and consulting facilities.)

**From March 1994 to April 1995**

**Paryacon Engineers Pvt Ltd, New Delhi**

Manager(Environment)

(M/s Paryacon Engineers Pvt Ltd is a environmental consultancy company equipped with monitoring and testing facilities.)

**From March 1991 to April 1994**

**Shriram Institute for Industrial Research, Delhi**

Officer I/C EIA

(M/s Shriram Institute for Industrial Research is well established Institute having multidisciplinary research and analytical facilities. It is having more than 300 employees.)

**From April 1990 to March 1991**

**Envirotech Consultant Pvt Ltd, New Delhi**

Environment Engineer

<b>PROFESSIONAL EXPERIENCE</b>
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**EHS ADVISOR**

**Associated with MESCO Group on part time basis since June 2012 and assisting in :**

- Implementation of EMS in existing steel plant and iron ore mines;

- Preparation of EIA report and getting environment clearance from MoEF for proposed expansion of existing steel plant to 3.5 MTPA;
- Preparation of EIA report and getting environment clearance from State Environment Appraisal Committee for proposed green field Cement (Slag) Grinding unit of 0.5 MTPA;
- Assisting in preparation of CSR Plan for existing operation and proposed expansion as condition stipulated by MoEF (5% of total project cost).

### **ENVIRONMENT IMPACT ASSESSMENT AND ENVIRONMENT MANAGEMENT PLAN (EIA/EMP)**

Associated in execution of the following projects:

#### ***Oil & Gas Sector***

- Seismic survey and exploratory drilling in RCF-9 block, Myanmar- Onshore
- Seismic survey and exploratory drilling in PSC-I block Myanmar - Onshore
- Dispersion modelling for oil & gas development project in Kurdistan, Iraq- Onshore
- Two Oil Storage and Handling Terminals of ENOC at UAE- Onshore/ offshore
- Integrated Gas Development project at Kauthar , for HMR consultant , Oman - Onshore
- Expansion of CBM gas production in West Bengal- Onshore
- Exploratory drilling (on shore) in Nagapattinam district of Taminadu- Onshore
- Exploratory drilling of oil and gas in Tamilnadu- Onshore
- Exploratory drilling of oil and gas project in west coast ie Gulf of Khambhat;- offshore
- Development of oil and gas project in west coast ie Gulf of Khambhat;- offshore
- Expansion of oil and gas project in west coast ie Gulf of Khambhat;- offshore
- Expansion of SMPL crude oil pipeline of IOCL;- Onshore
- Exploratory drilling of oil and gas project in East coast ie Bay of Bengal;- offshore
- LNG terminal and Port in Gujarat;- Onshore/ offshore
- Seismic survey for Oil & Gas Exploration in Assam;- Onshore
- Seismic survey and drilling for Oil and Gas Exploration Gujarat;- Onshore
- Exploratory drilling of oil and gas project in Rajasthan; and- Onshore
- Gas field development project in east coast ie Bay of Bengal;- / offshore
- Exploratory drilling of oil and gas project in east coast ie Bay of Bengal near Machlipattanam AP;- / offshore
- Exploratory drilling of oil and gas project in east coast ie Bay of Bengal near Amlapuram AP;- / offshore

#### ***Cement Sector (Plant & mines)***

- Cement Grinding unit at Jajpur for Mesco Group
- Golden Redimix, grinding unit, Dubai
- NCC, Aden, Yemen
- TAMA Cement Plant, Erbil in Iraq
- UNICEM, Nigeria;
- Dalmia Cement in Rajasthan
- Birla Cement Copration, Durgapur
- Second Expansion of OCL, Orissa
- Expansion of MCCL at Meghalaya;
- JK Cement, Nimbhera (plant & mines);
- Expansion of OCL, Orissa;
- New Cement Plant (CMCL) at Meghalaya ;
- Expansion of M/s Dalmia Cement(plant ,mines and captive power plant) ;
- Expansion of M/s Binani Cement in Rajasthan(plant & mines);
- Limestone mines in Megahalya;
- Larsen & Toubro Limited, Chamba(plant & mines);
- Binani Cement, Udaipur(plant & mines) ;
- Prism Cement, Satna (Expansion of mines) ;
- Prism Cement, Satna (Existing mines) ;
- Captive Power Plant, Binani Cement, Udaipur;
- Chettinad Cement , Tamilnadu (plant & mines);
- Harish Chandra Engineers (P) Ltd., Sundernagar;
- Jaypee Rewa Cement, Rewa(for existing unit);
- Orient Cement, Chittorgarh(plant ) ; and
- Laxmi Cement, Sirohi, Rajasthan (plant)

***Steel Sector (Plant & mines)***

- Expansion of Mesco Steel, Jajpur, Odisha
- Trilmula, Singrauli
- SJK Steel, Tadpatri, A.P
- Deepak Steel, orissa
- Hari Machine Beneficiation Plant, Orissa
- Tata Iron Ore mines- Khonbond , Orissa
- MISL Iron Ore Mines, Orissa

- Expansion of existing plant and New Green field Steel plant,OCL Rajgangpur, Orissa
- Pradan Steel, Orissa
- BRG Steel, Orissa
- BRPL-Beneficiation Plant for Iron Ore at Orissa
- BRPL-Pelletisation plant for Iron Ore at Orissa
- Sponge Iron Plant at Rajgangpur;
- Mini Steel Plant at Rajgangpur;
- Ferro- alloys plant at Cuttack;
- Tata Sponge Iron Plant, at Jodha;
- TISCO Iron Ore mines at Jodha;
- Nalco, Orissa
- Bokaro Steel Plant; and
- Magenese Ore Mines, Orissa.

***High Way and Infrastructure sector***

- Impact of Traffic movement of gaseous emission in Township at Dubai, UAE
- Township at Dubai, UAE
- Expansion of Airport, Teju (AP)
- Proposed Airport, Itanagar, Arunachal pradesh
- Preparation of chapters on Environment for Feasibility Study of Two Laning with paved shoulder of the section from km 1 to km 108 of NH 92 in Gwalior Bhind, MP/UP Border for M/s. Holtec Consulting Private Ltd.
- Preparation of chapters on Environment for Feasibility Study of Two Laning with paved shoulder and augmentation to four lane of section from Karauli to Dholpur of NH-11B for M/s. Holtec Consulting Private Ltd.
- Preparation of chapters on Environment for Feasibility Study of Two Laning with paved shoulder of section from Bareilly to Sitarganj of NH-74 M/s. Holtec Consulting Private Ltd.
- Preparation of chapters on Environment for Feasibility Study of Preparation of Feasibility Report for Two Laning with paved shoulder of the section from km 58/4 to km 199/6 of NH-75 IN Nowgaon M/s. Holtec Consulting Private Ltd
- Township, NALCO, Orissa
- DLF, Noida
- Intel Commercial Complex, Bangalore
- Call Center at Jaipur for GE India;

- Shara City for Jaipur, Jhansi and Gwalior ;
- Commercial Mall at Noida;
- Widening & Strengthening of Krishnagarh – Udaipur Highway in Rajasthan;
- Agra – Gwalior Highway;
- Chandikhol to Pradeep port, Orissa ;
- Bhuvneshwar to Bolangir Highway, Orissa;
- Metro Railway, Delhi; and
- Transmission Lines associated with the Balagarh Thermal Power Project.

#### ***Thermal Power Plant***

- Proposed expansion of Power plant, Ghana
- 1x660 MW Power Plant at Harduaganj, UP
- 2x660 MW Power Plant at Anpara, UP
- 2x660 MW Power Plant at Obra, UP
- Two Solar Thermal Power Plants (1x50 MW), at two locations in Rajasthan
- Toront Power Plant (2x660MW), UP
- RSB Power Plant (2x660MW), Chhattisgarh
- Manikaran Power Plant, Jharkhand
- Tata Power, Orissa
- Ind Bharat thermal power plant (2x350MW) in Orissa
- VISA thermal power plant (4x300MW) in Chhattisgarh
- VISA thermal power plant (4x250MW) in Orissa
- VISA thermal power plant (4x250MW) in Gujarat
- Navbharat Thermal Power Plant, Orissa
- Captive power plant, Binani Cement;and
- Captive power plant, Dalmia cement.

#### ***Hydel Power***

- Hydel Power Project in HP
- Preparation of proposal for number of projects

#### ***Miscellaneous***

- Sulphuric Acid plant at UAE
- Paint formulation unit at UAE

- ITC, Haridwar
- ITC, Pune
- BRG Steel at Orissa
- Single Super Phosphate, Udaipur ;
- Sethi Sand stone mines, Haryana and Rajasthan ;
- Golcha Soap stone mines, Bhilwara (ongoing);
- Jagatjit Industries(**Distillery**), Sikandrabad, UP;
- National Fertilizer Limited, Panipat;
- National Fertilizer Limited , Bathinda;
- Maruti Udyog, Gurgaon; and
- PPCL, Saladipura (Rajasthan).

#### **DISPERSION MODELLING**

Associated for dispersion modeling for the following projects exclusively in addition to EIA projects by using ISCST3 (point source and area source) and Caline3 (highway)

- Oil & Gas Production in Iraq
- TATA POWER for evaluation of configuration;
- Shara City for Jaipur, Jhansi and Gwalior ;
- JK cement, Nimbhera (mines and plant);
- Sethi Sand stone mines, Haryana and Rajasthan;
- Glocha Soap stone mines, Bhilwara; and

#### **RISK ASSESSMENT & DISASTER MANAGEMENT PLAN**

Associated in the execution of the following projects :

##### ***Oil & Gas Sector***

- QRA for Exploratory drilling in Kurdistan, Iraq - **Onshore**
- Seismic survey and exploratory drilling in RCF-9 block, Myanmar - **Onshore**
- Seismic survey and exploratory drilling in PSC-I block, Myanmar - **Onshore**
- Two Oil Storage and Handling Terminals of ENOC at UAE- **Onshore/Offshore**
- Expansion of CBM Gas block, GEECL, WB;- **Onshore**
- Gas terminal in Vapi, Gujarat- **Onshore**
- CBM, GEECL, WB- **Onshore**
- LNG terminal at Dahej in Gujarat;- **Onshore/Offshore**



- Development and expansion of offshore oil production facilities in Bay of Bengal;- **Offshore**
- Exploratory drilling of oil and gas project in west coast ie Gulf of Khambhat;- **Offshore**
- Exploratory drilling of oil and gas project in East coast ie Bay of Bengal;- **Offshore**
- Gas field development project in east coast ie Bay of Bengal.- **Offshore**
- Gas field development project in east coast ie Bay of Bengal;- **Offshore**

#### ***Cement Sector***

- Gas based captive power plant, DCW, Durgapur
- Thermal power plant, Dalmia Cement, Dalmiapuram (ongoing);
- Expansion of Thermal Power Plant , Binani Cement, Udaipur
- Thermal Power Plant, Binani Cement, Udaipur

#### ***Miscellaneous***

- Risk Assessment and Disaster Management Plan for Ropeway in Pushkar, Rajasthan
- Preparation of Disaster Management Plan for Nairaina Industrial Phase-I & II, Delhi
- Preparation of Disaster Management Plan for Mayapuri Industrial Phase-I & II, Delhi
- Preparation of Disaster Management Plan for Kirtinagar Industrial and adjacent Lakhar Mandi, Delhi(ongoing)
- Paint formulation Plant, Dubai
- Hazardous impacts of CO2 releases from process for confidential client
- Captive power plant, Erbil, Iraq;
- Gas based power plant, DLF
- Dr Reddy's laboratories
- SJK Steel Plant, Tadapatri, AP
- Nestle Plant, Goa
- Bindal Agro & Chemical Limited, Shajhanpur;
- IBP, Gurgaon

#### **ENVIRONMENT AUDIT**

Associated in execution of the project for following organizations.

- Asian Concrete and Cement Ltd, Solan,, HP
- As a technical expert for CDM- Orient cement at AP and Maharastra
- Sulphuric Acid Plant, Dubai
- Paint formulation Plant, Dubai

- Confidential Client in Dubai for HSBC
- Tata Refractory, Orissa
- Larsen & Toubro Limited, Faridabad;
- National Fertilizer Limited, Bathinda;
- National Fertilizer Limited, Nayanangal;
- Punjab Alkali & Chemical Limited, Nayanangal; and
- Jaypee Rewa Cement, Rewa.

### **EFFLUENT TREATMENT PLANT (DESIGN AND TROUBLE SHOOTING)**

Mainly includes optimization of treatment schemes and Design of proposed modification or complete scheme.

Associated in execution of project for following organizations:

- Nuchem Chemicals, Faridabad;
- Dalmia Cement, Dalmiapuram;
- Prism Cement, Satna;
- Bolt Lock, Modinagar;
- Brawn Laboratory, Faridabad;
- UP Twiga & Fiberglass, Bulandshahr;
- Mauria Udyog, Faridabad;
- Rama Processing, Faridabad;and
- Malt India Limited, Gurgaon.

### **ENVIRONMENT, HEALTH & SAFETY AUDIT**

It also includes hazards analysis by using Phast Micro software of DNV Technica (version 5.2) for the following industries as a part of the project ie Hazard Analysis of MAH industries of Visakhapatnam District of Andhra Pradesh on behalf of the Ministry of Environment & Forests.

#### ***Oil & Gas Sector- Onshore***

- CBM Production Facility,, WB
- SHV Energy South East Ltd, Pendurthy Mandalam
- Hindustan Petroleum Corporation Ltd.,Vishaka Terminal, Malkapuram
- East India Petroleum Ltd., Opp Navel Dock Road
- Vishaka LPG Bottling Plant, Malkapuram
- Indian Oil Corporation Ltd., Visakha Terminal,Malkapuram

- Rashtriya Ispat Nigam Limited, Visakhapatnam Steel Plant
- Bharat Petroleum Corporation Ltd, Visakha Installation Naval base
- Ultra Pure Ferric Oxide, NMDC, Autonagar
- Godavari Fertilisers & Chemicals Ltd, VIZAG Storage Installation, Inner Harbour Area
- The Andhra Petro Chemicals Ltd., Opp. Naval Dockyard
- Coromandal Fertilisers Ltd., PB No. 125, Sriharipuram, Malkapuram (PO)
- L.G. Polymers India Pvt. Ltd., Unit of MC. Dowell & Co Ltd., RR Venkatapuram
- Bharat Heavy Plate & Vessels Ltd., Nathayapalem
- Hindustan Petroleum Corporation Ltd., Visakha Refinery, Post Box No. 15

#### **Misc**

- Internal Audit (Environmental Management Systems as per ISO 14001:2004 / Occupational Health & Safety Management System as per OHSAS 18001:2007)- EPIL (Metal & Mineral), Hazira
- Internal Audit (Environmental Management Systems as per ISO 14001:2004 / Occupational Health & Safety Management System as per OHSAS 18001:2007)- EPIL (Port & Jetty), Hazira
- Internal Audit (Environmental Management Systems as per ISO 14001:2004 / Occupational Health & Safety Management System as per OHSAS 18001:2007)- Equipment Bank Ltd , Hazira
- PI Industries Ltd, Bharuch, Gujarat
- Dr Reddy's Laboratory, Hyderabad
- Tata Refractory, Orissa
- Hindustan Petroleum Corporation Ltd., Vishaka Terminal, Malkapuram
- East India Petroleum Ltd., Opp Navel Dock Road

#### **ENVIRONMENT DUE DELIGENCE (PHASE –I & II)**

- Water Proofing manufacturing unit, Seoul, South Korea
- Five operating plants of Gokul Refoils Solvents Ltd, Gujarat;
- Proposed site at Bangalore for confidential client;
- Proposed building at Bangalore for confidential client;
- Proposed site at Chennai for confidential client;

#### **ESTIMATION OF EMISSION INCLUDING GREENHOUSE GAS**

- Off shore oil & gas production unit, India - **Offshore**
- Gas production unit EWT-1 in Kurdistan, Iraq - **Onshore**

- Gas production unit EWT-2 in Kurdistan, Iraq - **Onshore**

#### **WATER RESOURCE MANAGEMENT**

- Water Resource Management , NTPC Talchar Orissa
- Integrated Water Resource Management, GPEC, Bharuch (gas based power plant)
- Zero Water Discharge for Paper Plant and Textile plant at Barnala, Punjab, Trident Group, AbhishekhIndustries.

#### **CERTIFICATION AND VERIFICATION**

- Annual Environment performance report, Coca-Cola, India for 2007;
- ECF bleaching technology & Products being manufactured by using ECF pulp- ITC, Bhadrachalam;
- Annual Environment performance report, Coca- Cola, India for 2008;
- Annual Environment performance report, Coca- Cola, India for 2009;

#### **TRAINING**

- Imparted training on EMS – Maruti Udyog Ltd;
- Imparted training on **Dispersion modeling** for point source, area source and volume source (**ISCST3**) and traffic on highway (**Caline**) in five days workshop organized by Association of Air Pollution Control supported by CPCB and M/s Envirotech Instruments at Delhi from November 3 to 8, 2003.

#### **HAZOP STUDY**

- Bulk Storage of Petroleum Products and loading & Unloading, UAE
- Retail Storage of Petroleum Products and loading & Unloading, UAE
- Gas based power plant
- CBM gas production;
- Gas terminal in Vapi, Gujarat

#### **SOILD (HAZARDOUS AND NON HAZARDOUS)/ BIO-MEDICAL WASTE MANAGEMENT**

Associated in the execution of following project:

- Preparation of Municipal Solid Waste Management Plan for Nairaina Industrial area ( Phase-I & II), Delhi (ongoing)

- Preparation of Municipal Solid Waste Management Plan for Mayapuri Industrial area (Phase-I & II), Delhi (ongoing)
- Preparation of Municipal Solid Waste Management Plan for Kritinagar Industrial area and adjacent Lakhar Mandi, Delhi (ongoing)
- Working with Polish company to bring microwave technology for treatment & disposal of solid (non-hazardous and hazardous) waste and Bio medical waste;
- Preparation of Waste management system in steel plants, oil & gas exploration and production, cement plant etc as a part of EIA study;
- Solid Waste Management (includes management of municipal, hazardous and biomedical waste) and preparation of training manual for NTPC, Singroli;
- Imparted Training to Municipal Corporation of six districts of India - sponsored by MoEF and funded by United Nation
- Due Diligence Audit of brick manufacturing units in India using FaL-G technology under CDCF program for World Bank
- Assessment and preparation of Bio-Medical waste management plan for UP State;
- Assessment and preparation of Bio-Medical waste management plan for Punjab state including preparation of training modules; and
- Prefeasibility report of Municipal Solid Wastes of three cities of UP namely Agra, Lucknow, Kanpur in collaboration with NIDC.

#### **SOCIAL ASSESSMENT**

- Seismic survey and exploratory drilling in RCF-9 block, Myanmar - **Onshore**
- Seismic survey and exploratory drilling in PSC-I block, Myanmar – **Onshore**
- TAMA Cement Project, Erbil, Iraq;
- NCC Cement Project, Aden, Yemen
- PPCL, Salidpura
- NMDC, Bailadela
- Laxmi Cement, Sirohi Road
- As a part of all EIA studies as mentioned above

#### **CORPORATE SOCIAL RESPONSIBILITY PLAN**

It is mandatory part of EIA studies and mentioned as condition in Terms of Reference for carrying out EIA study by MoEF and as a part of social assessment by international agencies

such as IFC and World Bank. Prepared CSR plan for the following as a part of EIA and SEIA studies:

***Oil & Gas Sector***

- Seismic survey and exploratory drilling in RCF-9 block, Myanmar (ongoing)- Onshore
- Seismic survey and exploratory drilling in PSC-I block Myanmar (ongoing)- Onshore
- Expansion of CBM gas production in West Bengal- Onshore

***Cement Sector (Plant & mines)***

- Cement Grinding unit at Jajpur for Mesco Group
- NCC, Aden, Yemen
- TAMA Cement Plant, Erbil in Iraq
- Birla Cement Corporation, Durgapur
- Second Expansion of OCL, Orissa
- Expansion of MCCL at Meghalaya;
- Expansion of M/s Dalmia Cement(plant ,mines and captive power plant) ;
- Expansion of M/s Binani Cement in Rajasthan(plant & mines);

***Steel Sector (Plant & mines)***

- Expansion of Mesco Steel, Jajpur, Odisha
- SJK Steel, Tadpatri, A.P
- BRG Steel, Orissa

***Infrastructure sector***

- Expansion of Airport, Teju (AP)
- Proposed Airport, Itanagar, Arunachal Pradesh
- Township, NALCO, Orissa

***Thermal Power Plant***

- 1x660 MW Power Plant at Harduaganj, UP
- 2x660 MW Power Plant at Anpara, UP
- 2x660 MW Power Plant at Obra, UP
- Tata Power, Orissa
- Ind Bharat thermal power plant (2x350MW) in Orissa

- VISA thermal power plant (4x250MW) in Orissa

#### **MISCELLANEOUS**

Associated with projects described as:

- Study for Inventorisation and Categorisation of Industries and Mines in the state of Orissa (Conducted during 2009-10)
- Assessment of contamination of warehouse site after fire at Dubai and preparation of plan for removal of debris's from the site.
- Coordinating HSE issues at construction site near creek, Dubai
- Estimation of VOC emission from oil storage terminal by using Tank 4.09 and AEROMOD at Saudi Arabia
- Site suitability study for Paint formulating unit at UAE
- Sustainable Development Of Cement Industry for Battelle Memorial Institute (USA).
- Audit of Hazardous Waste dumping site at Tata Sponge Iron Plant
- Hazardous waste management study at NTPC
- Preparation of Transactional Guidelines on Environmental Matters for Public Sector Enterprises of UP Government coordinated by PICUP.
- Environmental prefeasibility study of proposed cement plant in Srilanka.
- Assessment of pollution load on proposed Technology Park, Gurgaon for M/s Unitech, New Delhi
- Certification of Pollution load on the basis of production capacity for M/s PCPL, Bhankarpur, Punjab
- Site incharge of environmental data generation project for M/s Bokaro Steel Plant, Bokaro.

<b>PUBLICATIONS</b>
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- Hazard Analysis & Risk Assessment- An Integrated Approach – Institute of Chemical Engineers, New Delhi (1991)
- Pollution Control in Bulk drug & Pharmaceutical industry – workshop at Hyderabad organized by SSI, Hyderabad