

# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picskp@gmail.com, ppmtd@hotmail.com Web: www.premiergroup.pk

## SCHEDULE I [Regulation 3 (I)] **FORM OF APPLICATION**

Date: June 30<sup>th</sup> 2015

The Registrar,  
National Electric Power Regulatory Authority  
Islamabad.

Subject: **Application for a Generation License**

I Asad Ali, being the duly authorized representative of Premier Industrial Chemical Mfg. Co. (Pvt) Ltd ("PICMC") by virtue of Board's Resolution dated 09/06/2015, hereby apply to the National Electric Power Regulatory Authority for the grant of a Generation License to the PICMC pursuant to section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act. 1997.

I certify that the documents-in-support attached with this application are prepared and submitted in conformity with the provisions of the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulations, 1999, and undertake to abide by the terms and provisions of the above-said regulations.

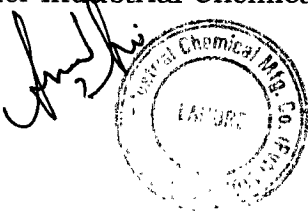
I further undertake and confirm that the information provided in the attached documents in support is true and correct to the best of my knowledge and belief.

**BANKER'S CHEQUE** No. 12718884 dated 30.06.2015 for sum of Rupees 138,616/= ( Rupees one hundred thirty eight thousand six hundred sixteen only) being the non-refundable license application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulation, 1999, is also attached herewith.

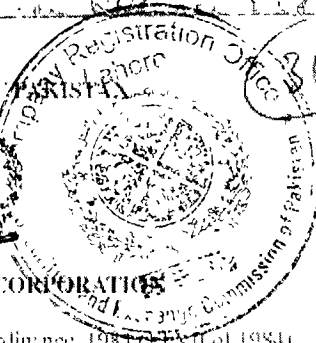
Best Regards,

For Premier Industrial Chemical Mfg. Co.(Pvt) Ltd

Asad Ali  
Director



GOVERNMENT OF PAKISTAN



CERTIFICATE OF INCORPORATION

(Under section 32 of the Companies Ordinance, 1984 (XLVII of 1984))

Company Registration No. **12789/20030602**

I hereby certify that **PREMIER INDUSTRIAL CHEMICAL**

**MANUFACTURING COMPANY (PRIVATE) LIMITED.**

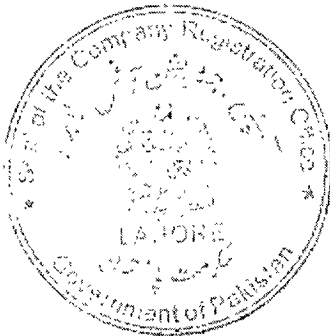
is this day incorporated under the Companies Ordinance, 1984 (XLVII of 1984) and  
that the company is limited by **Shares.**

Given under my hand at **Lahore**

this **30<sup>th</sup>** day of **June**

two thousand and **Three.**

Fee Rs. **2,65,200/-**

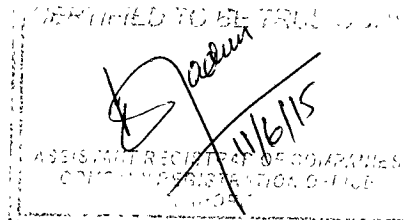


( **TAHIR MAHMOOD** )  
JOINT REGISTRAR OF COMPANIES

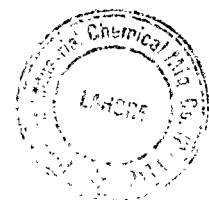
*Signature*

CRO /

*12789/20030602 30/6/15*



**PREMIER INDUSTRIAL CHEMICAL  
MANUFACTURING COMPANY  
(PRIVATE) LIMITED**





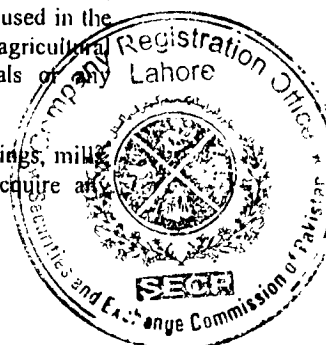
THE COMPANIES ORDINANCE, 1984

(PRIVATE COMPANY LIMITED BY SHARES)

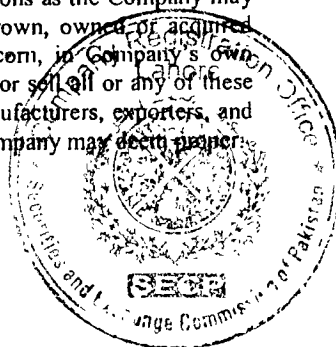
Memorandum of Association  
of

**PREMIER INDUSTRIAL CHEMICAL  
MANUFACTURING COMPANY (PVT) LIMITED**

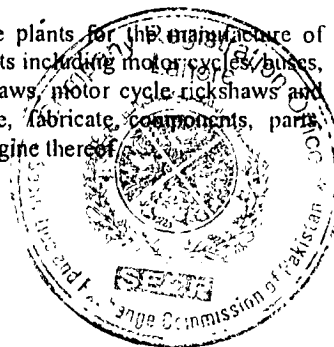
- I. The name of the Company is "PREMIER INDUSTRIAL CHEMICAL MANUFACTURING COMPANY (PRIVATE) LIMITED."
- II. The Registered Office of the Company will be situated in the Province of the Punjab, Pakistan.
- III. The objects for which the Company is established, are all or any of the following :-
  1. To set up an Industrial Undertaking for the manufacturing of Industrial Chemicals of all kinds and descriptions.
  2. To carry on the business of setting up and working a distillery and to manufacture, produce, refine, prepare, buy, sell, import, export or otherwise deal in industrial alcohol, ~~fine alcohol~~, spirits, rectified spirits, alcohol syrups, chemicals and all types of related products and in connection therewith to acquire, construct and operate factories for the manufacture of the aforesaid products or by-products and / or to acquire plant, machinery and equipments for any of the above purposes.
  3. To manufacture, produce, refine, process, formulate, buy, sell, import, export or otherwise deal in all types of heavy and light chemicals, industrial chemicals, elements and compounds including laboratories, scientific chemicals or any nature used or capable of being used in the textile, leather tanneries, pharmaceutical industry, agricultural chemicals, fertilizers, petro-chemicals, industrial chemicals or any mixtures, derivatives and compounds thereof.
  4. To acquire, construct and operate chemical refineries, buildings, mills, factories, distilleries, laboratories and other works and acquire any interest in above objects.



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5. To carry on all kinds of business relating to fertilizers, and their by-products, all organic and inorganic chemical compounds, including by-products, derivatives and mixtures thereof.
  6. To purchase, acquire, establish, erect, maintain, control and run chemicals manufacturing units and to deal in essences, cordials, acids, alkalis and human and veterinary pharmaceuticals.
  7. To carry on the business of manufacturing, storing, packing, distributing, transporting, converting, maintaining and rendering assistance and services of all and every kind or any description, buying, selling, exchanging, altering, improving and dealing in textile chemicals, leather tanneries, chemicals and fertilizers, including artificial chemicals and their by-products, organic and inorganic chemical compounds, cement, coke and their by-products of any nature or kind.
  8. To manufacture, produce, process, prepare, buy, sell and deal in pure and mineral water and products and preparations of all kinds of fruits, vegetables and milk along with other products and preparations of every kind, nature and description of beverages, except alcoholic liquore against Islamic concept.
  9. To carry on the business of manufacturing sugar, industrial alcohol, animal feed, paper, board and any by-products of sugar in all their respective branches and to produce, purchase, boil, refine, prepare, import, export, sell and generally deal in sugar, sugar-cane, sugar-candy, jaggary, sugar-beet, molasses and all sugar products including confectionery, glucose, canned fruit, golden syrup and aerated waters and / or by-products thereof such as methyl, acetone, carbon-dioxide, hydrogen, potash, canewax, fertilizers and food products generally, and in connection therewith, to acquire, construct and operate factories for the manufacture of sugar or any of its products or by-products and / or to acquire plant, machinery and equipment for any of the above purposes.
  10. To buy, sell, grow, plant, cultivate or otherwise acquire sugar-cane, sugar-beet, fruits, vegetables and cereals of any variety or varieties on the Company's own lands or on lands of others, on such terms and conditions as the Company may deem fit from time to time and advance moneys and loans to growers, farmers, land-owners and contractors and provide them with seeds, manure, tools, machinery and / or other facilities, on such terms and conditions as the Company may deem fit and to consume all or any such grown, owned or acquired sugar-cane, sugar-beet, fruits, vegetable or corn, in Company's own undertakings or to dispose of, supply, export or sell all or any of these commodities to any dealers, distributors, manufacturers, exporters, and others on such terms and conditions as the Company may deem proper.



- ✓ 11. To carry on the business of manufacturing and fabrication of board and paper in all its respective branches with or without the help of the by-products of the sugar mill.
- ✓ 12. To carry on the business of extraction of oil from cotton seeds, rape seeds and all other varieties of seeds and all other sorts of oil and any products thereof and of the manufacturers and dealers of vegetable ghee.
- ✓ 13. To manufacture, refine, improve, purchase, sell, export, import, stock, store or otherwise, deal in woollen, cotton, silk, synthetic or mercerised cloth, articles, goods, yarns and raw material of any other quality of the same to dye it or to manufacture therefrom articles of hosiery such as socks, stockings, underwears, outwears, vests, jersies, mufflers, bands or any other articles of knitting or embroidery of every description, braids, tapes, laces or any other goods of similar nature.
- ✓ 14. To carry on and undertake trading business of all sorts and to act as indentors, importers, exporters, traders, suppliers, manufacturers and commission agents of products, commodities and materials in any form or shape manufactured or supplied by any company, firm, association of persons, body, whether incorporated or not, individuals, Government, Semi-Government or any local authority.
- ✓ 15. To carry on the business of general order suppliers including Government, Semi-Government Agencies, Armed Forces, Army, Military or Defence and to act as commission agents, indentors, traders general merchants, wholesalers, retailers, dealers, distributors, stockists in any goods or products or within the scope of the object of the Company, subject to any permission required under the law.
- ✓ 16. To apply for, tender, offer, accept, purchase or otherwise acquire any contracts and concessions for or in relation to the projection, execution, carrying out, improvements, management, administrations or control of works and conveniences and undertake, execute, carry out, dispose of or otherwise turn to account the same.
- ✓ 17. To manufacture, import, export and deal in all kinds of furniture made from wood, brass, steel, fiber glass, plastics or any other alloys and handicrafts.
- ✓ 18. To carry on the business as dealers, importers and exporters of all types of furniture, fittings, handicrafts, wooden products, plywood, teak wood and teak boards.
- ✓ 19. To erect, set up, establish and operate plants for the manufacture of automotive vehicles of all kinds and sorts including motor cycles, buses, trucks, cars, four wheelers, auto rickshaws, motor cycle rickshaws and scooters and to manufacture, produce, fabricate, components, parts, accessories, attachments, bodies, and engine thereof.

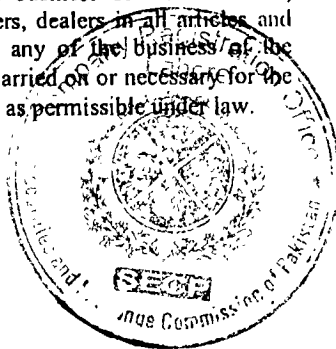


20. To carry on all or any of the lawful business as manufacturers, buyers, sellers, indentors, importers, exporters, distributors, agents, factors, stockists, commission agents and dealers of :

(a) All kinds of fabrics, textiles including decorative hand and machine-made, ready-made garments, leather garments, towels, carpets, durries, mats, rugs, namdas, blankets, shawls, tweeds, linens, flannels, bed sheets, spreads, quilts, scarfs, belts, embroidery, tapestry and all other articles of silk, cotton, woollen and worsted materials and all sorts of apparels, dressing materials, mixed, blended products, nylon, polyester, fibre, yarn, hosiery and mixed fabrics, natural silk fabrics and garments.

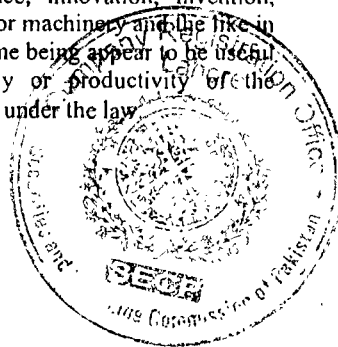
(b) Engineering goods, machine tools, hand tools, small tools, metals, alloys, iron pipe fittings, nuts and bolts, bicycles and accessories, automobile parts, steel and stainless steel and iron products, cutleries, ores, and scraps, metallurgical residues, hides, skins, leather goods, furs, bristles, tobacco (raw and manufactured) hemp, seeds, oils and cakes, vanaspati, textile fibre and waste coir and jute and products thereof, wood and timber, bones crushed and uncrushed, industrial diamonds, coal and charcoal, glue, gums and resins, ivory, lac, shellac, manures, pulp or wood, rags, rubber, tanning substances, wax, quartz, crystal, chemicals and chemical preparations, plastic and linoleum articles, glass and glass ware, handicrafts, handlooms, toys, liquid gold, precious stones, ornaments, jewellicries, pearls, drugs and medicines, soaps, paints, instruments, apparatus and appliances, machinery and mill work and parts thereof, paper, board and allied products and stationery, sports goods, druggists in dressing materials, cosmetics, wigs, belting, cinematograph films exposed, gramophone records, rubber plastic goods, starch, umbrellas, crown corks, batteries, surgical and musical instruments, marble and hardware items, traditional calenders, all kinds of books and manuscripts, electric and electronic products of all kinds, sanitaryware and fittings, woollen textiles, natural fibre products, cellulose and cellulosic products, mixed blended products, fish and fish products, fodder bran, rice, fruits, nuts, cashewnuts, kernels, grains, pulses, flour, confectionery products, provisions, perfumed, spirits, spices and tea, coffee, sugar and molasses, vegetables and vegetable products, processed foods and packed food products.

21. To carry on in or outside Pakistan the business of manufacturers, importers, exporters, indentors, transporters, dealers in all articles and commodities akin to or connected with any of the business of the Company capable of being conveniently carried on or necessary for the promotion of the objects herein contained, as permissible under law.



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- ✓ 22. To carry on business and obtain licences for shipping agents, clearing and forwarding agents, purchasing and indenting agents, selling agents, (except managing agent) on such terms and conditions as the Company may think proper, subject to any permission as required under the law.
- ✓ 23. To carry on agency business (except managing agency) and to acquire and hold selling agencies and to act as selling agents, commission agents, manufacturers' representatives and distributing agents of and for the distribution of all kinds of merchandise, goods, commodities, products, materials, substances, articles and things whether finished, semi-finished, raw, under process, refined, treated or otherwise pertaining to trade and commerce and for that purpose to remunerate them and to open and maintain depots and branches.
- ✓ 24. To purchase, take on lease or in exchange, hire, apply for or otherwise acquire and hold for any interest, any rights, privileges, lands, building, easements, trade marks, patents, patent rights, copyrights, licences, machinery, plants, stock-in-trade and any movable and immovable property of any kind necessary or convenient for the purposes of or in connection with the Company's business or any branch or department thereof and to use, exercise, develop, grant licences in respect of or otherwise turn to account any property, rights and information so acquired, subject to any permission required under the law.
- ✓ 25. To acquire by concession, grant, purchase, barter, licence either absolutely or conditionally and either solely or jointly with others any lands, buildings, machinery, plants, equipments, privileges, rights, licences, trade marks, patents, and other movable and immovable property of any description which the Company may deem necessary or which may seem to the Company capable of being turned to account, subject to any permission as required under the law.
- ✓ 26. To act as representatives, for any person, firm or company and to undertake and perform sub-contracts, and also act in the business of the Company through or by means of agents, sub-contractors and to do all or any of the things mentioned herein in any part of the world and either alone or in collaboration with others and by or through agents, sub-contractors or otherwise.
- ✓ 27. To go in for, buy or otherwise acquire and use any patent design, copyright, licence, concession, convenience, innovation, invention, trade marks, rights, privileges, plants, tools or machinery and the like in Pakistan or elsewhere, which may for the time being appear to be useful or valuable for adding to the efficiency or productivity of the Company's work or business, as permissible under the law.





✓ 28. To acquire and carry on all or any part of the business or property and to undertake any liabilities of any person, firm, association or company's possession of property suitable for any of the purposes of the Company or carrying on any business which this Company is authorised to carry on and in consideration for the same, to pay cash or to issue shares of the Company.

✓ 29. To enter into arrangements with the government or authority (supreme, municipal, local or otherwise) or any corporation, company or persons that may seem conducive to the Company's objects or any of them and to obtain from any such government, authority, corporation, company or person any charters, contracts, rights, privileges and commission which the Company may think desirable and to carry on exercise and comply with any such charters, contracts, decrees, rights, privileges and concessions.

✓ 30. To enter into partnership, to amalgamate or merge movable with immovable and / or to buy on all interests, assets, liabilities, stocks or to make any arrangement for sharing profits, union of interests, co-operation, joint-venture, reciprocal concession or otherwise with any person, firm or company carrying on or proposing to carry on any business which this Company is authorised to carry on or which is capable of being conducted so as directly or indirectly to benefit this Company and to have foreign collaborations and to pay royalties / technical fees to collaborators, subject to the provisions of the Companies Ordinance, 1984.

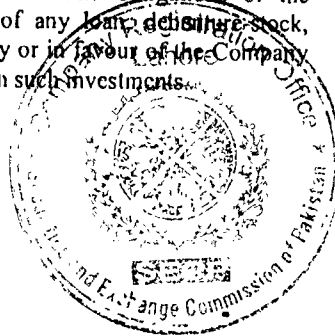
✓ 31. To establish, promote or assist in establishing or promoting and subscribe to or become a member of any other company, association or club whose objects are similar or in part similar to the objects of this Company or the establishment or promotion of which may be beneficial to the Company, as permissible under the law.

✓ 32. To open accounts with any Bank or Banks and to draw, make, accept, endorse, execute, issue, negotiate and discount cheques, promissory notes, bills of exchange, bills of lading, warrants, deposit notes, debentures, letter of credit and other negotiable instruments and securities.

✓ 33. To arrange local and foreign currency loans from scheduled banks, industrial banks and financial institutions for the purpose of purchase, manufacture, market, supply, export and import of machinery, construction of factory, building and for the purpose of working capital or for any other purpose.



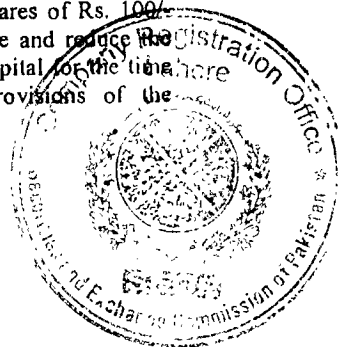
- ✓ 34. To sell or otherwise dispose of the whole or any part of the undertaking of the Company, either together or in portions for such consideration as the Company may think fit and in particular, for shares, debenture-stock or securities of any Company purchasing the same.
- ✓ 35. To borrow or raise money by means of loans or other legal arrangements from banks, or other financial institutions, or Directors in such manner as the Company may think fit and in particular by issue of debentures, debenture stock, perpetual or otherwise convertible into shares and to mortgage, or charge the whole or any part of the property or assets of the Company, present or future, by special assignment or to transfer or convey the same absolutely or in trust as may seem expedient and to purchase, redeem or pay off any such securities.
- ✓ 36. To pay all costs, charges, and expenses preliminary or incidental incurred in formation or about the promotion and establishment of the Company and to remunerate any person, firm or company for services rendered or to be rendered in or about the formation or promotion of the Company or the conduct of its business.
- ✓ 37. To give any servant or employee of the Company commission in the profits of the Company's business or any branch thereof and for the purpose to enter into any agreement or scheme of arrangement as the Company may deem fit and to procure any servants or employees of the Company to be insured against risk of accident in the course of their employment by the Company.
- ✓ 38. To establish and support or aid in the establishment and support of associations, institutions, funds and conveniences calculated to benefit persons who are or have been Directors of or who have been employed by or who are serving or have served the Company or any other Company which is a subsidiary or associate of the Company or the dependents or connection of such persons and to grant pensions, gratuities, allowances, reliefs and payments in any other manner calculated to benefit the persons described herein.
- ✓ 39. To distribute any of the Company's property and assets among the members in specie or in any manner whatsoever in case of winding up of the Company.
- ✓ 40. To guarantee the performance of contract and obligations of the Company in relation to the payment of any loan, debenture stock, bonds, obligations or securities issued by or in favour of the Company and to guarantee the payment or return on such investments.



- ✓ 41. To carry out joint venture agreements with other companies or countries within the scope of the objects of the Company.
- ✓ 42. To cause the Company to be registered or recognised in any foreign country.
- ✓ 43. To do and perform all other acts and things as are incidental or conducive to the attainment of the above objects or any of them.
- ✓ 44. To apply for and obtain necessary consents, permissions and licences from any Government, State, Local and other Authorities for enabling the Company to carry on any of its objects into effect as and when required by law.
- ✓ 45. Notwithstanding anything stated in any object clause, the Company shall obtain such other approval or licence from the competent authority, as may be required under any law for the time being in force, to undertake a particular business.
- ✓ 46. It is declared that notwithstanding anything contained in the foregoing object clauses of this Memorandum of Association nothing contained therein shall be construed as empowering the Company to undertake or to indulge in business of banking company, banking, leasing, investment, managing agency or insurance business directly or indirectly as restricted under the law or any unlawful operation.

✓ IV. The liability of the members is limited.

- ✓ V. The Authorised Capital of the Company is Rs. 100,000,000/- (Rupees One Hundred Million only) divided into 1,000,000 ordinary shares of Rs. 100/- (Rupees One Hundred only) each with powers to increase and reduce the Capital of the Company and to divide the shares in the Capital for the time being into several classes in accordance with the provisions of the Companies Ordinance, 1984.



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We, the several persons whose names and addresses are subscribed below, are desirous of being formed into a Company, in pursuance of this Memorandum of Association, and we respectively agree to take the number of shares in the Capital of the Company as set opposite to our respective names.

Name and Surname (Present & Former) in Full (in Block Letters)	Father's / Husband's Name (in Full)	Nationality with any former Nationality	Occupation	Residential Address (in Full)	Number of shares taken by each sub- scriber	Signature
1. SH. ZAHOR ALI	S/o Sh. Rehmat Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Sh. Zahoor Ali</i>
2. MST. KHUSHNOOD BEGUM	Wife of Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Khushnood Begum</i>
3. SH. MOHAMMED SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Sh. Mohammed Saeed</i>
4. MST. MASOOMA SAEED	Wife of Sh. Mohammed Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Mst. Masooma Saeed</i>
5. SH. SHAHID SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Sh. Shahid Saeed</i>
6. MST. SHEEREEN SHAHID	Wife of Sh. Shahid Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Mst. Sheereen Shahid</i>
7. SH. TAHIR SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Sh. Tahir Saeed</i>
8. MST. ZAHRA TAHIR	Wife of Sh. Tahir Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	<i>Mst. Zahra Tahir</i>
Total Number of Shares Taken					4,000 Four Thousand	

Dated this 24th.....day of JUNE 2003.

Witness to the above signatures :

Signature *Asrar-ul-Majeed Khan*

Nationality : Pakistani

Full Name Asrar-ul-Majeed Khan

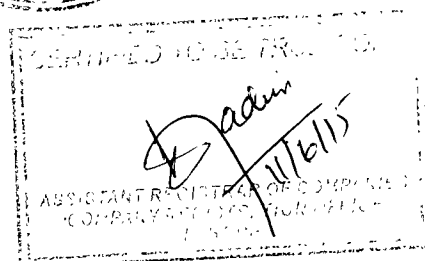
Occupation : Chartered Accountant

Full Address ASRAR & COMPANY

Lahore 184/6, Shadman - I,  
LAHORE

Father's

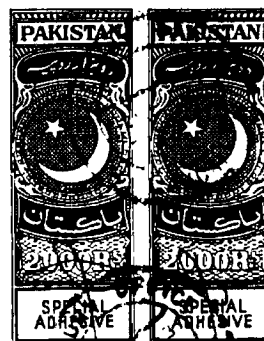
Full Name : Abdul Majeed Khan



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THE COMPANIES ORDINANCE, 1984

(PRIVATE COMPANY LIMITED BY SHARES)

Articles of Association  
of  
**PREMIER INDUSTRIAL CHEMICAL  
MANUFACTURING COMPANY (PVT) LIMITED**



**PRELIMINARY**

1. Subject as hereinafter provided, the Regulations contained in Table 'A' of the First Schedule to the Companies Ordinance, 1984, (hereinafter referred to as Table 'A') shall apply to the Company so far as those are applicable to Private Companies, with the exception of the Regulations which are modified, altered or added hereunder.

**PRIVATE LIMITED COMPANY**

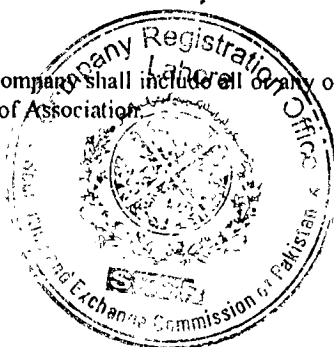
2. The Company is a Private Company within the meaning of Clause (28) of Section 2(1) of the Companies Ordinance, 1984 and accordingly :-

- (a) No invitation shall be issued to the public to subscribe for any shares, debentures or debenture-stocks of the Company.
- (b) The number of members of the Company (exclusive of persons in the employment of the Company) shall be limited to fifty provided that for the purpose of this provision when two or more persons hold one or more shares in the Company jointly they shall for the purposes of this clause be treated as a single member ; and
- (c) The right to transfer shares in the Company is restricted in the manner and to the extent hereinafter appearing.

**BUSINESS**

3. The Company is entitled to commence business from the date of its incorporation.

4. The business of the Company shall include all or any of the objects enumerated in the Memorandum of Association.



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✓ 5. The business of the Company shall be carried out at such place or places in the whole of Pakistan or elsewhere as the Directors may deem proper or advisable from time to time.

#### CAPITAL

✓ 6. The Authorised Capital of the Company is Rs. 100,000,000/- (Rupees One Hundred Million only) divided into 1,000,000 ordinary shares of Rs. 100/- (Rupees One Hundred only) each with powers to increase, reduce, consolidate, sub-divide or otherwise re-organize the share capital of the Company.

✓ 7. The shares shall be under the control of the Board of Directors who may allot or otherwise dispose of the same to such persons, firms, corporation or corporations on such terms and conditions and at any such time as may be thought fit.

✓ 8. The shares in the capital of the Company may be allotted or issued in payment of any property, land, machinery or goods supplied or any services rendered to the Company or promotion or formation of the Company or conduct of its business and any shares so allotted may be issued as fully paid shares.

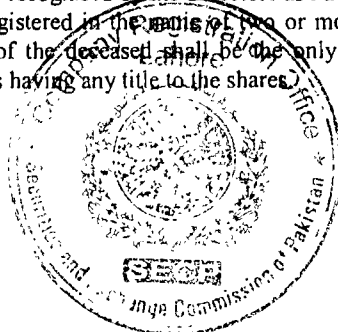
#### SHARES, TRANSFER AND TRANSMISSION

✓ 9. Every person whose name is entered as a member in the Register of Members shall without payment, be entitled to a certificate under the Common Seal of the Company specifying the shares held by several persons. The Company shall not be bound to issue more than one certificate and delivery of a share certificate to any one of several joint holders shall be sufficient delivery to all.

✓ 10. The Directors may decline to register any transfer of share to transferee of whom they do not approve and shall not be bound to show any reasons for exercising their discretion subject to the provisions of Sections 77 and 78 of the Companies Ordinance, 1984.

✓ 11. No share can be mortgaged, pledged, sold, hypothecated, transferred or disposed off by any member to a non-member without the previous sanction of the Board of Directors.

✓ 12. The legal heirs, executors or administrators of a deceased holder shall be the only persons to be recognised by the Directors as having title to the shares. In case of shares registered in the name of two or more holders the survivors and the executors of the deceased shall be the only persons to be recognised by the Company as having any title to the shares.



## GENERAL MEETING

13. The First Annual General Meeting shall be held within 18 months from the date of incorporation of the Company in accordance with the provisions of Section 158 and thereafter once at least in every year and within a period of four months following the close of its financial year and not more than fifteen months after the holding of its last preceding Annual General Meeting as may be determined by Directors. The Directors may, whenever they think fit, call an Extraordinary General Meeting of the shareholders in terms of Section 159 of the Companies Ordinance, 1984.

## PROCEEDINGS AT GENERAL MEETING

14. Twenty one days' notice at least specifying the place, day and hour of the General Meeting and in case of special business the general nature of such business, shall be given to the members in the manner provided in Table "A" but accidental omission to give such notice to or non-receipt of such notice by the member shall not invalidate the proceedings of the General Meeting.

15. The Chief Executive, with the consent of a meeting at which quorum is present and shall if so directed by the meeting may adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place.

## QUORUM

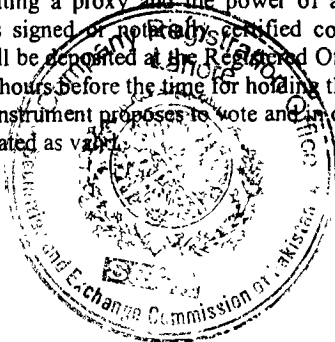
16. No business shall be transacted at any General Meeting unless a Quorum of members is present at the time when the meeting proceeds to business. Two members, present in person, representing not less than 25% of the total voting power either on their own account or as proxies, shall form a Quorum for a General Meeting.

## VOTES OF MEMBERS

17. At any General Meeting a resolution put to the vote of the General Meeting shall be decided on a show of hands, unless a poll is demanded in accordance with the provisions of Section 167 of the Companies Ordinance, 1984.

18. On a show of hands every member present shall have one vote and on a poll, every member present in person or by proxy shall have one vote in respect of each share held by him.

19. The instrument appointing a proxy and the power of attorney or other authority under which it is signed or notifiably certified copy of that power of attorney or authority shall be deposited at the Registered Office of the Company not less than forty eight hours before the time for holding the meeting at which the person named in the instrument proposes to vote and in default, the instrument of proxy will not be treated as valid.



12

\*  
CHAIRMAN

20. The Directors may from time to time appoint one of their members to be the Chairman of the Company for a period not exceeding three years on such terms and conditions as they deem fit. The Chairman shall preside over the meetings of the Board of Directors and members of the Company. In his absence, the Directors may elect one of them to preside over Board's / General Meetings. The questions arising at the meeting of the Directors shall be decided by a majority of votes. In the case of equality of votes, the Chairman or the Director presiding over the meeting, as the case may be, shall have a casting vote.

CHIEF EXECUTIVE

21. The first Chief Executive of the Company will be appointed by the Board of Directors within fifteen days from the date of incorporation of the Company who shall hold office till the first Annual General Meeting.

DIRECTORS

22. Unless otherwise determined, the number of Directors shall not be less than two. The following are the first Directors of the Company.

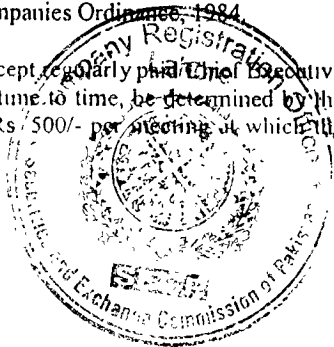
- |                         |                         |
|-------------------------|-------------------------|
| 1. Sh. Zahoor Ali       | 5. Sh. Shahid Saeed     |
| 2. Mst. Khushnood Begum | 6. Mst. Sheereen Shahid |
| 3. Sh. Mohammed Saeed   | 7. Sh. Tahir Saeed      |
| 4. Mst. Masooma Saeed   | 8. Mst. Zahra Tahir     |

23. The election of the Directors shall be held in accordance with the provisions of Section 178 of the Companies Ordinance, 1984.

24. The first Directors including the Chief Executive, shall hold office upto the First Annual General Meeting in accordance with the provisions of the Companies Ordinance, 1984, unless any one of them resigns earlier or becomes disqualified for being Director or otherwise ceases to hold office.

25. A resolution for removing a Director shall not be deemed to have been passed if the number of votes against him is equal to, or less than the number of votes that would have been necessary for the election of Directors at the immediately preceding annual election of Directors in the manner aforesaid but as provided under Section 181 of the Companies Ordinance, 1984.

26. The remuneration of Directors except regularly paid Chief Executive and full time working Directors shall, from time to time, be determined by the Board of Directors but it shall not exceed Rs. 500/- per meeting at which the Directors are present.





27. The Directors may sanction the payment of such additional sums as they may think fit to any Director for any special service he may render to the Company or be thought capable of rendering either by fixed sum or in any other form as may be determined by the Directors subject to the provisions of the Companies Ordinance, 1984.

28. The Director who resides out of station shall also be entitled to be paid such travelling and other expenses for attending the meeting for the Company as may be fixed by the Directors from time to time according to the provisions of the Companies Ordinance, 1984.

29. Any casual vacancy occurring on the Board of Directors shall be filled in by a resolution of the Board of Directors and the person so appointed shall hold office for the remainder of the term of the Directors in whose place he is appointed.

30. No Director shall be disqualified from his office by contracting with the Company either as vendor, purchaser or otherwise nor shall any Director be liable to account for any profit realised from any such contract or arrangement or the fiduciary relation thereby established, but the nature of his interest must be disclosed by him at the first meeting of the Directors after acquisition of his interest.

#### NOMINEE DIRECTOR

31. In addition to the elected Directors, the Financial Institutions shall be entitled, during the currency of their respective loan(s) to the Company to appoint one person on the Board of Directors of the Company to be called Nominee Director and to recall and/or replace such a person from time to time. Such Nominee Director on the Board of Directors of the Company may not be holders of share(s) in the Capital of the Company and regulations and/or rules pertaining to the election, retirement, qualification and/or disqualification of Directors shall not apply to him.

#### NOTICES

32. Notices for every meeting of the Board of Directors will be given in writing and there must be given a reasonable time in advance. The nature of the business to be transacted at an intended Board meeting will be specified in the notice.

#### MANAGEMENT

33. The whole business and affairs of the Company shall, subject to the control and supervision of the Board of Directors, be managed and controlled by the Chief Executive.



19  
2

34. Subject to the limit fixed by the Directors, the Chief Executive may from time to time raise or borrow any sums of money for and on behalf of the Company from other companies, banks or financial institutions on such terms as may be approved by the Board of Directors from time to time.

35. Without prejudice to the powers conferred by these Articles, the Board of Directors shall have the following powers :-

- (a) To take on lease, purchase, erect or otherwise acquire for the Company any assets, stocks, lands, buildings, property, rights or privileges which the Company is authorised to acquire at such price and generally on such terms and conditions as they think fit.
- (b) To let, mortgage, sell, exchange or otherwise dispose of absolutely or conditionally all or any part of the assets, stocks, raw materials, properties, privileges and undertaking of the Company upon such terms and conditions and for such consideration as they think fit.
- (c) To appoint any person or persons to be attorney or attorneys of the Company for such purposes and with such powers, authorities and discretions and for such period and subject to such conditions as they may, from time to time, think fit.
- (d) To enter into, carry out, rescind or vary all financial arrangements with any bank, person, company, firm or corporation or in connection with such arrangements to deposit, pledge or hypothecate property of the Company or the documents representing or relating to the same.
- (e) To make and give receipts, release and discharge all moneys payable to the Company and for the claims and demands of the Company.
- (f) To compound or allow time to the payment or satisfaction of any debt due to or by the Company and any claim and demands by or against the Company and to refer claims or demands by or against the Company to arbitration and observe and perform the awards.
- (g) To institute, prosecute, compromise, withdraw or abandon any legal proceedings by or against the Company or its affairs, or otherwise concerning the affairs of the Company.



- 20
- (h) To raise and borrow money from time to time for the purposes of the Company, on the mortgage of its property or any part thereof and/or on any bond or debenture payable to bearer otherwise repayable in such a manner and generally upon such terms as they think fit.
  - (i) To open, operate and maintain bank/banks account(s) individually or jointly as the Board may authorise or to any other person on its behalf.

#### **BORROWING POWERS**

36. The Directors may from time to time raise, borrow or secure the payment of any sums for the purposes of the Company in such manner and upon such terms and conditions as they think fit and in particular by the issue of debentures, debenture-stock or other securities charged upon all or any part of the property of the Company present or future.

37. Debentures, debenture-stock, or other securities may be issued with any special privileges as to redemption, surrender, allotment of shares, attending and appointment of Directors or other privileges subject to any permission required by law.

#### **THE SEAL**

38. The Company shall have a Common Seal and the Directors shall provide for the safe custody of the same. The Seal shall not be applied on any instrument except by the authority of the Board of Directors and in the presence of at least two Directors who shall sign every instrument to which the Seal shall be affixed in their presence. Such signatures shall be conclusive evidence of the fact that the Seal has been properly affixed.

#### **ACCOUNTS**

39. The Directors shall cause to be kept proper books of account as required under Section 230 of the Companies Ordinance, 1984.

40. The books of account shall be kept at the registered office of the Company or at such other place as the Directors shall think fit subject to the provisions of Section 230 of the Companies Ordinance, 1984.

#### **AUDIT**

41. Once at least in every year the accounts of the Company shall be audited and correctness of the Balance Sheet shall be ascertained by one or



more Auditors. The Auditors shall be appointed and their duties regulated in accordance with the provisions of Section 252 to 255 of the Companies Ordinance, 1984.

#### INDEMNITY

42. In connection with carrying on the business of the Company, the Chief Executive, every Director, or other officers of the Company shall be indemnified by the Company for all losses and expenses occasioned by error of judgement or oversight on his part, unless the same happens through his own dishonesty or wilful act and defaults.

#### SECRECY

43. No member shall be entitled to visit and inspect the Books of the Company without the permission of the Chief Executive or one of the Directors or to require discovery of any information regarding any detail of the Company's business or any matter which is or may be in the nature of trade secret, or secret process which may relate to the conduct of the Company's business and which in the opinion of the Directors, will not be in the interest of the members of the Company to communicate to the public.

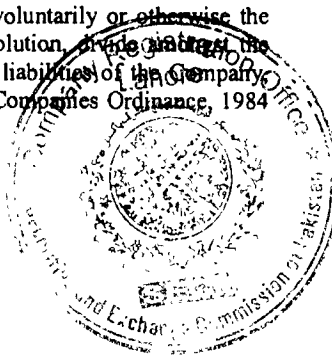
#### ARBITRATION

44. Whenever any difference arises between the Company on the one hand and the members, their executors, administrators or assignee on the other hand, touching the true intent or construction or the incident or consequence of these present or of the statutes or touching any thing thereafter done, executed, omitted or suffered in pursuance of these presents or otherwise relating to these presents or to any statutes affecting the Company, every such difference shall be referred for the decision of the arbitrator who will be qualified in Islamic law.

45. The cost incidental to any such reference and award shall be at the discretion of the arbitrator or umpire respectively who may determine the amount thereof and direct the same to be shared between the attorney and client or otherwise and may award by whom and in what manner the same shall be borne and paid.

#### WINDING UP

46. If the Company is wound up whether voluntarily or otherwise the liquidator may, with the sanction of a special resolution, divide amongst the contributories in specie any part of the assets and liabilities of the Company subject to Section 421 and other provisions of the Companies Ordinance, 1984 as may be applicable.



22

We, the several persons whose names and addresses are subscribed below, are desirous of being formed into a Company, in pursuance of these Articles of Association, and we respectively agree to take the number of shares in the Capital of the Company as set opposite to our respective names.

Name and Surname (Present & Former) in Full (in Block Letters)	Father's / Husband's Name (in Full)	Nationality with any former Nationality	Occupation	Residential Address (in Full)	Number of shares taken by each sub- scriber	Signature
1. SH. ZAHOR ALI	S/o Sh. Rehmat Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
2. MST. KHUSHNOOD BEGUM	Wife of Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
3. SH. MOHAMMED SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
4. MST. MASOOMA SAEED	Wife of Sh. Mohammed Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore	500 Five Hundred	
5. SH. SHAHID SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
6. MST. SHEEREEN SHAHID	Wife of Sh. Shahid Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore	500 Five Hundred	
7. SH. TAHIR SAEED	S/o Sh. Zahoor Ali	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
8. MST ZAHRA TAHIR	Wife of Sh. Tahir Saeed	Pakistani	Paper & Chemical Manufacturer	23 - Ahmed Block, New Garden Town, Lahore.	500 Five Hundred	
Total Number of Shares Taken					4,000 Four Thousand	

Dated this 24th day of JUNE 2003

Witness to the above signatures :

Full Name : Asrar-ul-Majeed Khan

Father's

Full Name : Abdul Majeed Khan

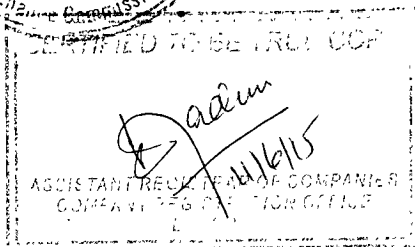
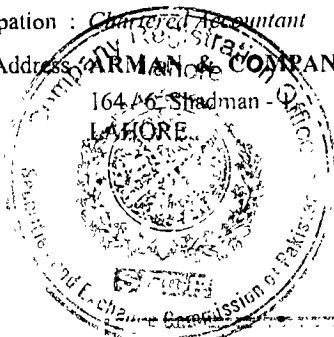
Signature

Nationality : Pakistani

Occupation : Chartered Accountant

Full Address : ARMAN & COMPANY

164/6, Shadman - Office  
LAHORE.



**FORM - A**

(Third Schedule See Section 156)

**ANNUAL RETURN OF COMPANY HAVING SHARE CAPITAL**

- 1 Registration No:- "0045630"  
2 Name of the Company:- "Premier Industrial Chemical Manufacturing Co (Pvt) Ltd"  
3 Form - A made upto (Day / Month / Year) "31-10-2014"  
4 Date of AGM (Day / Month / Year) "31-10-2014"

**PART - A**

- 5 Registered Office Address:- 23- Ahmed Block, New Garden Town, Lahore  
6 E-Mail Address:-  
7 Office Tel No.- 042-35885717-19  
8 Office Fax No:-  
9 Nature of Business.- Manufacturing

**10 Authorized Share Capital:-**

Type of Shares (Ordinary Shares)	No. of Shares	Amount	Face Value
Ordinary Shares	1,000,000	Rs 100,000,000	Rs 100

**11 Paid Up Share Capital:-**

Type of Shares (Ordinary Shares)	No. of Shares	Amount	Issue Price
Ordinary Shares	100,000	Rs 10,000,000	Rs 100 00

- 12 Amount of Indebtedness on the date upto which Form - A is made in respect of all Mortgages/  
Mortgages/Charges :- NIL

**13 Particulars of Holding Company:-**

Name:- NIL  
Registration No.- NIL % Shares Held NIL

**14 Chief Executive:-**

Name:- Sheikh Muhammad Saeed N I C # 35202-2965549-9  
Address:- 23- Ahmed Block, New Garden Town, Lahore

**15 Chief Accountant:-**

Name - Aftab Ahmed Khan N I C # 35202-4553702-3  
Address - 38-nishtar Block, allama Iqbal Town, Lahore

**16 Secretary:-**

Name - Aftab Ahmed Khan N I C # 35202-4553702-3  
Address:- 38-nishtar Block, allama Iqbal Town, Lahore

**17 Legal Advisor:-**

Name:- Mr. Umer Alvi  
Address:- 77-The Mall, Lahore

**18 Auditor(s):-**

Name:- M/s Qavi & Company (Chartered Accountants)  
Address:- Awami Complex, New Garden Town, Lahore

**PART - B**

**20 List of Members & Debenture Holders on the date upto Which this Form - A is made**

[illegible]









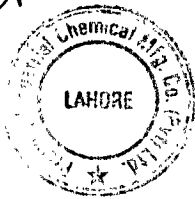
# Premier Industrial Chemical MFG Co (Pvt) Ltd.

23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
E-mail: picsskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## **Profile of experience of the applicant, its management, staff and its members in Power Sector.**

1. Premier Industrial Chemical Mfg, Co. (Pvt.) Ltd is owned by Premier Group which is engaged in Manufacturing and export of Industrial Alcohol since 2007. (Currently (PICMC) is setting up a Power Generation unit of 7 MW Capacity.). PICMC has turnover of about 3.5 Billion Pak Rupees. It has about 300 employees at present.
2. Premier Industrial Chemical Mfg, CO. (Pvt.) Ltd (PICMC) currently have a consumption of 3 ~ 4 MW for its manufacturing operations. After installation of 7 MW generation facility about 3 ~ 4 MW Electricity will be surplus for export. Company has proper management and technical staff to manage its in-house installed Power Supply.

Asad Ali  
Director



**EXPRESSION OF INTEREST TO PROVIDE CREDIT OR FINANCING ALONG  
WITH SOURCE AND DETAIL.**

The project of electricity generation of 7MW will be financed through the own sources of Premier Industrial Chemical Mfg.Co.(Pvt) Ltd. However PICMC has already approvals of financing from HBL ,UBL and ABL.Financing approval letters favoring PICMC has submitted as evidence of banks's in principal willingness to finance the project.



## Corporate Banking Group

## Facility Offer Letter

CBG/LHR/AD/648/14  
March 21, 2014

Premier Industrial Chemical Manufacturing Company (Pvt) Ltd  
23-Ahmed Block, New Garden Town  
Lahore.

Dear Sir,

With reference to the request letter dated 01.01.2014. We are pleased to inform you that United Bank Limited ("UBL") has, in principle, approved for consideration the facilities requested by you on the following terms/ conditions and security/ support:

**Facility #1: Export Refinance Pre (ERF-I)**

Limit	PKR 600,000,000/- (Pak Rupees Six Hundred Million only)
Purpose	To meet pre-shipment export financing requirements.
Mark-up	ERF- I: 1.00% over the cost of ERF funding from State Bank of Pakistan.
Expiry Date	31.01.2015
Outstanding	Nil as of 21.03.2014

**Security / Collateral:**

General security

**Facility #1 a: Export FAPC Own Sources**

Limit	PKR 600,000,000/- (Pak Rupees Six Hundred Million only)
Purpose	To meet pre-shipment export financing requirements against LCs.
Mark-up	1-Month KIBOR plus 150 BPS p.a. payable quarterly (KIBOR to be reset every month on the basis of 1 Month KIBOR rate on 1st working day of each month).
Tenor:	180 days.
Expiry Date	31.01.2015
Outstanding	PKR 600 Million as of 21.03.2014

**Security / Collateral:**

General security

**Facility #1 b: FE-25 \$ Export Financing**

Limit	USD equivalent to PKR 300,000,000/- (Pak Rupees Three Hundred Million Only)
Purpose	USD financing under FE-25 (Export)
Mark-up	To be approved on case to case basis.
Tenor:	180 Days.
Expiry Date	31.01.2015
Outstanding	Nil as of 21.03.2014

**Security / Collateral:**

General security

**Facility # 1c: FBP Discrepant**

Limit	PKR 200,000,000/- (Pak Rupees Two Hundred Million Only)
Purpose:	For post-shipment finance to negotiate discrepant export documents - against irrevocable LCs with FIRMU allocation
Mark Up: (Late Realization)	To be negotiated at the time of transaction
Tenor:	Maximum 180 Days/LC Tenor.
Expiry Date	31.01.2015
Outstanding	NIL as of 21.03.2014



## Corporate Banking Group

### Security / Collateral:

Lien on export documents  
General security

### Facility #1d: NICF – Hypothecation

Limit	PKR 50,000,000/- (Pak Rupees Fifty Million only)
Purpose	To finance working capital requirements
Mark-up	1-Month KIBOR plus 150 Bps p.a. payable quarterly (KIBOR to be reset every month on the basis of 1 Month KIBOR rate on 1st working day of each month).
Money Market Deals	Mark-Up to be set on case to case basis.
Clean up	3 days in calendar year
Expiry Date	31.01.2015
Outstanding	Nil as of 21.03.2014

### Security / Collateral:

General security

### Purchase Price:

As per Agreement for Financing on Mark Up Basis.

### General Security:

- 1st Pari Passu charge over present and future current assets of the Company for PKR 800 Million (inclusive of 25% margin).
- 1st Pari Passu charge for PKR 800 Million (inclusive 25% margin) by way of equitable mortgage over land, building, plant & machinery (land measuring 616-Kanal 2 Marlas, 6-Marlas, 6-Kanals 7-Marlas, 20-Kanals, 9-Kanals 4-Marlas, 127-Kanals 6-Marlas, 4-Kanals 12-Marlas, 68-Kanals 15-Marlas, 4-Kanals, 9-Kanals 16-Marlas Located Lahore-Sheikhupura Road, Sheikhupura). (Additional disbursement against ranking over current assets and fixed assets (Plant & Machinery) of the company to be upgraded to 1st Pari Passu charge on current assets and Fixed assets (including Land, Building, Plant and Machinery) within 90 days from the date of disbursement)
- PGs of all Sponsor Directors (Sheikh Zahoor Ali, Sheikh Muhammad Saeed, Sheikh Shahid Saeed, Sheikh Tahir Saeed and Muhammad Ahsen Ali) along with PNWS or Wealth tax return.
- Cross Corporate Guarantee from Premier Paper Mills Ltd.

### Special Conditions:

- Any Loss arising out due to breach of any insurance warranty will be borne by you.
- The existing equity level to be maintained as per financials ending 30.06.2013
- Utilization of enhanced limit is subject to complete adjustment of existing One Off of PKR 300 Million.

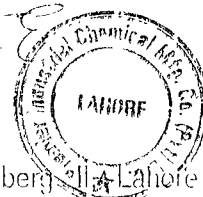
### General Conditions:

- Subject to the furnishing/ execution of fresh agreements and documents and any necessary amendments which UBL may in its sole discretion decide to incorporate, all the terms and conditions of the agreements/ arrangements governing the facilities previously granted to the Company shall continue hereto, and you shall be liable to pay the total outstanding amount(s) together with all applicable mark-up, costs commissions, charges and expenses and any other levies that UBL may impose from time to time. Facility Fee @.10% of the funded limits i.e PKR 600,000 inclusive of FED to be recovered upfront.
- All expenses, including legal and valuation fees and incidental costs, incurred by UBL in relation to the granting of the facilities and the taking, registering and enforcing, if necessary, of securities relating thereto shall be charged to you and you shall duly liquidate the same, as and when required by UBL.
- In the event of deterioration in the value of the assets hypothecated, mortgaged or pledged by you and/ or by any other third party, in favour of UBL, or any other securities relating to the facility/ facilities, UBL reserves the right to either demand additional securities or alternatively reduce the facility to restore the margin required from time to time.
- The availability and/or utilization of credit line shall be subject to the State Bank of Pakistan's Credit/ Exchange Control, Prudential Regulations and Clear/Clean CIB Report, and any other relevant policy, regulation or rule which may be effected from time to time, by any competent authority and/ or regulatory body, as determined by UBL.
- You shall undertake to pay all taxes, duties and levies as may be required to be paid by you or UBL on the facilities herein advised and on the sale of the goods/ assets to UBL or on the repurchase of the goods/ assets from UBL. Such

**Corporate Banking Group**

taxes, duties and levies shall include all taxes payable by UBL pursuant to any law, enactment, order or rule (excluding tax on the corporate income of the Bank), on an amount of the purchase price/ marked-up price outstanding against you or on the facilities herein advised. You will undertake to pay/ reimburse UBL any and all taxes, duties and levies (excluding tax on the corporate income of the Bank) as may be imposed or levied upon UBL in any manner arising from any finance/mark-up agreement which may be executed or from the facilities herein advised or from or in respect of any amounts payable by you to UBL. For such taxes, duties and levies, UBL shall be entitled and empowered to debit your account with UBL for such payments, irrespective of any dispute regarding such payment between you and UBL. Furthermore, you shall gross-up its payments in case any deductions or withholding is required to be made by you under any applicable law for the time being so as to ensure that UBL receives and retains a sum equal to the net amount that UBL may have received in case such deduction or withholding was not required to be made in terms hereof

6. Any disbursement by UBL under the limits shall be subject to calculation of the Drawing Power Limit, based on the security held and the stock reports submitted by the Mucadam appointed by UBL.
7. In the event of default in payment of principal amount or mark-up or commission is not made on the relevant due dates, UBL shall have the right, power and authority to charge liquidated damages @ 1.75%p.a and other amounts, costs, charges and expenses, etc. and bank will also have the option to revise mark up rate upwards only, at any moment if market conditions change.
8. Any indebtedness in respect of borrowed monies by you which is neither (a) paid when due or (b) paid if it becomes due and payable before its normal maturity, shall, inter-alia, constitute an event of default and the Bank will be entitled to exercise its right under the law for recovery of all or any such outstanding.
9. The utilization of facilities shall be subject to prior completion of necessary formalities including fresh documentation and securities in consultation with the legal advisor of UBL to its satisfaction; and shall contain the requisite representations, warranties, covenants, etc. as may be required by us.
10. Please note that the contents of this letter are an offer of some of the terms and conditions on the basis of which the facility/ facilities requested by you shall be granted. However, UBL reserves the right to, without prior notice, modify or cancel the terms and conditions upon which the facilities shall be granted or to revoke the entire offer to grant the facility itself, and nothing contained in this letter should be construed as a legally binding commitment on the part of UBL to grant the requested facility/ facilities.
11. You shall furnish UBL with your stock report and list of debtors on a monthly basis no later than the 3<sup>rd</sup> day of the following month.
12. You shall provide UBL with a duly certified true copy of your audited / Un-audited annual balance sheet prepared by your external auditors in accordance with standard applicable accounting principles as in force in Pakistan, together with your profit and loss statements and a detailed list of your debtors and creditors, immediately after its issuance, but in any case no later than six months after the close of your financial year.
13. You shall not, without the prior written consent of UBL, amend and/ or alter any of the provisions of your Memorandum & Articles of Association/Bye laws/other constitutive documents (as the case may be).
14. UBL reserves the right to inspect, through its officers, employees and/ or authorized agents, the stocks hypothecated by you in favour of UBL at any time, and from time to time, without prior notice to you. All expenses, costs and charges including the fees of any agent whom UBL may appoint to undertake the said inspection shall be charged to you and UBL shall have the right, power and authority to make any deductions from your accounts in this respect.
15. UBL's board indicating its lien / pledge should be prominently displayed on the godowns where any of the hypothecated stocks are stored.
16. Stocks / property/items imported under LC should be fully insured covering all possible risk. Insurance policies in joint names showing you, as the mortgagor, and the Bank, as the mortgagee, should be deposited with UBL, along with Premium-paid Receipts. UBL shall have the right, power and authority to direct you to procure insurance from a particular insurance company.
17. You shall inform UBL, in writing and without delay, of any plans to change your shareholding structure. In the event UBL thereafter concludes that such a change may impair your standing credit, UBL reserves the right to require you to effect a prepayment of the facility/facilities, including all accrued mark up, commissions, charges, fees and all moneys arising from the facility/facilities by acceleration.
18. The word "you", wherever used in this letter, shall be deemed to mean and include a corporate entity, partnership, sole proprietorship or individual as the case may be.






UNITED BANK LTD.

### Corporate Banking Group

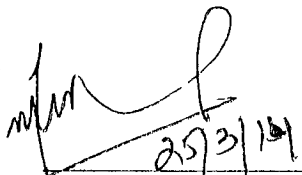
Kindly confirm your agreement and acceptance of the aforementioned terms and conditions by signing and affixing your Company's stamp on this letter; and thereafter return the same to UBL for its record.

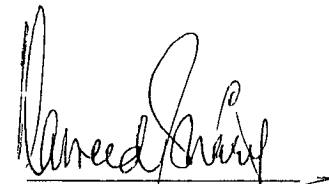
We trust that the above shall be to the Company's satisfaction. UBL assures the Company of its best services at all times.

Yours faithfully,  
For United Bank Limited

  
M. Naeem  
RCAD CBG


  
Adnan Hanif  
Relationship Manager


  
25/3/14  
Muhammad Annel Iqbal  
Unit Head

  
Naweed Sharif  
Regional Corporate Head

The Company hereby accepts and agrees to the above terms and conditions pursuant to a Resolution of the Board of Directors of \_\_\_\_\_ dated \_\_\_\_\_ to this effect.

#### Witnesses:

1.   
Name: Ali Wazir  
Address: 23-Ahmed Block NGC T LHR.  
N.I.C. No: 35202-28875914-01

2.   
Name: Abdul Sami Jabul  
Address: 23-Ahmed Block NGC T LHR.  
N.I.C. No: 35201-49140711-3

July 10, 2014  
HBL/CBG/UG/0714/04

**Mr. Muhammad Saeed**  
Chief Executive,  
M/S Premier Industrial Chemical Manufacturing Co. (Pvt) Ltd  
23-Ahmed Block, New Garden Town,  
Lahore

Dear Sir,

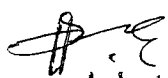
At your request, Habib Bank Limited ("HBL") is pleased to renew/amend working capital facilities amounting to PKR 1,450M as outlined below, subject to the terms and conditions mentioned in this letter and listed in the facility and security documentation to be executed.

<b>Facility No. 1</b>	
<b>Nature</b>	WCF - Pledge
<b>Amount</b>	PKR 800.00M (Pak Rupees Eight Hundred Million only)
<b>Purpose</b>	For purchase of molasses against pledge
<b>Pricing</b>	1 - MK + 1.75% p.a.*
<b>Security</b>	<ul style="list-style-type: none"> <li>Pledge of Molasses under effective control of bank's Mucaddam, Margin 15%</li> <li>Common Security 1 &amp; 2.</li> </ul>
<b>Other Details</b>	<ul style="list-style-type: none"> <li>Pledge of molasses to be taken in storage tanks only with 15% margin</li> <li>15% margin will be exclusive of sales tax</li> <li>Price to be checked with two different sources at every pledge transaction</li> <li>If the margin falls below 15%, PICMCL will top up within 3 days</li> <li>Cleanup to be achieved by September 30th every year for a period of at least 7 days</li> <li>Molasses shall be of sound merchantable quality having the following specification                             <ul style="list-style-type: none"> <li>Total sugar = 45% minimum</li> <li>Reducing Sugar = 15% minimum</li> <li>Brix = 80°</li> </ul> </li> <li>Laboratory test to be on monthly basis (by established lab) for above minimum quality specification and report to be submitted to HBL CCL</li> <li>Certificate to be provided by client that molasses is of current crushing season.</li> <li>Adequate insurance coverage specifically for molasses.</li> <li>Certificate to be provided by client from Weight and Measurement Department for capacity of the tanks.</li> </ul>
<b>Expiry</b>	January 31, 2015
* KIBOR to be set on the first working day of each calendar month by using the KIBOR offer rate or last working day of the previous calendar month. Markup to be paid quarterly on calendar year basis.	

<b>Facility No. 1a</b>	
<b>Nature</b>	WCF - Sublimit of WCF - P Limit
<b>Amount</b>	PKR 400.00M (Pak Rupees Four Hundred Million only)**
	Drawing Power** PKR 395.9M
<b>Pricing</b>	1 - Mk + 1.75% p.a.*
<b>Security</b>	Common Security 1 & 2
<b>Expiry</b>	January 31, 2015
** RF has been earmarked by PKR 4.10M for open ended LG of PKR 4.60M	

Habib Bank Limited  
Corporate Banking Group  
1 - HBL Center  
102-103 Upper Mall  
Lahore, Pakistan  
Tel: (92-42) 36281656  
Fax: (92-42) 36281654  
www.hbl.com

*For Yame*

  
**Premier Industrial Chemical  
Mfg. Co. (Pvt) Ltd.  
LAHORE**



**Facility No. 1b**

**Nature** FBP (Foreign Bills Purchased), Sub limit of WCF – P Limit  
**Amount** PKR 700 00M (Pak Rupees Seven Hundred Million only)  
**Purpose** To facilitate discounting/negotiation of export documents  
**Pricing** As per rate decided by treasury  
 FBP Overdue: 1-MK + 2.25% p.a \* for first 15 days then as per Schedule of charges  
**Security**

- Against client's indemnity
- Common Security 1 & 2

**Tenor** Maximum upto 180 days  
**Expiry** January 31, 2015

**Facility No. 1c**

**Nature** WCF – H – Advance Payment; Sublimit of WCF – P Limit  
**Amount** PKR 100 00M (Pak Rupees One Hundred Million only)  
**Pricing** 1 – MK + 1.75% p.a.\*  
**Security** Common Security 1 & 2  
**Expiry** Drawdown allowed w.e.f. October 15, 2014. Facility to be reduced to NIL by February 28, 2014 by converting into WCF – P or through payment

**Facility No. 1d**

**Nature** FAPC/ERF-I; Sub limit of WCF – P Limit  
**Amount** PKR 200 00M (Pak Rupees Two Hundred Million only)  
*Fresh Facility*  
**Pricing** 1 – MK + 1.75% p.a.\*  
**Security**

- Lien on LCs/Contracts, Margin 10%
- Common Security 1 & 2.

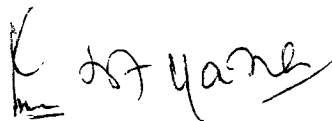
**Tenor** Maximum upto 180 days  
**Expiry** January 31, 2015  
**NOTE:** Cumulative outstanding of Facilities 1a, 1c and 1d not to exceed PKR 700 00M

**Facility No. 2**

**Nature** Letter of Credit (Sight) FCY  
**Amount** PKR 100.00M (Pak Rupees One Hundred Million only)  
**Purpose** To import chemicals, other raw materials, stores and spares and machinery items, etc.  
**Tenor** Sight  
**Pricing** 0.20% per quarter.  
 PAD: 1 – MK + 3.25% p.a.\*  
 Overdue PAD: 1 – MK + 3.25% p.a.\*  
**Security**

- Cash Margin Nil or as per SBP
- Lien on import documents
- Common Security 1

**Expiry** January 31, 2015  
**Note** Facility to be allowed to full extent for Distillery division and to the extent of PKR 50 00M for Milk/Juice/Tea Whitener division.



<b>Facility No. 3</b>	
<b>Nature</b>	Letter of Guarantee
<b>Amount</b>	PKR 50 00M (Pak Rupees Fifty Million only)
<b>Purpose</b>	For issuance of LG in favor of different government departments e.g. SNGPL, WAPDA, Customs etc
<b>Tenor</b>	Case to case basis
<b>Pricing</b>	0 20% per quarter
<b>Security</b>	<ul style="list-style-type: none"> <li>Cash Margin Nil or as advised by HBL's law cell</li> <li>Counter Guarantee of the company</li> <li>Common Security 2</li> <li>50% Cash Margin (in the form of ear-marking of WCF-Hypo facility for PKR 4.1M), 50% through 1<sup>st</sup> Pari Passu E/M charge on Fixed Assets of PKR 1,000M for providing open ended Letter of Guarantees amounting PKR 4.6M.</li> </ul>
<b>Expiry</b>	January 31, 2015

<b>Facility No. 4</b>	
<b>Nature</b>	FBP (Foreign Bills Purchased)
<b>Amount</b>	PKR 500 00M (Pak Rupees Five Hundred Million only)
<b>Purpose</b>	To facilitate discounting/negotiation of export documents
<b>Pricing</b>	As per rate decided by treasury
	FBP Overdue: 1-MK + 2.25% p.a. for first 15 days then as per Schedule of charges
<b>Security</b>	<ul style="list-style-type: none"> <li>Against client's indemnity</li> <li>Ranking charge on all present and future current assets of the company for PKR 134 00M with 25% margin</li> <li>Common Security 1</li> </ul>
<b>Tenor</b>	Maximum upto 180 days
<b>Expiry</b>	January 31, 2015

**Common Security 1:**

- 1<sup>st</sup> pari passu hypothecation charge on all present and future current assets of the company for PKR 1,467M, with 25% margin

**Common Security 2:**

- 1<sup>st</sup> Pari Passu E/M charge on fixed assets of the company for PKR 1,134M (to be enhanced from PKR 1,000M) located at Sheikhpura - Lahore road near ICI factory, Mauza Tibi Hariya and Mauza Sahu Ki Mallian, tehsil and district Sheikhpura (including land building plant & machinery) with 25% margin. Disbursement of WCF-Pledge and its sublimits allowed to the maximum extent of PKR 700M against existing 1<sup>st</sup> Pari Passu E/M charge on fixed assets of the company for PKR 1,000M. Remaining enhancement of PKR 100M, from PKR 700M to PKR 800M, to be disbursed following enhancement in 1<sup>st</sup> Pari Passu charge on fixed assets from PKR 1,000M to PKR 1,134M

**Special Conditions:**

- Sub-ordination of Directors loan to the extent of PKR 911 296M to continue
- Note mentioning subordinated loan to be added in audited accounts
- RF to be cleaned up for at least 7 days, latest by September 30, 2014
- Annual clean up requirement for CF account for at least 7 days, latest by September 30, 2014
- Quarterly report on advances made by the company for procurement of molasses to be provided

**Insurance:** You agree to provide to HBL evidence of assurance (in a form and from an insurer acceptable to HBL), fully covering the Company's assets hypothecated/pledged/mortgaged/otherwise charged to HBL against the risks of fire, riot, strike damages, atmospheric disturbance and malicious damages, electrical clause B, pilferage and theft with HBL's interest as mortgagee noted on current assets and fixed assets. You shall also furnish HBL with the original premium payment receipt.

**Legal Expenses:** HBL reserves the right to recover all the legal and documentation expenses (including any stamp duties), site visit expenses and other associated costs by debit to your account with us

**Confidentiality:** You agree to keep the contents of this letter strictly confidential and not to disclose the terms contained herein to any person other than your directors, employees, accountants, attorneys and other advisors, and then only on a 'need to know' basis.

**Indemnity:** By accepting delivery of the terms and conditions of this letter, you agree to indemnify HBL, its officers and employees against all proceedings, claims, expenses, losses, liabilities and damages, whatsoever, which relate to this offer

**Procedural requirements:** You shall provide HBL with a monthly statement of stocks (valued on a lower of cost or market basis) and book debts (aging to be provided) by the fifteenth day of the subsequent month. Every year, you shall provide HBL with your un-audited/in-house balance sheet and income statement within three months and audited balance sheet and income statement within six months of the end of the accounting period

*(Signature)*

*(Signature)*

You shall allow free access to your premises to representatives of HBL (or our duly authorized agents) and provide them with all necessary assistance for the purpose of conducting periodic site visits and stock inspections etc

**Disbursement and continued availability of the facilities outlined above is conditional upon:**


- (a) preparation, execution, and delivery of legal documentation in a form and substance satisfactory to HBL and to our legal counsel incorporating substantially (but in no way limited to) the terms and conditions outlined or referred to herein above.
- (b) compliance by Premier Industrial Chemical Manufacturing Company (Pvt.) Limited with all local regulations, including State Bank of Pakistan mandated Prudential Regulations.
- (c) it is HBL's policy to review credit facilities extended to Borrowers, from time to time, on the basis of the Borrowers' financial condition, market and other factors, which may affect the Borrowers' performance. As such, the pricing/mark-up or other terms, or extension of the facilities themselves, are valid as long as there are no fundamental changes in the domestic money markets. Any revisions of the above stated structure may be made on the sole discretion of HBL.
- (d) any duty/surcharge/tax of whatever nomenclature, levied by the Government on advances, and/or attributable to any other banking services, will be paid by HBL to the concerned government body directly and will be recoverable from you by debit to your account with us.
- (e) payment of annual renewal charges at the rate of 0.03% along with FED @ 16% of the renewed facilities, offered vide this letter.
- (f) by signing this offer, we hereby confirm that no changes have been made to the Memorandum and Articles of Association of Premier Industrial Chemical Manufacturing Company (Pvt.) Limited, since last submitted, and that whenever such change(s) is/are contemplated, prior written consent of the Bank will be obtained.
- (g) By signing off this letter you undertake / confirm
  - i. That facilities allowed via this offer letter will be utilized for the purpose mentioned therein and shall not be used for any other purpose
  - ii. Not to sell, transfer, lease out or otherwise dispose of all or a substantial part of its undertaking or assets, or undertake or permit any merger, consolidation, dismantling or re-organization;
  - iii. Not to change its Memorandum or Articles of Association in any manner, or change its fiscal year or change the nature of its business;
  - iv. Not to allow any change to existing shareholding structure of the Company
- (h) Payment of following charges related to credit facilities offered:
  - Inspection charges (Hypo + Pledge) = PKR 2,500/- per report.
  - Stamp paper charges at actual.
  - Mucaddam charges = PKR 20,000/-

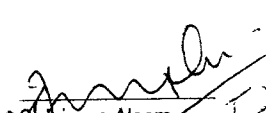
Furthermore, matters which are not expressly covered herein or made clear in this letter, are subject to interpretation at the sole discretion of HBL. In interpretation of any legal documentation executed by yourselves, the terms of this offer letter shall govern the intentions of the parties. In case of any inconsistency or ambiguity

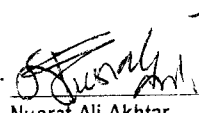
Notwithstanding anything to the contrary contained herein above, HBL reserves the right to modify, amend and/or cancel the terms and conditions contained in this letter, without assigning any reason whatsoever to you, and without any liability to HBL.

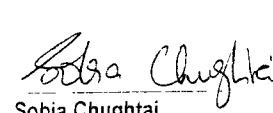
This letter when accepted, shall replace our previous offer letters which would then stand cancelled. Please evidence your acceptance of the content of this letter by signing and returning to us the enclosed copy of this letter within fifteen calendar days of the date of this letter after which this offer will expire. Notwithstanding acceptance of this letter on or before the expiry date specified above, this offer shall stand terminated unless the documents referred to above have been duly executed and delivered on or before July 15, 2014. Should this date expire, HBL may at its sole discretion extend the said date to a later specified date.

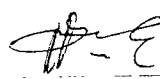
Sincerely,

  
Usman Gulraiz  
Relationship Manager

  
Sulaiman Aleem  
Team Leader

  
Nusrat Ali Akhtar  
Manager CAD

  
Sobia Chughtai  
Head, Lahore Corporate

  
Authorized Signatory of Borrower  
**Premier Industrial Chemical**  
**Mfg. Co. (Pvt) Ltd.**  
**LAHORE**

Authorized Signatory of Borrower

May 8<sup>th</sup>, 2014

Mr. Sheikh Muhammad Saeed

C.E.O

M/s Premier Industrial Chemical Manufacturing Company (Pvt) Ltd

23 Ahmed Block, New Garden Town,

Lahore

Dear Sir,

## **BANKING ARRANGEMENTS:**

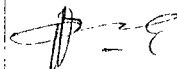
At your request, Allied Bank Limited, Corporate Branch, Lahore is pleased to place the following credit facilities totaling PKR 900,000,000 (Rupees Nine Hundred Million only), at your disposal, as outlined below, subject to the terms and conditions mentioned in this letter, and listed in the facility and security documentation to be executed

### **Facility No. 1**

Nature / Name	Running Finance RF / MML
Amount	PKR 200,000,000/- (Rupees Two Hundred Million Only)
Purpose	To Finance Working Capital Requirements of the Company
Tenor	For RF: 12 month, For MML: 6 months
Expiry	28-02-2015
Pricing / Commission	For RF: 1 MK + 175 BPS, For MML: As advised by treasury
Specific Security / Margin	<ul style="list-style-type: none"> <li>First Pari Passu Charge on all Present &amp; Future Current Assets of the Company to the extent of PKR 667 Million)</li> <li>First Pari Passu Charge on all Present &amp; Future Fixed Assets of the Company, including Land &amp; Building, Plant &amp; Machinery to the extent of PKR 667 Million</li> </ul>
Repayment	Through internal cash generation/ own sources
Procedural Requirement	<ul style="list-style-type: none"> <li>Markup to be reset monthly and payable quarterly,</li> <li>Cleanup of facility twice a year for seven consecutive days to be observed as per ABL policy</li> </ul>

### **Facility No. 2**

Nature / Name	Export Refinance (ERF-I SBP) Pre Shipment Loan
Amount	PKR 300,000,000(Rupees Three Hundred Million Only)
Purpose	To Finance Working Capital Requirements of the Company
Tenor	6 months
Expiry	28-02-2015
Pricing / Commission	SBP Stipulated rate + 100 BPS
Specific Security / Margin	<ul style="list-style-type: none"> <li>First Pari Passu Charge on all Present &amp; Future Current Assets of the Company to the extent of PKR 667 Million</li> <li>First Pari Passu Charge on all Present &amp; Future Fixed Assets of the Company, including Land &amp; Building, Plant &amp; Machinery to the extent of PKR 667 Million</li> </ul>
Repayment	Through export proceeds/cash flows of the company
Procedural Requirement	Same as Facility No. 1

  
Premier Industrial Chemical  
Mfg. Co. (Pvt) Ltd.  
LAHORE

**Facility No. 2a**

Nature / Name	Finance Against Packing Credit (FAPC) Sublimit of ERF- I
Amount	PKR 300,000,000 (Rupees Three Hundred Million Only)
Purpose	To Finance Working Capital Requirements of the Company
Tenor	6 months
Expiry	28-02-2015
Pricing / Commission	1MK + 175 BPS
Specific Security / Margin	Same as Facility No 2
Repayment	Through Internal cash generation/ own sources
Procedural Requirement	Same as Facility No 1

**Facility No. 3**

Nature / Name	Finance Against Discrepant Documents (FADD)
Amount	PKR 400,000,000/- (Rupees Four Hundred Million Only)
Purpose	To facilitate export discounting/negotiation of export bills, including against discrepant documents
Tenor	1 month
Expiry	28-02-2015
Pricing / Commission	As advised by Treasury
Specific Security / Margin	<ul style="list-style-type: none"> <li>Ranking Charge on All Present &amp; Future Fixed Assets of the Company including land &amp; building, plant &amp; machinery to the extent of PKR 534 Million</li> <li>Ranking Charge on All Present &amp; Future Current Assets of the Company to the extent of PKR 534 Million</li> <li>Trade related securities- Lien over valid Export Documents(Export Contracts/Export LCs)</li> </ul>
Repayment	<ul style="list-style-type: none"> <li>Payments by LC opening bank upon presentation of documents or on respective maturity,</li> <li>Through own sources</li> </ul>
Procedural Requirement	<ul style="list-style-type: none"> <li>FADD only for FI approved banks</li> <li>Documents with only minor discrepancies to be handled</li> </ul>

**Combined Collateral  
(For All Facilities):**

- Personal Guarantees of all the directors of the company

**Additional Comments  
/Loan Covenants**

- The benchmark rate will be re-priced in accordance with the tenor of the benchmark rate, mentioned herewith
- Audit for FYE2014 to be conducted by a QCR Premier Industrial Chemical auditor
- ABL already holds FPP Charge on all present and future Current Assets of the company to the extent of PKR 534 Million which is required to be enhanced / upgraded to PKR 667 Million on or before 31<sup>st</sup> May, 2014)

*[Signature]*  
Premier Industrial Chemical  
Mfg. Co. (Pvt) Ltd  
LAHORE

*[Signature]*  
8/5

*[Signature]*  
Premier Industrial Chemical  
Mfg. Co. (Pvt) Ltd.  
LAHORE

**Insurance:**

All the assets of the company and / or personal properties of the partners / directors to be charged with the Bank as security for the payment obligations of your company shall, until the facility is fully settled, be insured with an insurance company acceptable to the Bank, and such insurance shall cover such risks as fire and ~~RSD~~. Each of such insurance policy shall be assigned in favor of ABL to the extent of Rs \_\_\_\_\_. You shall also regularly furnish ABL with original / certified copies of the premium payment receipts.

**Confidentiality:**

You agree to keep the contents of this letter strictly confidential and not to disclose the terms and conditions contained herein, to any person other than your directors, employees, accountants, attorneys and other advisors, only on a "need-to know" basis"

**Indemnity:**

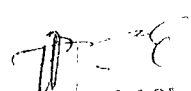
- By accepting the terms and conditions of this letter, you shall be deemed to have agreed to indemnify ABL, its officers, and employees against all proceedings, claims, penalties, expenses, losses, liabilities, and damages, whatsoever, which they may face by virtue of issuing this offer

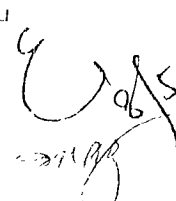
**Legal Expenses**

- You shall be liable to reimburse ABL for all the legal and documentation expenses (including any stamp duties), site visit expenses, legal audit expenses and other associated costs and ABL shall be entitled to debit your account for this purpose

**Procedural Requirements:**

- You shall provide ABL with a monthly / quarterly statement of stocks (valued at a lower of cost or market basis) and / or book debts (ageing analysis to be provided), latest by the fifteenth day of the subsequent month
- Every year, you shall provide ABL with your unaudited balance sheet and income statement within three months, and audited balance sheet and income statement within six months of the end of the accounting period
- You shall allow free access to your premises to employees of ABL and / or our duly authorized agents, and provide them with all necessary assistance, for the purpose of conducting periodic site visits and stock inspections, etc. Associated costs in this regard will be recovered by debit to your account with us
- The Bank is authorized to periodically carry out (through outsourced professional valuers), a formal valuation of all the assets charged in favor of the bank. The frequency of such valuations shall be determined by the Bank at its sole discretion, or in accordance with SBP requirements, as stipulated from time to time. Any charges incurred in connection with such valuations shall be borne by you

  
**Premier Industrial Chemical  
Mfg. Co. (Pvt) Ltd.  
LAHORE**



5/1

Disbursement and continued availability of the facilities outlined above is conditional upon:

- a) Preparation, execution, and delivery of legal documentation in a form and substance satisfactory to ABL and to our legal counsel, incorporating substantially (but in no way limited to) the terms and conditions outlined or referred to hereinabove and your continued compliance with all the terms and conditions stated herein as well as in the legal documents that you have signed for availing the facilities in question,
- b) Your continued compliance with all local regulations, including State Bank of Pakistan mandated Prudential Regulations, and indemnification of ABL for any penalties levied on ABL in case of non-compliance,
- c) Absence of any material / adverse change in your financial condition

WAIVER:

- d) It should be noted that waiver by the Bank of the terms and conditions of this facility offer letter and/or any other agreement/document, precedent to the disbursement of the facility/ies, shall be considered as a temporary waiver which should be regularized/rectified by you as soon as possible, failing which the Bank shall have the right to withdraw the facility/ies and demand immediate repayment.

OTHER CONDITIONS

- a) This Letter of Banking Arrangements shall be governed by the substantive and procedural laws of Pakistan including all Federal, Provincial and local laws of Pakistan and all rules, regulations, policies, notifications, circulars and / or directives made by the State Bank of Pakistan (including Prudential Regulations, as amended from time to time) or any other competent authority
- b) You will not, without the prior written approval of / prior intimation to the bank, encumber or charge in favor of any other bank or creditor, any assets or properties that you have agreed to charge / mortgage in favor of ABL by accepting this letter
- c) Your liability position reflected in ABL's books as advised by a duly authorized officer of the Bank, will be considered as true and accurate and shall be binding upon you / you shall not be entitled to challenge the same.
- d) You will not avail any kind of unsecured facility from any other bank or creditor without first obtaining ABL's consent in writing.
- e) You hereby confirm that the copy of your company's memorandum and articles of association and / or other documents of your firm are the most updated copy and you undertake that in future, should there be any proposed changes in the same, you shall notify ABL in writing and, in our opinion, if any such change is likely to affect the interests of ABL, you shall not proceed to effect such change without first seeking prior written permission from us.
- f) You shall provide a resolution of the company's board of directors authorizing the facility / ies granted pursuant thereto, together with a certificate of encumbrance including specimen signatures of those of its officers and/or directors authorized to execute all documentation in connection therewith
- g) During the time of ABL's exposure, any change in the Board of Directors should be immediately reported in writing to the bank.
- h) In the event the Bank is unable to perform its obligations hereunder due to reasons beyond the control of the Bank, including but not limited to changes in laws, the Bank shall not be liable in any manner whatsoever to the Borrower for any loss, damage, expense, claim and demand which the Borrower may incur or sustain directly or indirectly in this regard
- i) Commissions / Fees will be charged as per the Bank's current Schedule of Charges unless otherwise mutually agreed. In addition, the Bank's processing fees with reference

- to the renewal of facilities will also be recovered as per the schedule of charges or as mutually agreed between the Bank and yourselves.
- j) Please note that mark up due from yourself will be payable by the 7<sup>th</sup> day of the month following the mark up payment date or as advised by the bank from time to time. In the event that mark up due from you is not paid within this time, the bank has the authority to debit any one or more account(s) for recovery thereof.
  - k) Please note, utilization of the facilities extended to you must not exceed the approved limits advised to you in this Letter
  - l) You are required to comply with the Clean up requirements as advised to you from time to time.
  - m) In the event of deterioration in the value of security provided by you, we reserve the right to
    - ask you to provide additional securities, or
    - ask you to reduce the outstanding exposure to a level commensurate with the facility drawing power, or
    - terminate and recall the facility (ies).
  - n) All Taxes, Fees, Assessments, Charges, Excise Duties, Stamp Duties etc currently levied by the Govt of Pakistan / State Bank of Pakistan or hereafter levied by them in respect of or in connection with the finances availed by you at any time shall be payable by you. We shall accordingly debit your account in our books with such amounts under formal intimation to you.  
You hereby also confirm that you will comply at all times with all laws and regulations including but not restricted to the Prudential Regulations of the State Bank of Pakistan as applicable from time to time for availing / continuing to avail the finances from the Bank and to keep the Bank fully indemnified at all times against any penalties imposed by SBP due to your non-compliance with the same.
  - n) Whilst the bank reserves the right to add, amend or alter any of the above conditions at its discretion, the bank may also increase, with your consent, the mark-up rate/pricing and margins in case of a general increase in the cost of funds due to economic conditions or otherwise. Moreover, the bank is also vested with the powers to recall the credit facilities at any time if, in its opinion, the same is utilized for hoarding, for any purpose detrimental to the public interest or other than the purpose for which the finance/s was / were originally approved.
  - o) That the Customer/Borrower shall, as and when the Bank may so require, provide to the Bank its periodic business production data, information relating to its business affairs/activities, its financial conditions and all such information including but not limited to that related to its shareholders and sponsoring directors as the case may be.
  - p) In case of a situation where the Customer/Borrower is unable and/or refuses to provide the relevant information mentioned above the Bank may, in its sole discretion, treat it as Breach of Agreement and may call off/cancel the said facility(ies)

Further, the Bank may, in the following situations, also call upon the borrower to repay within ten (10) days all amounts as may be determined by the Bank such that the obligation of the borrower for payment of the entire outstanding Purchase Price is discharged after payment by the borrower of such amount/s

- a) if an extraordinary situation arises which may make it impossible or inadvisable for the Bank in its judgment to maintain the facility(ies), or
- b) which may, in the opinion of the Bank make it improbable for the borrower to perform its obligations, or any other agreement or arrangement with the Bank or
- c) if the Bank may feel in its sole judgment that due to an extraordinary situation or changed circumstances, it is not in the interest of the Bank to allow the indebtedness of the borrower to continue any more

#### ANNUAL REVIEW / RENEWAL:

The above-mentioned facilities are subject to annual review / renewal. The next Annual Review Date for the facilities extended to you is 28-02-2015. However, the Bank reserves the





Celebrating 70 years

right to cancel / reduce / amend the above-mentioned facilities at any time, at its sole discretion

AVAILABILITY / ACCEPTANCE DATE:

This offer of facilities is open for acceptance until close of business on May 23, 2014 ("the Final Acceptance Date") after which it will require to be re-validated at the Bank's sole discretion

Furthermore, matters which are not expressly covered herein or made clear in this letter, are subject to interpretation at the sole discretion of ABL. In interpretation of any legal documentation executed by you, the terms of this offer letter shall govern the intentions of the parties, in case of any inconsistency or ambiguity

Notwithstanding anything to the contrary herein above, ABL reserves the right to modify, amend and/or cancel the terms and conditions contained in this letter, without assigning any reason whatsoever to you, and without any liability to ABL.

Please evidence your acceptance of the contents of this letter by signing and returning to us the enclosed copy on or before the Final Acceptance Date as stated above. Notwithstanding acceptance of this letter on or before the date specified above, this offer shall stand terminated unless the security structure required to be put in place is not so put in place and all the legal documents, including security documents, that are required to be executed and registered, are not so executed and registered and delivered on or before May 23, 2014. Should this date expire, ABL may at its sole discretion extend the said date to a later specified date

Yours sincerely,

RCH

Manager, CRIP

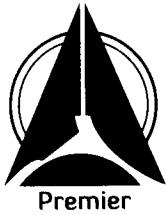
Authorized Signatory of Borrower

Authorized Signatory of Borrower

WITNESSES:

1  
NAME  
ADDRESS  
CNIC

2  
NAME  
ADDRESS  
CNIC



# Premier Industrial Chemical MFG Co (Pvt) Ltd.

23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
E-mail: picskp@gmail.com, ppm ltd@hotmail.com Web: www.premiergroup.pk

## PROSPECTUS

### **1. Introduction of the Applicant**

PICMC Limited, a public limited company is establishing a project of 7 MW cogeneration power of latest high pressure technology of 67 bar based on coal and other biomasses. The vision behind establishing power plants to create a strong, well-capitalized power generation company which will design, develop and operate a power project operating at highest international standards in an economic and environmental friendly manner within shortest possible time.

The project will be situated at **Sheikhupura Punjab Pakistan**  
The cogeneration will be based primarily on coal while ensuring that all requisite measures are in place to ensure that the project is environmentally compliant.

### **2. Salient Features of the Proposed Facility**

**The broad parameters of the project are as under:**

Project Capacity	7.0 MW
Project Location	Sheikhupura
Land Area	38 Acres
Construction Period	6 to 9 Months
Power Purchaser	Anmol Textile
Steam Turbines	1 x 7 MW
Boilers	1 x 55 Tons / hr, 67 Kg /Cm <sup>2</sup> Pressure, 500 °C Temperature.
Plant factor	82 %
Upfront Levelized Tariff	NA

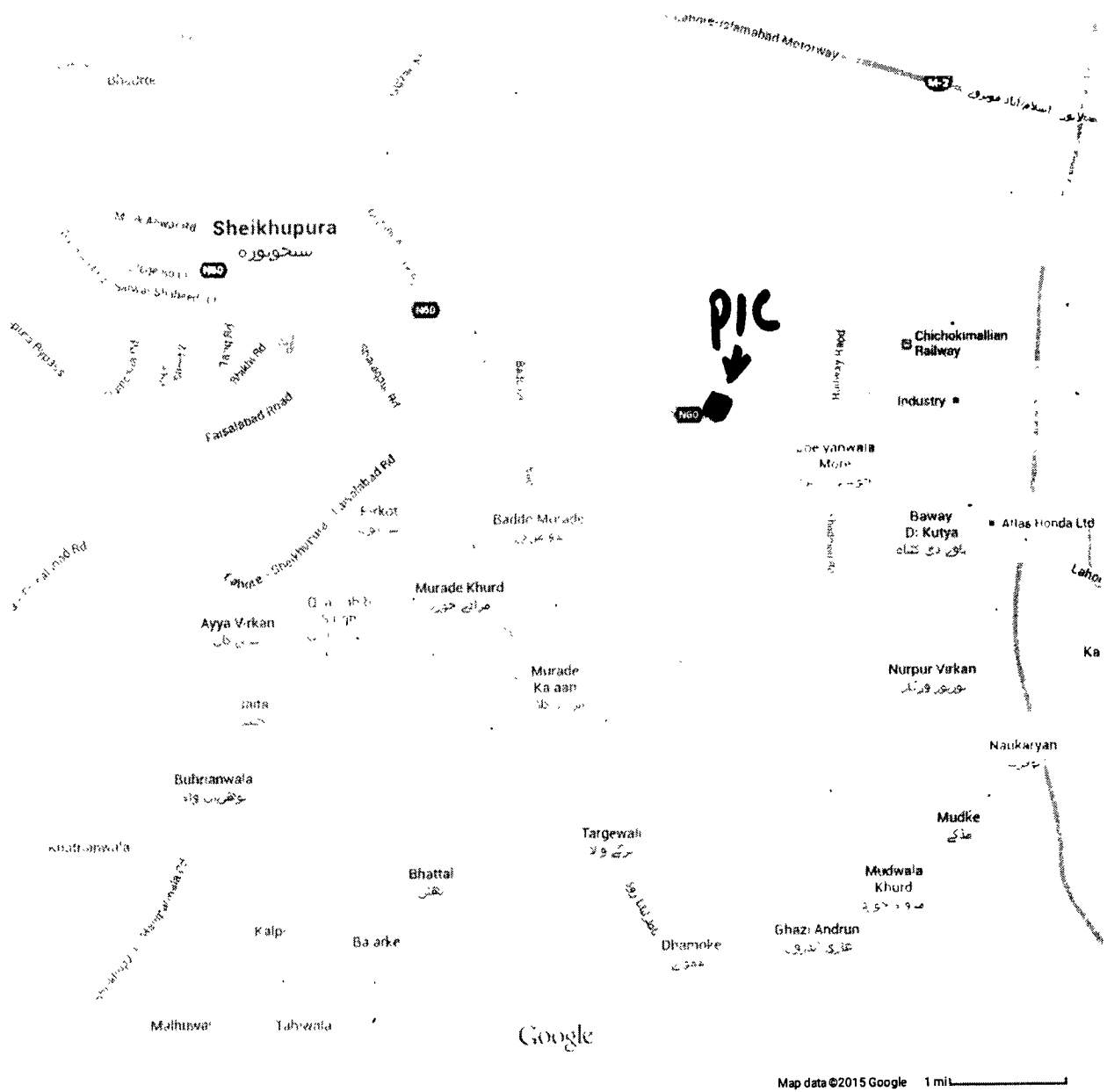
### **3. Proposed Investment**

The total cost for the project is USD 02 Million approx., which is expected to be financed in a debt to equity ratio of 25:75

### **4. Social and Environmental Impact of the Proposed Facility**

The coal based Grid connected cogeneration has the following specific advantages:

[May be taken from feasibility study]



*[Handwritten signature]*

*[Circular official stamp]*



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## Technology, size of Plant, number of Units

PICMC is using AFBC (Automatic Fluidized Bed Combustion) technology to produce thermal energy. The size of plant is 7 MW while the number of unit is one.

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picstk@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

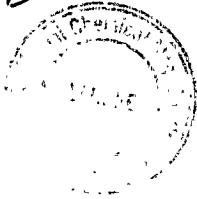
## Fuel: Type, Imported / indigenous, Supplier, Logistics, pipelines etc.

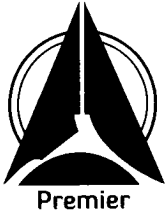
1. PICMC will use imported coal calorific value of imported coal is 6000 Kcal / Kg and of Rice Husk is 3200 to 3400 Kcal / Kg.
2. There are number of local and International Suppliers who are supplying imported coal and Rice Husk for PICMC existing steam generation units.
3. Daily Consumption of imported coal and rice husk is expected to be 120 Tons (80%) and 45 tons (20%) respectively.

Pipelines are not applicable.

Asad Ali

Director





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## Emission Values

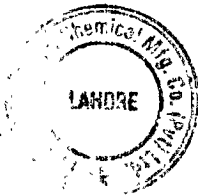
SO<sub>2</sub> = 400mg / Nm<sup>3</sup>

Nox = 500mg Nm<sup>3</sup>

Dust = 50 mg / Nm<sup>3</sup>

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picsskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## Cooling water source tube wells, sea / river/ canal, distance from source etc.

Tube wells are installed at plant site for water source.

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

**Interconnection with National Grid Co. distance and name of nearest grid, voltage level ( Single line diagram)**

Due to Capture power plant /Not applicable

Asad Ali

Director







# Premier Industrial Chemical MFG Co (Pvt) Ltd.

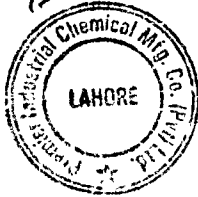
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E-mail: picskp@gmail.com, ppmtd@hotmail.com Web: www.premiergroup.pk

## Infrastructure: roads, rail, staff colony, amenities.

Metal Road is available at distance of about 20 Meters from gate of PICMC. Canteen and Mosque are available in PICMC Premises, railway track is at the distance of 1 Km from PICMC and Railway station by the name of QILA SHEIKHUPURA is at the distance of 08 KM from, PICMC

Asad Ali

Director





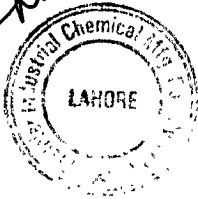
# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picstkp@gmail.com, ppmtd@hotmail.com Web: www.premiergroup.pk

## **PROJECT COST, INFORMATION REGARDING SOURCES AND AMOUNT OF EQUITY, DEBT.**

The project of setting up electricity generation of 7MW is about 200 million Pak Rupees. The company will meet all financial requirements through own sources of Premier Industrial Chemical Mfg. Co.(Pvt) Ltd. However PICMC has already approvals of financing from HBL, UBL and ABL. Financing approval letters favoring PICMC has been submitted as evidence of Bank's in principal willingness to finance the project.

Asad Ali  
(Director)





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

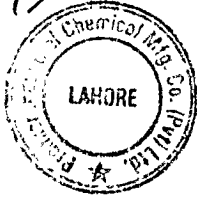
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E-mail: picsskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## Project commencement and completion schedule with milestones.

Project starting date is 15<sup>th</sup> December, 2015. Advance payments and L / C's has been established to boiler and turbine suppliers.

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

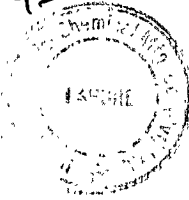
23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
E-mail: picckp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## ESSA (Environmental and Social Soundness Assessment)

PICMC has already got approval from Environment protection Department and copy is attached with this letter.

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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## **SAFETY PLAN**

A comprehensive safety plan would be implemented to provide a safe and protected working environment to the staff working at the facility.

Key features of safety plan are given below:

### **A. Safety Awareness**

All the staff working at the facilities will be given detail briefings regarding different types of safety measures in respect of the following matters to enable them to identify the risks and take necessary measures of safety and protection during their working:

- Moral Obligation
- Hazard Recognition
- Importance of Personnel Protective Equipments (PPEs)
- Accident Prevention
- Importance of House Keeping
- Machine Guarding
- Fire Prevention
- Fire Protection
- Fire Fighting

### **B. Training for Use of Safety Gears and Equipment**

All the staff working at the facility will be provided necessary trainings regarding how to use the PPEs like safety helmet, safety shoes, uniform, dust mask, ear plugs, ear muff, leather apron, leather sleeves, face shield, gloves, for better safety.

### **C. Assurance of Use of Safety Gears and Equipment**

The staff working at the facility will be provided all necessary safety gears and protection equipment mentioned above for use during working at the facility.

### **D. Safety Procedures and Practices**

Safety procedures regarding all operational and maintenance jobs will be developed to avoid accidents at the job and off the job and use of proper safety gears and protections equipment shall be mandatory for all the staff of the facility.

### **E. Emergency Alarm & Fire Suppressions System**

Automatic Fire Emergency Alarm system will be installed along with fire suppression system at all fire hazardous locations of the plant site especially at transformers & turbine lube oil systems etc.

### **F. Emergency Help Call Numbers**

Internal extension system will be provided at all floors of the facility and emergency call numbers for example fire brigade, medical centre, ambulance services, transport, police will be displayed in bold on prominent locations in the facility for immediate emergency response.

### **G. Shutdown of Operating Systems or Equipments**

The emergency control team shall be responsible to ensure immediate shutdown of operation system and equipment if required in the emergency situation. Necessary equipment will also be installed for the emergency shutdown of the operating systems and equipment.

### **H. First Aid Facilities and Staff**

The availability of first aid facilities and necessary staff to provide urgent and immediate first aid facilities will be ensured at the facility.

### **I. Ambulances**

The availability of ambulance service at the facility will be ensure for quick shifting of staff members to hospital in case of any accident and health hazard emergency.

### **J. Fire Bridge**

To meet any type of fire emergency, fire brigade will be established for immediate response without any delay.

### **K. Mock Fire Drills**

To keep fire brigade staff in good shape, mock fire drill will be planned by creating mock emergency situations.

### **L. Fire Fighting System**

The fire protection system will be provided for early detection, alarm, containment and suppression of fire. A comprehensive fire protection system has been planned to meet the above

**Objective.** A multitude system shall be provided to combat various types of fires in different areas of the plant and all such systems for various areas shall form a part of a centralized protection system for the entire plant.

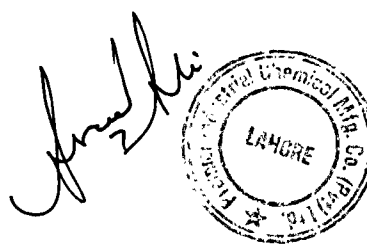
The complete fire protection system shall compromise of following:

- Stand pipe & hose system for building and structure (internal)
- Yard main, hydrants and monitors of plant site (external)
- Fire alarm and signaling
- Portable fire extinguishers
- Water spry fixed systems

The system shall be designed generally as per NFPA (National Fire Protection Association) standards as listed below:

S. No.	Description	Design Code/Standard
1	Stand Pipe & Hose System	NFPA 14
2	Yard Main, Hydrants and Monitors	NFPA 24
3	Fire Alarm and Signaling	NFPA 72
4	Portable Fire Extinguishers	NFPA 10
5	CO2 Extinguishing System	NFPA 12
6	Dry Chemical Powder Extinguishing System	NFPA 17
7	Low-Medium and High Expansion Foam	NFPA 11
8	Installation of Stationary Pump for Fire Fighting	NFPA 20
9	Water Spry and Fixed Fire Protection System	NFPA 15
10	Fire Hose	NFPA 1961
11	Fire Hose Connection	NFPA 1963

\*\*\*\*\*

A handwritten signature in black ink is written over a circular stamp. The stamp contains the text "FEROZ CHEMICALS PVT. CO." around the top edge, "LAHORE" in the center, and "ESTD 1971" around the bottom edge.



# Premier Industrial Chemical MFG Co (Pvt) Ltd.

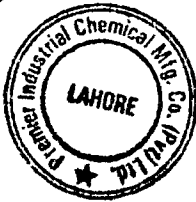
23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
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## System studies, load flow short circuit, stability reliability

This is subject to detail engineering. Load flow Chart is attached with this letter

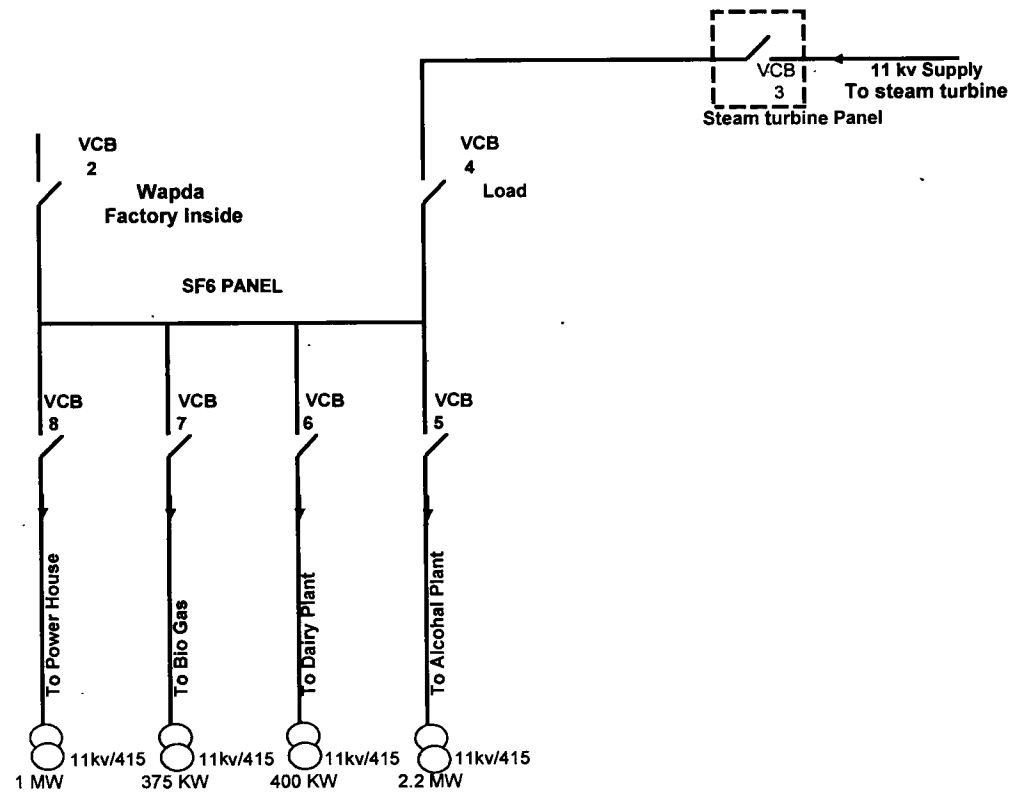
Asad Ali

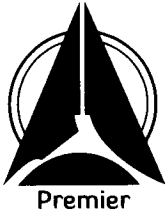
Director





### Load Flow Chart 11 kv





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

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E-mail: picsskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## Plant characteristics, generation Voltage, Power Factor, frequency, Automatic generation control, ramping rate, control metering and instrumentation.

Generating Voltage = 11 KV

Power Factor = 0.8

Frequency = 50 Hz

Automatic generation Control = Yes

Ramping Rate = As per Discharge

Asad Ali

Director





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

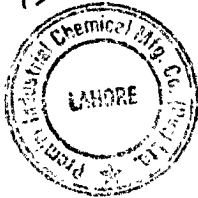
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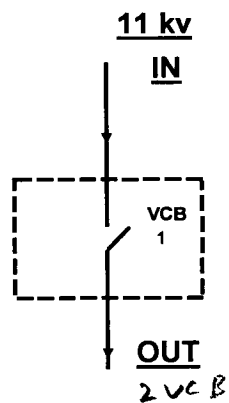
## Control, Metering, Instrumentation and protection

Control metering, instrumentation and protection will be in accordance with ISA (The International Society of Automation) Standards.

Asad Ali

Director





Wapda VCB Incoming  
Main gate Metering Panel  
Load Section 1985 kw  
Under custody Wapda



# Premier Industrial Chemical MFG Co (Pvt) Ltd.

23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
E-mail: picskp@gmail.com, ppm ltd@hotmail.com Web: www.premiergroup.pk

## Training & Development

The major objectives of the operational training shall be to acquaint the operators of the following:

- a) The nature, purpose and limitations of all plant and equipment.
- b) The detailed operating instructions on each section and equipment of the plant.
- c) Normal start up and shutdown program for the unit.
- d) The emergency procedures.

The basis, for the training shall be the Plant's operating and Maintenance Manual Particulars Book, which is compiled from the manufacturers' instructions, the contract documents and the drawings. In addition, the information gathered from the visits to the other operating plants and to the manufacturers works shall also be included in the training. Supervision and co-ordination of the training program requires full time attention of a senior executive of the plant, and also the consultant's assistance may be taken. The training program shall include lectures, expositions by experienced plant operators and maintenance personnel, informal discussions and visits to operating plants and manufacturer's works and exposure to the courses conducted by Institutions like Power Plant Training Institute or any other Institution to be given to the operating & maintenance staff.

The maintenance training program should be based on the requirements of the individual maintenance functions, like mechanical, electrical, instrumentation etc. The Engineers and the Technicians should be sent to the manufacturers' works to witness the production and be associated with the erection of plant and equipment.

The Power plant should be equipped with proper measuring/testing instrument for periodic cross checking of parameters shown in the control room and power plant area local gauges. Logging of data and periodic review of the plant operation, review of failures, break downs, etc. should be done to improve the availability of the plant.

\*\*\*\*\*



# ENVIRONMENT PROTECTION DEPARTMENT

Government of the Punjab

National Hockey Stadium, Ferozepur Road, Lahore



NO. DD(EIA)/EPA/F-306/0907/2005/ 315

Dated: 21 / 07 / 2008

To

The Chief Executive,  
M/s Premier Industrial Chemical Mfg. Co. (Pvt) Ltd.,  
09<sup>th</sup> Km Lahore Road, Kot Saleem,  
Sheikhupura.

Subject: **ENVIRONMENTAL APPROVAL**

(Under Section 12 of PEPA-1997 read with IEE & EIA Regulations, 2000)

- Description of Project: Processing of Distillery Unit named M/S Premier Industrial Chemical MFG Co. (Pvt) Limited having production capacity 417000 liters per day of Ethyl Alcohol (Ethanol) from Molasses.
1. Location of Project: The factory is located at 09<sup>th</sup> Km Lahore Road, Kot Saleem, Sheikhupura.
2. Date of submission: 26.04.2008.
3. Environmental Protection Agency, Punjab accords approval for operation phase of your plant at the aforementioned site, subject to the following conditions:
- The proponent shall ensure compliance of National Environmental Quality Standards and shall dispose off wastewater after treatment through primary / secondary waste water treatment plants etc. by ensuring compliance of National Environmental Quality Standards (NEQS) and shall not discharge untreated wastewater in a surface water body in any case.
  - The proponent shall start operation after compliance of directions contained in Environmental Protection Order issued vide No. 620-DD(R&I)/EPA dated 17.04.2008 after satisfaction of the Director (North), EPA, Punjab, Lahore.
  - Mitigation measures reflected in EIA Report and Environmental Management & Monitoring Plan (EMMP) shall be strictly observed to minimize any negative impacts on soil, ground water, air and biological resources. The proponent shall depute staff to monitor compliance of EMMP.
  - Monitoring shall be carried out during the entire period of the project activities and the proponent shall furnish summary monitoring reports on monthly basis, consolidated report on quarterly basis and comprehensive report on annually basis to this office under intimation to District Officer (Environment).
  - The proponent shall be responsible for adopting appropriate mitigation measures for controlling anticipated environmental hazards.
  - Hazardous substances / materials and explosive materials shall not be stored.
  - The proponent will obtain NOC from District Government and will obtain license under Section 14 of PEPA, 1997 from EPA for import / storage / transportation of chemicals.
  - At least 90% unskilled and to the extent possible skilled jobs shall be given to the locals after providing them proper training.
  - The Management shall ensure that strict and efficient health and safety measures are in place for protection of workers backed by a comprehensive emergency response system.

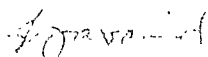
- xii) The proponent will do proper landscaping, inside and outside of the factory and will plant beautiful flowers and grass for beautification purpose within two months.
- xiii) The proponent shall convey the name of the Environmental Manager of the project along with his complete Mailing Address and Phone Numbers.
- xiv) The proponent shall ensure proper disposal of solid waste according to guidelines of EPA.
- xv) The proponent shall take measures to control the air emissions.
- xvi) The proponent will obtain NOC / clearance of all other concerned departments before commencement of work and will send copies of NOCs to this office.

5. The Management shall be responsible for correctness and validity of information supplied by the Environmental consultant.

6. The Management shall be responsible for compliance of Sections 17 and 18 of IEE/EIA Regulations, 2000, regarding approval, conformation of compliance, entry, and inspection and monitoring.

7. Any change in the approved project shall be communicated to EPA, Punjab and shall be commenced after obtaining the approval.


8. This approval does not absolve the proponent of the duty / liability to obtain any other approval or consent that is required under any law in force for the time being. The approval shall be treated as null and void if all or any of the conditions, mentioned in Para No.4 above, is/are not complied with and if there is an order of the court / fora of competent jurisdiction to the contrary.

  
ASSISTANT DIRECTOR (EIA)  
for Director General, EPA, Punjab

NO. & DATE EVEN.

A copy is forwarded for information to:

- 1 The Director (North), EPA, Punjab, Lahore.
- 2 The District Officer (Environment), Sheikhpura with reference to his letter No. 1647/DOE/SKP dated 19-06-2008. He is requested to ensure compliance of the above mentioned conditions / measures under intimation to the Director General, EPA, Punjab, Lahore.
- 3 The Divisional Forest Officer, Sheikhpura.

  
ASSISTANT DIRECTOR (EIA)  
for Director General, EPA, Punjab

# ENVIRONMENTAL IMPACT ASSESSMENT (EIA)

OF

PREMIER INDUSTRIAL CHEMICAL MFG. CO (PVT.) LTD.

9<sup>TH</sup> KILOMETER LAHORE ROAD, P.O. KOT SALEEM

DISTRICT SHEIKHUPURA.



PH. 056-3406611-13 FAX: 056-3612702 E-MAIL: [picmcltd@hotmail.com](mailto:picmcltd@hotmail.com)

Submitted to;  
Environment Protection Department,  
Government of the Punjab, Lahore





EPA CERTIFIED

# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

## CERTIFICATE

This is certified that Environmental Impact Assessment (EIA) of Proposed M/s Premier Industrial Chemical Mfg. Co. (Pvt.) Ltd. At 9-KM Lahore-Shiekhupura road has been prepared under our supervision.

S. Nihal Asghar

Dr. A. R. Saleemi

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## EXECUTIVE SUMMARY

M/S Premier Industrial Chemical Mfg. Co (Pvt.) Ltd: Head office: 23-Ahmed Block, New Garden Town, Lahore, Pakistan are in the process of installing an industrial unit for the production of Ethyl alcohol under the name **Premier Industrial Chemical Mfg. Co (Pvt.) Ltd**; at 9<sup>th</sup> kilometer Lahore Road, P.O. Kot Saleem, District Sheikhpura.

To fulfill the legal requirement under section 12 of the Pakistan Environment Protection act (PEPA) 1997, this Environment Impact Assessment (EIA) statement/report is submitted to the Environment Protection Department (EPD) Government of Punjab, Lahore.

### TITLE AND LOCATION OF THE PROPOSAL:

**Premier Industrial Chemical Mfg. Co (Pvt.) Ltd;**  
9<sup>th</sup> kilometer Lahore Road, P.O. Kot Saleem, District Sheikhpura:

### HEAD OFFICE:

23-Ahmed Block, New Garden Town, Lahore, Pakistan  
Ph: 042-5885717-9, Fax: 042-5866084  
E-mail: [ppmltd@hotmail.com](mailto:ppmltd@hotmail.com)

### NAME OF THE PROPONENT:

**Premier Industrial Chemical Mfg. Co (Pvt.) Ltd;**

### NAME OF THE ORGANIZATION PREPARING THE REPORT

Solution Environmental & Analytical Laboratory (SEAL), Lahore.

### BRIEF OUTLINE OF THE PROPOSAL:

#### **I. Brief**

M/s Premier Industrial Chemical Mfg. Co (Pvt.) Ltd: are installing the industrial unit for the production of 417000 liters/day ethyl alcohol using sugarcane molasses as raw material by using Chinese technology.

A novel wastewater (vinasse) treatment plant is being installed having the latest Chinese technology in which wastewater (also called vinasse) is concentrated from 12% solids to 50% which have a very good burning value of about 2500 K.cals/Kg and is burnt in boilers very efficiently. The liquid effluent generated during process of wastewater (vinasse) evaporation have 6 to 6.5 P<sub>H</sub> value and very low BOD<sub>5</sub>, COD, TDS and SS which are well below the limiting values set by the National Environment Quality Standards (NEQS).



Concentrated waste (vinasse) is burnt in the boilers and ash produced is collected having 16% to 18% Potassium Oxide which is a very good fertilizer. Particulate matter in flue gasses is controlled by electrostatic precipitators, which are installed between boilers and chimney.

The Vinasse technology is a newly developed technology, which is based on the on-site disposal of Vinasse by combustion. Besides the clean ecological benefit, its method promotes energy saving and extra benefits of the commercial use of rich Potassium Vinasse Ash

## **ii. Contribution to economic uplift of the people/job opportunities**

The project will provide jobs to around 500 persons during construction Phase and thereafter when in operation, it provides jobs to 150 people in the area. Thus a total of around 3000 and 900 family members (considering family unit comprising of 6 members) will be financially benefited from the project activity during construction and operational activities respectively.

Additionally, molasses the raw material is a by-product of sugar industry which Utilizes sugar cane-a cash crop of the area. In this way even there is an additional indirect contribution of the project to the economic uplift of the agriculture community of the area around.

## **ii. Salient features of the project proposal**

This project proposal points out reasons to select the present site. It further briefly describes that neither the existing biophysical and socio-economic environmentally sensitive areas

likewater.air.soil.structures.vegetation.crops.biodiversity.scientific.socio-economic, cultural and heritage nor-human health or else will be harmed from the project activity.

## **THE MAJOR IMPACTS**

The major impacts from the activity can be described as environmental and economic.

### **i. Environmental impacts**

Environmental impacts from the project could be in the form of gaseous Emissions of sulphur dioxide (SO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>), carbon mono Oxide (CO) and particulates; wastewater (vinasse) and noise. Mitigation of adverse effects from these pollutants on all elements/segments of environment, i.e.: population, water, Air, soil, structures, wildlife, vegetation.

biodiversity or else have been given. It has also been described how the environment around will be protected and no damage to it will occur.

## **ii- Economic impacts**

Economic impacts of the project on the life of the population around will appear in the form that around 500 persons will get jobs during construction and about 150 will have jobs during operational stage taking a family unit comprising six persons around 3000 persons will be benefited economically during construction stage and about 900 persons will be earning their livelihood during project operation stage.

## **Recommendations for mitigation and compensation**

Among the mitigation measures against environment pollution, it has been recommended, rather the project has already inbuilt measures to:

- 1- Wastewater (**vinasse**) treatment plant is being installed which will concentrate wastewater (**vinasse**) from 12% solids to 50 %, and will be used as fuel on waste burning boilers.
- 2- gaseous emissions and particulates from the stack will be controlled through the built in mechanism i.e. by the installation of electrostatic precipitators.
- 3- Noise level will brought in conformity with the NEQS permissible levels through adequate maintenance of the machinery.
- 4- Sludge will be used as manure for agriculture use.

## **Proposed monitoring**

To control the level of pollutants to bring them to the prescribed limits of the NEQS, a monitoring program has been recommended under the environmental Management plan serial#7.

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### **INTRODUCTION**

M/S Premier Industrial Chemical Mfg Co (Pvt) Ltd. Head office: 23-Ahmed Block. New Garden Town. Lahore. Pakistan are under the process of installing an industrial unit (for the production of Ethyl alcohol) under the name **Premier Industrial Chemical Mfg Co (Pvt) Ltd. 9<sup>th</sup> Kilometer Lahore Road, P.O. Kot Saleem, District Sheikhpura**. The unit envisages at the production of 417000 liters/day Ethyl alcohol using molasses as raw material. The technology is imported from china not only for production of alcohol but also for treatment of the wastewater (**vinasse**) to be generated from this activity.

To fulfill the legal requirement under section 12 of the Pakistan environment protection act (PEPA) 1997 and thereby to obtain the legally required no objection Certificate from the environmental protection department (EPD). government of the Punjab. Lahore this environment impact assessment (EIA) statement /report is submitted to the said department. As desired by the (EPD), the EIA statement report has been prepared using the format prescribed by the "Guidelines for the preparation and review of environmental reports. October 1997".

### **TITLE AND THE LOCATION OF PROPOSAL**

**Premier Industrial Chemical Mfg Co (Pvt) Ltd. 9<sup>th</sup> Kilometer Lahore Road. P.O. Kot Saleem, District Sheikhpura. Head office: 23-Ahmed Block. New Garden Town. Lahore. Pakistan**  
Ph: 042-5885717-9. Fax: 042-5866084  
E-mail: [ppmltd@hotmail.com](mailto:ppmltd@hotmail.com)

### **NAME OF THE PROPONENT**

**Premier Industrial Chemical Mfg Co (Pvt) Ltd.**

### **NAME OF THE ORGANIZATION PREPARING THE REPORT:**

**Solution Environmental & Analytical Laboratory.**

### **BRIEF OUTLINE OF THE PROPOSAL**

#### **i- Brief**

M/s Premier Industrial Chemical Mfg Co (Pvt) Ltd. are in the process of installing industrial unit to manufacture 417000

liters/day of ethyl alcohol using molasses as raw material. Chinese technology based on fermentation process will be used. The waste water (**vinasse**) from the manufacturing process containing large quantities of fermentable organic material which will be concentrated in falling film plate type evaporators from 12% solids to 50% and will be burnt on boilers to generate steam. The steam produced on the boilers will generate 6 MW power and low pressure steam to fulfill the operational requirements of the plant. On one hand power and low pressure steam will be produced from concentrated wastewater (**vinasse**) and on the other hand evaporated water generated during process of concentration will have the quality meeting the limiting values set by national environment quality standards (NEQS).

Concentrated waste (**vinasse**) is burnt in the boilers and ash produced is collected having 16% to 18% Potassium Oxide which is a very good fertilizer. Particulate matter in flue gasses is controlled by electrostatic precipitators, which are installed between boilers and chimney.

The Vinasse technology is a newly developed technology, which is based on the on-site disposal of Vinasse by combustion. Besides the clean ecological benefit, its method promotes energy saving and extra benefits of the commercial use of rich Potassium Vinasse Ash

#### **ii- Contribution to economic uplift of the people /job opportunities**

The project will provide jobs to around 500 persons during construction Phase and thereafter when in operation, it provides jobs to 150 people in the area. Thus a total of around 3000 and 900 family members (considering family unit comprising of 6 members) will be financially benefited from the project activity during construction and operational activities respectively. Molasses the raw material is a by-product of sugar industry, which utilizes the sugar cane, a cash crop of the area. In this way there is an additional indirect contribution of the project to the economic uplift of the agriculture community of the area around.

#### **iii- Salient features of the project proposal**

This project proposal points out various stages of the project completion (planning, design and implementation), reason to select the present site, requirement of raw material, water, energy, and equipment to run the project. It also describes the operational duration. A summary of the technical, economic and environmental feature has been included.

The project proposal further briefly takes into account the description of the existing and excepted conditions vis-à-vis biophysical and socio-economic environment, environmentally sensitive areas of special or unique value including especially biodiversity, scientific, socio-economic, cultural and heritage. It further ensures, through scientific facts, that there will not be any damage to these areas as a result of the operation of the project.

The proposal also explains that the present land use for the project is according to the Government policies.

Description of the impacts (especially environmental) from the project activity has been described in due details. Impacts on the local population have been considered and concluded through relevant data that the project activity is not going to leave any adverse environmental impacts on the population, water, air, soil, structures, wildlife, vegetation, biodiversity or else in the area. The environment related site-specific monitored data are also reported in this report showing the environmental conditions prevailing on the project site and further described how the activity will remain environmentally sound.

Details of mitigation measures regarding environment are provided. In order to ensure that the environmental management is practiced on the project site, an Environment Management (E.M.) plan has been given in due detail. Monitoring plan and training requirements of the staff to run report. The report also contains mitigation actions, schedule for E.M. implementation, responsibilities of various people in implementing the plan have also been defined.

The project will not have any negative environmental impacts on the environment and population around. Rather it provides jobs to the people both during the construction and the operation.

A list of the technical experts who participated in the collection of data, monitoring of various parameters, lab testing and conducting surveys and carrying out other related activities and synthesis of the report is incorporated. List of the documents used in the preparation has also been included.

Under the Pakistan environmental act 1997, the project needs to be cleared from the environment protection department (E.P.D). Government of the Punjab regarding its being environmentally sound. In order to obtain such a no objection certificate from E.P.D. this environment protection Assessment report has been prepared taking into account the terms of

reference from the "guidelines for the preparation and review of environmental reports, October 1997.

## **THE MAJOR IMPACTS**

Major impacts from the project can be described as environmental and economic:

### **i. Environmental impacts**

Environmental impacts from the project could be in the form of gaseous emissions of Sulphur dioxide (SO<sub>2</sub>) Nitrogen oxide (NO<sub>x</sub>) carbon monoxide (CO) and particulates; waste Water and noise. Mitigation of adverse effects from these pollutants on all elements/segments of environment, i.e. population, water, air, soil, structures, wild life, vegetation, biodiversity or else have been given. It has also been described that how environment around will be protected and no damage to it will occur.

### **ii. Economic impacts**

Economic impacts of the project on the life of the population around will appear in the form that 500 persons will get jobs during construction and about 150 will get jobs during operational stage. taking a family unit comprising six persons, around 3000 persons will be benefited economically during construction stage and about 900 persons will be earning their livelihood during project operation stage.

## **RECOMMENDATIONS FOR MITIGATION AND COMPENSATION**

Among the mitigation measures against environmental pollution, it has been recommended, and the project rather has already inbuilt measures to:

- 1- Install wastewater (**vinasse**) concentration plant to concentrate wastewater (**vinasse**) from 12% solids to 50% solids and will bring quality of drainage water to the limiting values of the National Environment Quality Standards (NEQS) before discharging it into the nearby natural drain "BAHRIAN WALA DRAIN"
2. The gaseous emissions from the stack, in case of concentrated wastewater (**vinasse**) burning and rice husk, will remain under limits of the NEQS by efficient burning in the boilers.

- 3- Particulate matter from the stack of boilers will be controlled by electrostatic precipitators to the NEQS required level.
- 4- Noise will be brought in conformity with the NEQS permissible levels through adequate maintenance of machinery and under going regular repair, maintenance and replacement of the parts and oiling /greasing the machinery.

For more details refer to the mitigation measures under serial #6 and the environmental management plan.serial#7

### **Proposed monitoring**

To control the levels of pollutants to bring them to the prescribed limits of the NEQS, a monitoring program has been recommended under the Environmental Management Plan Serial # 7. The salient features of the same are as below (reference Self-Monitoring and Reporting (SMART) :

Effluent flow, temperature, PH, BOD<sub>5</sub>, COD, TSS, oil and grease, and gaseous parameters like particulate matter, CO, SO<sub>x</sub> and NO<sub>x</sub> will be monitored and reported on quarterly basis for normal plant conditions.

However, the treated waste water will be daily monitored for effluent flow, temperature, pH and TSS and fortnightly monitoring for effluent flow, temperature, pH BOD<sub>5</sub>, COD, TSS and oil and grease. This is necessary to monitor the functioning of the treatment plant also.

## **2.0 Description of the objectives of the proposal**

As described above also, under the conditions of the Environment Protection Department, Government of the Punjab: this proposal has been prepared according to the format provided in the document "Guidelines for the preparation and review of Environmental Reports, October 1997.

The objectives of the proposal are highlighted according to the following elements of the format of the "Guidelines for the preparation and review of Environment Reports, October 1997.

The main aim of the proposal is to establish that the project activity will not adversely affect any element / segment of environment from human health to environmental setting

around (population, water, air, soil, structures, wildlife, vegetation, biodiversity or else). Rather, it will bring financial uplift directly through providing jobs to the people and indirectly ensuring the sale of sugar cane crop in the area, because molasses raw material of this project, is to be the by product of sugar industry.

Accordingly, the report takes into account the details of the project activity from raw materials to the manufacturing process. It highlights all types of wastes to be generated from the project activity, during construction to its regular operation and the measures to be adopted to ensure that the environment and health of the population around are protected. The existing environmental settings, biodiversity, socio-economic pattern of life existing in the project area are also described.

The other aim of the report is to describe that the project will provide job opportunities to the people in the area. This will help to eradicate in part the joblessness conditions in the area. Further through the use of the molasses as raw material, it will help to boost the sale of the sugar cane crop being grown. This will further ensure the sale of this crop and thus to boost agriculture and thus it is another big direct advantage to the agriculture community.

**The main elements of the report are covered under:**

- i- Executive or non-technical summary (title and location of the project, name of the proponent, name of the organization preparing the environment report, brief outline of the report, major impacts, recommendations for mitigation and compensation and proposed monitoring).
- ii- Description of the objectives of the proposal.
- iii- Description of the proposal and its alternatives (status of the proposal in the project cycle, description of planning, design and implementation stages, requirements for raw materials, water, energy, and equipment).
- iv- Discussion of the proposal and current land use and policies (current land use controls in the context of the Government policies).
- v- Description of existing and expected conditions (boundaries adopted to study various aspects of the study).
- vi- Evaluation of the impacts and their mitigation (assessment of any impact on the local population, relevant environmental standards, assessment of any impact on the local population, relevant environmental data, gaps in knowledge, of the impacts, possible measures for avoiding or mitigation the impacts)



- vii- Environmental management plan, monitoring plan and proposed training (responsibility for implementation, monitoring program to assess performance, reporting and reviewing procedures and out line of training needs).

For more details reference be made to individual and respective sections of this report.

### **3.0 Description of the proposal and its alternatives**

#### **3.1 The status of the proposal in the project cycle (Pre-feasibility, feasibility or detailed design)**

The proposal forms pre-feasibility part in the project cycle.

#### **3.2 Description of the planning, design and implementation Stages**

##### **3.2.1 Planning**

As a first step in the preliminary planning of the project activity, Feasibility Study (F.S.) has been completed. Based on the result of the Feasibility study the project has been found technically and financially viable.

##### **3.2.2 Design**

After the above negotiations the base line data will be provided to the Chinese counterpart company for preliminary designing of the plant. After approval of the preliminary design both by the local experts and the Chinese expertise, engineering will be carried out.

However, so far a lot of necessarily background homework, has been carried out and project relevant information is being gathered to boost the speed of the project. The data so gathered will be tailored, if so required to suit the technical requirements of the plant design.

Maximum of the plant will be fabricated in Pakistan.

##### **3.2.3 Implementation**

The implementation stages of the project activity will follow the following course:

##### **Stage I**

- i-finalization of the background information and
- ii-design data arrangements.

## Stage II

The following designing activities will start concurrently::

- i- designing of civil construction work.
- ii- designing of electrical work.
- iii- designing of mechanical work.
- iv- detailed engineering of all the above activities.

## Stage III

The following work mostly will start concurrently:

- i- civil works.
- ii- construction of the plant including the waste water evaporation plant.
- iii- construction of the basic infra structures like roads, water supply system, electricity etc.
- iv- construction of in plant roads, pathways etc.
- v- installation of the plant for alcohol manufacturing and wastewater (**vinasse**) concentration plant.
- vi- final preliminary operation on trial basis, as the final minor adjustments of the plant for its smooth and efficient operation.
- vii- based on the above findings/experiences any additions, deletions or alterations to be made in the project infra structure and other facilitates as the final touches.
- viii- Final commissioning of the plant on full scale.

### 3.3 The requirements for raw materials, water, energy and equipment

#### 3.3.1 Raw materials

Sugarcane Molasses, the by product of sugar industry, is the major raw material required for the manufacture of ethyl alcohol. The over all production of molasses is estimated in range of 2.0 to 2.2 million tons per year in Pakistan. Around 80.0% of molasses is being exported at a very cheap rate which can be used in the production of ethyl alcohol. After value addition, 90% to 95% of the total ethyl alcohol production will be exported to earn foreign exchange for the country. The estimated requirement of sugarcane molasses for the unit is 450000 to 500000 M. Tons annually and will be purchased from sugar mills in Punjab.

### 3.3.2 Water

The underground water in the project area is sweet and as such it is quite suitable for the process needs of the project. Therefore, it will be used for the manufacture and related activities.

### 3.3.3 Energy

Electricity, the other requirement for running the plant will be generated by burning concentrated distillery wastewater (**vinasse**) in boilers which have high burning value of 2500 Kcals/Kg. About 36000 Kg/Hr concentrated wastewater (**vinasse**) will be available as fuel for the generation of steam in the boilers, and 6 MW power will be generated along with low pressure steam to fulfill the requirements of manufacturing units.

### 3.3.4 Equipment

The major equipment required for the project is shown in the ANNEXURE-XII.

## 3.4 The planed operational characteristics-hours of operation, processes, products.

### 3.4.1 Hours of operation

The plant will operate 24 hours a day through out the year except for annual repair and maintenance.

### 3.4.2 Process

#### Manufacturing Process and Allied Activities (Brief)

While for more details refer to the ANNEXURE-II, summary of the manufacturing process is given below:

#### 1. Mash Preparation:

In this process density of molasses is adjusted from 1.4 Kg/Lit to 1.15 Kg/Lit by vigorously mixing with water and sulphuric acid to maintain pH of diluted molasses to make it suitable for yeast propagation and fermentation

#### 2. Yeast Propagation

Here phosphoric acid and urea solution as nutrient are added in the diluted molasses to fulfill the nutrients requirement of yeast

during yeast propagation process. Dried yeast (Bakers Yeast) is used for yeast propagation and after preparing its cream by mixing in warm water, is added in yeast propagation tank. Above prepared diluted molasses is added gradually to allow multiplication of yeast in yeast propagation tank. Yeast growth is carried out under suitable environment in the presence of air and by controlling reaction temperature at  $35^{\circ}\text{C}$  by circulating yeast through heat exchangers.

### 3. Fermentation

Part of the propagated yeast is transferred in main fermentation tank (Fermenters) where mash is fed to produce fermented wash containing 8% to 9% ethyl alcohol.

### 4. Distillation

In this section fermented wash containing 8% to 9% ethyl alcohol is distilled in distillation column to separate crude ethyl alcohol. Crude ethyl alcohol having about 80% concentration is purified in a series of distillation columns to improve its concentration to 96% and quality. Following three types of products are produced during purification process of crude ethyl alcohol.

- i. Industrial ethyl alcohol (96% v/v)
- ii. Super fine ethyl alcohol (96% v/v)
- iii. Methylated (sub alcohol) ethyl alcohol (95% v/v)

Wastewater (**vinasse**) produced during process of distillation of fermented wash is about  $154\text{ M}^3/\text{Hr}$  with 12% solids. This waste water is sent to wastewater evaporation section.

### 5. Wastewater (vinasse) Evaporation Section

In this section wastewater (**vinasse**) having 12% solids is concentrated in five effect falling film plate type evaporators to improve concentration of wastewater (**vinasse**) to 50% solids. This concentrated wastewater (**vinasse**) have fair calorific value of 2500 Kcals/Kg and is burnt in specially designed wastewater (**vinasse**) burning boilers where 60 to 70 Tons/Hr high pressure steam is produced from 30000 Kg/Hr concentrated wastewater (**vinasse**). Evaporated water produced during evaporation of wastewater (**vinasse**) is about 120 Tons/Hr and have very low pollution load and pH of 5.5 to 6.0 which is well within the limiting range set in NEQS and is disposed off in "BAHRAIN WALA DRAIN"

### 6. Boilers/Power Generation Section

There are three boilers: two boilers will use concentrated wastewater (vinasse) as fuel while third boiler will use natural gas or rice husk as fuel. High pressure steam will be produced on these boilers from which 6 MW power will be generated to fulfill power requirement of the plant and exhaust steam (low pressure steam) after power generation will be used to meet the requirements of alcohol and wastewater (vinasse) evaporation sections.

Flue gasses of boilers will be passed through specially designed electrostatic precipitators (ESP) to remove particulate matter before venting in chimney. Solids separated are rich in potassium oxide and after mixing it with sludge of molasses is a good fertilizer. Exhaust gasses in chimney have very low level of SO<sub>2</sub>, NO<sub>x</sub> and particulate matter i.e; within the limiting values set by NEQS.

The Ultimate and Proximate analysis of Vinasse cake is given in Annexure-XIX. The amount of Sulphur percentage is around 1.2% and nitrogen is 1.65% and it is expected that SO<sub>x</sub> and NO<sub>x</sub> emissions will be under NEQS standards

### **3.4.3 Products**

Following quantities of industrial ethyl alcohol, superfine ethyl alcohol and methylated (sub alcohol) ethyl alcohol will be produced in addition to very small quantity of fusil oil (by product).

1. Industrial ethyl alcohol (96%) quantity 202000-lits/day.
2. Superfine ethyl alcohol (96%) quantity 202000 lits/day.
3. methylated (sub alcohol) ethyl alcohol (95%) quantity 13000 lits/day

## **3.5 VISUAL AIDS (MAPS OF THE AREA, SITE AND PLANT LAYOUT, FLOW CHARTS OF PRODUCTION, AND PHOTOGRAPHS OF THE SITE AND SIMILAR PROJECTS)**

### **3.5.1 Location map**

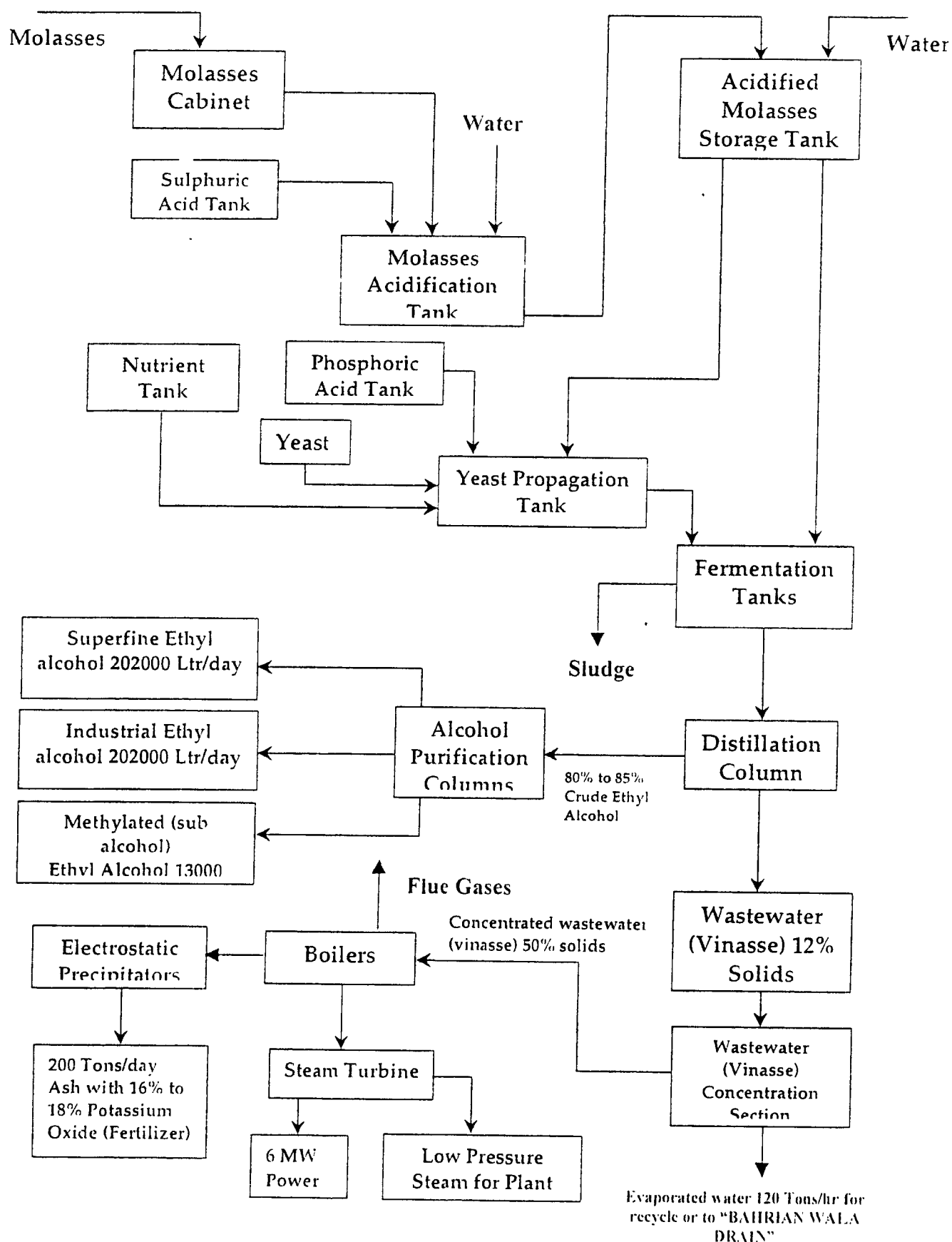
The location map is attached as the ANNEXURE-I.

### **3.5.2 Plant layout**

The plant layout is attached as the ANNEXURE-IX

### 3.5.3 Flow chart/sheet of production process.

Flow chart/sheet of production process is given below.



### **3.6 COMPARISON OF PROPOSAL OPTIONS (SIZE, SITING, TECHNOLOGY, LAYOUT, ENERGY, SOURCES, AND SOURCES OF RAW MATERIAL):**

#### **3.6.1 Size**

The size of the project production capacity has been selected out of various background options on the basis of its being an economical unit. investment restrictions i.e. funding capacity. ensured availability of raw materials. and export potential of the product. The finally adopted parameters of the project size were the best suited to the commercial viability of the project.

#### **3.6.2 Siting**

The project is located on Sheikhpura Lahore Highway at 9<sup>th</sup> Kilometer from Sheikhpura and the location of the project is selected to ensure the availability of raw material i.e: molasses from the surrounding sugar mills. The project is located right opposite to the company's another running project "Premier Paper Mills (Pvt.) Ltd Sheikhpura". and in paper mills infrastructure and well equipped workshop facilities are available to run the plant smoothly and economically.

These important facts are established indicators for successful running of the project and guarantee financial viability at the selected site.

#### **3.6.3 Technology**

The technology involved in the manufacture of ethyl alcohol. selected for the project. is universal in nature. The product will be exported and payments of sales will be in foreign exchange to the project proponent. Hence the project will also Foreign Exchange Earner for Pakistan. The molasses so far being exported at dirt cheap price now will be converted into value added product also.

#### **3.6.4 Layout**

Based on the practical experience of the technology transferring party in China and already functioning similar units with the same technology. the layout has been selected. However. minor changes have been made according to local conditions.

#### **3.6.5 Energy sources**

The production of ethyl alcohol is based on fermentation using molasses as the raw material, which are highly loaded with organic material. The waste of the production will be used as fuel in boilers after concentration from 12% solids to 50%. By burning the concentrated wastewater (**vinasse**) in boilers, high pressure steam will be produced which will be used for power generation and steam requirement of plants.

#### **3.6.6 Sources of raw material**

Molasses, the by product of sugar cane industry, is the major raw material required for the manufacture of ethyl alcohol. The over all production of molasses is estimated at 2.0 to 2.2 million tons per year in Pakistan. Around 80.0% of this raw material is exported at dirt-cheap price.

The estimated demand of this project for the molasses/year is between 450000 to 500000 tons. This quantity of molasses can easily be available from sugar mills of **Punjab**.

### **3.7 Summary of the Technical, economic and Environmental features of the proposal**

This proposal describes in due details of various aspects of the project including technical, economical, and environmental features. A brief resume of each one of these is given as under

#### **3.7.1 Technical**

This proposal briefly describes the technical aspects of the project activity from raw materials to finished product. It also encompasses manufacturing process, allied activities, flow sheet diagram of the complete manufacturing process indicating the waste generation points and plant location. It also briefly takes into account the status of various technical aspects of project related utilities including power production especially. Due details of all relevant technical features are given at respective parts in this proposal. For details reference may be made to the appropriate sections of this proposal.

#### **3.7.2 Economic**

This proposal, to a limited extent and within its scope, throws light on the economic aspects of the project from the raw material, the finished product and its sales aspect. For more details refer to the Annexure.--XIII.

#### **3.7.3 Environmental**



This proposal through sketches and manufacturing process details, takes into account of sources of wastes generation from the project activity, their nature and managing them in environmentally sustainable fashion. The waste treatment summary is also included in appropriate section. Potential environmental impacts of the project activity are described and suggested mitigation measures have been reported.

The proposal incorporates into it environmental management plan, and proposed training program to manage environmental issues and problems effectively. Details are given under respective sections of this report.

Environmentally sensitive areas of special or unique value including biodiversity, scientific, cultural, visual and heritage have also been described summarily. Identification, evaluation and mitigation measures of the impacts of the project have also been incorporated in the report.

#### **4.0 Discussion of proposal and current land use and policies**

##### **4.1 Land use**

The project site shares the land owned by the already running project "**Premier Paper Mills (Pvt.) Ltd Sheikhpura**", of the group which was installed after due permission of the Punjab Government. In other words that the government had neither objection to the use of land for new industrial setup nor it was against the land use policies of the Government.

Permissions from various Government Departments are being sought to store the finished ethyl alcohol on site etc. This also clarifies that the land under use of project has the approval of the Government and that is not in contradiction with land use policy of Government.

As also pointed in detail in earlier section of this report, sharing of the exiting repair and maintenance facilities of the sister neighboring industrial concern i.e. "**Premier Paper Mills (Pvt.) Ltd Sheikhpura**" further made it all the more desirable to locate the present project at its declared site.

##### **4.2 Regulatory framework**

Following are the salient features of the Government policies for facilitating investment in Pakistan.

#### **4.3 Deregulation of the Economy**

The Government of Pakistan is following the policy of deregulation of the economy and privatization of the state owned companies.

#### **4.4 Import policy**

The import policy has been liberalized and there is an increased reliance on development of the industrial sector and enhancement on international trade.

#### **4.5 Infrastructure facilities**

Infrastructure facilities such as road network, water and power supply, means of transportation and communications etc. are being improved speedily.

#### **4.6 Incentives**

To keep Pakistan competitive in international markets and support viability of investments in the country, the following incentives are available to both foreign and local investors.

- 1- Initial depreciation allowance
- 2- Amortization and
- 3- Normal tax rates

### **5.0 Description of existing and expected conditions**

#### **5.1 Spatial and temporal boundaries adopted for the various aspects of the study**

The presently existing natural environmental and industrial status in the project site area covering a vast distance around and foreseeing the possibility of industrial growth in future have been taken into consideration while describing existing and expected conditions.

#### **5.2 Existing base line condition of the biophysical and socio-economic environment, trends and anticipated future environmental conditions should the project not go ahead**

The project site is situated in that area where land all around is under agriculture use. Agriculture is main source of earnings of the people in the area. There are no forests or any other environmentally sensitive areas. There are no protected areas. There is no cultural heritage either. The project is located in the

industrially populated area of Sheikhupura District, only 9 kilometer away from city on Sheikhupura Lahore highway. The industry gets labour force from the villages around, Sheikhupura and Lahore. The socio-economic pattern prevailing in the area is quite primitive like the one prevailing in other areas of the Punjab.

The area as a whole is virgin from environment point of view. Therefore, the available carrying capacity of the environment in the area is not yet utilized. Accordingly the project under the prevalent conditions is not going to effect the environment adversely. This is further substantiated by the fact that all type of wastes to be generated from the project activity will be disposed off in an environmentally sustainable fashion and in accordance with the requirements of national environment quality standards as applicable to the pollution aspects of the project.

Obviously, the future trends in environment, in case the project does not go ahead, will not change. However at the same time since the required environment management level is to be put in place, therefore in the case of project activity there will not any adverse effects on the environment either.

### **5.3 Environmentally sensitive areas of special or unique value**

**(Physical resources of the project area)** Topography and geology, Soils  
Climate and water, Ecological resources, Fisheries and aquatic biology, Biodiversity,  
Forestry, Wildlife, Scientific Institutions, Socio-economic and Cultural and other heritage

#### **5.3.1 Physical resources of the project area are highlighted below.**

##### **5.3.1.1 Topography and geology**

Of the two broad divisions of Pakistan from topographic point of view: the western highlands and Indus plains, the project site falls in the former category. The area around the project site is plain. There are no hills, mountains, desert, else.

##### **5.3.1.2 Soils**

The soil around the project site is typical of the bar like (the kirana bar, the sandal bar, and the nili bar) and is termed as Pleistocene alluvial terraces. The soil has developed as mature. The soil is fertile and is under agricultural use. After sugarcane as major cash crop, other crops grown in the area include cotton, wheat, maize, rice, brassica and millet.

### 5.3.1.3 Climate

Like in other parts of the province of the Punjab, the site observes four seasons: summer, winter, spring, and autumn, during twelve months of the year.

### 5.3.1.4 Water

There is no River, canal, lake or other source of fresh surface water in the near vicinity of the project site. Mostly, the under ground water is in great use for agriculture, drinking or other uses. The under ground water depth stands, on the average, at around 150 feet. The project will use under ground water through sinking of turbine at a depth of about 450-500 feet.

## 5.3.2 Ecological resource

### 5.3.2.1 Fisheries and aquatic biology

The project area is free from any commercial fishing activity. There are no lakes, no rivers, or big canals or even natural water ponds or wetlands in the near vicinity. Therefore, Fishery or any worth mentioning aquatic biology in this area is out of question.

The only water body near the project site is an open natural drain called the "BAHRAIN WALA DRAIN" which carries floodwater. There is also no fish or aquatic biological aspect with regard to this water body. This drain will be used for discharge of the treated effluent from the project activity. A certificate to the effect that the controlling authority of the drain allows to discharge the effluent into this drain is attached as the ANNEXURE-XX.

### 5.3.2.2 Biodiversity

Natural capital of a country mainly includes all of the country's wilderness areas and scenic landscapes, including also with their associated flora and fauna. Pakistan has a total of nine major ecological zones. The contribution of the "Natural Capital" is recognized at three distinct levels: species, genera, and communities (habitat and ecosystem) both collectively and within each level, the range or variety of the resources are referred to as the "Biological Diversity". The term has relevance for each of Pakistan's administrative units district, province, and particularly country. The more the number of species, genera, and habitats and ecosystems present within these units, the greater is said to be the Biodiversity. The biodiversity of the area, with this background, is discussed as under.

#### **5.3.2.3. Forestry**

As explained earlier, the project site is situated in the agriculture area. There are no forests around. There are no orchards. It is all plain terrain.

The area is so extensively under agriculture use that there are even no bushes around. Only sparsely growing common trees like acacia and shisham worth mentioning are available. There are no orchards in the area either.

#### **5.3.2.4 Wildlife**

Mainly, due to lack of adequate wild life habitat like forests or bushes or mountains or hills, no wildlife is found around the project site. Scarcely available are rabbits, ducks, owls, sparrows, woodpeckers, vultures, parrots, kingfisher, doves, crows, partridges, quails and pigeons. Snakes and lizards are quite rarely found in the area.

Common animals available that too at the domestic levels mostly used for agriculture practices, milk and meat include buffalos, cows, sheep, goats, horses, donkeys, poultry and pets like dogs and cats.

There are no game reserves or protected lands/areas or endangered or rare species either in the area.

#### **5.3.2.5 Scientific Institutions**

There is no scientific institution worth mentioning in the vicinity. Only student's laboratories in schools and college, at Sheikhpura, are available.

#### **5.3.2.6 Socio-economic**

There is no special socio-economic activity in the area. Old traditional life style is prevailing. The economic level of most of the people is low with few exceptions.

#### **5.3.2.7 Cultural and other heritage**

There is no historical or cultural heritage. There are no protected heritages, or any historical building in the area around.

#### **5.4 Existing socio- economic conditions.**

The existing socio-economic conditions, as prevailing in the project site, are described hereunder.

##### **5.4.1 Population and communities**

Project site is located in the industrial zone on Sheikhpura Lahore Road and is 9 kilometer away from the city. (Further detail is required)

##### **5.4.2 Industries**

The area around the project site is industrial cum agriculture. Agriculture is the major source of income of the people.

##### **5.4.3 Cultural and aesthetic values**

Pattern of life in the area is mixture of city and villages of Punjab. Literacy ratio in the area is small; however there is a trend in getting education among the younger generation.

#### **6.0 EVALUATION OF IMPACTS AND MITIGATION MEASURES**

Evaluation of impacts and mitigation measures are described below.

##### **6.1 Assessment of any environmental impact on local population and the environment during construction and operation phase.**

Since the project site is situated 9 kilometer away from city and very sparsely distributed population resides in that particular area, so there is no chance that any environmental impact will affect the local population or environment during construction and operational phases. However, systematic account of the same is given hereunder.

###### **6.1.1 During Construction**

During construction phase the possible impacts to occur are described as under.

###### **6.1.1.1 Pollution Impacts**

During construction phase major source of pollution could be moving vehicles bringing raw/construction materials to the construction site. Since the city is situated at a distance of 9

kilometer from the site hence the minor rise in noise levels, dust, particulate matter and gaseous emissions from the auto exhausts will be diluted by the unutilized vast carrying capacity of the ecosystems. More so, these vehicles are not to visit the site at a time, rather they will be visiting the project site at different intervals of time. Thus stampedes will be avoided. This will further ensure that the environmental pollution does not adversely affect the public and environmental health.

So also during actual construction of civil structures, mechanical operation/activities, installation and fitting of machinery and plant parts, and other construction or fabrication activities noise and dust could be the pollutants. In this case even their magnitude is not to increase to the level of being nuisance because these activities will at very low level. The minor rise in their level will be diluted by the unutilized carrying capacity of the environment like in the above case.

#### **6.1.1.2 Tree Cutting**

Fortunately or unfortunately, at the time of purchase of the land for the project, virtually there was no tree or even a bush available on the project land. May be there were any and they might have been cut much earlier by the previous landowner for financial gains. Hence there is no question of cutting trees during construction phase.

#### **6.1.2 During Operation Stage**

The potential pollutants to be generated from the project activity during operation stage of the plant will be managed according to the environmentally sustainable practices i.e. through their monitoring, treatment of wastewater to the required levels of the NEQS permissible levels. For detailed account reference be made to serial # 6.4 and section # 7.

Therefore, protection of population and all segments of the environment around are ensured during operational phase also. Further, in the presence of the proposed Environment Management Plan, there is virtually no likelihood of adverse environmental impacts from the project operation. Reference be made to Mitigation measures (Serial # 6.4) and the Environmental management plan, monitoring plan proposed training section (section # 7) of this proposal for details.

As described at the serial # 5.2.1, there are no Rivers, big canals, lakes, ponds or wet lands in the vicinity of project site. Hence there is no danger of their damage. However, the irrigation is done through the underground water using tube wells.

## **6.2 Potential socio-economic impacts**

Around 500 people will be engaged during construction phase of the project. It means that at the rate of six members size of a family, around 3000 person will be directly and indirectly earning there livelihood during this phase. During regular operational phase of the project, around 150 people will be running the project. This means on the same pattern that about 900 people will be earning their livelihood from the project operations.

This will raise the earning and living standard of those to work in the project operation which indirectly prompts a cross section of the people to send their children to school and improvement in their social status. Thus it will be another positive contribution in education promotional activity of the people of the area.

## **6.3 The relevant environmental data and predictive methods used and any underlying assumptions made.**

### **6.3.1 Base Line Environmental Data**

As base line, site-specific State of the Environment, under "No Activity State", environmental monitoring on the project site was carried out on August 07, 2005.

Environmental data was collected by actual onsite monitoring for ambient air quality of the site, noise levels and though laboratory testing of under ground water and water quality of nearby "BAHRAIN WALA DRAIN" to which related waste water of the distillery will be discharged.

Necessary details of this monitoring are reported as under. While, background details are summarized hereunder, the monitored data are reported in the relevant Annexures.

#### **6.3.1.1 Ambient Air Quality**

Gaseous pollutants and particulates were monitored on the project site. Details of the monitoring and the site-specific environmental data generated are given under respective headings as below.

##### **6.3.1.1.1 Gaseous**

As zero/base line data, Ambient Air Quality monitoring was carried out at various locations of the project site. The equipment used is made by HORIBA, Japan. The monitored parameters include Sulphur dioxide (SO<sub>2</sub>), Nitrogen oxides



(NO<sub>x</sub>-NO and NO<sub>2</sub>) and Carbon monoxide (CO) and Oxygen (O<sub>2</sub>). The monitored results are given in the ANNEXURE XIV.

#### 6.3.1.1.2 Particulates

Like gaseous pollutants, particulates monitoring was also carried out at the same five monitoring points. High Volume Sampler, Model RAAS10-100, of Anderson Instruments Inc. USA was used for this monitoring. The base line/background data generated are exhibited in the ANNEXURE---XV.

#### 6.3.1.1.3 Noise Levels

Noise Levels monitoring was carried out using Precision integrating (RION) Sound level Meter, Model NL-15. The results are reported in the ANNEXURE---XVI.

#### 6.3.1.1.4 Quality of water in "BAHRAIN WALA DRAIN" and Underground water

The quality of the water presently flowing in "BAHRAIN WALA DRAIN", to which the treated wastewater is to be discharged, is shown in the ANNEXURE – XVII.

A wastewater sample, from the "BAHRAIN WALA DRAIN", from the point where the treated waste water of the industrial unit under reference is proposed to be discharged, was collected on August 08, 2005 and analyzed at the Solution Environmental & Analytical Laboratory, (SEAL) Lahore. The Laboratory is certified as Environment Laboratory by Environment Protection Department, Government of the Punjab, Lahore.

### UNDERGROUND WATER QUALITY

Likewise, quality of the under ground water to be used as process water was also tested. A sample was collected from a pipe of the "Premier Paper Mills (Pvt.) Ltd Sheikhpura". The sister neighboring concern of the project. The laboratory test results are reported in the ANNEXURE-XVIII.

#### 6.3.2 Gaps in Knowledge and Uncertainties encountered

The required information virtually on all required elements of EIA report were available on investigation. As such no specific uncertainty was encountered.

### 6.4.1 Effluent analysis

Approximately 3600-4000 m<sup>3</sup>/day of wastewater (**vinasse**) will be generated from the project activity. The generated wastewater (**vinasse**) will be concentrated in wastewater (**vinasse**) evaporation section to increase its solids from 12% to 50%. Concentration of wastewater (**vinasse**) will bring effluent within permissible limits of the NEQS before discharging it into near by "BAHRAIN WALA DRAIN".

Analysis of the wastewater to be generated from the project activity is given hereunder.

#### Effluent analysis:

Parameter	Value before treatment
1. Biochemical oxygen demand (BOD5)	50,000.0 (ppm)
2. Chemical oxygen demand (COD)	1,00,000.0 (ppm)
3. Suspended solids	20,000.0 (ppm)
4. P <sub>H</sub>	4.5
5. Temperature °C	80 °C

### 6.4.2 Emissions

#### 6.4.2.1 Gaseous

Concentrated wastewater (**vinasse**), to be produced on the plant from the effluent being rich in organic/fermentable matter is the major fuel to be used in boilers. However, natural gas and rice husk will be standby fuels to be used in emergency conditions. Natural gas being the cleanest fuel, so there is no chance that emissions will exceed the NEQS limiting values. However electrostatic precipitators are being installed between boilers and chimney for further necessary precautions, as described at serial # 6.6. are to be taken to ensure compliance with the NEQS limiting values of emissions.

#### 6.4.2.2 Particulate Matter

As described earlier, concentrated wastewater (**vinasse**) is the major fuel to be used in boilers and in the presence of electrostatic precipitators between boilers and chimney the emissions of particulate matter will be well within the prescribed limits of the NEQS. In case of emergency fuel i.e. natural gas or rice husk, the particulate matter emissions in the presence of electrostatic precipitators will also be within NEQS limiting values.

#### 6.4.2.3 Noise Levels

Noise levels within plant will be minimized by proper repair and maintenance of the equipment/ machinery. Timely replacements of parts of machinery and equipment will be ensured in order to avoid excessive sound levels during plant operational condition.

Noise levels at plant boundary walls will be in compliance with the NEQS limiting values. Boundary wall of the plant also acts as an excellent buffer against high noise levels. Thus, public in near by areas will not be effected by noise levels.

#### 6.4.2.4 Sludge

The sludge produced in fermentation area and ash after burning of concentrated wastewater (**vinasse**) in boilers is rich in nitrogen and potassium oxide and there will not be any harmful effect therein. A lot of organic matter will form part of this sludge/ash. It is ideally fitted to be used as organic manure and as soil conditioner. Therefore, it will be utilized as organic manure.

### 6.5 Assessed Significance of the Impact Stating the Standards or Criteria used as a basis for judgment

All possible environmental impacts and their solutions are duly reported at serial # 6.4 above besides in other relevant parts of this proposal. Necessary data as desired have also been reported. The impacts have been assessed against the National Environment Quality Standards, Pakistan.

Estimated amounts of gaseous emissions are as below. The benchmark data reported here was calculated based on the practical measurements of such gases in many similar other cases of various industries.

## ESTIMATED AMOUNTS OF GASEOUS EMISSIONS

Fuel	Sulfur dioxide (SO <sub>2</sub> )  Ppm	Nitrogen oxides [NO, (NO+NO <sub>2</sub> )]  Ppm	Carbon monoxide (CO)  Ppm	Particulate matter (P.M.) mg/M <sup>3</sup>
<b><u>1-Concentrated Wastewater (vinasse):</u></b>  (as major fuel)	200.0-250.0	130-150	Nil	5.0-10.0
<b><u>2-Rice Husk:</u></b>  (as emergency fuel)	15.0-25.0	350.0-450.0	50.0-80.0	450.0-550.0
<b><u>3-Natural Gas:</u></b>  (as emergency fuel)	less then 5.0	less then 25.0	Nil	less then 5.0

### 6.6 Possible measures for avoiding or mitigation the impact

The principle of Cleaner Production i.e. Reduce. Recycle and Reuse (3Rs) has been observed while going for waste management at the conceptual levels of the project.

#### 6.6.1 Wastewater (vinasse)

Approximately 3600-4000 m<sup>3</sup>/day of effluent. with pollution load as reported at 6.4.1 prior to treatment, will be generated from project activity.

In order to bring the pollution load of the effluent within permissible limits of the NEQS. effluent treatment plant will be installed, where wastewater (**vinasse**) will be evaporated to concentrate solid contents form 12% to 50% and will be totally burnt on boilers. Ash produced after burning of concentrated wastewater (**vinasse**) is rich in potassium oxide and is a good fertilizer. Evaporated water produced in wastewater (**vinasse**) evaporation section will be almost pure water having very low BOD<sub>5</sub> and COD in comparison to the limiting values set in NEQS.

While the technology is guarded under patent. a flow sheet of wastewater (**vinasse**) concentration process is give at the ANNEXURE -VIII.

#### 6.6.2 Emissions – gaseous and particulate matter

Natural gas being the cleanest fuel, emissions of carbon monoxide (CO) and nitrogen oxides (NO + NO<sub>2</sub>) will remain within the prescribed limits while no emissions of SO<sub>2</sub> will take place.

However, by using concentrated wastewater (**vinasse**) as fuel in boilers, solids will be separated by electrostatic precipitators installed in between boilers and chimney, so particulate matter in flue gasses will be within the limits of NEQS. And last but not the least, the fuel burning efficiency will be controlled to control all these emissions and also to gain on fuel savings as special economic consideration for the project proponent. The proper maintenance of the boilers will further keep the particulate matter within the NEQS limits.

#### 6.6.3 Particulate matter

When using rice husk/concentrated wastewater (**vinasse**) as fuel in boilers, particulate matter will be the major emission of special concern for the environment. Electrostatic precipitators are installed between boilers and chimney to collect solid particles which is a very useful fertilizer, so particulate matter in emissions will be reduced to the prescribed levels of the NEQS

#### 6.6.4 Noise levels

Noise level within plant will be minimized by proper repair and maintenance of the equipment/machinery. Timely replacements of parts of machinery will be ensured in order to avoid excessive sound levels during plant operational condition.

Noise levels at plant boundary walls will be in compliance with the NEQS limiting values. Boundary walls of the plant act as a buffer against noise levels to be generated during plant operation. Thus, public in near by areas will not be effected by noise.

#### 6.6.5 Sludge/Solid wastes

The sludge and solids produced after burning of concentrated wastewater (**vinasse**) and rice husk in boilers is very rich in nitrogen and potassium oxide contents and is a good fertilizer. There will not be any harmful element therein. A lot of organic matter will form part of this sludge/boiler ash. It is ideally fit to be used as organic manure and soil conditioner. Therefore, it will be utilized as organic manure in agriculture land.

An adequate environmental management of controlling and monitoring to be put in place will further ensure environmental compliance with the NEQS of all wastes.

## **7.0 ENVIRONMENTAL MANAGEMENT PLAN, MONITORING PLAN AND PROPOSED TRAINING:**

As desired by the EIA guidelines matrices followed in this proposal, this section takes into account the followings:

1. Description of the proposed mitigation actions.
2. Schedule for mitigation actions.
3. Assigning responsibility for implementation (by name or position).
4. Monitoring program to assess performance.
5. Reporting and reviewing procedures. and
6. Training needs.

### **7.1 Description of the proposed mitigation actions**

While a brief resume of the mitigation actions with regard to the all-possible type of pollutants to be generated from the project activity is given hereunder, for more details reference be made to serial # 6.0 above.

#### **7.1.1 Effluents**

A wastewater (**vinasse**) evaporation section will be installed to concentrate from 12% solids to 50% which will be burnt as fuel on boilers. This plant will reduced pollution level to the degree that meets the limiting values of the NEQS as applicable to the activity of this project.

#### **7.1.2 Gaseous Emissions and Particulate Matter**

Boiler stack is the only source of emission of gases and particulate matter. In order to keep the gaseous emissions within the NEQS limits, the concentrated wastewater (**vinasse**) will be used as a major fuel. Natural gas and rice husk will be used as an alternate fuels. Due to efficient burning of concentrated wastewater (**vinasse**), natural gas and rice husk S O<sub>2</sub>, NO<sub>x</sub> and CO emissions will be kept within the NEQS limits.

Even from economy point of view, there cannot be any let to waste fuel. Hence, this is an associated incentive to achieve fuel

efficiency and also to achieve required environment management at the same time.

### 7.1.3 Noise levels

In the first place, fermentation is the process through which ethyl alcohol as the product will be manufactured. This process does not involve any machinery wherein various moving, grinding or rubbing parts come in contact to produce noise. The major equipment constitutes fermenters, unit operation equipment mostly free from compressors, rotaries or else which are among the majors producing noise. Secondly, proper, adequate and timely maintenance of equipment through lubrication, repair and replacement of parts will go a long way to keep the noise levels within the prescribed limits NEQS.

### 7.1.4 Sludge/Solid wastes

The sludge to be produced in fermentation section and ash during burning of concentrated wastewater (**vinasse**) on boilers are rich in nitrogen and potassium oxide contents. There will not be any harmful element therein. Rather a lot of organic matter form part of this sludge/ash is ideally fit for use as organic manure and soil conditioner. Therefore, it will be utilized as organic manure.

## 7.2 Schedule for mitigation

Installation of the wastewater (**vinasse**) concentration plant and electrostatic precipitators on boilers flue gasses will be done right from the inception stage of the project. This takes care of the wastewater pollution management and particulate matter. The plant will be routinely shutdown for annual repair and maintenance. Consequently, this will automatically keep the machinery in good condition thereby noise levels will remain within the limits of the NEQS. The sludge/ash will be used as manure.

### 7.3 Assigning Responsibility for Implementation (by name or position)

For effective environment management, responsibilities are set for each operation as follows:

Official Concerned	Responsibility
1. General Manager/Production Manager	<ul style="list-style-type: none"> <li>i. Over all in-charge of all the environmental management (E.M.) set up.</li> <li>ii. He will be responsible to ensure smooth functioning of the E.M. system.</li> <li>iii. Daily progress on the state of the environmental status will be reported to him in writing.</li> <li>iv. All other E.M. matters, issues and problems will be reported to him for rectification.</li> <li>v. He will work as bridge between the Government concerned authorities and the inside E.M.</li> <li>vi. He will be answerable to the higher management in all matters relating to E.M.</li> </ul>
2- Shift Incharge.	<ul style="list-style-type: none"> <li>i. During his shift timings, he will be responsible to look into smooth functioning of the waste water evaporation plant and all other E.M. matters.</li> <li>ii. He will be responsible to rectify any problem regarding environmental matter.</li> <li>iii. He will directly report all matters of E.M. to the G.M./Production Manager.</li> </ul>
3- Plant operators.	<p>He will be responsible for smooth operation of the wastewater evaporation plant. And report to the shift In charge through the Laboratory/Plant Chemist.</p>
4- Laboratory Chemist.	<ul style="list-style-type: none"> <li>1. He will carry out all required laboratory testing of the quality of the wastewater before and after evaporation and report to the Shift in charge. All Lab. Test results will be recorded daily in appropriate register.</li> <li>2. He will be responsible to monitor sound levels and particulate matter from the stack. And make written record according to a procedure.</li> <li>3. All test results of the waste water, sound levels and particulate matter will be logged in appropriate register in the form that could be presented to any concerned Government official as well as for internal consumption.</li> </ul>



**Monitoring Program to Assess Performance:**

The present project is not directly covered under direct monitoring program in the "guidelines for Self-Monitoring and Reporting by the industry." Final Report, March 1998, approved by Pakistan Environmental Protection Council (PEPC), in August, 1999. However, since it is entirely sugar-based industry, hence monitoring and reporting frequency of gaseous and effluent pollutants as applicable to sugar industry will be adhered to.

Accordingly, waste water parameters including effluent flow, temperature, pH, BOD<sub>5</sub>, COD, TSS, oil and grease and gaseous parameters like particulate matter, CO, SO<sub>x</sub> and NO<sub>x</sub> will be monitored on quarterly basis for normal plant conditions.

However, the treated waste water will be daily monitored for effluent flow, temperature, pH and TSS and fortnightly monitoring for effluent flow, temperature, pH, BOD<sub>5</sub>, COD, TSS and oil and grease. This is necessary also to monitor the functioning of the treatment plant.

**7.5 Reporting and reviewing procedures**

According to the monitoring schedule as explained at serial # 7.4, all the data to be monitored will be scrutinized daily at the level of Shift In charge and on monthly basis at the G.M. level. The data will be documented in appropriate manner and format. Any discrepancies will be adequately addressed to. For presentation of the data to the Government Agencies, the approved data-recording format will be used.

**7.6 Training needs**

The technical staff to manage environment at the plant needs training especially in the following fields.

**7.6.1 Operation of Wastewater (vinasse) concentration section**

Operation of wastewater (vinasse) concentration section is highly skilled job; hence training to operate the plant will be imparted to shift in-charges as well as plant operators.

**7.6.2 Environment Quality Control Laboratory**

Laboratory chemist will be required to undergo training in laboratory testing methods for waste water before and after treatment, monitoring of sound levels, particulate matter and gaseous monitoring.

## 8.0 REFERENCES

The following documents, reports were consulted during the preparation of this report.

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11. Standard Methods for the Examination of Water and Wastewater, 19<sup>th</sup> Edition, 1995, Prepared and published jointly by: American Public health Association, American Water Work Association, Water Environment Federation: Publication office; American Public Health Association, 1015 Fifteenth Street, NW Washington, DC 20005.

#### 9.0 Sources of Data and Information and List of Reference Material Used

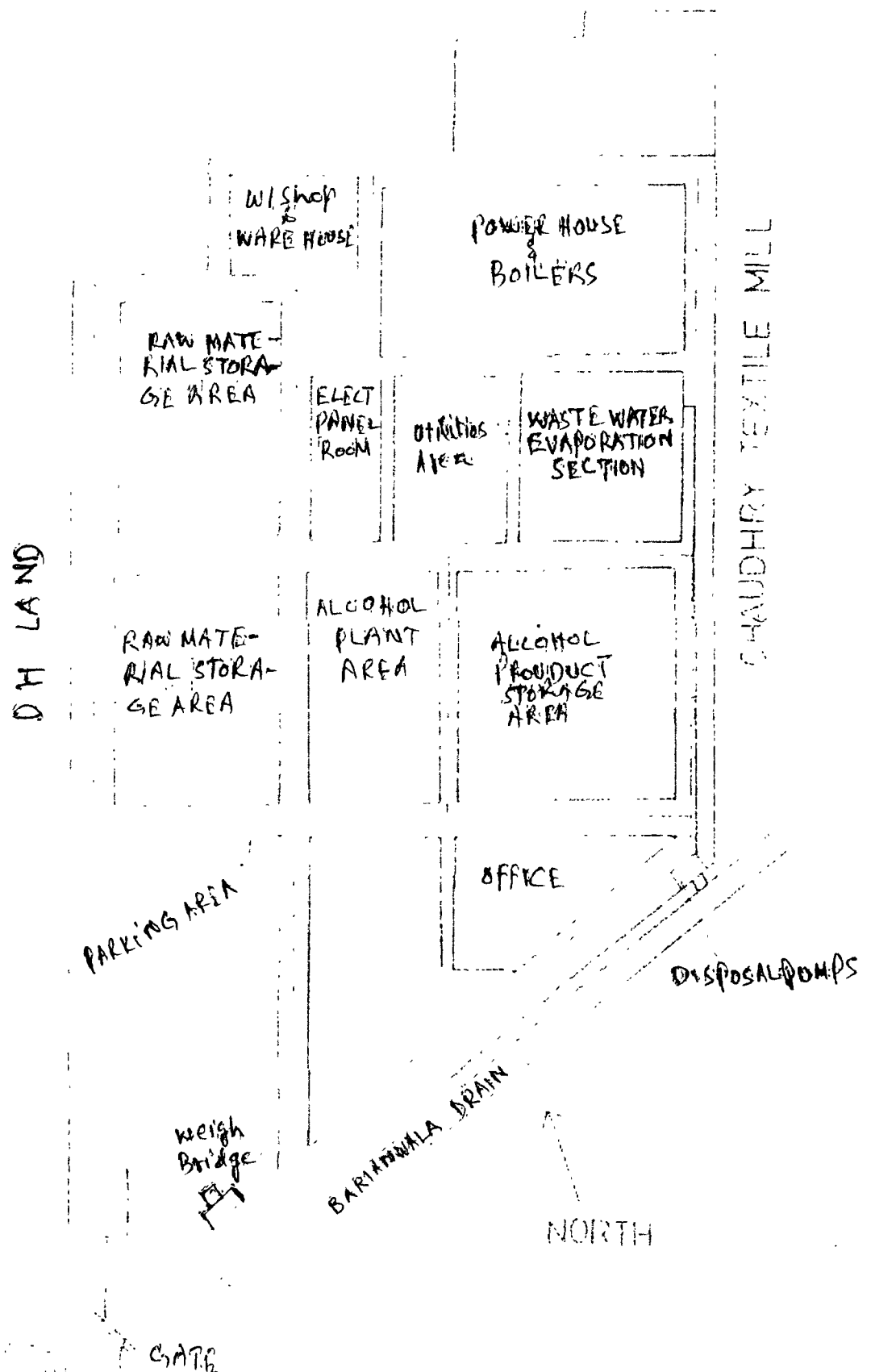
The site specific data regarding ambient air quality (CO, SO<sub>x</sub>, NO<sub>x</sub>, and O<sub>2</sub>), Particulate Matter, under ground water quality, "BAHRAIN WALA DRAIN" water quality (to which treated waste water will be discharged) and sound levels were generated through on site monitoring. The environment monitoring and laboratory testing of samples by M/S SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY, LAHORE (certified as Environment Laboratory, by the Environment Protection Department, Government of the Punjab). Additionally, the documents reported at the serial # 8 were also consulted.

#### 10.0 Team Members Who Carried Out the Study and Prepared the EIA

Team members who participated in various activities of this study and preparation of this report are listed hereunder with their qualifications, experience and assignment carried out by each one of them.

Sr. #	Name	Qualification	Experience	Assignment
1	Dr. A. R. Saleemi	P.hD (Engg)	30 years	Supervision of testing, review of report writing.
2	S. Nihal Asghar	B.Sc(Engg)	22 years	Preparation of report, supervision of field testing.
3	Asad Ibrahim	B.Sc(Engg)	5 years	Field testing and compilation.

Location Map of Premier Industrial Chemical  
Mfg. Co. (Pvt.) Ltd.



## MANUFACTURING PROCESS

### FERMENTATION SECTION:-

Propagated yeast is partly shifted continuously in main fermentation tanks for the fermentation of diluted mash to get ethyl alcohol. Fermentation process is exothermic process and all the fermenters are equipped with heat exchangers for cooling to remove reaction heat. In fermenters almost 90% to 92% fermentable sugars are converted into ethyl alcohol and concentration of ethyl alcohol in fermenters is 8.5% to 10%.

Sludge from Fermentation section are rich in Potassium Oxide and Nitrogen and can be used as fertilizer

### DISTILLATION:-

Fermented liquor containing 8.5% to 10% ethyl alcohol is stripped, purified and refined in series of distillation columns from where following products are taken out for export and local sales.

1. Industrial alcohol having minimum alcohol contents of 96% (v/v) from rectifying distillation column.
2. Superfine alcohol having minimum alcohol contents of 96% (v/v) from de-methanol distillation column.
3. Methylated (sub alcohol) alcohol having minimum alcohol contents of 95% (v/v) is taken out from purifying tower.

### WASTEWATER GENERATION (VINASSE):-

Wastewater (**vinasse**) is produced from stripping column @ 154 tons/hr with 12% total solids. Wastewater (**vinasse**) is concentrated from 12% solids to 50% solids in the specially designed falling film plate type evaporators from where concentrated wastewater (**vinasse**) @ 30 Tons/hr will be sent to waste burning boilers as fuel.

Evaporated water @ 120 Tons/hr which is almost neat water with a  $P_{H_2O}$  value of 5.8 to 6.0 will be disposed off in "BAHRAIN WALA DRAIN" after adjustment of  $P_{H_2O}$  and cooling.

### **STEAM GENERATION.**

Three boilers are being erected for generation of steam for power generation and process requirement. Two boilers will use concentrated wastewater (vinasse) as fuel where as in 3<sup>rd</sup> boiler natural gas/rice husk will be used as fuel. To control particulate matter in boiler exhaust gas, electrostatic precipitators are being installed in between boilers and chimney.

Ash produced in waste burning boilers will be collected by electrostatic precipitators and will be sold as fertilizer being containing 16% to 18% potassium oxide.

### **POWER GENERATION:-**

Steam generated in boilers will be used for 6 MW power generation and exhaust steam from steam turbine will be used for process requirements.

TYPE OF FUEL USED

Fuel used for boilers will be concentrated wastewater (**vinasse**) having 50% solids having calorific value 2500 Kcals/Kg. SO<sub>2</sub>, NO<sub>x</sub> and CO in flue gasses will be within the limiting range of NEQS due to efficient burning. And particulate matter in flue gasses will be controlled by electrostatic precipitators to keep them within NEQS limits. Natural gas and rice husk will be used as Supplement fuels.

SOLID WASTE

About 200 Tons/day ash will be produced which will be separated from flue gasses by electrostatic precipitators and will be used as fertilizer having 16% to 18% potassium oxide.

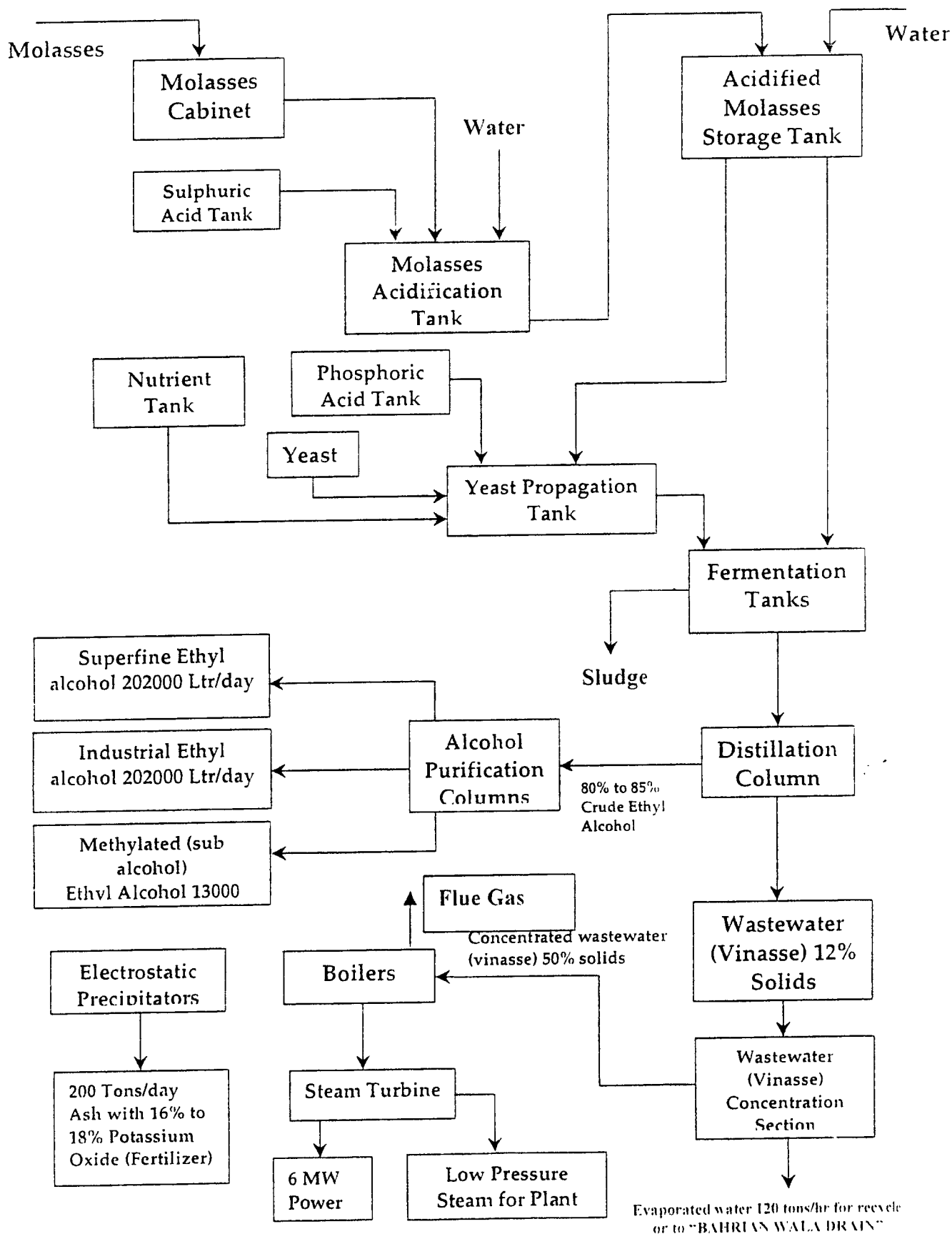


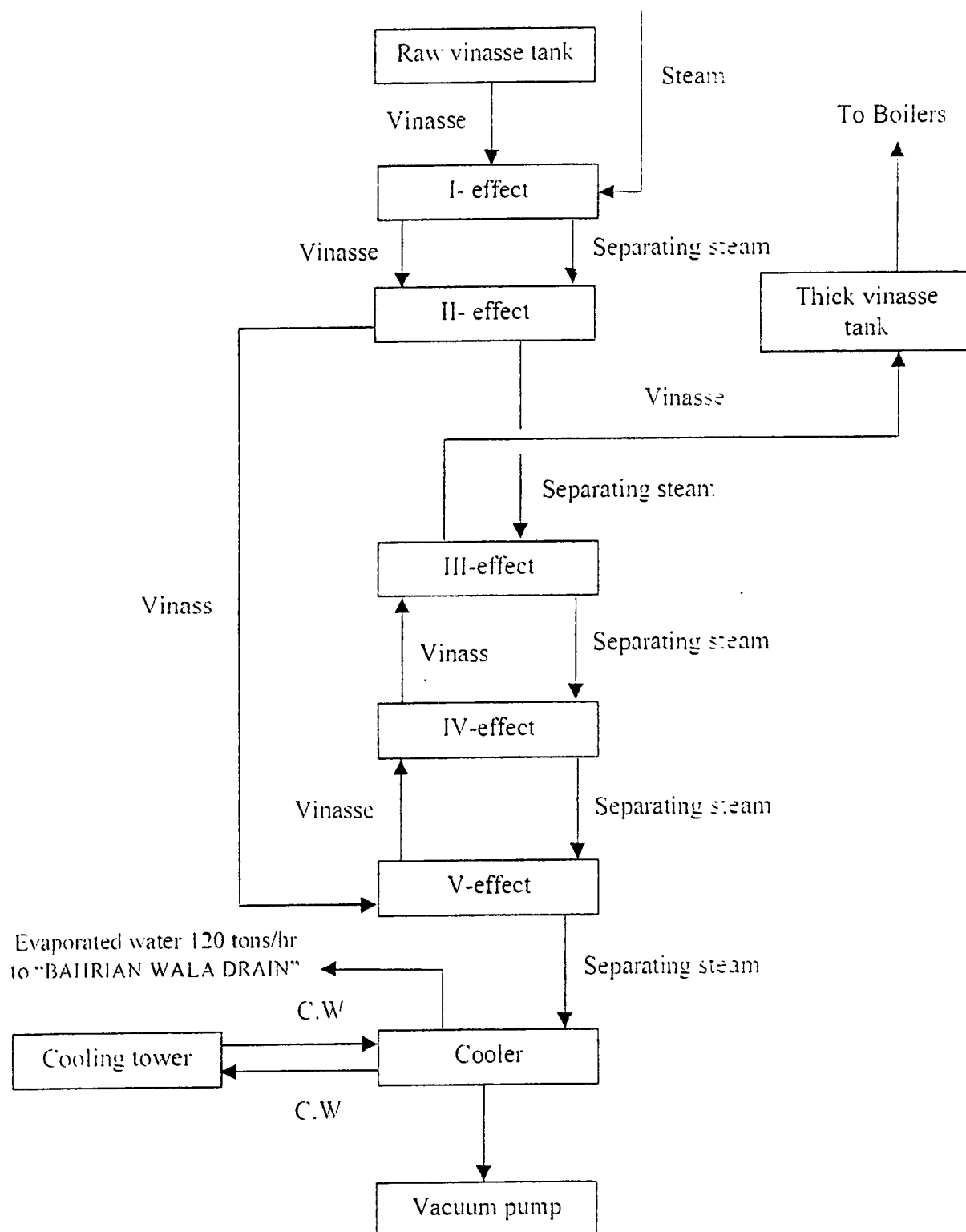
LIQUID WASTE

About 120 Tons/Hr evaporated water with 5.8 to 6.0 PH and very low BOD<sub>5</sub> COD. TSS and TDS values will be generated in wastewater (vinasse) evaporation section and this wastewater either will be used in process as recycle water or disposed off in "BAHRIAN WALA DRAIN" after cooling.

GASEOUS WASTE

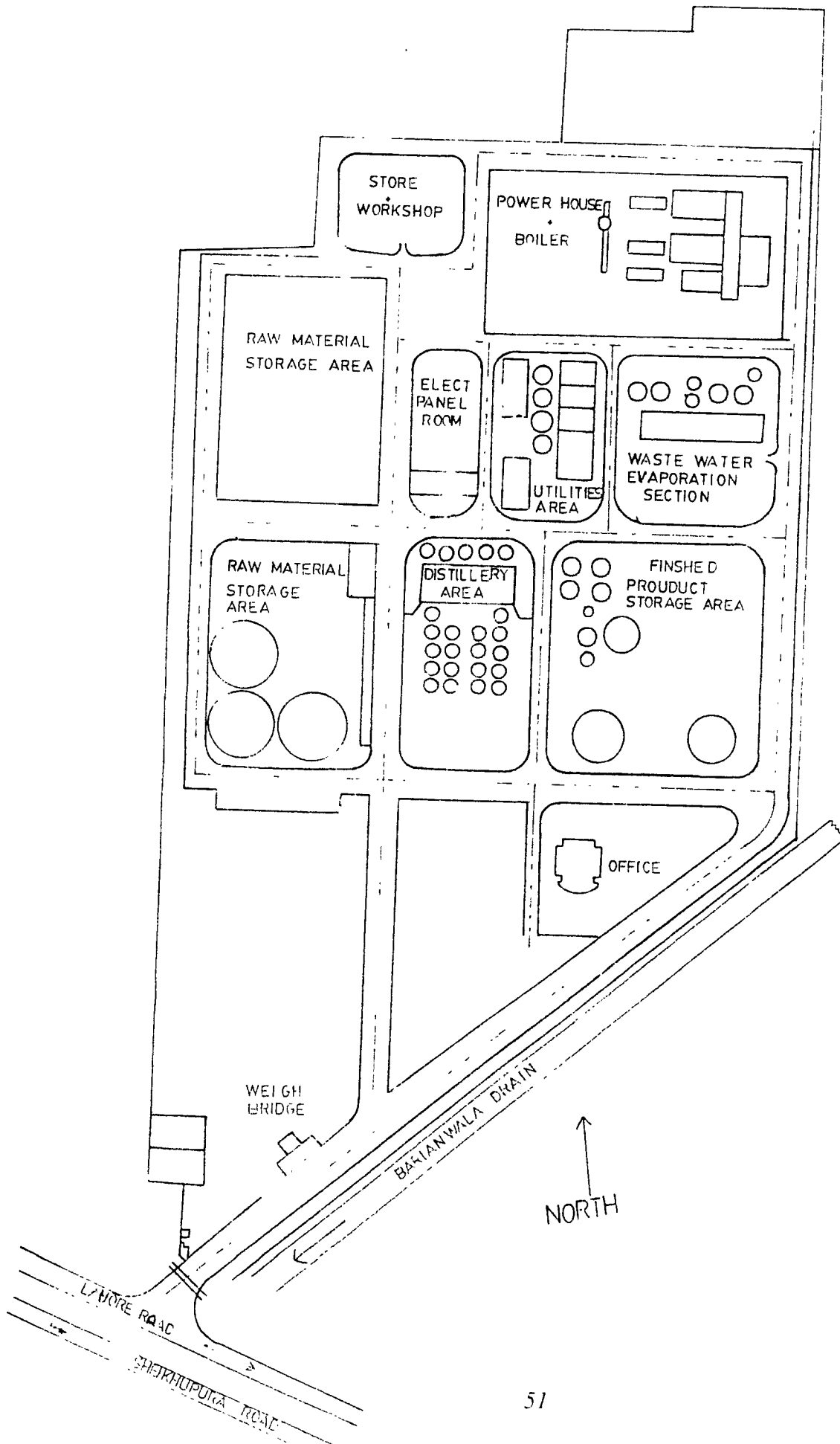
Gaseous waste contains  $\text{SO}_2$ ,  $\text{NO}_x$ , CO and particulate matter which will be well within limits set by NEQS. Electrostatic precipitators are installed between boilers and chimney to catch dust particles. Main fuel used on boilers will be concentrated wastewater (**vinasse**) with 50% solids whereas natural gas and rice husk are alternative fuels.

**FLOW SHEET DIAGRAM OF MANUFACTURING PROCESS**

**DESIGN OF WASTEWATER (VINASSE) EVAPORATION SECTION**

LAY OUT PLAN OF PREMIER INDUSTRIAL CHEMICAL  
Mfg Co(PVT) LTD

ANNEXURE-IX



**PROPOSED QUALITY MEASURE**

Wastewater (**vinasse**) evaporation plant is being installed from where concentrated wastewater (**vinasse**) with 50% solids will be burnt in boilers and ash produced will be collected through electrostatic precipitator and used as fertilizer. The evaporated water which has 5.8 to 6.0 PH and very low BOD<sub>5</sub>, COD, TSS and TDS will be recycled or disposed off in "BAHRIAN WALA DRAIN".

**ANTICIPATED QUANTITIES & QUALITIES OF ULTIMATE EFFLUENT AND  
MODE OF ULTIMATE DISPOSAL**

Evaporated water produced during process of evaporation of wastewater (**vinasse**) is about 120 Tons/Hr having BOD<sub>5</sub>, COD, TSS, TDS and PH values are well within the limits set by NEQS. This evaporated water will be used as recycle water or disposed off in "BAHRIAN WALA DRAIN". The ash produced during burning of vinasse in boiler having 50% solids will be collected through electrostatic precipitator and used as low-grade fertilizer.

**INDUSTRIAL ALCOHOL PLANT**

***MAJOR EQUIPMENT***

- Molasses storage tanks
- Molasses Pumps
- Molasses storage cabinet
- Molasses diluters
- Molasses Acidification Tanks
- Acidified Molasses Storage Cabinet
- Small yeast tank
- Big yeast Tank
- Yeast Proliferation Tanks
- Fermentation Tanks
- Carbon Dioxide Washing Tower
- Sulphuric acid storage tank
- Phosphoric acid storage tank
- Urea solution preparing tank
- Urea solution storage tank
- Fermentation Coolers
- Fermentation recirculation pumps
- Primary distillation column
- Primary distillation column recirculation pumps
- Primary distillation column reboilers
- Primary distillation column preheater
- Primary distillation column condensers
- Washing tower
- Washing tower condensers
- Rectifying tower
- Rectifying tower reflux tank
- Rectifying tower condensate flash tank
- Rectifying tower reflux pumps
- Industrial Alcohol cooler



- Purifying tower
- Purifying tower reflux tank
- Purifying tower reflux pumps
- Purifying tower condensers
- Demethanol tower
- Demethanol tower reboiler
- Demethanol tower reflux tank
- Demethanol tower reflux pumps
- Superfine alcohol cooler
- Methylated (sub alcohol) alcohol cooler
- Fusil oil cooler/decanter
- Industrial alcohol receiver tanks
- Industrial alcohol storage tank
- Superfine alcohol receiver tanks
- Superfine alcohol storage tank
- Methylated (sub alcohol) alcohol receiver
- Methylated (sub alcohol) alcohol storage tank
- Fusil oil storage tank
- Vacuum pumps
- Centrifugal pumps
- Process piping
- Process control equipment consisting of level, pressure, flow and temperature controllers and DCS system.

#### **MAJOR EQUIPMENT OF WASTEWATER (VINASSE) CONCENTRATION SECTION**

- Falling film plate type five effect evaporators
- Condensers
- Wastewater (vinasse) plate type pre heaters
- Vacuum pumps
- Dilute wastewater (vinasse) storage tanks
- Semi density wastewater (vinasse) storage tanks
- High density wastewater (vinasse) storage tanks
- Centrifugal pumps
- Process piping

- Process control equipment consisting of level, pressure, flow and temperature controllers and DCS system.

### **BOILERS/POWER GENERATION EQUIPMENT**

- Wastewater (vinasse) burning boilers
- Rice husk/natural gas burning boiler
- Steam turbine
- Generator to produce 6 MW power
- Electrostatic Precipitators
- ID/FD fans
- DCS system for control of level, pressure, flow and temperature on boilers and turbine.

### **MAJOR EQUIPMENT OF UTILITIES**

- Tube wells
- Cooling towers
- Soft water plant
- Chilled water plant
- Boiler feed water plant
- Instrument air plant

**ECONOMICS OF THE PROJECT****7.1 REVENUE ASSUMPTIONS****7.1.1 Capacity utilization**

The capacity utilization for the first year has been estimated at 70%. At 70% capacity utilization, the project could be able to produce 300000 liters of industrial, superfine and methylated (sub alcohol) per day. The capacity utilization and daily production of alcohol for the remaining years is giving below,

**TABLE 7.1 CAPACITY UTILIZATION AND DAILY PRODUCTION**

Years	Capacity utilization	Daily production liters per day			
		Industrial Alcohol	Superfine alcohol	Methylated (sub alcohol) alcohol	Total
1	70%	145000	145000	10000	300000
2	75%	155000	155000	10000	320000
3	80%	164000	164000	12000	340000
4	85%	175000	175000	12000	362000
5	85%	175000	175000	12000	362000

**12.0 SELLING PRICE**

The selling price for the export and local sales of industrial/superfine alcohol and methylated (sub alcohol) alcohol has been estimated as follows.

**TABLE 12.1 PRICES OF ALCOHOL**

Type of alcohol	Type of sales	Selling price per liter
Industrial alcohol	Export	0.40 US Dollar
Superfine alcohol	Export	0.45 US Dollar
Industrial alcohol	Local	Rs. 30
Methylated (sub alcohol) alcohol	Local	Rs. 20

## **12.2 SALES MIX**

The proposed project will be concentrating more on the export market due to high export potentials. However, smaller quantities of industrial alcohol will be sold in the local market to meet the local demand. It is estimated that 90% of the alcohol production will be exported and the remaining 10% will be disposed off in the local market.



EPA CERTIFIED

# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

Industrial Alcohol Plant

ANNEXURE-XVIII

## UnderGround Water Quality

Source = Turbine Depth 500 Feet

Discharge = 3 cusecs

S.#	Parameters	Results
1	Color	Colorless
2	Odor	Unobjectionable
3	Taste	Unobjectionable
4	Turbidity	0.0 NTU
5	PH	7.8
6	Total Dissolved Solids (TDS)	360 mg/l
7	Total Hardness	140 mg/l
8	Total Alkalinity	180 mg/l
9	Chloride (Cl)	34 mg/l
10	Sulfate (SO <sub>4</sub> )	75 mg/l

  
Chief Chemist



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# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

Industrial Alcohol Plant

ANNEXURE-XVII

## Barianwala Drain

Location : 50 Km From Lahore Sheikhpura Road (downstream)

S.#	Parameter	N.E.Q.S	Results
1	Temperature	40°C	31
2	Value of PH	6-10	6.1
3	Biochemical Oxygen Demand(BOD) <sub>5</sub>	80 mg/l	390
4	Chemical Oxygen Demand(COD)	150 mg/l	1270
5	Total Dissolved Solids (TDS)	3500 mg/l	1450
6	Total Suspended Solids (TSS)	200 mg/l	650
7	Chloride (Cl <sup>-1</sup> )	1000 mg/l	310
8	Sulphate (SO <sub>4</sub> ) <sup>-2</sup>	600 mg/l	400
9	Sulphide as S <sup>-2</sup>	1.0 mg/l	62
10	Chlorine (Cl <sub>2</sub> )	1.0 mg/l	0.0

  
Chief Chemist



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# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

Industrial Alcohol Plant

ANNEXURE -XVI

## Noise Level

S.No	Parameters	9 Km SKP-LHR Road	Plant site (500 feet from SKP-LHR Road)	Village Harianwala
1	Noise level Leq. db	78	51	40

Chief Chemist



EPA CERTIFIED

# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

Industrial Alcohol Plant

ANNEXURE-XV

## Ambient Air Quality (Particulate Matter)

S.No	Parameters	9 Km SKP-LHR Road	Plant site (500 feet from SKP-LHR Road)	Village Harianwala
1	Particulate Matter (PM10) (ug/m3)	430	490	310

  
Chief Chemist





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# SOLUTION ENVIRONMENTAL & ANALYTICAL LABORATORY

Industrial Alcohol Plant

ANNEXURE- XIV

## Ambient Air Quality (Gaseous)

S. #	PARAMETERS	9 Km SKP-LHR Road	Plant site (500 feet from SKP-LHR Road)	Village Harianwala	WHO Ambient Air Quality Standards
1	Sulphur DiOxide (SO <sub>2</sub> )(PPb)	18	9	4	34 (24Hrs)
2	Nitrogen DiOxide (NO <sub>2</sub> ) (PPb)	28	13	10	100~170 (01Hrs)
3	CarbonMonoOxide(CO) (ppm)	1	0.4	0	8.7(8Hrs)
4	Ozone (O <sub>3</sub> ) (PPb)	8	10	13	102 (01hrs)

  
Chief Chemist

Ultimate and Proximate Analysis Of Vinasse Cake(on dry basis)

S.#	Parameter	Result in %
1	Volatile Matter	69.31 %
2	Fixed Carbon	11.73 %
3	Carbon	39.72 %
4	Hydrogen	8.6 %
5	Sulphur	12 %
6	Nitrogen	1.65 %
7	Ash	18.95 %

From,

Executive Engineer,  
Rachna Drainage Division,  
Sheikhupura.

To,

The Sub Divisional Officer,  
Rachna Outfall Drainage Sub Division,  
Sheikhupura.

No. 131 / 7000

Dated. 28/01/2006

**Subject:- N.O.C. FOR THE DISPOSAL OF TREATED EFFLUENT OF  
PREMIER INDUSTRIAL CHEMICAL MFG CO (PVT) LTD, IN  
BHARIANWALA DRAIN NEAR LAHORE, SHEIKHUPURA  
ROAD.**

**Ref:-** Your Letter No. 662/5E dated 17-12-2005.

As recommended by you, disposal of 3 Cs. of effluent by M/S Premier Industrial Chemical MFG Co (Pvt) Ltd, Lahore, Sheikhupura Road in to Bharianwala Drain at R.D. 36050 / R is allowed subject to the following conditions that:-

1. The quality of the effluent is as per standards of Environment Protection Department and is Subject to their clearance.
2. An agreement with the company is made on yearly basis on the terms and conditions as in vogue in the Department.
3. Advance charges per annum are deposited with the Division at the rates approved by the Government.
4. Any damage to the Drain / Drainage Structures caused due to the disposal will be repaired at the expense of the company.

Executive Engineer,  
Rachna Drainage Division,  
Sheikhupura.

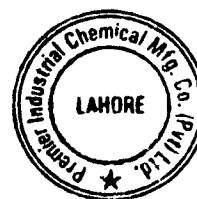
28/1/06

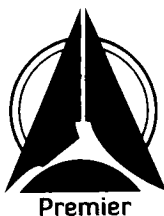
C.C.

1. The Director M/S Premier Industrial Chemical MFG Co (Pvt) Ltd, 9 Killo Meter Lahore, Sheikhupura Road, Post Office Kot Saleem, Sheikhupura, for information please.

Climatic And Weather data

Mean Maximum Temperature	= 45° C
Mean Minimum Temperature	= 2° C
Extreme Maximum Air Temperature	= 54° C
Extreme Minimum Air Temperature	= 1.7° C
Low Relative Humidity	= 24%
High Relative Humidity	= 90%
Maximum Normal Wind Speed	= 20 Km/h





# Premier Industrial Chemical MFG Co (Pvt) Ltd.

23 Ahmed Block, New Garden Town, Lahore, Pakistan Tel: +92 423 588 5717-19, Fax: +92 423 586 6084  
E-mail: picsskp@gmail.com, ppmltd@hotmail.com Web: www.premiergroup.pk

## System Studies, load flow, shortcircuit, stability, reliability

### 1. General Information

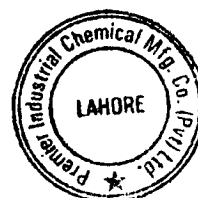
(i)	<b>Applicant's Name</b>	Premier Industrial Chemical Mfg.Co Pvt Ltd.
(ii)	<b>Registered Office</b>	23-Ahmad Block New Garden town Lahore
(iii)	<b>Plant Location</b>	Sheikhupura (Punjab)
(iv)	<b>Type of Generation Facility</b>	Coal / Rice Husk based Cogeneration Power Plant
(v)	<b>Commissioning/Commercial Operation Date</b>	Jan, 2016
(vi)	<b>Expected Life of the Facility from Commercial Operation/Commissioning</b>	20 years
(vii)	<b>Expected Remaining Useful Life of the Facility</b>	20 years

### 2. Plant Configuration

(i)	<b>Plant Size Installed Capacity (Gross ISO)</b>	7.0 MW
(ii)	<b>Type of Technology</b>	Cogeneration Power Plant with high pressure boilers & Turbo-Generators
(iii)	<b>Number of Units</b>	1 Nos.
(iv)	<b>Unit Make and Model</b>	Boiler –Fluidized bed of M/S. Cheema Boilers, India make. Turbo generator - Extraction type of M/S. Triveni India make.
(v)	<b>De-rated Capacity at mean site condition</b>	Power Generation:3.0 MW
(vi)	<b>Auxiliary Consumption</b>	3.65 MW

### 3. Fuel/Raw Material Details

(i)	<b>Primary Fuel</b>	Coal
(ii)	<b>Alternate Fuel</b>	Rice Husk
(iii)	<b>Fuel Source (Imported/Indigenous)</b>	Imported + Local
(iv)	<b>Fuel Supplier</b>	Different local parties dealing as fuel suppliers
(v)	<b>Supply Arrangement</b>	Through conveyor belts/loading trucks/tractor trolleys etc.,



(vi)	<b>Coal Crushing Capacity</b>	6.45tonnes per hour
(vii)	<b>Coal Generation Capacity</b>	Not Applicable
(viii)	<b>Coal Storage Capacity</b>	1000 MT
(ix)	<b>Number of Storage Tanks</b>	In open Yard
(x)	<b>Storage Capacity of each tank</b>	Not Applicable
(xi)	<b>Gross Storage</b>	1000 Sq. M

#### 4. Emission Values

(i)	<b>So<sub>x</sub></b>	Less than 2000 mg/M <sup>3</sup>
(ii)	<b>No</b>	Less than 2300 mg/M <sup>3</sup>
(iii)	<b>CO<sub>2</sub></b>	11% to 13%
(iv)	<b>CO</b>	Traces.
(v)	<b>PM</b>	Less than 300 mg/M <sup>3</sup>

#### 5. Cooling System

(i)	<b>Cooling Water Source/Cycle</b>	RCC Cooling tower of forced draft counter flow type. Make up water will be drawn from the bore wells.
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#### 6. Plant Characteristics

(i)	Generation Voltage	11000 V						
(ii)	Frequency	50 Hz						
(iii)	Power Factor	0.8						
(iv)	Automatic Generation Control (AFG)	Through AVR						
(v)	Ramping Rate	Will be furnished after the receipt of data from the equipment supplier.						
(vi)	Time Required to Synchronize to Grid and Loading the Complex to Full Load from Cold Start	<table><tr><td>1. During cold start (i.e. when plant is started later than 72 hours after shutdown)</td><td>370 Minutes</td></tr><tr><td>2. During warm start (i.e. when plant is started at less 36 hrs after shutdown)</td><td>260 Minutes</td></tr><tr><td>3. During Hot start (i.e. when plant is started at less than 12 hrs after shutdown)</td><td>90 Minutes</td></tr></table>	1. During cold start (i.e. when plant is started later than 72 hours after shutdown)	370 Minutes	2. During warm start (i.e. when plant is started at less 36 hrs after shutdown)	260 Minutes	3. During Hot start (i.e. when plant is started at less than 12 hrs after shutdown)	90 Minutes
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3. During Hot start (i.e. when plant is started at less than 12 hrs after shutdown)	90 Minutes							

for *S. G. Ali*



Load Flow Chart 11 kv

