

**Nagarjuna Fertilizers and Chemicals Limited — Annual Report 1998 - 99**



*A Golden Harvest*

**A Golden Harvest**

The cover of this Annual Report symbolically reflects  
last year's bountiful harvests.

This also represents the overall improved  
performance of your Company.

## Board of Directors

**Field Marshal Sam Manekshaw, M.C.**  
Chairman

**J B Dadachanji**

**Enrico Stacul**

**F J Heredia**

**Jaykrishna Harivallabhdas**

**R Krishnan**

**A Lahiri**  
IDBI Nominee

**N C B Nath**

**S Padmanabhan**  
SBI Nominee

**P C Parakh, IAS**  
Government of Andhra Pradesh Nominee

**Paul Pothen**

**S R Ramakrishnan**

**P P Singh**  
KRIBHCO Nominee

**R L Saha**  
Alternate to P P Singh

**M J Subbaiah**  
ICICI Nominee

**P K Madhav**  
Director (Finance)

**P R Menon**  
Director (Technical)

**K S Raju**  
Vice Chairman & Managing Director

**Vice President (Legal)  
and Secretary**  
L V V Iyer

**Auditors**  
M Bhaskara Rao & Co.  
Chartered Accountants  
Hyderabad - 500 082  
INDIA

**Share Transfer Agents**  
Nagarjuna Investors Services Limited  
Nagarjuna Hills  
Hyderabad - 500 082  
INDIA

**Registered Office**  
Nagarjuna Hills  
Hyderabad - 500 082  
INDIA

**Factory**  
Kakinada - 533 003  
East Godavari Dist.  
Andhra Pradesh  
INDIA

## NFCL

### Notice of the Twenty Third Annual General Meeting

**NOTICE** is hereby given that the 23<sup>rd</sup> Annual General Meeting of Nagarjuna Fertilizers and Chemicals Limited will be held on Monday, September 20, 1999, at 10.00 a.m. at Hari Hara Kala Bhavan, Sardar Patel Road, Secunderabad - 500 003, to transact the following ordinary and special business.

#### Ordinary Business :

1. To receive, consider and adopt the 23<sup>rd</sup> Annual Report of the Directors, Balance Sheet as at March 31, 1999 and the Profit and Loss Account for the financial year ended March 31, 1999 and the Report of the Auditors thereon.
2. To declare a Dividend on the equity shares for the year ended March 31, 1999.
3. To appoint a Director in the place of Field Marshal Sam Manekshaw, who retires by rotation and is eligible for re-appointment.
4. To appoint a Director in the place of Shri Raman Nair Krishnan, who retires by rotation and is eligible for re-appointment.
5. To appoint a Director in the place of Shri S R Ramakrishnan, who retires by rotation and is eligible for re-appointment.
6. To consider and if thought fit, to pass with or without modification(s) the following resolution proposed as a Special Resolution.

"RESOLVED THAT the retiring Auditors of the Company, M/s. M Bhaskara Rao & Co., Chartered Accountants, Hyderabad being eligible for reappointment be and are hereby appointed as Auditors of the Company to hold Office from the conclusion of the 23<sup>rd</sup> Annual General Meeting till the conclusion of the next Annual General Meeting on such terms and conditions as may be fixed by the Board of Directors of the Company."

By Order of the Board

Hyderabad  
April 27, 1999

L V V Iyer  
Vice President (Legal) & Secretary

#### Notes

1. A member entitled to attend and vote at the meeting is entitled to appoint a proxy to attend and vote instead of himself and such proxy need not be a member of the Company.
2. Instrument of proxies in order to be effective must be deposited at the Company's registered office at Nagarjuna Hills, Hyderabad - 500 082 not less than forty eight hours before the meeting.
3. The Register of Members and Share Transfer Books will remain closed from September 1, 1999 to September 20, 1999 (both days inclusive).
4. The Dividend for the year ended March 31, 1999 as recommended by the Board and approved by the shareholders at the Meeting shall be payable, on or before November 1, 1999 to those members whose names appear on the Company's Register of Members on September 20, 1999.
5. In order to provide protection against fraudulent encashment of Dividend Warrants, Members are requested to provide their Bank Account Number, Name and Address of the Bank/Branch to enable the Company to incorporate the same in the Dividend Warrants

6. Members are requested to inform immediately the change, if any, of address registered with the Company.
7. Members desiring to seek any information on the Annual Accounts are requested to write to the Company at an early date to enable compilation of information.
8. All communication relating to shares are to be addressed to the Company's Transfer Agents, Nagarjuna Investors Services Limited, Nagarjuna Hills, Hyderabad - 500 082.

By Order of the Board

Hyderabad

April 27, 1999

L V V Iyer

Vice President (Legal) & Secretary

### Addendum to the Notice convening the 23<sup>rd</sup> Annual General Meeting to be held on Monday, September 20, 1999

#### Special Business :

7. To consider, and if thought fit, to pass with or without modification(s) the following resolution which will be proposed as a Special Resolution:

"RESOLVED THAT in partial modification of the resolution passed at the Extraordinary General Meeting held on May 4, 1998, and pursuant to Sections 198, 309, 310, Schedule XIII and other applicable provisions, if any, of the Companies Act, 1956 and subject to other requisite approvals, the remuneration of Shri K S Raju, Vice Chairman & Managing Director, Shri P K Madhav, Director (Finance) and Shri P R Menon, Director (Technical) be and is hereby enhanced and modified with effect from April 1, 1999 as per details given below :

1. (a) Salary (including dearness and all other allowances)

- (i) Shri K S Raju,  
Vice Chairman & Managing Director Rs.2.00 lakhs p.m.
- (ii) Shri P K Madhav, Director (Finance) Rs.1.50 lakhs p.m.
- (iii) Shri P R Menon, Director (Technical) Rs.1.50 lakhs p.m.

- (b) Commission :

- (i) Shri K S Raju, Vice Chairman & Managing Director  
0.5% of the net profits of the Company computed in accordance with Section 349 of the Companies Act, 1956 subject to limit of his salary.

- (ii) Shri P K Madhav, Director (Finance) Nil
- (iii) Shri P R Menon, Director (Technical) Nil

2. Perquisites : Perquisites shall be restricted to an amount equal to the annual salary.

- (i) Housing:

- a) The expenditure incurred by the Company on hiring furnished accommodation shall be subject to a ceiling of 60% of the salary; or
- b) In case the accommodation is owned by the Company, 10% of the salary shall be deducted by the Company; or
- c) In case no accommodation is provided by the Company, the said Directors, shall be entitled to house rent allowance subject to the ceiling laid down in clause (a).

Explanation: The expenditure incurred by the Company on gas, electricity, water and furnishings shall be valued as per the Income-tax Rules, 1962, subject to a ceiling of 10% of the salary.



**(ii) Medical Reimbursement:**

Reimbursement of the expenses incurred for self and family subject to a ceiling of one month's salary in a year or three months' salary over a period of three years.

**(iii) Leave Travel Concession:**

Leave Travel Concession for self and family once in a year, incurred in accordance with the rules of the Company.

Explanation: Family for (ii) and (iii) means the spouse, the dependant children and dependant parents.

**(iv) Club Fees:**

Fees of clubs subject to a maximum of two clubs.

No admission and life membership fee shall be paid.

**(v) Personal Accident Insurance:**

Personal accident insurance of an amount, the annual premium of which does not exceed Rs.10,000/- per annum.

**(vi)(a)** Company's contribution towards Provident Fund as per the rules of the Company.

**(b)** Gratuity as per the rules of the Company.

**(c)** Company's contribution towards Superannuation Fund as per the rules of the Company.

The aforesaid perquisites stated in (vi)(a), (vi)(b) and (vi)(c) shall not be included in the computation of the aforesaid ceiling on perquisites to the extent these either singly or put together are not taxable under the Income-tax Act, 1961.

**(vii) Earned Leave:**

On full pay and allowances and perquisites as per the rules of the Company. Encashment of leave at the end of the tenure shall not be included in the computation of the aforesaid ceiling on perquisites and/or salary.

**(viii)** Car for use on Company's business and telephone at residence shall not be considered as perquisites.

3. In the event of loss or inadequacy of profits in any financial year, each of the said Directors shall be paid a remuneration of Rs. 87,500/- per month.

"RESOLVED FURTHER THAT remuneration specified above for Shri K S Raju, Shri P K Madhav and Shri P R Menon may, subject to overall ceiling specified above and subject to Schedule XIII of the Companies Act, 1956, be modified as may be agreed to by the Company and Shri K S Raju, Vice Chairman & Managing Director, Shri P K Madhav, Director (Finance) and Shri P R Menon, Director (Technical), respectively."

"RESOLVED FURTHER THAT the perquisites mentioned above be interchangeable within the overall ceiling of the annual salary of Shri K S Raju, Vice Chairman & Managing Director, Shri P K Madhav, Director (Finance) and Shri P R Menon, Director (Technical), respectively."

8. To consider and if thought fit to pass with or without modifications the following resolution which will be proposed as a Special Resolution :

"RESOLVED THAT pursuant to the provisions of Sections 80, 81 and other applicable provisions, if any, of the Companies Act, 1956, (including any statutory modification(s) or re-enactment thereof) and the Memorandum of Association and Articles of Association of the Company and subject also to such other approvals, permissions and sanctions, as may be necessary and subject to such conditions and modifications as may be considered necessary by the Board of Directors of the Company (hereinafter referred to as the "Board" which expression shall also include a Committee thereof), or as may be prescribed or imposed while granting such approvals, permissions and sanctions which may be agreed to or accepted by the Board, the consent of the Company be and is hereby accorded to the Board to issue and offer 2,00,00,000 Non Convertible Redeemable Preference Shares or Preference Shares Convertible into Debentures of the face value of Rs.100/- each, of an aggregate nominal value not exceeding Rs.200 crores (hereinafter referred to as the "Preference Shares"), for cash at par, in one or more tranches, on such terms and conditions as to rate of dividend, period of redemption, terms of conversion, if any, as may be decided by the Board in its absolute discretion, to such persons, Bodies Corporate, Financial Institutions, Banks, Foreign Investors, Mutual Funds, Trusts and others whether shareholders of the Company or not, as the Board may deem fit, by private placement."

"RESOLVED FURTHER THAT for the purpose of giving effect to the above Resolutions, the Board be and is hereby authorised to do all such acts, deeds, matters and things including allotments and execute all such deeds, documents, instruments and writings as it may in its absolute discretion deem necessary or desirable."

9. To consider and, if thought fit, to pass with or without modification(s) the following resolution which will be proposed as a Special Resolution:

"RESOLVED THAT Clause V of the Memorandum of Association of the Company be amended to read as follows :

**Clause V :**

The Authorised Share Capital of the Company is Rs.800,00,00,000 (Rupees Eight Hundred Crores only) comprising 60,00,00,000 (Sixty Crores only) Equity Shares of Rs.10/- each and 2,00,00,000 (Two Crores) Preference Shares of Rs.100 /- each with the rights, privileges and conditions attaching thereto as are provided by the regulations of the Company for the time being with power to increase and / or reduce the Capital of the Company and to divide the shares in the Capital for the time being in accordance with the provisions of the Companies Act, 1956, or any other statutory enactments in force from time to time into several classes and to attach thereto respectively such preferential, qualified or special rights, privileges or conditions including that of redemption and/ or conversion (including deemed redemption / conversion) as may be determined by or in accordance with the enactment / order / notification as may be in force from time to time and to vary, modify or abrogate any such rights, privileges or conditions in such manner as may for the time being be provided by the regulations of the Company or any statutory enactment / order/ notification as may be in force from time to time."

10. To consider and, if thought fit, to pass with or without

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modification(s), the following resolution which will be proposed as a Special Resolution:

"RESOLVED THAT Article 5(1) of the Articles of Association of the Company be amended to read as follows :

The Authorised Share Capital of the Company is Rs.800,00,00,000 (Rupees Eight Hundred Crores only) comprising 60,00,00,000 (Sixty Crores only) Equity Shares of Rs.10/- each and 2,00,00,000 (Two Crores) Preference Shares of Rs.100 /- each with such rights, privileges and conditions provided by any statutory enactment for the time being in force and as may be provided by these Articles or by a Special Resolution passed at a General Meeting duly convened and held for the purpose."

**By Order of the Board**

Hyderabad  
July 14, 1999

**L V V Iyer**  
**Vice President (Legal) and Secretary**

**Explanatory Statement Under Section 173(2) for Items 7 to 10 of the Addendum to the Notice convening the 23<sup>rd</sup> Annual General Meeting to be held on Monday, September 20, 1999.**

### Item No.7

Pursuant to the overall increase in salary structure, it is considered desirable to enhance the Managerial Remuneration payable to Shri K S Raju, Vice Chairman & Managing Director, Shri P K Madhav, Director (Finance) and Shri P R Menon, Director (Technical). It is proposed to effect the enhancement of Managerial Remuneration with effect from April 1, 1999.

Shri K S Raju has been associated with the Company since July 1987. He has made significant contribution to the Company's fortunes and well being.

Your Directors consider Shri K S Raju's experience and expertise of great value to the Company and commend the resolution for approval.

Shri P K Madhav has been associated with the Company since April 1991 and has made significant contribution during the Project phase and thereafter.

Your Directors consider Shri P K Madhav's experience and expertise of great value to the Company and commend the resolution for approval.

Shri P R Menon has been associated with the Company since 1989 and has made significant contribution to the completion of the Company's first project as well as the second project and its subsequent successful operations.

Your Directors consider Shri P R Menon's experience and expertise of great value to the Company and commend the resolution for approval.

Shri K S Raju, Vice Chairman & Managing Director, Shri P K Madhav, Director (Finance) and Shri P R Menon, Director (Technical) are interested in the said enhancement to the extent of the salary and perquisites payable to them.

No other Director is interested in the resolution.

### Item No.8

The Company, in order to meet its long-term commitments from time to time and augment its long-term Working Capital requirements intends to raise money by way of issue of Preference Shares to such persons, bodies corporate, financial institutions, banks, foreign investors, mutual funds, trusts and other entities as the Board may determine either as private placement, preferential allotment or any combination thereof either in one or more tranches for such tenor, at such coupon rate and on such terms and conditions at the sole discretion of the Board of Directors on Private Placement basis for an amount not exceeding Rs.200 crores.

Your Directors commend the resolution for approval.

None of the Directors is interested in the resolution.

### Item No. 9 & 10

In view of what has been stated above at Item No.8, it is necessary to amend the Capital Clause of the Memorandum and Articles of Association and increase the Authorised Capital of the Company from Rs.600 crores to Rs.800 crores.

Your Directors commend the resolution for approval.

None of the Directors is interested in the resolution.

**All the documents in relation to the Special Business of the Notice are open for inspection at the Registered Office of the Company between 10.30 a.m. and 12.30 p.m. on any working day prior to the Meeting.**

**By Order of the Board**

Hyderabad  
July 14, 1999

**L V V Iyer**  
**Vice President (Legal) & Secretary**



## Report of the Directors

Your Directors have pleasure in presenting the 23<sup>rd</sup> Annual Report together with the Audited Accounts of the Company for the year ended March 31, 1999.

### Financial Results

Rs. in Crores

	1998-99 Current Year	1997-98 Previous Year
Turnover	1,214.54	795.88
Gross Profit (after interest)	275.88	136.74
Depreciation	115.28	5.96
Net Profit before Taxation	160.60	130.78
Provision for Tax	16.86	8.68
Net Profit after Tax	143.74	122.10
Profit for the Previous Year brought forward	257.25	254.76
Transferred to Debenture Redemption Reserve	36.00	3.85
Dividend	89.43*	59.78
Provision for tax on dividend	7.64*	5.98
Transferred to General Reserve	50.00	50.00
Profit carried to Balance Sheet	237.92	257.25

\* Proposed

### Dividend

Your Directors are pleased to recommend an increased dividend of 20% on the expanded equity capital of the Company.

### Plant Operations

The second Plant having commenced commercial production on March 19 last year, fully stabilised during the year. The combined production of Urea from Plant I and Plant II was 12.13 Lakh Metric Tonnes against 6.90 Lakh Metric Tonnes during the previous year.

With the successful completion of the second plant, your Company has emerged as the largest manufacturer of Urea in South India.

Plant Shut down for both the Plants was successfully carried out in the month of May 1999 this year for 15 days for predictive and preventive maintenance including certain repair jobs.

The supply of Natural Gas and Naphtha was satisfactory throughout the year.

Safety standards at both the Plants were maintained at high levels.

### Marketing

In the context of doubling of the manufacturing capacity of your Company, Marketing Division of your Company put up a good performance. During the year, your Company sold 12.37 Lakhs Metric Tonnes of Urea. Owing to the depressed marketing conditions, the sale of pesticides however came down from Rs 61.25 crores in the previous year to Rs 55.82 crores during the year.

Your Company sold 1502 Metric Tonnes of Speciality Fertilizers during the year valued at Rs. 6.28 crores.

The agri output division of your Company made good efforts in assisting the farmers towards improvement in farm management practices.

During the year the seeds division of your Company had a turnover of Rs.11.17 Crores as compared to Rs.6 Crores during the previous year.

### Environment

During the year, your Company continued its unswerving commitment towards the preservation and conservation of ecological balance in and around the plant. In recognition of your Company's commitment towards environment protection, your Company has received The Golden Peacock Environment Management Award for 1998 from The World Environment Foundation (WEF), New Delhi.

### Redemption of Debentures

The Board of Directors of your Company redeemed 5,55,35,000 debentures of Rs.10/- each and 27,04,469 debentures of Rs. 20/- each allotted by the Company in March 1993, effective December 31, 1998 as per the terms of the issue.

### Equity Share Capital

Your Company allotted 1.54 crore Equity Shares of Rs.10/- each to the Industrial Development Bank of India and other Financial Institutions, pursuant to part conversion of Term Loans into Equity in terms of the covenants contained in the Loan Agreements.

Pursuant to the approval accorded by the shareholders of your Company for the allotment of 6,95,00,000 warrants, the co-promoters of your Company converted 50,75,000 warrants into equity shares. The balance warrants should be converted into equity shares in the near future.

Consequent to the above allotments, your Company's Equity Capital stands enhanced to Rs.352.60 crores.

### Preference Share Capital

To augment its long term fund requirements, your Company proposes to issue preference shares amounting to Rs. 200 crores on private placement basis to such persons, bodies corporate, financial institutions, banks, foreign investors, mutual funds, trusts and other entities as the Board may determine on private placement basis either in one or more tranches for such tenor and at such coupon rate and on such terms and conditions as the Board of your Company may deem fit.

### Diversification

During the year, Nagarjuna Oil Corporation Limited (formerly Pennar Refineries Limited) which is setting up a 6 Million Tonnes per annum Refinery Project at Cuddalore, Tamilnadu, became a wholly owned subsidiary of your Company.

Nagarjuna Oil Corporation Limited (NOCL) has made good progress in implementing the Refinery Project. Work relating to dismantling and relocation of Refinery at Woerth, Germany, has commenced.

The Industrial Development Bank of India along with other Financial Institutions have given their in-principle sanction for financial assistance.

Your Company has invested about Rs.260 Crores in the Refinery Project as on March 31, 1999.

Nagarjuna Power Corporation Limited (NPCL), which is implementing the 1015 MW power plant at Mangalore has obtained the Techno Economic Clearance for the Project. Negotiations for the Power Purchase Agreement with Karnataka Electricity Board are in advance stage.

### Subsidiary Companies

In respect of Jaiprakash Engineering and Steel Company Limited

**NFCL**

and Nagarjuna Oil Corporation Limited, subsidiaries of your Company. a statement of the Holding Company's interest in the Subsidiary Companies is enclosed in accordance with Section 212 (2) (a) of the Companies Act, 1956.

**Y2K Compliance**

Your Company has taken adequate steps to make itself Y2K compliant.

Most of the Process Control Systems of the Company have been made Y2K compliant and it is expected that by September 30, 1999, the entire Process Control Systems would be Y2K compliant.

Your Company has sufficient internal resources to address any systems disruption due to Y2K factors.

**Personnel**

Your Company continues to enjoy cordial relations with employees at all levels and has signed a long term wage settlement with its unionised employees.

Your Company has received the award for the Best Workers' Welfare (including family planning) effort by an industrial unit in the State of Andhra Pradesh for the year 1997-1998 from Federation of Andhra Pradesh Chambers of Commerce & Industry (FAPCCI).

**Directors**

In accordance with the Articles of Association of the Company, Field Marshal Sam Manekshaw, Shri Raman Nair Krishnan and Shri S R Ramakrishnan retire at the forthcoming Annual General Meeting and being eligible offer themselves for re-appointment.

**Disclosures**

Disclosure in terms of Companies (Particulars of Employees) Rules, 1975 and Companies (Disclosure of particulars in the Report of the Board of Directors) Rules, 1988 in respect of Conservation of Energy, Technology Absorption, Earnings and Outgo of Foreign Exchange are attached and form part of this Report.

**Auditors**

M/s. M Bhaskara Rao & Co., Chartered Accountants, Hyderabad, the Company's auditors retire at the conclusion of the ensuing Annual General Meeting. They have signified their willingness to accept re-appointment and have further confirmed their eligibility under Section 224 (1B) of the Companies Act, 1956.

**Acknowledgement**

Your Directors place on record their appreciation of the continued assistance and co-operation extended to your Company by the Government of India, Government of Andhra Pradesh, Government of Karnataka, Government of Tamilnadu, Industrial Development Bank of India, other participating Financial and Investment Institutions, State Bank of India and other participating commercial banks, Gas Authority of India Limited, Snamprogetti, S.p.A., Italy, Haldor Topsoe A/S, Denmark, Projects and Development of India Limited, Krishak Bharati Co-operative Limited, Tamilnadu Industrial Development Corporation, Krupp Uhde GmbH, the large family of shareholders and depositors of your Company, the dedicated employees and all others who are continuing to assist your Company.

On Behalf of the Board

Hyderabad  
July 14, 1999

Field Marshal Sam Manekshaw, M.C  
Chairman

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**FORM - A**

Form for disclosure of particulars with respect to Conservation of energy

Particulars	Unit	Year ended	
		31-03-99	31-03-98
<b>Power &amp; Fuel Consumption</b>			
<b>1. Electricity</b>			
<b>a) Purchased</b>			
Unit	1000 KWH	2,149	224
Total Amount	Rs.lakhs	208.04	11.38
Rate/KWH	Rs.	9.66	5.08
<b>b) Own Generation</b>			
Through Gas Turbine Units	1000 KWH	181,729	94,630
Quantity - Unit/SM <sup>3</sup>	KWH	5.60	4.03
Cost of gas per Unit of Power generated	Rs/KWH	0.52	0.71
<b>2. Fuel</b>			
(including Ammonia - fuel, Steam & Power)			
Quantity - Natural Gas	1000 SM3	327,700	201,141
NG LHV	Kcal/SM3	8,593	8,607
Total Cost	Rs.Lakhs	9,552.50	5,807.87
Rate per unit of Natural Gas	Rs /1000 SM3	2,915	2,887
Quantity - Naphtha	MT	71,219	1,096
Total Cost	Rs.Lakhs	5,357.91	89.30
Rate per unit of Naphtha	Rs./MT	7,523	8,145

**3. Consumption per MT of Urea Production** (including Ammonia - fuel, steam and power)

Particulars	Unit	Standard	Year ended	
			31-03-99	31-03-98
Electricity (Incl. Internal generation)	KWH	132.8	152	137
Naphtha	Kg	-	58.73	0.70
Natural Gas (Fuel)* at 8168 Kcal/SM <sup>3</sup>	SM <sup>3</sup>	297.41	284	307





## FORM - B

### Form for disclosure of particulars with respect to technology absorption

#### A. Research and Development (R & D)

1. **Specific areas in which R & D carried out by the Company :** a) Energy Conservation b) Capacity utilisation and c) Environmental Protection.
2. **Benefits derived as a result of the above R & D :** Savings in Natural Gas consumption, better capacity utilisation, reduction in overall specific energy consumption of Urea and reduction in pollutant discharge.
3. **Future plan of action :** Pursue improvements in the same areas by,
  1. Retrofit of the existing Ammonia and Urea Plants.
  2. Modification to the recirculator wheel of Ammonia Synthesis Gas compressor in Unit-I.
  3. Maximize electric driven drives.
  4. A Major turn around of both units is planned for overhaul Turbines, Compressors etc which will improve energy efficiency.
4. **Expenditure on R & D :** No separate record of the expenditure incurred on R & D is maintained.
  - a) Capital    b) Recuring    c) Total    d) Total R & D expenditure as a percentage of total turnover.

#### B. Technology absorption, adaptation and Innovation :

1. **Efforts, in brief, made towards technology absorption, adaptation and innovation.**

##### In house Efforts :

- i) A number of new and energy saving features like Pre reformer, Medium Pressure Condensate Stripper, Bimetallic stripper etc were incorporated in Unit - II.
  - ii) Provision for firing of a combination of Naphtha and Natural Gas to increase flexibility with respect to feed stock in Unit - II.
  - iii) Inter connection between Unit - I and Unit - II to improve operating flexibility and improve energy efficiency.
  - iv) Direct routing of liquid Ammonia to Urea plant without operating Ammonia Transfer Pump.
  - v) Modified scrubbing system for improving Ammonia recovery from Medium pressure off-gas with Natural Gas and to bring the off-gas composition away from the explosive range.
2. **Benefits derived as a result of the above efforts eg., product improvement, cost reduction, product development, import substitution etc.:** Energy consumption of Unit - II was high during its first year of operation due to teething problem The plant operation is getting stabilised and the specific energy consumption of the complex is improving.
  3. **In case of import technology (Imported during the last five years reckoned from the beginning of the financial year), following information may be furnished :** An expansion project was undertaken and Ammonia and urea plants of identical capacity as the existing ones were installed and commissioned in March '98
    - (a) **Technology imported :** i) Haldor Topsoe low energy ammonia production technology
    - ii) Snamprogetti's ammonia stripping technology for Urea production.
    - iii) Giammarco-Vetrocoke process for CO<sub>2</sub> separation in the Ammonia Plant.
    - (b) **Year of Import :** 1996-97
    - (c) **Has technology been fully absorbed ? :** Yes
    - (d) **If not fully absorbed, areas where this has not taken place, reasons therefor and future plans of action :** Not applicable.

### Particulars of Foreign Exchange Earnings and Outgo [Please refer Rule 2 (C)]

A. <b>Activities relating to exports, initiatives taken to increase exports; development of new export markets for products and services, export plans</b>		Planning to increase the activity in export of Agri-related products
B. <b>Foreign Exchange Outgo and Earnings:</b>		Rs.lakhs
1). <b>Foreign Exchange Outgo</b>		
♦ Technical know-how (Net of tax)		654.48
♦ Interest		505.17
♦ Dividend		
- Equity		227.94
- Preference		---
♦ Others		322.24
2). <b>Foreign Exchange Earnings</b>		289.76

### Statement pursuant to Section 212 of the Companies Act, 1956 relating to Company's interest in Subsidiary Companies

Sl. No.	Particulars	Name of Subsidiary Company	
		Jaiprakash Engineering & Steel Company Limited	Pennar Refineries Limited
1	The financial year of the subsidiary companies ended on	31st March, 1999	31st March, 1999
2	a) Number of shares held by Nagarjuna Fertilizers and Chemicals Limited with its nominees in the Subsidiaries at the end of the financial year of the Subsidiary Company.	61,91,993 Equity Shares of face value of Rs.10/-each fully paid-up	25,81,54,900 Equity Shares of face value of Rs.10/-each fully paid-up
3	b) Extent of interest of holding company at the end of the financial year of the subsidiary companies.	99.43%	100.00%
The net aggregate amount of the subsidiary companies Profit/(Loss) so far as it concerns the members of the holding company.			
a) Not dealt with in the holding company's accounts			
i) For the financial year ended 31st March, 1999.			
ii) For the previous financial years of the subsidiary companies since they became the holding company's subsidiaries			
b) Dealt with in the holding company's account			
i) For the financial year ended 31st March, 1999.			
ii) For the previous financial years of the subsidiary companies since they became the holding company's subsidiaries			

Hyderabad  
April 27, 1999

For and on behalf of the Board  
**Field Marshal Sam Manekshaw, M.C.** Chairman  
**K S Raju** Vice Chairman & Managing Director

**R Krishnan** Director  
**P K Madhav** Director (Finance)