

**PYRITES, PHOSPHATES &  
CHEMICALS LTD.—DEHRADUN  
UNIT**

**MINISTRY OF CHEMICALS & FERTILIZERS  
(DEPARTMENT OF FERTILIZERS)**

**COMMITTEE ON  
PUBLIC UNDERTAKINGS  
1998-99  
FIFTH REPORT**

**TWELFTH LOK SABHA**



**LOK SABHA SECRETARIAT  
NEW DELHI**

**FIFTH REPORT**

**COMMITTEE ON PUBLIC  
UNDERTAKINGS  
(1998-99)**

**(TWELFTH LOK SABHA)**

**PYRITES, PHOSPHATES & CHEMICALS  
LIMITED — DEHRADUN UNIT**

**MINISTRY OF CHEMICALS &  
FERTILIZERS  
(DEPARTMENT OF FERTILIZERS)**



*Presented to Speaker on 26.4.1999*  
*Laid in Lok Sabha on .....*  
*Laid in Rajya Sabha on .....*

**LOK SABHA SECRETARIAT  
NEW DELHI**

*April, 1999/Vaisakha, 1921 (Saka)*

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**CORRIGENDA TO THE FIFTH REPORT OF COMMITTEE ON  
PUBLIC UNDERTAKINGS (1998-99) ON "PYRITES,  
PHOSPHATES & CHEMICALS LTD - DENHADUN UNIT"**

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<u>Page</u>	<u>Para</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
16	8.1	2	non-crore	non-core
17		1	could	could be revived.
17	STATEMENT	4	2921.70	2931.70
18	STATEMENT	6	Purlia	Purulia
18	STATEMENT	6	Purlia Phos	Purulia Phos
20	9.1	748	Mines Geology	Mines & Geology
25		1	prosimity	porosity

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**COMMITTEE ON PUBLIC UNDERTAKINGS  
(1998-99)**

**Shri Manbendra Shah — Chairman**

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22. Shri Yerra Narayanaswamy

**SECRETARIAT**

- |                        |   |                             |
|------------------------|---|-----------------------------|
| 1. Shri G.C. Malhotra  | — | <i>Additional Secretary</i> |
| 2. Shri Joginder Singh | — | <i>Joint Secretary</i>      |
| 3. Shri P.K. Grover    | — | <i>Deputy Secretary</i>     |
| 4. Shri Cyril John     | — | <i>Assistant Director</i>   |

## INTRODUCTION

I, the Chairman, Committee on Public Undertakings having been authorised by the Committee to present the Report on their behalf, present this Fifth Report of the Committee on Public Undertakings (Twelfth Lok Sabha) on Pyrites, Phosphates & Chemicals Ltd.—Dehradun Unit.

2. The Committee took evidence of the representatives of Employees Union of Dehradun Unit, Pyrites, Phosphates & Chemicals Ltd. on 11th January, 1999, Pyrites, Phosphates & Chemicals Ltd. on 11 February, 1999 and the Ministry of Chemicals & Fertilizers (Department of Fertilizers) on 16th March, 1999.

3. The Committee considered and adopted the Report at their sitting held on 26th April, 1999.

4. The Committee wish to express their thanks to Ministry of Chemicals & Fertilizers (Department of Fertilizers), Pyrites, Phosphates & Chemicals Ltd. and Employees Union of Dehradun Unit, Pyrites Phosphates & Chemicals Ltd. for placing before them the material and information they wanted in connection with examination of the subject. They also wish to thank in particular the representatives of the Ministry of Chemicals & Fertilizers (Department of Fertilizers), Pyrites, Phosphates & Chemicals Ltd. and Employees Union of Dehradun Unit, Pyrites, Phosphates & Chemicals Ltd. who appeared for evidence and assisted the Committee by placing their considered views before the Committee.

5. They would also like to place on record their sense of deep appreciation for the invaluable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

NEW DELHI;  
26 April, 1999  
6 Vaisakha, 1921 (S)

MANBENDRA SHAH,  
*Chairman,*  
*Committee on Public Undertakings.*

## **PART A**

### **BACKGROUND ANALYSES**

#### **I. GENERAL BACKGROUND**

Pyrites, Phosphates & Chemicals Ltd. (PPCL) was set up on 27th March, 1960. The Company is engaged in mining of pyrites and production of SSP at Amjhore (Bihar), production of SSP at Saladipura (Rajasthan) and mining of rock phosphate at Dehradun (U.P.). Dehradun Unit consists of three divisions, namely Maldeota, Durmala and Harrawala. Maldeota and Durmala are the only underground mines in the country producing rock phosphate, which were taken over from the Fertilizer Corporation of India (FCI) way back in 1969. The raw material from the mines is transported to Harrawala Grinding Complex for grinding to 100 mesh size. It is used as straight phosphatic fertilizer in acidic soils in the North East and Southern Regions. Marketed under the brand name "Mussoorie-Phos" (M-Phos), this is a much cheaper source of P2O5 and saves valuable foreign exchange by way of reducing the import of rock phosphate.



## II. PRODUCTION

2.1 The installed capacity in Dehradun Unit is 1,20,000 MT. Production performance in the unit during the last five years was as under :—

(Qty.-MT)

YEAR	PRODUCTION TARGET	TOTAL PRODUCTION
1993-94	1,20,000	1,18,150
1994-95	1,20,000	1,20,512
1995-96	1,25,000	1,20,046
1996-97	1,27,000	1,25,006
1997-98	1,28,000	1,10,101

2.2 According to the Ministry of Chemicals & Fertilizers (Department of Fertilizers), in the wake of decontrol of phosphate fertilizers in August, 1992 there was sharp increase in the consumer price of M-Phos and corresponding decline in their consumption. This resulted in low sales, higher inventory, production cutbacks and additional expenditure on reprocessing of stocks damaged due to prolonged storage.

2.3 However, from the above table it is seen that there was no reduction in the production of M-Phos after decontrol in August, 1992 except in 1997-98. Neither has there been any substantial decline in the demand and sale of M-Phos as is evident from the following table showing the sale of M-Phos from 1991-92 to 1997-98:—

YEAR	QUANTITY SOLD (000' MT)
1991-92	116
1992-93	103
1993-94	107
1994-95	100
1995-96	107
1996-97	105
1997-98	113

2.4 Explaining the predicament, Pyrites, Phosphates & Chemicals Ltd. (PPCL) stated in a note as follows :—

“Before decontrol, Dehradun Unit had a fairly consistent performance in physical terms with regard to achieving production and sales targets. However, due to various extraneous factors like change in Government policy on phosphatic fertilizers, both physical and financial performance of the Company for its main products viz. M-Phos and SSP have deteriorated especially after withdrawal of subsidy w.e.f. 25th August, 1992.”

2.5 Asked about the additional expenditure incurred by the Dehradun Unit for reprocessing the damaged stocks of M-Phos, PPCL stated in a note :—

“Bagging is being done normally based on marketing requirement. There is very negligible reprocessing/rebagging cost as it is being carried out through departmental workers.”

### **III. SUSPENSION OF MINING OPERATIONS**

**3.1 Mining operations in Dehradun Unit have been suspended from 1 September, 1998. Tracing the reason for suspension of mining operations, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note as follows:—**

**"A cash loss of Rs. 13.63 crore for the year 1997-98 and projected cash loss of Rs. 13.35 crore for the year 1998-99 is the reason for which mining operations have been suspended w.e.f. 1.9.98."**

**3.2 However, the representatives of Employees Union of Dehradun Unit stated in evidence that operations in Dehradun Unit mines continued for two more months after it was ordered to be suspended. When asked to clarify if mining operations had been suspended fully or only partially, the Chairman & Managing Director, Pyrites, Phosphates & Chemicals Ltd. stated during the course of evidence before the Committee as follows :—**

**"It is suspended in the sense that the mines are being maintained and we are keeping people to maintain the mines. This is to keep our equipment intact. Only that work we are doing there. Extraction is not done there, we are only maintaining the mines. The Government has not given the orders for closure. We have suspended the operations because they have asked us to do so. If we stop maintaining it will collapse, so we have to maintain that."**

**3.3 Justifying the decision to suspend the mining operations, the Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note as follows :—**

**"It has been estimated that cash loss would be Rs. 1.01 crore per month for continuation as against standing charges with preservation consisting of idle wages, maintenance of mines, power charges, interest, etc. which would be around Rs. 0.85 crore per month."**

**In this connection, PPCL stated in written reply as follows :—**

**"In the present context when there is no concession or incentive for production and sales of M-Phos, it is economical and advantageous to suspend the mining operations at Dehradun as cost of standing charges with preservation is less than the cash loss on continuation of production at desired level."**

**3.4 However, during evidence of representatives of Employees' Union of Dehradun Unit, the President of the Employees Union stated that it would have been advantageous to continue with the mining operations.**

#### IV. COST OF PRODUCTION

4.1 The cost of production of M-Phos has been higher than the rock phosphate produced by other units on account of underground mining. According to the Ministry of Chemicals & Fertilizers (Department of Fertilizers) the high cost of sales of M-Phos is on account of increase in the cost of deep underground excavation of rock phosphate, power tariff, packing and substantial freight cost for its distant markets. As against cost of sales of Rs. 2917/MT the average sales realisation is around Rs. 1782/MT rendering the production of M-Phos uneconomical when compared to other indigenous producers who conduct open cast mining.

4.2 The cost of sales and cost of transportation of M-Phos at Dehradun Unit was as under :—

(Rs./MT)		
Year	Cost of sales	Cost of Transportation
1991-92	1894	709
1992-93	2194	599
1993-94	2026	578
1994-95	2138	629
1995-96	2197	563
1996-97	2677	620
1997-98	2917	673
1998-99	NA*	701

\* Not indicated in view of discontinuance of mining operation from 1.9.98

4.3 On being enquired about the additional cost involved in deep underground mining, PPCL stated in written reply as follows :—

“There is no open cast mining done for production of rock phosphate at Dehradun. Normally, the cost of mining through open cast is 30% of the cost of underground mining. As we go deeper and deeper to get the ore body, cost is likely to increase further. Anyhow, efforts are made to optimise use of power, explosive, other mine materials, etc. but not at the cost of safety and quality of ore.”

4.4 Pointing out that Dehradun Unit is not viable, the Secretary, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated during evidence as follows:—

“Our consumption of rock phosphate is about two lakh tonnes. Out of that, half of it comes from Dehradun Unit. I have made it clear that there is sufficient demand for direct application of rock phosphate P205 but that does not mean that Dehradun Unit would become viable.”

Explaining further the phenomenon of higher cost of production in Dehradun Unit, the witness stated:—

“The position about Dehradun Unit needs to be understood in its totality. The unit has certain inherent handicaps. The first is the pithead mining cost. It is an underground mine. These are the only underground mining operations in the country in relation to mining of rock phosphate. The first ore seam had exhausted and second ore seam is about to be exhausted. The greater the depth, the higher the cost of mining. The greater the depth, the greater the cost of power also. The markets for this Unit are again situated at far off places, in Southern India and in the North-East. These markets cannot be changed because the acidic soils require P205 and they are found in Southern India and in the North-East. The incentives for import substitution which was at the level of Rs. 600 till August, 1997 was reduced to Rs. 230 per month up to August, 1998. That has since been discontinued.”

The witness added:—

“The other aspect is this. The other Units which also produce P205 are able to do it at a very low cost of production. I will give the example of Rajasthan Units, namely, Rajasthan Mineral Corporation and Rajasthan State Mines and Minerals Limited. The estimated cost of production comes to Rs. 1890.”

4.5 Drawing a comparison between the cost of production in Dehradun and Rajasthan Unit, the witness pointed out as follows :—

“A rough comparison between the cost of production in the Dehradun Unit and the Rajasthan Unit is available. I do not think it is 100 per cent accurate, but it is, by and large, correct. So long as the cost of sales is Rs. 1890 per tonne or upto Rs. 2,000 per tonne, it can sell. But here, in the Dehradun Unit it is Rs. 2,904. The cost of mining, transportation, grinding, packing and loading into the railway wagons in the Dehradun Unit is Rs. 1,753 and Rs. 830 in the Rajasthan Unit. The freight upto the consuming areas is Rs. 691 in the case of Dehradun unit and it is Rs. 600 in the case of Rajasthan Unit. The cost of unloading and secondary transportation is the same. So, it is the depth of the mining and the transportation that makes the difference.”

## V. SUITABILITY OF M-PHOS

5.1 Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note that the available average phosphate content (P2O5) in the present ore-bearing seam in Dehradun Unit is of a poor quality (15% to 17%). In order to bring it to an acceptable grade as per the Fertilizer Control Order, the Company has to procure high-grade rock phosphate and blend it with its own ore to upgrade to P2O5 content to 18%.

5.2 Pointing this out, the Secretary, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in evidence as under:—

“Now in the case of Dehradun, what is happening is the P2O5 content is low as compared to other mines. That is the problem.”

5.3 Speaking about P2O5 content in Dehradun Unit, another representative of Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in evidence:—

“RSML rock contains 22-33% of P2O5. Dehradun rock contains less than 18% of P2O5.”

Commenting on this, PPCL stated in a note as follows :—

“It is true that the *insitu* average phosphate content in the present ore bearing seam is varying 18-19% and in the course of mining operation, there is dilution on account of presence of disturbed geological features like faulting, folding etc. In order to bring it to an acceptable grade as per Fertilizer Control Order, the Company has procured high grade rock phosphate and blend it with its mined ore.”

5.4 However, the representatives of Employees Union of Dehradun Unit during evidence maintained that rock phosphate produced in Dehradun Unit met the FCO specifications.

5.5 In response to a query from the Committee, Indian Council of Agricultural Research (ICAR) listed rock phosphate from different sources in the following order of precedence on the basis of P2O5 content available in each :—

Source of RP	%P2O5
Hirapur	32.6
Kasipatnam	23.4
Mussoorie	18.7
Purulia	17.7
Udaipur	17.5

5.6 According to PPCL decades of agricultural research through Agricultural Universities and ICAR institutions has shown that out of all the Indian rock phosphate,

M-Phos is the most reactive and agronomically effective for direct application as a phosphatic fertilizer. It is sedimentary in origin and possesses all inherent characteristics required for direct application. On the recommendation of agricultural scientists all over the country, ICAR and the Ministry of Agriculture had recommended M-Phos as direct source of phosphatic fertilizer in 1970's and started allocation of the same under Essential Commodities Act as per the requirement of different State Governments. There was good potential for M-Phos since vast area of the cultivable land in India is acidic in nature and the consumption of rock phosphate in the country was about 2 lakh tonnes per annum. According to PPCL, more than 60% of the market solely developed by the Company is dominated by M-Phos.

5.7 PPCL stated in a note that a wide variety of geological settings in which rock phosphate occur results in textures, accessory, mineral assemblage and chemical composition that range from simple to very complex. The quality of rock phosphate can be basically grouped into factors viz., physical and chemical, as given below:—

(a) *Physical Factors*

- (i) Texture, hardness, porosity, cementing, ore cutting faces.
- (ii) Particle-size.
- (iii) Degree of crystallinity apatite-effect of physical treatment.

(b) *Chemical Factors*

- (i) P2O5 content of rock phosphate.
- (ii) Fluorine content.
- (iii) Carbonate content
- (iv) Cao/P2O5 weight ratio.
- (v) Iron and aluminium content.
- (vi) Organic matter.

Due to variation in the above characteristics, the rock phosphate used in the soils also behave differently. Therefore, all the rocks are not equally good for direct application.

5.8 However, Fertilizer Control Order (FCO) specifies only mesh size and P2O5 content for the rock phosphate to be used as a direct fertilizer. Pointing this out, PPCL stated in a note as follows:—

“The Fertilizer Control Order (FCO) specifies only mesh size and P2O5 content with no reference about other characteristics required for a rock phosphate to be used directly as P2O5 source whereas rock quality varies from deposit to deposit.”

Conceding to this, the Secretary, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated during evidence as follows:—

“For the purpose of the Fertilizer Control Order, what is recognised is the P2O5 content. It does not mean that all others are irrelevant but for the purpose of the nutrient content, the Fertilizer Control Order talks of P2O5.”

Explaining this further ICAR stated in a note as follows:—

"As per the FCO (Fertilizer Control Order), any rock phosphate with a particle size of which minimum 90% passes through 0.15 mm IS sieve and the balance 10% through 0.25 mm sieve having at least 18% total P2O5 can be used for direct application. All rock phosphates do not contain P2O5 more than 18%."

5.9 Stating that P2O5 content in the rock phosphate is what matters, a representative of Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated during evidence:—

"P2O5 is the nutrient—the only content which is used in rock phosphate which we consider. Other components in the rock are not needed by the crop."

The witness brought out the point further by stating as under:—

"Sir, in the rock phosphate only P2O5 content is useful for the crops. Other components are not. So it is only the phosphate content which will determine the quality of the rock, that is, P2O5 content which is 18 per cent in case of Dehradun rock phosphate against between 22—33%, as the Secretary has said, in case of Rajasthan rock phosphate. Thus, we have got only 180 kgs. of P2O5 in Dehradun rock whereas in RSML case it ranges between 220 to 330 kg per tonne of rock. That is why, the effectiveness or the operation of this mine is much costlier."

5.10 However, the Secretary, Ministry of Chemicals and Fertilizers (Department of Fertilizers) was of the view that all the mines supplying rock phosphate would be in a position to take advantage of acidic soil. He stated in evidence as under:—

"Sir, as you had earlier said, the advantages of direct application of rock phosphate as a source of P2O5 is available when the soil is acidic. That acid would react with the phosphate component and release P2O5 as a nutrient. The mines in Rajasthan, Purulia, Mussoorie which are supplying rock will all be in a position to get advantage of acidic soils."

5.11 The Committee sought the expert opinion of ICAR on the matter. In response to a question as to what are the essential physical and chemical factors and nature of crystal which make rock phosphate suitable for use as direct phosphatic fertilizer, ICAR stated in written reply as follows:—

"Porosity, softness, phosphate/carbonate ratio, F/P2O5 ratio, Ca/P ratio, absolute citrate solubility and unit cell length of axis determine the quality of the phosphate rock for direct application."

5.12 Replying to another question whether ingredients like carbonates, apatite, iron pyrites, organic carbon and extent of softness, porosity, circumstances, etc. are essential in the rock phosphate for its direct application as fertilizer, ICAR stated in written reply as follows:—

"Yes, the ingredients like carbonates, apatite, iron pyrites, organic carbon and extent of softness, porosity, circumstances, etc. influence the agronomic

efficacy of directly applied rock phosphate as fertilizer. The values of carbonate/phosphate ratio, F/P2O5, calcium/P ratio, Absolute Citric Solubility (ACS) and apatite percentage of various indigenous rock phosphate as recorded in literature varies from 0.003 to 0.079, 0.09 to 0.101, 2.26 to 2.29, 5.4 to 6.54 and 43.2 to 81.6 respectively. The threshold values have not been worked out."

5.13 Expressing apprehension that with the flooding of market with agronomically unsuitable rock phosphate, farmers may lose faith in the effectiveness of rock phosphate, PPCL stated in a note as follows:—

"PPCL has done pioneering work in the field of use of M-Phos as direct phosphatic fertilizer, as it was found to be the most suitable/cost effective rock phosphate for use in acid soil areas. Use of M-Phos rock phosphate for direct application is common in the acid soil areas of Southern and N.E. Regions of the country, since last two decades.

The other indigenous rock phosphate producers are only now trying to grab the market already developed after decades of promotional and developmental programmes on use of suitable rock like, M-Phos as direct fertilizer and it is apprehended that if agronomically unsuitable rock phosphates are allowed to be used for direct application, the farmers may ultimately lose faith in effectiveness of rock phosphate as direct fertilizer and may resort to use of costly water soluble phosphatic fertilizers i.e. DAP."

5.14 In view of this, suggesting that Fertilizer Control Order should be modified to make it more comprehensive, PPCL stated in a note as follows:—

"The FCO specifications should, accordingly, be more comprehensive incorporating some more parameters suitable for direct application like presence of carbonate apatite, iron pyrites, organic carbon and extent of softness, porosity, citriteness, etc."

5.15 However, when enquired about the measures being taken by Government to ensure that only agronomically effective rock phosphate is marketed for use by farmers, Ministry of Chemicals & Fertilizers (Department of Fertilizers) replied casually in the written reply:—

"The FCO ensures the quality of rock phosphate for direct application. There are abundant reserves available for this kind of rock phosphate to meet the demand."

5.16 According to PPCL the scientists not only in the country but all over the world have tried to find out the quality of rock to be selected for direct application. From the studies, it has been concluded that efficiency of any rock would depend on (a) physical, (b) chemical and (c) crystal nature. According to the Company rocks from different deposits vary in reactivity due to type of deposit like sedimentary, metamorphic or igneous.



5.17 The Committee enquired from ICAR as to what extent reactivity due to type of deposit like sedimentary, metamorphic or igneous in the rock phosphate matter for its application as a fertilizer and what was the extent of variance of reactivity in the rock phosphate produced from Rajasthan, Madhya Pradesh, Uttar Pradesh, West Bengal and Mussoorie. ICAR-stated in written reply as under:—

“Rock phosphate of igneous and metamorphic origins unlike sedimentary ones are stable and unreactive as they are coarsely crystalline substances. As a result they are comparatively less effective for direct application as fertilizer. The deposits of phosphate rocks from Kasipatnam, Purulia are of igneous origin and Jhamarkotra, Maton, (Rajasthan) and Jhabua (M.P.) are of metamorphic cum sedimentary nature while Mussoorie is exclusively of sedimentary origin.”

5.18 Pointing out that M-Phos has been well accepted by the farmers, PPCL stated in a note as follows:—

“M-Phos has been well accepted in the acid soils of Kerala, Karnataka, Tamil Nadu and North-East and is the first preference of the farmers. In its targetted marketing zones, PPCL expects to sell 1.5 lac to 1.75 lac mt of M. Phos, if it is made available to farmers at a competitive price.”

5.19 However, Ministry of Chemicals & Fertilizers (Department of Fertilizers) maintained that M-Phos has a very limited market in Southern India and North East only.

5.20 Explaining the advantages of M. Phos over water soluble phosphate in acidic soils PPCL informed that whereas water soluble phosphatic fertilizers like DAP, SSP, etc. quickly gets fixed and its efficiency goes down, in case of P205 from rock phosphate it is slowly available to the plant. Other advantages are that it is a natural organic manure without involving any chemical processing and is environmental friendly.

5.21 On being asked whether it was advisable to use water soluble phosphatic fertilizer in acidic soil, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note as follows:—

“This Department has not come across any specific agronomical recommendation against the use of DAP, NPK, etc. in acidic soils.”

5.22 In reply to a question whether it was advisable to use water soluble phosphate fertilizer like DAP, SSP, etc. by farmers in the acidic soils as a substitute for rock phosphate, ICAR stated in written reply as follows:—

“Water soluble phosphate fertilizer is readily fixed into unavailable form in acid soils by the presence of iron and aluminium. In case of rock phosphate, phosphorus is made available gradually through dissolution under acidic soil environment. Therefore, high grade rock phosphate should preferably be used in acid soils over water soluble sources.”

## VI. FINANCIAL PERFORMANCE

6.1 Financial Performance of PPCL as a whole and each of its units from 1991-92 to 1997-98 was as follows:—

(Rs. in Crores)

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
Amjhore	-1.71	-8.33	-15.67	-5.83	0.11	-10.00	-39.32
Dehradun	1.95	0.04	0.15	-0.05	-0.70	1.73	-12.51
Saladipura	0.00	0.00	0.00	0.00	-0.06	-0.01	-1.58
Total-PPCL	0.24	-8.29	-15.52	-5.88	-0.65	-8.28	-53.41

From the above statement it is seen that whereas PPCL has been incurring continuous losses since 1992-93, Dehradun Unit made profits except in 1994-95, 1995-96 and 1997-98. Amjhore Unit registered profit only in 1995-96. Saladipura Unit did not make any profit at all.

6.2 Asked about the Company's financial performance during the current year, PPCL stated in written reply as follows:—

"During the current year 1998-99, the Company has already incurred loss of Rs. 40.54 crore upto December, 1998 out of which loss of Dehradun Unit is Rs. 12.29 crore. Cumulative loss of Rs. 87.83 crore as on 31.3.1998 against paid-up capital of Rs. 94.65 crore has already attracted the provisions of SICA under which company is liable to report the erosion of its net worth to BIFR."

6.3 Giving more details about the financial crisis being faced by PPCL, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note as follows:—

"The high cost of deep underground mining of rock phosphate coupled with the inventory carrying cost due to low offtake of SSP and M-Phos and a substantial interest burden on GOI loans led to continuous losses. Presently, the company is facing a severe liquidity crisis, as the sales realisation is not sufficient to meet the cash expenses of the company, which has been further aggravated by delay in realisation of import substitution incentive concessions. The banks are not willing to extend cash credit and LC limit facilities so as to limit their exposure."

6.4 Ministry of Chemicals & Fertilizers (Department of Fertilizers) in a note listed the following factors responsible for deteriorating financial health of PPCL:—

- Withdrawal of retention price scheme on decontrol of phosphate fertilizers with effect from 25.8.92 which led to under coverage of operating cost.
- Inadequate compensation paid under Import Substitution Incentive Scheme particularly for Pyrites based production of Single Super Phosphate (SSP).

- (c) Discontinuation of Import Substitution Incentive Scheme in respect of Pyrites based production SSP with effect from 1.9.1997 and a reduced rate of Rs. 230/- per MT for a period of one year in respect of Mussoorie Phos.
- (d) Increased cost of underground mining of rock phosphate due to deeper depth of underground mines.
- (e) Deteriorating quality of rock phosphate requiring blending of the same with bought out higher grade of rock phosphate to meet the FCO requirement (18% P2O5).
- (f) Higher cost of power and freight, on account of (d) above."

6.5 Some of the measures suggested by PPCL in a note for bringing the Company out of the red are as follows:—

- (i) Allowing import substitution incentive or concession on Mussoorie Phos at a level so as to make it equitable with other indigenous rock phosphates and remove disparity in concession with water soluble phosphatic fertilizer like DAP.
- (ii) Set off of accumulated loss of the Company and write-off of intangible assets by converting plan loan, interest on plan loan, non-plan loan into grant-in-aid and through reduction in equity. This will clean the Balance Sheet of the Company and will go a long way in getting loans/working capital from financial institutions/banks for expansion/day-to-day operations of the Company.
- (iii) Budgetary support for payment to input suppliers, creditors and banks & infusion of fresh working capital & payment of cash loss/standing charges during the current year in respect of Amjhore & Dehradun Unit.

6.6 Asked about the prospects of bringing the Company out of the red, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in written reply as follows:—

"There do not seem to be any prospects of the Company coming out of the red. Considering the uneconomical operation of the Dehradun Unit due to high cost of deep underground mining etc, the intrinsic disadvantage of pyrites based SSP production at Amjhore Unit and other relevant factors, the Disinvestment Commission (DC) has recommended sale/closure of Dehradun Unit and sale of Amjhore and Saladipura Units. Having examined all possible alternatives, the only option available is to accept the recommendations of the Disinvestment Commission."

6.7 The Committee wanted to know as to what were the options being pursued by Government in regard to Dehradun Unit. Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in written reply:—

"The only option left for the Department of Fertilizers is to hive off/close the unit with suitable VR benefits to the entire workforce. The recommendations of the Disinvestment Commission are also on the same lines."

## VII. IMPORT SUBSTITUTION INCENTIVE

7.1 Before decontrol of phosphatic fertilizers, cost of 1 kg. of P2O5 from DAP was Rs. 7.57 as against Rs. 4.97 per Kg. from M-Phos which was also under retention pricing scheme (RPS). It means that cost of 1 Kg. of P2O5 from M.Phos was about 65% of that obtained from water soluble phosphate. This material was being used by the farmers in acid soil areas which are normally poor due to their small holdings as well as low soil fertility/productivity.

7.2 Consequent upon decontrol of Phosphatic fertilizer *w.e.f.* 25th August, 1992, the subsidy on M.Phos was withdrawn. In order to encourage the use of rock phosphate, Government of India had allowed import substitution incentive at the rate of Rs. 600/- for M-Phos *w.e.f.* 1st August, 1992 for five years. On the expiry of the term on 31st August, 1997, there has been persistent demand to extend the import substitution incentive. The scheme was, however, extended by one more year *w.e.f.* 1st September, 1997 allowing incentive of Rs. 230/per MT only for M.Phos as against Rs. 600/per MT earlier.

7.3 Bringing out the impact of decontrol of phosphatic fertilizers on M.Phos, CMD, PPCL stated during evidence as follows:—

“Sir, the impact of decontrol of phosphatic fertilizer is that before decontrol, one kilogram of P2O5 from water soluble sources was costing to the farmers at the rate of Rs. 7.57 per kg. Whereas, immediately after decontrol this rose to Rs. 12 per kg. and that kept on increasing. Today, it is Rs. 15 per kg. At that time when there was a control, P2O5 from M.Phos was costing Rs. 4.88 per kg. to the farmers, after decontrol it had to rise to Rs 8, Rs. 9 and Rs. 10 respectively because the cost of production was increasing and subsidy was less. Whatever was possible to realise at the rate of about 65 to 70 per cent of water soluble phosphate, we could realise and beyond that, the farmers were not able to pay for M. Phos because it was beyond their affordable price. To have a balance between the cost of realisation and cost of production, subsidy should have been there. But that subsidy was not allowed. That is why the loss has increased.”

7.4 PPCL appealed to the Government for continuing the import substitution incentive scheme. On being asked as to what was the response of the Government to the appeal made by PPCL for import substitution incentive, PPCL stated in a note as follows:—

“The Government had extended incentive in respect of M.Phos at a much reduced rate of Rs. 230/MT at par with other indigenous producers, only for a year upto 31.8.98 *vide* letter dated 25th August, 1998. A detailed letter has been submitted to the Government for re-consideration of continuation of the import substitution incentive scheme in respect of

M.Phos on 22nd September, 1998 and for inclusion in the concession scheme on 28.10.98. Government's response is still awaited."

7.5 Conceding that discontinuation of import substitution incentive has added to the problems of the Company, the Secretary, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in evidence as follows:—

"Let me clarify one thing without any hesitation that the lowering in the rate of import substitution incentive and the subsequent withdrawal thereof have definitely contributed to the problems of the company. Let there be no doubt about it. All that I am submitting is that in the era of the de-control today there are other units in the country whose cost of production is lower, who have higher reserves and who are therefore able to capture a larger share of the market without incentives also."

7.6 Arguing in favour of withdrawal of subsidy the witness stated as follows:—

"Let me make it clear that farmers can get rock phosphate for direct application at an affordable price from other sources. That is not enough to meet the requirement. It is fine. The subsidy has been withdrawn and if as a result thereof the demand is at an affordable price despite the withdrawal of subsidy by other units, why should the Government bear the burden of subsidy?"

7.7 When asked about the effects of non-extension of the scheme on PPCL, the Company stated in a note:—

"The effect of discontinuation of import substitution incentive is disastrous for the Company. The Company has already started incurring cash loss of Rs. 1111/MT in respect of pyrites based production of SSP and Rs. 992/MT in respect of Mussoorie Phos."

7.8 Pointing out that non-extension of subsidy was one of the main factors leading to suspension of mining operations in the Dehradun Unit, CMD, PPCL stated in evidence:—

"If the import substitution or concessions were allowed, we would have never allowed suspension."

7.9 Enquired as to what extent has Government's decision to grant concession only to water soluble phosphate fertilizer like DAP adversely affected the country's economy, PPCL stated in written reply as follows:—

"Presently, the use of 1,20,000 MT of M. Phos (18-20% P<sub>2</sub>O<sub>5</sub>) per annum contributes to 22,000 MT of equivalent P<sub>2</sub>O<sub>5</sub> as phosphatic fertilizer in acid soils of India. In case, the farmers resort to use of water soluble phosphate, the equivalent quantity of water soluble phosphate is to be provided to farmers. If DAP is taken as the cheapest source of water soluble P<sub>2</sub>O<sub>5</sub>, the GOI has to shell out Rs. 19 crore in the form of concession on around 48,000 MT DAP to replace the use of rock phosphate. If concession

on M.Phos is also allowed at 65% level, which was the price ratio of M.Phos to DAP before decontrol, the Government is likely to save about Rs. 7 crore per annum of concession on DAP."

7.10 According to PPCL the present market realisation of M.Phos is Rs. 1800/MT at farmgate. However, the cost of sales at farmgate comes to Rs. 2800/MT, resulting into a difference of Rs. 1000/MT. The present rate of concession of DAP is Rs. 4000/MT *i.e.*, Rs. 8.70/Kg. of P205 and it would be equitable to consider proportionate concession on M.Phos *i.e.* Rs. 5.56/Kg. of P205 or Rs. 1000/MT of M.Phos.

7.11 The Committee wanted to know whether restoration of concession to M.Phos would help the Company turn the corner. In reply, PPCL stated in a note as follows:—

"Restoration of import substitution incentive or allowing of concession to M.Phos at an equitable level with other available indigenous rock phosphates and keeping in view "cost consideration" due to its production through deep underground mining and sales in distant marketing areas, will go a long way in helping the Company to make Dehradun Unit viable."

In this context, the CMD, PPCL stated during evidence as follows:—

"The difference between the cost of production of mining that is done in Rajasthan and the cost of production from Dehradun is Rs. 1,000/-. Once this substitution is given to this unit, then we will be able to compete with them. There is no doubt about it."

### **VIII. REHABILITATION OF DEHRADUN UNIT**

8.1 PPCL was referred to the Disinvestment Commission by Government. In its Sixth Report, Disinvestment Commission classified PPCL as a non-crore PSU. The Commission recommended that in the case of Dehradun Unit, Government should in the first instance evaluate the possibility of finding buyers. This would sustain employment at the unit to some extent, besides reducing the funds required for implementing Voluntary Retirement Scheme (VRS). However, if buyers were not available, the Commission has recommended sale of all the assets of the unit after giving fair and adequate VR benefits to the employees. According to PPCL, it was most likely that no entrepreneur would be interested in taking over this unviable unit alongwith all the employees.

8.2 Asked about the response of the Company to the recommendations of the Disinvestment Commission, PPCL stated in written reply:—

“PPCL had held discussion with its employees who are deadly against the recommendations made by the Disinvestment Commission. Further, PPCL has stated in its response to the recommendations not for closure of Dehradun Unit rather it has proposed for continuation of Import Substitution Incentive at desired level.”

8.3 The Committee wanted to know the response of the Government to the recommendations of the Disinvestment Commission. The Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note that the matter was under consideration of Government.

8.4 On being asked whether any decision has been taken in this regard, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in written reply as follows:—

“In view of the high cost of deep underground mining and other attendant costs this unit has become unviable. There was no other option but to suspend its operations.

8.5 It was envisaged in the MOU for 1997-98, that PPCL would prepare a detailed restructuring scheme after thorough unit-wise analysis for long term viability and effective turnaround. PPCL submitted a Corporate Plan on 3 March, 1998 detailing the unit-wise in depth analysis on the options available for effective turnaround and long term viability. It includes a proposal for continuing Dehradun Unit with an enhanced incentive.

8.6 Commenting on this, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated as follows:—

“While Government is yet to take a view on the restructuring proposal, there is a possibility that the two units of the company at Saladipura and

Amjhere could be 1. However, for reasons already indicated, production at Dehradun unit has been suspended".

8.7 When enquired about the demand of rock phosphate in the country, PPCL stated in written reply as follows:—

"For direct application, the current consumption of Rock phosphate is about two lakh tonnes per annum. Good potential exists as vast area of the cultivable land in India is acidic in nature."

8.8 It is seen that there has been considerable gap in the production and consumption of P2O5 in the country from the fertilizer statistics (1997-98) issued by the Fertilizer Association of India reproduced below:

('000mts.)			
Year	Production (1)	Consumption (2)	Gap (2-1)
1991-92	2561.60	3321.20	759.60
1992-93	2320.80	2843.80	523.00
1993-94	1874.30	2669.30	795.00
1994-95	2556.70	2921.70	375.00
1995-96	2593.50	2897.50	304.00
1996-97	2578.60	2976.80	398.20
1997-98	3058.30	3917.20	858.90
		(Prov.)	

8.9 Commenting on this PPCL stated in a note as follows:—

"India is a net importer of phosphate which may be seen from the table. The gap between production and consumption is to be met by imports. This gap is expected due to increase in the consumption of P2O5 required to meet the target of food production in the country to feed the large population. Therefore, it is prudent to exploit indigenous source as much as possible which will ultimately save the foreign exchange. During the year 97-98, the requirement of about 8.6 lakh tonnes P2O5 was made from imports."

8.10 In reply to a question as to how was the shortage indigenous production expected to be met, PPCL stated in written reply as follows:—

"In the absence of suitable incentive/concession for M.Phos, either production capacity of indigenous producers of rock phosphate has to be increased or imports have to be increased to meet shortfall in indigenous production of rock phosphate."

8.11 According to Ministry of Chemicals & Fertilizers (Department of Fertilizers) all rock phosphate produced from Rajasthan, M.P., West Bengal and U.P. can be sold for direct application as per FCO specifications.



8.12 The Committee wanted to know the production capacity of each of the units producing rock phosphates for direct application. Ministry of Chemicals & Fertilizers (Department of Fertilizers) gave the following information in a note:—

Unit	Product (Brand name)	Capacity (TPA)
(i) PPCL, Dehradun, U.P.	M.Phos	120,000
(ii) RSMML, Jhamarkotra, Rajasthan	Raj Phos	150,000
(iii) RSMDC, Udaipur, Rajasthan	Uday phos	60,000
(iv) WBMDTCL, Purlia, West Bengal	Purlia Phos	12,000

8.13 When confronted with figures that the deficit in P2O5 in the country has been rising, the witness replied:

"What you say is factually correct. If you look at the year-wise statistics, you will find that in 1997-98 production has gone down. The reason for that is, apart from the fact that other inherent handicaps were there, there was a problem of working capital liquidity because the import substitution incentive was discontinued. It was made lower. The rate was lowered and that did add to the problem."

8.14 Giving further details about import of phosphatic fertilizers, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in a note as under:—

"India is a net importer of phosphatic fertilizers.....The potential demand of rock phosphate for direct application is estimated around 4 to 5 Lakh MT only which can be easily met from indigenous sources. Rock phosphate is useful as source of P2O5 only in case of acidic soils."

8.15 Giving the cost analysis of closure-Vs.-continuation of operations of the Dehradun Unit, PPCL and the Ministry of Chemicals & Fertilizers (Department of Fertilizers) brought out that annual implication for continuation of Unit is Rs. 12 crore per annum for 1.20 LTPA @ 1000/MT and for closure of the unit total implication would be Rs. 45.90 crores including incentives for VRS. According to PPCL the incentive is needed to be given for a period of five years during which it was expected that the Unit would diversify into other areas to make it viable.

Supporting it PPCL stated in a note as follows:—

"Since the country is net importer of phosphatic fertilizers, efforts should be made to produce and supply P2O5 from indigenous sources as much as possible. This will not only reduce the foreign exchange outgo but also provide employment."

8.16 Commenting on the need to exploit the natural resources available at Dehradun to meet the shortage of fertilizers, CMD, PPCL stated as follows:—

"The national source and national mineral is available in that area. We must exploit it in the interest of the farmers."

**Dehradun Unit of PPCL stated in a note as follows:—**

**“In the event of closure of Dehradun Unit 641 direct employees, 500 contractual workers and other direct beneficiaries, viz transporters, shopkeepers, mule transporters, local villagers etc. would loose their means of livelihood. The local villagers would also be deprived of the benefits.”**

## **IX. DIVERSIFICATION**

**9.1 PPCL has identified rock phosphate reserve available at Bhusti Jalikhal, Dehradun for exploitation. Asked about the latest stage of the proposal for exploitation of rock phosphate reserve available at Bhusti Jalikhal, PPCL stated in a note as follows:—**

**“Application for obtaining mining lease for Bhusti Jalikhal deposit has been submitted to the concerned authority. State Government has initiated the process and asked D M, Tehri and the Director, Department of Mines Geology, U.P. Government to submit their report for mining lease. Forest proposal has been submitted for diversion of forest land for underground mining to Divisional Forest Officer, Distt. Narender Nagar, U.P. on 3rd September, 1998. U.P. Government is required to construct 20 km. road to the mines.”**

**9.2 On being asked whether developing of rock phosphate reserve at Bhusti Jalikhal would help the company to sustain its operations, PPCL stated in written reply as under:—**

**“Considering the thickness and grade of rock phosphate, Jalikhal Section of deposit is considered to be promising deposit with an average grade of 20% P<sub>2</sub>O<sub>5</sub> which will compensate the low grade ore at Maldeota and Durmala in their P<sub>2</sub>O<sub>5</sub> content and help in maintaining FCO requirements.”**

**9.3 About the cost and time requirement for developing the reserve, PPCL stated in written reply as follows:—**

**“Capital cost is estimated to be Rs. 10 crore including the cost of infrastructure. Estimated time requirement is four years. The cost of production will, however, remain almost the same as that of existing mines.”**

**9.4 Commenting on the proposal, the Secretary, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in evidence as follows:—**

**“Coming to Bhusti Jalikhal, firstly, it will imply the operating cost of Rs. 10 crore for infrastructure etc. and the problems that have been indicated to us show that the cost of incremental mining there will be more or less same. So, the cost *vis-a-vis* the other units will continue.”**

**9.5 The Committee wanted to know the latest stage of the proposal for developing the reserve. Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in written reply as under:—**

**“The proposal for developing rock phosphate reserves at Bhusti Jalikhal is not being considered as it has been found unviable and the operation would be uneconomical.”**

**9.6 Enquired about other possibilities of diversification by Dehradun Unit, PPCL stated in a note as follows:—**

**“Application for prospective licence for lifting of soap stone has been submitted to the concerned authority in the District of Chamoli & Bageshwar.”**

**9.7 Responding to it, Ministry of Chemicals & Fertilizers (Department of Fertilizers) stated in written reply as follows:—**

**“There is no possibility of any meaningful diversion for the Dehradun Unit into other areas.”**

## **PART B**

### **RECOMMENDATIONS/OBSERVATIONS OF THE COMMITTEE**

**1. Pyrites, Phosphates Chemicals Ltd. (PPCL), set up on 27th March, 1960 is engaged in mining of pyrites and production of SSP at Amjhore, production of SSP at Saladipura and mining of rock phosphate at Dehradun. Maldeota and Durmala in Dehradun are the only underground mines in the country producing Mussoorie-Phos (M-Phos), which is used as a direct phosphatic fertilizer in acidic soils in the North East and Southern regions. Discontinuation of import substitution incentive subsequent to decontrol of phosphatic fertilizers plunged PPCL into a financial crisis and made Dehradun Unit unviable. Main factors which rendered production of M-Phos uneconomical were the cost of deep underground mining and its transportation to far-flung areas. Beleaguered by continued cash losses, mining operations in the unit had to be suspended from 1st September, 1998. Despite the fact that M-Phos has been identified as the most sedimentary and reactive rock phosphate, the proposal submitted by the Company for allowing continuation of the operations by Dehradun Unit with an enhanced incentive has not been cleared by Government. These and other aspects relating to the working of the unit have been dealt with by the Committee in detail in the subsequent paragraphs.**

*(Recommendation SL No. 1)*

**2. Dehradun Unit has an installed capacity of 1,20,000 MT per annum. According to the Ministry subsequent to decontrol of phosphatic fertilizers, there has been decline in the production and consumption of M-Phos owing to increase in the consumer price. On the contrary it is seen that despite reported increase in the consumer price of M-Phos, production by the Dehradun Unit went up from 1,18,150 MT in 1993-94 to 1,25,006 MT in 1996-97. The sales performance of the unit also marked an upward trend with the sales going up from 1,07,000 MT in 1993-94 to 1,13,000 MT in 1997-98. In fact, the actual production and sales performance of the Unit is at variance with the murky picture portrayed by the Ministry pointing towards low sales, higher inventory, production cutbacks and additional expenditure on reprocessing of damaged stocks by the Unit. The impression gathered by the Committee from this predicament is that farmers in the North East and Southern regions still prefer M-Phos as compared to other fertilizers for use in acidic soil. It is also conspicuous to note that even in such an insalubrious environment, Dehradun Unit has been able to maintain its production performance as compared to poor capacity utilisation obtaining in many of the public sector fertilizer units.**

**3. Mining operations in Dehradun Unit have been suspended from 1 September, 1998 on account of mounting losses as a result of withdrawal of import substitution incentive. The only activity that is undertaken by the Unit at present is maintenance of the mines. Both PPCL and the Ministry are of the**

view that it was more economical and advantageous to have suspended the mining operations in the unit in view of the fact that the cost of standing charges with preservation would be around Rs. 0.85 crore per month as against the estimated cash loss of Rs. 1.01 crore for continuation of production at the desired level. What is astonishing to the Committee is that Government seems to have taken the decision to suspend the operations of Dehradun Unit unilaterally without consulting the PPCL management and the employees or considering other possible options. It is noteworthy that even the Disinvestment Commission which went into the working of PPCL and found it to be unviable did not go to the extreme point of recommending suspension of the mining operations by the unit. The Committee feel concerned that whereas Rs. 0.85 crore is being drained out from the national exchequer only for the maintenance of the mines, the farmers are being deprived of the benefit of an indigenous phosphatic fertilizer, which the country can ill afford with its large dependence on fertilizer imports. The Committee cannot but deplore such myopic steps taken by Government. They recommend that in order to ensure rehabilitation of Dehradun Unit in a fixed time frame prompt decision on the question of its restructuring should be taken after weighing all the *pros and cons* under intimation to the Committee.

(Recommendation Sl. No. 2)

4. Two of the major inherent handicaps of Dehradun Unit are that it owns the only underground mines in the country producing rock phosphate and its markets are situated in far off places. On account of increase in the cost of deep underground mining and freight charges to the distant markets in North East and Southern regions, the cost of sales of M-Phos registered a phenomenal increase from Rs. 1894/MT in 1991-92 to Rs. 2917-MT in 1997-98 against the average sales realisation of Rs. 1782-MT rendering the production of M-Phos uneconomical, as compared to other indigenous producers who conduct open cast mining. The estimated cost of production in Rajasthan Units engaged in open cast mining amounts only to about Rs. 1890/-MT. The difference is mainly on account of cost of mining, transportation, grinding, packing and loading into the railway wagons which amount to Rs. 1753/MT in Dehradun Unit as against Rs. 830/MT in Rajasthan Unit. Admittedly, the cost of open cast mining is around 30% of the cost of underground mining, rendering Dehradun Unit unviable. Obviously the factors leading to high cost of production are not within the control of the unit. While it is of paramount importance that public sector enterprises operate on commercial lines, the Committee are of the view that the unenviable predicament in which Dehradun Unit has found itself cannot also be overlooked. The Committee suggest that Government should find ways and means of making some exceptions in the case of such a unit situated in a remote hilly region. Keeping in view the need to encourage and support indigenous production of fertilizers and for protecting the interests of farmers, the Committee recommend that incentives should be provided to the Unit to cover the additional cost incurred by it for production of M-Phos.

(Recommendation Sl. No. 3)

5. As per Fertilizer Control Order (FCO), rock phosphate should contain 18% P2O5 for it to be qualified for use as a direct fertilizer. The Ministry has been repeatedly putting forth the view that the available average phosphate content in M-Phos is quite low, viz, as low as 15% to 17%. PPCL has held that rock phosphate produced in Dehradun Unit is blended with high grade rock phosphate being procured by the Company on account of dilution in the course of mining operations. While such a requirement about percentage of P2O5 is quite understandable, what is bewildering to the Committee is the repeated efforts made by the Ministry to depict M-Phos as a low quality rock phosphate. Countering this PPCL has stated that the average phosphate content in the present ore bearing seam is between 18% to 19% and the Employees Union of Dehradun Unit maintained that M-Phos met the FCO specification of 18% P2O5 content. Even according to the expert view given by the Indian Council of Agricultural Research (ICAR), M-Phos has 18.7% P2O5 content available in it as against only 17.7% in Purulia Phos and 17.5% in Uday Phos. This leads to the inevitable conclusion that P2O5 content in M-Phos is even more than FCO specifications. The Committee, therefore, take serious exception to presenting of inaccurate facts before the Committee by the Government. The Committee cannot but deplore such a biased and defeatistic approach on the part of the Government towards a public sector unit with a view to deriving their own point of view. The Committee, therefore, do not agree with the contention of Government that the average phosphate content in M-Phos is low. They, therefore recommended that M-Phos should be given precedence over other direct phosphatic fertilizers.

*(Recommendation Sl. No. 4)*

6. It, undoubtedly, goes in favour of M-Phos that it has been recommended by the agricultural scientists, ICAR and the Ministry of Agriculture as the most reactive and agronomically effective phosphatic fertilizer for direct application as early as in the 1970s. However, according to PPCL all the rocks are not equally good for direct application as fertilizer since a wide variety of geological settings in which rock phosphate occur results in varying textures, accessory, mineral assemblage and chemical composition. But the Fertilizer Control Order (FCO), which regulates the use of fertilizers in the country, specifies only mesh size and P2O5 content for any rock phosphate to be qualified for use as direct fertilizer. What is astonishing is that the Ministry went to the extent of trying to establish that in the rock phosphate it is only P2O5 content which is useful and other components do not matter as far as the crop is concerned. According to the Ministry all the mines producing rock phosphate would be in a position to take advantage of acidic soils provided it contained 18% phosphate content. However, PPCL lamented that FCO specified only mesh size and P2O5 content with no reference about other characteristics required for a rock phosphate to be used directly as P2O5 source in spite of the fact that rock quality varies from deposit to deposit.

7. According to ICAR the essential physical and chemical factors and nature of crystal which make rock phosphate suitable for use as direct phosphatic

fertilizer are prosity, softness, phosphate/carbonate ratio, F/P2O5 ratio, calcium/P ratio, absolute citrate solubility and unit cell length of axis. The ingredients like carbonates, apatite, iron pyrites, organic carbon and extent of softness, porosity, etc. influence the agronomic efficacy of rock phosphate as direct fertilizer. PPCL strongly advocated that FCO specifications should be made more comprehensive incorporating some more parameters suitable for direct application of rock phosphate like presence of carbonate apatite, iron pyrites, organic carbon and extent of softness, porosity, citriteness, etc. On the other hand, Government seemed to be almost reconciled to the existing provisions in the Fertilizer Control Order. Such a situation posed a grave danger of agronomically unsuitable rock phosphates being flooded in the market as a result of which farmers may lose faith in the effectiveness of rock phosphate and resort to use of other costly water soluble phosphatic fertilizers like DAP. The Committee feel that it would be in the interest of the farmers that Government should review the Fertilizer Control Order and make it more comprehensive with a view to ensuring that only agronomically effective rock phosphates are made available for the use by the farmers. They, therefore, recommend that the Fertilizer Control Order should be suitably amended without loss of time and the Committee apprised of the same.

*(Recommendation Sl. No. 5)*

8. According to ICAR among all the rock phosphates, only M-Phos is exclusively sedimentary in origin and as such most effective and reactive for direct application as a fertilizer. As against this the deposits of phosphate rocks from Kasipatnam and Purulia are of igneous origin and those from Jhamarkotra and Maton in Rajasthan and Jhabua in Madhya Pradesh are of metamorphic-cum-sedimentary nature. Rock phosphate of igneous and metamorphic origin, unlike sedimentary ones, are stable and unreactive and as such comparatively less effective for direct application as fertilizer. M.Phos is also stated to be a natural organic manure which is environmental friendly and is made available gradually through dissolution under acidic soil environment. Naturally, therefore, M. Phos is well accepted by the farmers of acidic soils in Kerala, Karnataka, Tamilnadu and the North East, and they have been using it for more than the last two decades. Depriving them of such an agronomically friendly fertilizer may force them to resort to the use of water soluble phosphatic fertilizers like DAP, SSP, etc. which quickly get fixed and are less efficient in acidic soil.

9. Another fact which cannot be ignored is that phosphatic fertilizers are either imported or derived from imported raw materials involving huge foreign exchange outgo. In these circumstances, the Committee do not consider that there is any scope for a debate so as to decide on the best option available to the country, viz. either to resort to imports of fertilizers or to exploit the indigenous resources readily available which are more efficient. The Committee are quite convinced that with the country committed to becoming self-sufficient in foodgrains production, there is no better option left other than exploiting the rock phosphate available at Dehradun and making it available to farmers in



the acidic soil areas. The Committee therefore recommend that production at the Dehradun Unit of PPCL should be revived immediately.

*(Recommendation Sl. No. 6)*

10. Despite the disadvantageous position in which Dehradun Unit has been placed following decontrol of phosphatic fertilizers and withdrawal of import substitution incentive scheme, it is seen that the Unit made profits except in 1994-95, 1995-96 and 1997-98 as against continuous losses incurred by PPCL as a whole since 1992-93. Amjhore Unit registered profit only in 1995-96 and Saladipura Unit did not make any profit at all. With a cumulative loss of Rs. 87.83 crore as on 31 March, 1998 against paid up capital of Rs. 94.65 crore the Company was liable to be referred to BIFR. The Company has been facing severe liquidity crisis with the banks not allowing cash credit and LC limit facilities. The main factors responsible for the deteriorating financial health of the Company were withdrawal of retention price scheme, discontinuation of import substitution incentive scheme, increased cost of underground mining and higher cost of power and freight. Measures suggested by PPCL for restoring the financial health of the Company include allowing import substitution incentive or concession to M-Phos, setting off accumulated loss, writing off intangible assets and provision of budgetary support by Government. The Committee suggest that in view of the various merits of M-Phos elaborated in the preceding parts of this Report, Government should take immediate measures for improving the financial health of the Company as suggested by PPCL.

*(Recommendation Sl. No. 7)*

11. Withdrawal of retention price scheme on decontrol of phosphatic fertilizers, w.e.f. 25 August, 1992 was a major setback to Dehradun Unit which was already debilitated with increased cost of underground mining and freight charges. Before decontrol, cost of P205 from DAP was Rs. 7.57 per kg as against Rs. 4.97 per kg from M. Phos, which worked out to about 65% of DAP. M-Phos was largely used by poor farmers with small holdings and low soil fertility/productivity. It was with a view to encouraging the use of rock phosphate that Government allowed import substitution incentive @Rs. 600/- per MT w.e.f. 1 August, 1992 for five years. On the expiry of the term on 31st August, 1997, it was extended for one more year allowing an incentive of Rs. 230 per MT. The scheme has not been extended further. As a result of this the price of M.Phos soared to Rs. 10 per kg. beyond which it was not affordable by the farmers. PPCL appealed to the Government for extension of the import substitution incentive scheme. However, according to Government in this era of decontrol, there are other units in the country who could produce rock phosphate without incentive since their cost of production was lower.

12. As is evident, the main effect of non-extension of import substitution incentive scheme was that PPCL started incurring cash loss of Rs. 992/MT in respect of M-Phos. This was the main factor which led to suspension of mining operations in Dehradun unit. "If the import substitution or concessions were allowed, we would have never allowed suspension", observed CMD, PPCL before

the Committee. According to an estimate furnished by PPCL in the absence of M-Phos, if the farmers choose to use equivalent DAP, Government has to shell out about Rs. 19 crore in the form of concession on about 48,000 MT DAP. Instead, if concession is given to M-Phos, it is expected that there would be a saving to the national exchequer to the tune of about Rs. 7 crore per annum relating to concession on DAP. The Company was quite confident that if the incentive to cover the difference in the cost of production between Dehradun and Rajasthan Units, which amounted to Rs. 1,000/- MT, is given, the unit could be made viable. In the final analysis it emerges that but for the difference in the cost of production on account of extraordinary factors like underground mining, higher freight and power charges, Dehradun Unit is one of the most efficient fertilizer units in the public sector in the country. Import substitution incentive scheme was introduced to support the unit in the absence of fertilizer subsidy. Withdrawal of the incentive led to increase in the price of M-Phos, mounting losses by the Company and suspension of its operations. The Committee recommend that Government should re-introduce import substitution incentive to M-Phos as a special case. The Committee are of the view that in the long run providing such incentive would prove to be advantageous from all points of view.

*(Recommendation Sl. No. 8)*

13. It is observed that there has been a phenomenal increase in the gap in production and consumption of P2O5 in the country which rose from 3,98,200 MT in 1996-97 to 8,58,900 MT in 1997-98. The deficit in indigenous production is met from imports. The consumption of phosphatic fertilizer is expected to increase with the targets for increased food production in the country. Although the existing demand of rock phosphate for direct application is about 2 lakh MT per annum at present, according to the Government's own admission, the potential demand of rock phosphate is expected to go up to around 4 to 5 lakh MT per annum. Although the Ministry has been maintaining throughout that even in the event of closure of Dehradun Unit, there is sufficient indigenous production capacity for rock phosphate, the actual figures indicating capacity of the units producing rock phosphate speak otherwise. Whereas rock phosphates produced by the Units in Rajasthan, Madhya Pradesh, West Bengal and Uttar Pradesh meet FCO specifications for direct application, capacity of the Jharmarkotra and Udaipur Units in Rajasthan put together comes to only 2,10,000 MT per annum with Purulia Unit in West Bengal having a negligible capacity of 12,000 MT per annum. This clearly shows that there does not exist sufficient indigenous capacity to meet the potential demand for rock phosphate in the event of closure of Dehradun Unit.

14. Besides, it is also to be noted that the annual implication for continuation of Dehradun Unit would be only Rs. 12 crore per annum with import substitution incentive @ Rs. 1000/MT, whereas for closure of the unit total implication would be Rs. 45.90 crore including incentives for VRS. PPCL would require the incentive only for a period of five years during which period the unit is expected to diversify into other areas and become viable. Being the only Central public

sector undertaking in the hill region of Uttar Pradesh, any move to close it would deprive 641 direct employees, 500 contractual workers and other direct beneficiaries like transporters and shopkeepers their means of livelihood and deprive the local people of the indirect benefits of existence of such a unit in the region.

15. Obviously, the existing indigenous production capacity is much less as compared to the projected demand of rock phosphate in future. In the event of closure of Dehradun Unit, the country will be left with no option other than to import rock phosphate to meet the demand of the fertilizer. PPCL submitted a Corporate Plan to the Government on 3rd March, 1998 with proposals for unit-wise turnaround and long term viability which include proposal for continuing Dehradun Unit with an enhanced incentive. In addition to this, going by the cost analysis for continuation and closure of Dehradun Unit, the figures work out in favour of continuation of the Unit. The Committee, therefore, strongly recommend that Dehradun Unit should be allowed to continue its operations with enhanced incentive @ Rs. 1000/MT as proposed by PPCL in the Corporate Plan, at least for a period of five years. This would also facilitate continued employment to the people in the remote hilly region and making available M-Phos to the farmers. The unit is also expected to become viable in a period of five years. The Committee recommend that a decision should be taken on this vital issue regarding the future of the Company within three months of presentation of this Report.

*(Recommendation Sl. No. 9)*

16. Rock phosphate reserve available at Bhusti Jalikhal, Dehradun has been identified for exploitation. Considering the average grade of 20% P<sub>2</sub>O<sub>5</sub> content and thickness, the deposit is being considered quite promising by the Company. Capital cost required is estimated to be Rs. 10 crore with the time requirement of four years for developing it. However, in view of underground mining involved, the cost of production is expected to be more than that of open cast mines. Although PPCL had submitted applications to the concerned local authorities for obtaining necessary permissions, the Government is not in favour of the proposal for developing the reserve at Bhusti Jalikhal since the operation is bound to be uneconomical in the absence of concessions to the Unit. The Committee recommend that the matter regarding development of Bhusti Jalikhal should be pursued with the Government of Uttar Pradesh and other concerned authorities so that development of Bhusti Jalikhal could be taken up urgently.

*(Recommendation Sl. No. 10)*

NEW DELHI;  
26 April, 1999  
6 Vaisakha, 1921 (S)

MANBENDRA SHAH,  
Chairman,  
Committee on Public Undertakings.

## APPENDIX I

### MINUTES OF 12TH SITTING OF COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 11TH JANUARY, 1999

The Committee sat from 1500 hrs. to 1610 hrs.

#### PRESENT

Shri Manbendra Shah— *Chairman*

#### MEMBERS

2. Shri Lal Muni Chaubey
3. Smt. Geeta Mukherjee
4. Shri R. Sambasiva Rao
5. Shri Surender Singh
6. Shri Tarit Baran Topdar
7. Shri Balram Singh Yadav
8. Shri Ranjan Prasad Yadav
9. Shri H. Hanumanthappa
10. Shri Jibon Roy

#### SECRETARIAT

- |                        |                             |
|------------------------|-----------------------------|
| 1. Shri G. C. Malhotra | — <i>Addl. Secretary</i>    |
| 2. Shri Joginder Singh | — <i>Joint Secretary</i>    |
| 3. Shri P. K. Grover   | — <i>Deputy Secretary</i>   |
| 4. Shri Cyril John     | — <i>Assistant Director</i> |

#### **Representatives of Employees' Union of Pyrites, Phosphates & Chemicals Ltd. — Dehradun Unit**

- |                         |                            |
|-------------------------|----------------------------|
| 1. Shri Hira Singh Bist | — <i>President</i>         |
| 2. Shri R. Dutt         | — <i>Vice President</i>    |
| 3. Shri P. K. Mukherjee | — <i>General Secretary</i> |

2. The Committee held discussion with the representatives of Employees' Union of Pyrites, Phosphates & Chemicals Limited (PPCL) — Dehradun Unit in connection with examination of PPCL — Dehradun Unit. A copy of the verbatim proceedings of the sitting has been kept on record.

3. The Committee decided to cancel the visit to Goa during the forthcoming Study Tour and undertake the visit only to Mumbai from 18th to 20th January, 1999.

*The Committee then adjourned.*

## APPENDIX II

### MINUTES OF 15TH SITTING OF COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 11TH FEBRUARY, 1999

The Committee sat from 1500 hrs. to 1620 hrs.

#### PRESENT

Shri Manbendra Shah — *Chairman*

#### MEMBERS

2. Shri Sudip Bandyopadhyay
3. Shri Lal Muni Chaubey
4. Smt. Sheela Gautam
5. Shri R. Sambasiva Rao
6. Shri H. P. Singh
7. Shri Surender Singh
8. Shri Tarit Barin Topdar
9. Shri Ranjan Prasad Yadav
10. Shri H. Hanumanthappa
11. Shri Jitendra Prasada
12. Shri Jibon Roy

#### SECRETARIAT

- |    |                   |   |                           |
|----|-------------------|---|---------------------------|
| 1. | Shri P. K. Grover | — | <i>Deputy Secretary</i>   |
| 2. | Shri Cyril John   | — | <i>Assistant Director</i> |

#### Representatives of Pyrites, Phosphates & Chemicals Ltd.

- |    |                   |   |                                       |
|----|-------------------|---|---------------------------------------|
| 1. | Dr. P. K. Awasthi | — | <i>Chairman &amp; Mg. Director</i>    |
| 2. | Shri P. K. Ray    | — | <i>Executive Director (Fin.)</i>      |
| 3. | Shri A. K. Pahuja | — | <i>General Manager, Dehradun Unit</i> |

2. The Committee took evidence of the representatives of Pyrites, Phosphates & Chemicals Limited (PPCL) in connection with examination of PPCL — Dehradun Unit. A copy of the verbatim proceedings of the sitting has been kept on record.

*The Committee then adjourned.*

### APPENDIX III

#### MINUTES OF 17TH SITTING OF COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 16TH MARCH, 1999

The Committee sat from 1500 hrs to 1640 hrs.

#### PRESENT

Shri Manbendra Shah — *Chairman*

#### MEMBERS

2. Shri Lal Muni Chaubey
3. Smt. Sheela Gautam
4. Shri Vinod Khanna
5. Smt. Geeta Mukherjee
6. Shri Vilas Muttemwar
7. Shri R. Sambasiva Rao
8. Shri Tarit Baran Topdar
9. Dr. Gopalrao Vithalrao Patil
10. Shri Jibon Roy
11. Shri Yerra Narayanaswamy

#### SECRETARIAT

1. Shri Joginder Singh — *Joint Secretary*
2. Shri P. K. Grover — *Deputy Secretary*
3. Shri Cyril John — *Assistant Director*

#### **Representatives of Ministry of Chemicals & Fertilizers (Deptt. of Fertilizers)**

1. Shri A. V. Gokak — *Secretary (F)*
2. Shri Ravi Mathur — *Joint Secretary (F)*
3. Shri D. K. Sinkri — *Joint Secretary (A&M)*
4. Shri G. B. Purohit — *Consultant*

2. The Committee took evidence of the representatives of Ministry of Chemicals & Fertilizers (Deptt. of Fertilizers) in connection with examination of Pyrites, Phosphates & Chemicals Ltd. — Dehradun Unit.

3. A copy of the verbatim proceedings of the sitting has been kept on record.

*The Committee then adjourned.*

**MINUTES OF 21ST SITTING OF COMMITTEE ON PUBLIC UNDERTAKINGS HELD ON 26TH APRIL, 1999**

## PRESENT

## MEMBERS

- SECRETARIAT**

- Office of the Comptroller & Auditor General of India

4. \*\*\*

***The Committee then adjourned.***