

# STUDY GROUP FOR HEAVY CHEMICALS



## NATIONAL COMMISSION ON LABOUR

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## FOREWORD

The National Commission on Labour appointed the Study Group for Heavy Chemicals in its attempt to understand the changes in conditions of Labour in that industry since Independence. This was one of the series of Study Groups set up for different industries. The Study Group was required to analyse available information and project its thinking on labour problems in Heavy Chemicals for the years to come taking into account the possible developments in the industry.

The views expressed in the report are the views of the Study Group. In examining them for framing its final recommendations, the Commission will attach due importance to these views coming as they do from knowledgeable persons in the Heavy Chemicals industry. In the meanwhile, the report is being published by the Commission with a view to seeking comments on it from persons/institutions interested in the development of that industry.

The Commission is grateful to the Chairman and Members of the Study Group individually for completing their work within the time limit fixed for them. The Commission is also grateful to all persons/institutions who may have helped the Study Group in reaching conclusions.

(P.B. Gajendragadkar)  
Chairman.

National Commission on Labour,  
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Calcutta-1.

## PREFACE

In order to assist the National Commission on Labour in its work, several Study Groups dealing with specific topics were constituted and the Study Group for Heavy Chemicals Industry was one such panel. The Study Group was expected to cover in its scope of enquiry all the topics of labour policy within the purview of National Commission on Labour, in so far as they relate to Heavy Chemicals Industry. But the Study Group, right from the start, set for itself certain confines within which framework it would work as it was considered unnecessary to deal with aspects which were identical or common with other industries and thus covered by other panels. This naturally narrowed down, to a considerable extent, both the scope of enquiry as also the nature of recommendations. The effort of the Group was to concentrate on matters pertaining to Heavy Chemicals Industry to the maximum extent possible.

2. Though on the whole the effort of the Group was to make recommendations only with special reference to the Heavy Chemicals Industry, certain interesting points which came up during our discussions have also been incorporated in the report, though they are not strictly restricted to the Heavy Chemicals Industry.

On certain matters, owing to the radically different views of some of the members, it was not possible to make unanimous recommendations and therefore the Study Group thought it fit merely to report the gist of discussions without making any recommendations so that the Commission is aware of the various viewpoints presented by the members. This of course is true in respect of certain aspects only and on most of the other subjects the Group has made recommendations acceptable to all the members. On certain matters the Group has presented more than one alternative so that the Commission could get the points examined further in a broader perspective and can arrive at a proper solution. On certain points, rather than any recommendation as such, the Study Group has merely thrown out suggestions for further scrutiny. This is as per the Terms of Reference where the Study Group was expected to pose certain problems for the consideration of the Labour Commission.

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Before concluding, I must make reference to the most willing co-operation extended by the members of the Study Group themselves. All of them are busy with their own work. It is a measure of great interest evinced by them in the work of the Study Group that in spite of the pressure of their own work, they not only found time to attend almost all the meetings, but also took pains to prepare their own papers and to comment after careful study, on similar papers presented by others. Without the very active co-operation of these members, the work of the Study Group would have been impossible.

Rasayani,  
29th April, 1968

(DR. G.S. KASBEKAR)  
Convenor, Study Group for  
Heavy Chemicals, National  
Commission on Labour and  
Managing Director,  
Hindustan Organic Chemicals  
Limited,  
Rasayani.

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## REPORT OF THE STUDY GROUP FOR HEAVY CHEMICALS

The Study Group constituted by the Government of India vide their Memorandum No. 3 (17)/67-NCL dated the 4th July 1967, subsequently amended on 4th August 1967, has completed its work and submits its Report herewith in 9 Chapters. A copy of letter dt. 4th July 67 is attached herewith.

Recognising that there are several other Study Groups of a similar nature appointed to investigate and report on different matters of labour policy, the Group restricted the scope of its enquiry to the matters pertaining to Heavy Chemical Industries strictly. The Study Group has tried to cover all the aspects of labour policy within the purview of the National Commission on Labour, in so far as they relate to the Heavy Chemical Industry. As far as possible, the Group has tried to refrain from making recommendations of a general nature except on the subject of Trade Unions and Industrial Relations where the problems are not specially different in this industry from other industries.

This Study Group's endeavour in short has been to bring out into prominence the differences between this industry and other industries in the matter of labour policies, which differences this Study Group thought must be taken note of, while formulating any labour policy. This Study Group recognises that these recommendations will not affect a very sizeable sector of the economy today, but in view of the growing importance of this industry all over the world, any recommendations which the Group may have to make and upon which the authorities may act, are likely to have far-reaching repercussions.

The Group is aware that this Report was due to be submitted much earlier, but the Group wanted to do full justice to the task undertaken by it and wanted to make firm recommendations on the basis of careful deliberations. Also certain unavoidable circumstances prevented the Group from submitting its Report earlier.

In its work, the Group was very ably assisted by the Bombay Office of the I.C.M.A. and in particular by Shri Tambe, Secretary of the said Association for Wage Board work. The Member Secretary of the Group had also to discuss various matters with different State Government authorities and the Group would like to thank all those who helped the Study Group in its work. The Staff of the HOCL also played an unobtrusive and silent although none the less important part by way of preparation of certain documents and typing out the mass of material. The Group would like to mention in particular Shri Patankar and Shri Nangia, both Senior Chemical Engineers in the HOC. The Group would also like to place on record its appreciation of the work done by Shri T.R. Kulkarni, Senior Stenographer who assisted not merely by way of stenography but also in several other ways because of his background as Labour Officer. Similarly, Shri P. K. Bhaunik, Joint Director, assisted the Group by his active participation in all the meetings, even when he was not a regular member of the Group.

The Study Group is also indebted to Dr. C.R.H. Aiyer of Central Labour Institute, Bombay, for his expert guidance on the subject of safety and health hazards.

The Study Group also owes its gratitude to Mr. B.N. Datar, Member Secretary of the National Labour Commission who provided guidance from time to time. The Group sought advice on certain matters and he always responded most promptly and willingly.

The Group has noted with pleasure Point No. X in the paper sent by the Chairman along with the Commission's D.O. letter No. 3(1)/67-NCL dated 18th August, 1967. The Study Group would like to assure the Commission that it would be ever willing to assist the Commission in its work.

The Study Group would also like to place on record their thankfulness to the Chairman for this opportunity of being of some use to the Commission in this hard task. The Group hopes the Commission in its turn would find the Report adequate and to their satisfaction.

- |                                 |                  |
|---------------------------------|------------------|
| (1) (Sd.) Dr. G. S. Kasbekar    | Convener         |
| (2) (Sd.) Shri C. R. Das        | Member           |
| (3) (Sd.) Shri V. A. Khanolkar  | Member           |
| (4) (Sd.) Shri J. I. Mehta      | Member           |
| (5) (Sd.) Shri Salil B. Mehta   | Member           |
| (6) (Sd.) Shri C. S. Rangarajan | Member           |
| (7) (Sd.) Shri D. M. Trivedi    | Member           |
| (8) (Sd.) Shri P. S. Palande    | Member-Secretary |



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**COPY**

No. 3(17)/67-NCL

Government of India

National Commission on Labour

D-27, South Extension, Part - II,  
New Delhi-16, the 4th July, 1967.

**Subject :** Constitution of a Study Group for Heavy Chemicals.

**Reference :—**Government of India, Ministry of Labour, Employment & Rehabilitation (Department of Labour and Employment) Resolution No. 36/14/66-I&E, dated the 24th December 1966.

The National Commission on Labour appoints the following persons to constitute the Study Group for Heavy Chemicals. Headquarters : Bombay :—

1. Dr. G. S. Kasbekar,  
Managing Director,  
Hindustan Organic Chemicals Ltd.,  
P.O. Rasayani, Dist. Kolaba,  
Maharashtra. Convenor
2. Shri J.I. Mehta,  
General Manager (Personnel),  
Union Carbide India Limited,  
P.O. Box 2170,  
Calcutta-1 (as amended on  
4th August, 1967). Member
3. Shri C.R. Das,  
Shriram Vinyl & Chemical  
Industries,  
Shrirampur,  
Kota (Rajasthan), Member
4. Shri C.S. Rangarajan,  
Chemicals Employees' Association,  
Mettur Dam R.S. Member
5. Shri V.A. Khanolkar,  
Chemical Mazdoor Sabha,  
115, Satyagiri Sadan,  
Dadar Main Road,  
Bombay-14. Member

6. Shri Salil B. Mehta,  
C/o Tata Industries Ltd.,  
Chemicals Division,  
Bombay House, Bruce Street,  
Fort, Bombay-1. Member
7. Shri P.S. Palande,  
Administrative Officer,  
Hindustan Organic Chemicals Ltd.,  
P.O. Rasayani, Dist. Kolaba,  
Maharashtra. Member-  
Secretary

2. The Study Group will, in regard to the subject allotted to it, ascertain facts from available literature on the subject, draw conclusions and suggest solutions to the problems posed by the Group for the consideration of the Commission. The Commission may also pose problems for consideration of the Group from time to time. The Study Group will submit its report as early as possible.

Sd/-P.D. Gaiha  
Joint Director

To

Convenor and Members of the Study Group.

Copy forwarded to :

1. The A.G.C.R., New Delhi. Under S.R. 190, sanction of the Member-Secretary is hereby conveyed to the payment of travelling and daily allowance to the non-official members (including Convenor) of the aforesaid Study Group at the highest rates admissible to Grade I Officers of the Government of India in terms of the orders contained in the Ministry of Finance O.M. No. 6(26)-E.IV/59, dated the 5th September, 1960, as amended from time to time while travelling to attend the meetings of the Study Group.

The Officers of the Central/State Governments who are Convenor/Members of the Study Group will draw their T.A. and D.A. from the same source from which their pay is drawn in accordance with the rules applicable to them.

The expenditure involved will be debited to the head 38-Labour and Employment, L-9 Special Commission on Enquiry, L-9(1)-National Commission on Labour, L-9(1)(3)-Allowances, Honoraria etc,

Sd/-P.D. Gaiha  
Joint Director

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Copy also forwarded for information to :

1. The Chairman and Members of the National Commission on Labour.
2. Special Assistant to Chairman, National Commission on Labour.
3. P.S. to Minister of Labour & Rehabilitation, New Delhi.
4. P.S. to Minister of State in the Ministry of Labour, Employment and Rehabilitation, New Delhi.
5. Secretary, Ministry of Labour, Employment and Rehabilitation (Department of Labour & Employment), New Delhi.
6. Shri. M.V. Rajwade, Joint Secretary, Ministry of Petroleum and Chemicals, New Delhi.
7. Shri B.N. Chakravorti, Joint Director, Department of Labour and Employment, New Delhi.
8. All Officers in the National Commission on Labour.

Sd/-P.D. Gaiha  
Joint Director

## CHAPTER I

### WORKING AND RECOMMENDATIONS

#### I. Appointment

1.1 On 4th July, 1967, the Government of India vide their Memorandum No. 3(17)/67 NCL appointed a Study Group for Heavy Chemicals as part of the National Commission on Labour in order to assist the Commission in its work. The Study Group consisted of the following :

1. Dr. G.S. Kasbeker	Convenor
2. Shri Das C.R.	Member
3. Shri Khanolkar V.A.	Member
4. Shri Mehta J.I.	Member
5. Shri Mehta S.B.	Member
6. Shri Rangarajan C.S.	Member
7. Shri Trivedi D.M.	Member
8. Shri P.S. Palande	Secretary

#### II. Terms of Reference

2.1 The terms of reference of this Study Group as contained in para 2 of the above-said Resolution were as follows :

“The Study Group will, in regard to the subject allocated to it, ascertain facts from available literature on the subject, draw conclusions and suggest solutions to the problems posed by the Group for the consideration of the Commission. The Commission may also pose problems for consideration of the Group from time to time. The Study Group will submit its report as early as possible”.

2.2 It was possible for the Study Group to hold its first session on 10.10.67 at Bombay and thereafter it met on 5 occasions as detailed below :

(1) 12th December, 1967	—	Rasayani
(2) 22nd January, 1968	—	Rasayani
(3) 30th January, 1968	—	Bombay
(4) 18th to 20th March, 1968	—	Bombay
(5) 16th April, 1968	—	Delhi

2.3 The Headquarters of the Study Group were to be Bombay and accordingly most of the meetings of the

Group were held in Bombay Office of the HOC and 2 meetings were held at Rasayau.

2.4 At the very outset the Study Group had to devote considerable attention to the question of defining the terms "Heavy Chemicals" and hence deciding which units should be included in the enquiry and which should be excluded. After deliberation and in consultation with the Labour Commission itself, it was possible to evolve a workable definition which has been more extensively dealt with in Chapter II.

### III. Procedure

3.1 At the very outset the members distributed among themselves various topics of special interest to them. Based on their own previous experience and knowledge, as also on the large amount of material fed to them by the Secretariat from time to time, the members concerned prepared small papers for the consideration of the entire group. Copies of these were circulated before-hand and the group in its meetings considered each paper point by point, finalising, as it went on, their recommendations on each specific point.

3.2 The distribution of work was as follows:—

1. Shri S.B. Mehta — Papers on
  - (1) Recruitment and Induction and
  - (2) Working Conditions
2. Shri V.A. Khanolkar — Papers on
  - (1) Trade Unions and Employers' Organisations and
  - (2) Industrial Relations
3. Shri J.I. Mehta — Paper on Wages
4. Shri C. S. Rangarajan — Papers on
  - (1) Social Security and
  - (2) Labour Legislation
5. Shri C.R. Das — Paper on Incentive Schemes and Productivity

3.3 The Secretariat of the Study Group kept itself busy in contacting various bodies, through letters and through personal contacts, collecting an extensive mass of material. Unlike in other industries, the information pertaining to Heavy Chemicals industry is not readily available and certainly not in a consolidated fashion. Apart from the non-availability of information, the task was even more difficult

because information regarding Heavy Chemicals section had to be extracted from the scanty information that the Study Group came across for the chemical industry as such.

3.4 In the very first meeting, the members decided among themselves that their contribution to the deliberations would be in their capacity as individuals and not in their capacity as employees or Government servants etc. It has therefore been possible for the Study Group to make practically all the recommendations unanimously.

3.5 The Study Group has been guided in its efforts by the directions and instructions issued by the Chairman from time to time. The Group has accordingly drawn on the information already available and has avoided any plant visits. No new enquiries were also undertaken. The Group has made use mostly of the intimate knowledge of the industry on the part of the members themselves.

3.6 The series of meetings held by the Group culminated in a final session from 18th to 20th March, 1968 at Bombay. In this last meeting, the ideas of the Members were more clearly crystallised and it was possible to come to certain firm conclusions which are incorporated in this report. These conclusions were finally okayed in the meeting on 16th April, 1968.

3.7 The convenor, on the recommendations and approval of other members of the Study Group, sought the permission of the Labour Commission for coopting Shri D.M. Trivedi as an additional member of the Study Group. This was accepted by the Commission by their letter No. 3/17/67-NCL dated 12th January, 1968. Shri Trivedi accordingly attended the meetings of the Study Group from 30.1.1968 onwards.

3.8 As a result of its deliberations, the Study Group's conclusions and recommendations are as follows :—

## RECRUITMENT AND INDUCTION

### Recommendation No. 1

Promotion should be on seniority-cum-merit basis where two factors, namely, general education and experience are taken note of.

### Recommendation No. 2

For factory workers, by and large, new recruits should be taken up only at the lowest level and generally, recruitment to higher levels, as far as possible, be made from within subject to properly qualified candidate being available.

**Recommendation No. 3**

Retention of the Employment Exchange system is not recommended.

**Recommendation No. 4**

Employment of women in any appreciable number is not recommended.

**Recommendation No. 5**

Employment of handicapped persons in any appreciable number is not recommended.

**Recommendation No. 6**

The number of casual employees should be kept to the minimum, and should be restricted to work of a strictly casual nature.

**Recommendation No. 7**

Safety training should be an integral part of the recruitment and induction procedure.

**Recommendation No. 8**

For purposes of better training, it is recommended that wherever possible the existing training institutes should be utilised more, and where no such institutes are available, there should be joint collaboration between industry and Government.

**Recommendation No. 9**

Where any particular chemical unit sets up on its own a detailed and comprehensive training programme, the Government should encourage the unit by any form of assistance that it thinks fit.

**Recommendation No. 10**

Adoption of a curriculum of the type already evolved by the Indian Chemical Manufacturers' Association and the Government after considerable thought should be considered.

**Recommendation No. 11**

Chemical factories should be exempted from the responsibility of training other craftsmen under the Apprentices Act and in their place should be permitted to take up a corresponding number of chemical plant operators for training.

**Recommendation No. 12**

Some type of sandwich or day-release courses should be evolved for theoretical training of chemical operators, in centres to be located around a group of chemical industries.

**Recommendation No. 13**

For objective judgement of merit, there should be a performance evaluation record based on which a departmental promotion committee consisting of not only the immediate superior but two or three others can take unbiased decisions about matters of promotion.

**CONDITIONS OF WORK****Recommendation No. 14**

Insistence of elimination of hazards or their minimisation to the best extent possible and employment of workers for short broken spells in such areas with the rest of the period elsewhere is recommended.

**Recommendation No. 15**

The university curriculum should include a study of the safety aspect in chemical industry.

**Recommendation No. 16**

An yearly medical check up of the workers in a Heavy Chemical factory should be done. In certain very hazardous plants, even a 6-monthly medical examination may be necessary.

**Recommendation No. 17**

Refusal to take proper safety precautions on the part of a worker must also be penalised under the Standing Orders.

**Recommendation No. 18**

There should be special cells within the Factory Inspectorate, for the study of hazards in chemical industry and for fixing of safety standards etc.

**Recommendation No. 19**

The staff of the Inspectorate must be drawn from the chemical field and not from engineering side as is often found.

**Recommendation No. 20**

Alternatively, the E.S.I. Corporation can have hygiene wing with it whose job it will be to visit the factories and enforce preventive system and good working conditions.

**Recommendation No. 21**

The E.S.I. Scheme must thus be responsible not only for the treatment of the employees, but also for the prevention of diseases and maintenance of health of the employees.



**Recommendation No. 22**

The system of factory inspections should be replaced by a system of national safety codes under which the insurance companies insuring the assets of the company would take better care of the implementation of various safety precautions.

**Recommendation No. 23**

The E.S.I. Scheme must encourage employers to take special safety measures by offering some incentives.

**Recommendation No. 24**

Over and above other precautionary measures, there should be a system of rotation of workers.

**Recommendation No. 25**

There was also a suggestion to permit premature voluntary retirement of workers in certain specified areas, if all the other measures fail and if it is proved, on medical opinion, that the worker was adversely affected by such working.

**Recommendation No. 26**

Research should be undertaken to develop safety equipment suitable to Indian conditions.

**Recommendation No. 27**

Government should provide training of workers and supervisors in safety for small units who cannot afford to have separate training in this regard.

**Recommendation No. 28**

A long-term research programme should be undertaken for further and more careful study of the effects of working in a chemical factory, with special attention to the conditions obtaining in India today.

**Recommendation No. 29**

All companies, particularly large ones, should be legally compelled to provide industrial housing and the Government should encourage employers in any manner that it thinks fit, as suggested by the Study Group for this purpose.

**Recommendation No. 30**

In order to take care of the worker after his retirement, a scheme of hire-purchase of the houses constructed by the employers should be introduced.

## **TRADE UNIONS AND EMPLOYERS' ORGANISATIONS**

### **Recommendation No. 31**

There should be regional forum for different units of trade unions of the region to come together for consideration and solution of common problems.

### **Recommendation No. 32**

Similarly, a regional bilateral basis for the industry is considered necessary so that organisations of both the sides come together for solution of problems.

### **Recommendation No. 33**

A union having majority backing, ascertained on the basis of a secret ballot, should alone be recognised.

### **Recommendation No. 34**

The union, so recognised, should be the sole legal bargaining agent.

## **INDUSTRIAL RELATIONS**

### **Recommendation No. 35**

Industrial relation should be kept apart from political considerations. The employers' and employees' organisations should remain aloof from taking partisan and political attitude in the matter of industrial relations.

### **Recommendation No. 36**

Undue emphasis on legislation should be reduced and an effort should be made to evolve national codes rather than detailed legislation.

### **Recommendation No. 37**

Conciliation machinery should be abolished altogether.

### **Recommendation No. 38**

So long as it is retained, conciliation must be more effective, and political and administrative interference should be removed.

### **Recommendation No. 39**

Drastic action like dismissals and discharges should be only sparingly taken and there should be a suitable machinery for quickly going into the merits of such cases.

## **WAGES IN HEAVY CHEMICALS INDUSTRY**

### **Recommendation No. 40**

In the interest of industrial development of the country as a whole, regional disparities may have to be tolerated, but the objective should be towards the reduction of such imbalances, as the country advances industrially.

**Recommendation No. 41**

Minimum wages must be provided in Heavy Chemicals Industry which should be in line with such wages in other industries and the question of minimum wages at different skill levels should be examined to find out its feasibility.

**Recommendation No. 42**

While fixing the wages in this industry, its role as a feeder industry to other industries should not be overlooked.

**Recommendation No. 43**

While fixing the wages, the factor of the high rate of technological obsolescence necessitating substantial reserves should not be overlooked.

**Recommendation No. 44**

Firms in the industry should be encouraged to expand job opportunities through greater investment and allowing larger proportion to be maintained as undistributed profits.

**Recommendation No. 45**

In Heavy Chemicals Industry, participation of Public Sector is also becoming an important feature and, therefore, the wage structure should be so maintained that there is largely a parity between the Public and the Private Sector wages.

**Recommendation No. 46**

There should be an expert committee to examine some of the typical key jobs in the industry and to develop a common format for describing the job as well as specifying the minimum requirements for education, experience etc.

**Recommendation No. 47**

Based on such detailed examination, it should be possible to suggest a minimum wage in a particular category based on the industry-cum-region practice and job evaluation.

**Recommendation No. 48**

While providing such a minimum rate for every category, it should be kept in mind that a range with a certain fixed percentage is specified so that it takes care of industries of varying profitabilities.

**Recommendation No. 49**

Besides providing a normal-minimum automatic increment, there should be a provision for higher increments based purely on merit.

**Recommendation No. 50**

Wage differentials within a firm should be based on job evaluation and proper categorisation through an expert plant committee.

**Recommendation No. 51**

Since the job specification of chemical operators demands greater amount of versatility and presence of mind, there should be appropriate differentials between their wages and the wages of the unskilled workmen.

**Recommendation No. 52**

The Simla index of 1960 should be used for purpose of all calculations of Dearness Allowance.

**Recommendation No. 53**

Over a period of next 3 to 5 years at least, a portion of the Dearness Allowance may be merged with the basic wages.

**Recommendation No. 54**

In many industries, a uniform Dearness Allowance is paid for all levels of wages which it is suggested should be modified and different Dearness Allowance be made payable at different levels of wages.

**Recommendation No. 55**

The cost of living indices for most of the large cities are available, but for smaller places there are no indices available. For such smaller places, based on the general living conditions in these places, it would be possible to recommend a certain percentage of the cost of living index of the city closest to it.

**Recommendation No. 56**

The emphasis on fringe benefits should be gradually reduced in favour of wage increases. There should be a total limit on the fringe benefits so that they are not more than a certain percentage of the total wage of the employee.

**Recommendation No. 57**

There should be a special wing in the Labour Ministry to compile up-to-date statistical information about the movement of wages in different industries and in different parts of the country. This information should be readily available to any party to a dispute in any part of the country.

**Recommendation No. 58**

Wage Boards should consist of people with intimate knowledge of industrial labour and economic conditions and

not of persons merely because of their political affiliations. Also they must give decisions within certain definite time-limits.

**Recommendation No. 59**

Over and above the other considerations in determining a wage policy, the factor of the structure of industry should also be given its due importance.

**Recommendation No. 60**

The classification of grades in the industry should be reduced to the minimum so as to avoid an unnecessary variety of wage levels. This rationalisation of scales should be on the basis of job evaluation.

**INCENTIVE SCHEMES AND PRODUCTIVITY IN CHEMICAL INDUSTRY**

**Recommendation No. 61**

In this industry, group incentives are more workable and should be undertaken.

**Recommendation No. 62**

The introduction of an incentive scheme should be preceded by scientific work study and job evaluation. Mutual agreement and understanding of employers and employees is equally important.

**Recommendation No. 63**

Schemes of the nature of the one in Hindustan Insecticides Ltd., should be considered for adoption by units in Heavy Chemicals industry.

**SOCIAL SECURITY AND LABOUR LEGISLATION**

**Recommendation No. 64**

The scope of Workmen's Compensation Act should be enlarged so as to include compensation for occupational diseases.

**Recommendation No. 65**

In today's conditions, employment of women in an appreciable number on direct chemical processes is not recommended. However, they could be employed in safe sections like packing, designs, laboratories etc.

**Recommendation No. 66**

Option for exclusion from the E.S.I. Scheme should be given to a unit where the employer and the employees voluntarily agree to exclude themselves and the E.S.I. authorities

are satisfied that the benefits extended are equal or superior to the ones admissible under the E.S.I. Scheme.

**Recommendation No. 67**

It is also necessary for an employer in a Heavy Chemical industry to subject new recruits to pre-employment medical examination, periodic medical examination during employment and to maintain a proper record of these examinations.

**Recommendation No. 68**

There should be a scheme of superannuation in lieu of bonus, on a voluntary basis.

**Recommendation No. 69**

The possibility of increasing the contribution to the provident fund should be explored.

**Recommendation No. 70**

Like the Employees' Provident Fund, workers should be covered by a Gratuity Scheme so that workers' interests will be better guarded.

**Recommendation No. 71**

There should be a uniformity in the practice of leave provisions, to the extent possible.

**Recommendation No. 72**

The need for total avoidance of sudden closures of work in a chemical factory is emphasised, though it does not recommend a legal restriction on the right of employees to strike work.

**Recommendation No. 73**

A cooling off period of 90 days is necessary, after which the employees can strike work any time without any notice since a notice of 90 days has, in fact, been given already.

**Recommendation No. 74**

Conciliation proceedings should be abolished and there should be either voluntary arbitration or if that cannot be agreed upon, then Government may, at its discretion, refer the dispute to adjudication. There should be no other steps

CHAPTER II  
INTRODUCTORY

I. COVERAGE OF UNITS

1.1 The first difficulty that the Study Group encountered was with regard to defining clearly the words "Heavy Chemicals". This definition was essential because with reference to such a definition alone could the Study Group decide as to which units should be covered and which should be excluded. The dictionaries defined the words "Heavy Chemicals" mainly with reference to the production of chemicals in bulk. For instance, the Concise Oxford Dictionary of Current English gives the following definition: Heavy Chemicals—bulk chemicals used in industry and agriculture. Again, the Von Nostrad Chemists's Dictionary defines Heavy Chemicals as chemicals that are produced, or were once produced, in very large quantities, such as sulphuric acid, caustic soda, chlorine etc. These definitions did not serve as a very useful guideline because they are too vague to pin-point specific units which should be covered by the Study Group.

1.2 The problem of defining the chemical industries was also examined by the International Labour Office through a preparatory technical meeting of experts from 11 countries who discussed and accepted with certain amendments the proposed definition of the chemical industry put forward by the I.L.O. This very broad definition of the chemicals industries would distinguish three main groups, namely,

- (1) basic chemicals (or Heavy Chemicals), which include for example sulphuric acid and other mineral acids, soda ash or other alkalies, fertilizers, including phosphates, nitrates, potash, salts, ammonium sulphate and so on. The essential feature of such products is that they are produced on large scale at a low price per unit of weight. The processes involved are primarily those of moving, grinding, mixing and separating large quantities of solid, liquid or aqueous masses.
- (2) Intermediary chemicals, for further processing for other industries, for example rayon plastic materials,

crude animal and vegetable salts, their colours, pigments, etc.

- (3) Fine chemicals (or finished chemicals) destined for direct use by consumers. These include a multitude of branches or sub-branches such as drugs, cosmetics, photographic materials and so on.

1.3 It would thus be seen that I.L.O. also has been able to define the words "Heavy Chemicals" only roughly.

In order to solve this problem, the Study Group, after some deliberation, decided to set a restriction on itself by evolving a workable definition. A similar problem had arisen when a Wage Board for Heavy Chemicals and Fertilisers industries was appointed by the Government of India. The matter had already received a detailed consideration between the Indian Chemical Manufacturers' Association on the one hand and the Ministries of Industry and Supply, Petroleum & Chemicals, and Labour and Employment on the other, as recently as in 1966-67. The Study Group thought that this discussion with necessary modifications could be profitably adopted by them as a guideline for purposes of inclusion or otherwise of various production units and factories.

1.4 Accordingly it was felt that only the items included under the first two sub-heads of the Classification of Chemical Industries as given under Rule No. 32 of Industries Development and Regulation Act, 1951, be considered. These are inorganic Heavy Chemicals and organic Heavy Chemicals. It was also felt that it would be very difficult to compare a variety of units engaged in this line unless there was some common basis. For this purpose, only the comparable large units could be considered and the smaller ones excluded from the scope of enquiry.

1.5 The criteria that could be adopted to prepare a list of Heavy Chemical units to be considered were adopted as follows :—

- (1) the unit must be one producing Heavy Chemicals as generally understood;
- (2) its production must be 1,000 tons per annum or more;
- (3) the workers employed should not be less than 50;
- (4) the capital employed should be at least 25 lakhs or more;
- (5) in the case of captive units sales of more than 60% could be taken as the basis.



1.6 Based on these criteria, a representative list was attempted to be made which is annexed to this Chapter. Study Group decided to refer this matter to the National Commission on Labour and to seek their advice about the correctness of the line of approach adopted by the Study Group. The Member Secretary advised that the suggestion of the Study Group to exclude units employing less than 50 workers or that units with turnover of less than Rs. 5 to 10 lakhs should be excluded, was acceptable, since a separate study group of small scale industries was likely to touch upon the problems of smaller units. He also made it clear that it is not necessary for the Study Group to consider each and every unit as such, but to take a general view of the industry as a whole and make recommendations on that basis. The Study Group, therefore, did not attempt to make an exhaustive list of units to be covered and decided to be satisfied with the representative list as annexed.

1.7 Such an approach automatically cuts out from the scope of enquiry certain well recognised units such as sugar, cement or textile industry on one hand and chemical units in industries such as rayon, paper, steel manufacture etc., where production of such chemicals is only incidental to the main activity.

1.8 The Report of the Study Group, therefore, has to be read in this context and with reference mainly to such units. It is likely that a small number of units may have been excluded inadvertently, but that would not very materially alter the nature of recommendations since the list prepared is representative enough in character.

## II. PLACE OF THE HEAVY CHEMICAL INDUSTRY IN THE NATIONAL ECONOMY

2.1 The Heavy Chemicals Industry is of comparatively recent origin though it occupies a very important position in the economy of other advanced countries now. The industry came to prominence mainly after the II<sup>nd</sup> World War. It was during this war that the wide ramifications of the industry and its primary importance in the national economy and for national defence were more clearly brought out to every country than ever before. The force of circumstances made science and technology draw closer together and was given to perform the whole series of new inventions and new industries, covering the most varied fields and affecting

industrial conditions in every country of the world. After the experience of the war, most countries became increasingly aware that their independence rested at least to some extent at the existence of national chemical industries capable of producing not only explosives and ammunitions necessary for warfare itself, but raw materials without which essential industries such as steel and rubber could not exist. The result has been a wide dissemination of chemical industries all over the world, a movement which is continuing at an increasing pace at the present day.

2.2 The influence of these industries extends over a vast field and in the modern world almost every scant activity to a greater or lesser degree depends on them. It is therefore no exaggeration to say that the chemical industries, by their contribution to the food, clothing, housing, lighting, heating, cleaning, transport, comforts, hygiene and health of humanity are the very foundation of modern standards of living, which would otherwise be impossible.

2.3 In India also, the Heavy Chemicals industry is of comparatively recent origin and the country is still in the process of developing a firm base of these industries. The industry, no doubt, occupies a very significant part in the national economy as can be seen by some indicators. For instance, the figures of industrial production with base 1956 as 100 would show that whereas the general index stood at 171.9 in 1964, the index of industrial production for chemicals and chemical products stood at 230.6 This compares very favourably with the figures for other industries like basic metals where the index was 255.6 or finished steel with index at 315.1 or transport equipment with index at 190.4 Or again the figures of average daily employment of workers in various factories also bring out the importance of the industry. For instance, as against the figure of 246,000 workers for basic metal industries and 411,000 of machinery manufacture, the figure of 187,000 workers for the chemical industry is quite important. It can of course never be compared with a traditional industry like cotton textiles employing 1,327,000 workers per day. But what is significant is that whereas in the cotton textiles industry the percentage change from 1950-51 to 1964 was only 30%, the percentage change in respect of the chemical industry during the same period was 192.3%. In the case of basic metal industries this was 161.8% and in the case of machinery manufacture the percentage change is

337.5%. The figures relating to the per capita annual earnings of factory labour are also quite revealing. Whereas in 1964 the cotton textile worker got Rs. 1,821/- per annum and the worker in paper and paper products got Rs. 1,620/- per annum, the chemical and chemical products worker got Rs. 1,590/- per annum. The figure in basic metal industry for the same year was Rs. 1,445/- and that for machinery was Rs. 1,401/-.

2.4 These are some of the figures establishing the significance of the industry in the national picture. Though it does not establish the Heavy Chemicals industry as the most important industry, it does bring out one fact that in years to come the Heavy Chemicals industry is going to play a very important role. Any recommendations affecting this industry, therefore, will have a considerable impact on the fortunes of other industries.

2.5 A reference in this connection may be made to a study of the top 200 companies in India undertaken by the Economic and Scientific Research Foundation and reported in the book entitled "Top 200 Companies". The book has restricted its search to 6,086 companies only out of the 26,002 companies listed under the Companies' Act in 1964. The Companies were ranked according to sales. The picture brings out that the aggregate sales of these companies totalled Rs. 2,613 crores in 1964 and accounted for more than 50% of the remitted sales of all the public limited and Govt. companies in India, which are about 6,000 in number. Quantitatively and qualitatively, therefore, these companies are the most important in India's economy and their performance is in effect the performance of the top half of the country's corporate sector. The following table would give a comparative picture not only with regard to the share of Heavy Chemical industries in India but also the share of Heavy Chemical industries in the economies of some of the advanced countries of the world.

#### PERFORMANCE OF TOP COMPANIES

	% Share of 6 Heavy Chemical Companies of the top 200 in India	% Share of 5 Chemical Companies in top 50 Companies of the world	% Share of 1 Heavy Chemical Company of the top 15 of USA	% Share of 1 Heavy Chemical Company of the top 15 in U.K	% Share of 3 Heavy Chemical Companies of the top 15 in West Germany	% Share of 2 heavy Chemical Companies of the top 15 in France
Sales	1.55	6.35	3.56	9.56	20.3	12.1
Net asset	1.65	7.84	3.76	13.6	23.8	13.2
Net worth	1.65	9.96	7.03	14.7	37.5	12.35

The table would give an idea of the vast and bright future that lies in front of Heavy Chemical Industry in India, in the years to come, as its progress will have to keep pace with what has already been achieved elsewhere in the world.

### III. SPECIAL FEATURES OF HEAVY CHEMICAL INDUSTRIES

#### High Capital Intensity:

3.1 The ratio of fixed investment per employee is extremely high in Heavy Chemicals Industry. Since 1962 more units of Heavy Chemicals Industry have come into operation and at large increased costs. This ratio therefore is expected to increase sharply in terms of investment per employee.

#### Structure of Industry:

3.2 The industry comprises of units having very large capital investment as also units where investments are hardly of a few lacs of rupees with turn-over of small magnitude. The I.C.M.A. has classified the units covered by the Wage Board in 4 levels based on capital employed.

	Investment	No. of Units
i)	Small units : Rs. 0 to 25 lakhs	21
ii)	Medium units : Rs. 25 to 100 lakhs	25
iii)	Large units : Rs. 1 to 5 crores	27
iv)	Giant units : Rs. 5 crores and above	14
		87

Even though this list excludes certain units not covered by the Wage Board, the position would not change very materially.

#### High rate of obsolescence in process technology and know-how

3.3 The chemicals industry is particularly identified by the high rate of process obsolescence. The extremely rapid development of technology in the chemicals and chemicals process fields, which is also responsible for faster rate of growth of the chemicals industry, provided other conditions of capital and investments are met, is a singular feature of the chemicals industry today. In the planned economy of India and with the present obsession regarding licenced capacity and growth of the so-called monopoly tendencies,

the older technologies are not allowed by and large to be changed to newer technologies and new plants are established with newer technology with which the older plant has to compete. Caustic Soda technology based on diaphragm cells (Delhi Cloth Mills), improved diaphragm cells (Tata Chemicals, Mithapur) and Mercury Cell Process—all working side by side in India even when Mercury Cells are now the accepted international process, is a classical illustration of this situation in India.

**Complicated operations and processes and high rate of corrosion:**

3.4 The processes for production in the chemicals industry are generally highly complicated and require a large number of sophisticated special process equipments as well as intricate automated instrumentation system. The rate of corrosion due to exceedingly corrosive nature of processes and chemicals involved has been a significant feature of chemical industry. Some of these corrosive processes are controlled by the use of specialised materials of construction like stainless steel, monel or nickel linings but these are very expensive. The price of stainless steel sheet of a given thickness in India would be over 10 times higher than the price of equivalent thickness of carbon steel. No other industry uses high pressures as required in the chemical industry. All this adds to the heavy burden of investment on the chemicals industry besides the problem of high rate of obsolescence. Even after using corrosion resisting alloys at high cost, corrosion rate becomes merely controlled and equipments have to be changed after shorter services than the periods which are known in other industries.

**Economics of scale and continuous process manufacture :**

3.5 An important factor of the chemicals industry is the continuous nature of its operations by and large. In view of this, economics of scale also becomes a major factor and a feature of chemical industry. An essential condition therefore is that the plant must be run at full capacity. In India today, high under-utilisation of capacities has been noticed because of several factors like the licencing policy of the Govt., shortage of raw materials and power and limitations of foreign exchange, etc. The result has been that there have sprung up a number of uneconomic units running at partial loads. As against this, many foreign plants are essen-

tially operated at maximum capacity and on continuous basis, thereby producing products at a much cheaper rate

#### **Integrated complexes**

3.6 Several chemical units happen to be integrated complexes and the pace of progress has been somewhat rapid. Amongst such complexes are the Delhi Cloth Mills, Alkali & Chemicals Corporation of India Ltd., Calico Chemicals, Union Carbide India Ltd., Birla Jute Mfg Co. Ltd., etc. The major part of the paper industry development has been rendered possible by its being permitted to manufacture caustic soda required by it for its own use. The same is true of Rayon units which are substantial consumers of sulphuric acid and caustic soda. By and large it may be observed that their progress has been rendered possible specially after their establishing the production of Heavy Chemicals as an integrated part of the units.

#### **Role of research and development**

3.7 The large number of new products which are being discovered would point to significance of this factor in the development of the chemical industry. In fact, in many large foreign firms it is well known that many of the products they have been presently producing in bulk and on which their growth depends, are the outcome of research and development of recent years and that many of the products on which these companies are founded are either no longer in production or have become insignificant. The chemical industry in India is beginning to take more positive interest in this programme. The development of indigenous know-how in chemical industry as a part of the programme for import substitution must have the highest priority in chemical industry if large amounts of foreign exchange are to be saved on that account and the industry is to keep pace in forward technology.

#### **Economic role of chemical industry in the national economy**

3.8 Chemical industry is a basic industry and not only its abundant supplies at low cost are essential for promotion and vast development of other industries where it acts as a feeder industry, but it also has a potential for improving technology of other industries by its own rapid development. For instance, caustic soda becomes an intermediate raw material for soap industry, vegetable oil industry, textile industry, glass industry, rayon fabrics etc. The cost at which caustic soda is made available to these industries thus becomes of utmost

importance to the economy and end-product industries. The present prices of almost all chemicals in this country are extremely high as compared with the world standards. This is of vital importance to the entire economy of the country.

#### Employment potential

3.9 There is a feeling that the chemical industry being a capital intensive industry does not have much employment potential. But it will be seen that the rate of growth in employment though not very large, is increasing steadily. Total employment, in this industry can of course bear no comparison with the traditional industries like textiles, jute etc.

3.10 An interesting feature of this industry is that the ratio of production to investment is very low as compared to the other traditional industries. This makes it all the more necessary for productivity in this industry to be of a very high order. It also makes it necessary for the machines and equipments in this industry to be fully utilised and any idle capacity will affect its profitability very materially.

### IV PERFORMANCE OF THE INDUSTRY

4.1 By and large the development of chemical industry has been concentrated more on the Eastern (especially Calcutta region) and Western side (especially Bombay area). Of late, because of the emphasis given to regional development under the licencing regulations, chemical industry is gaining foothold in the other regions of the country—especially south, north and central. It would be pertinent to see the rate of growth and progress of chemical industry in relation to other traditional and new basic industries in the country for a period of last 15 years of planning and development of the country. It must be mentioned, however, that the chemical industry is an industry of recent origin with a much smaller base and therefore the figures of industrial production during the last 15 years may appear to give some exaggerated picture of the rate of its growth. From the data in regard to production over the last 15 years, it will be noticed that although the percentage rate of growth may appear to be significantly high, the base of production as shown during the year 1950-51 is of very small dimensions in terms of tonnages. By the same token, it will be seen that machine tools, electrical engineering industries, electricity generation and even petroleum production which are newer industries are developing at a much faster rate than the chemical industry.

4.2 Another important indicator in determining the importance of chemical industry to the national economy can be seen from the study of foreign collaboration in different sectors of industries. Analysis of the data available gives impression that the chemical industry occupies important place amongst the national industries and the economy of our country. However, this must be seen only in relation to the fact that it has been of comparatively recent growth and therefore its percentage rates of growth had given a somewhat exaggerated impression that it is an industry with unlimited growth potential. The very fact that the chemical industry produces basic products which go into the manufacture of other industries and is thus a feeder industry would no doubt lead to a conclusion that its rate of growth is bound to be influenced and conditioned by the rate of growth of over-all economy.

4.3 It would be useful to see the actual performance of the the chemical industries in terms of capacities planned and actual production achieved during the various plan periods. It will be seen that in spite of the fact that in the second and third five year plans, the targets were set pretty high in recognition and realisation of the importance of the industry, installed capacity and actual production realised were very much below the contemplated figures. For instance, the installed capacity of Caustic Soda in the second plan was 126,000 tonnes against the actual production of only 99,000 tonnes. For the third plan the targetted capacity was 406,000 tonnes, whereas the actual production achieved at the end of third plan was only 218,000 tonnes or roughly 50% of the target. As for Sulphuric Acid, during the third plan, the target of installed capacity was 1.7 million tonnes, whereas actual production was 664,000 tonnes or roughly 33% of the target. Instances of other Heavy Chemicals will show similar results.

4.4 The above analysis would clearly indicate the poor performance of the chemical industry and its still poor growth in terms of targetted capacities. This has been the case in the public sector which is supposed to have adequate resources at its command. But the performance of industry in private sector with serious limitation of resource has been equally disappointing.

4.5 In the case of Sulphuric Acid and Soda Ash, the capacities have to be stepped up to well over 5 times during the



Fourth Five Year Plan as indicated in the Draft Outline. These targets, however desirable they may be, do not seem to take into consideration the present realities of the situation or the experience of the previous 15 years of planning, when the rate of growth of these chemicals has been exceedingly slow. It appears that almost in all the factories of chemical units the production is much below the installed capacity for want of raw materials and even power and water. In fact, in connection with sulphur, it is a known fact that there is a world shortage of sulphur and even when Government of India promised full foreign exchange available at their command to purchase sulphur from abroad, there is no doubt that full quantity of sulphur is not likely to be available. Similar is the case with many other raw materials which have to be imported practically cent per cent. It is difficult to appreciate the logic in our planning to think in terms of stepping up production programme very heavily without making sure that their needs for imports will be continuously met.

4.6 In the case of chemical elements and compounds, which would substantially include sulphur, rock phosphate etc., imports have to be of the order of Rs. 175 crores during the Third Five Year Plan. There are at this moment no indigenous resources for sulphur and rock phosphate both of which will have to be imported and therefore a large drain of foreign exchange will have to be found to implement the Fourth Five Year Plan Programme.

4.7 Several Caustic Soda factories in different parts of the country have complained about the non-availability of mercury, an important raw material required in the production of Caustic Soda in a modern plant. Even here, in view of the growing world shortage of mercury and exceedingly high price required to be paid for mercury, programmes for increasing Caustic Soda capacity are becoming more and more difficult except perhaps on the basis of older technology not requiring mercury. In addition, power shortage was experienced in many regions of the country due to failure of rains.

4.8 On the whole, therefore, there is little hope that very high targets set for the near future will be achieved by this industry.

4.9 The large investments necessary for the chemical industries and seen in relation to other industries have not been

possible due to strains on the economy of the country over the last few years. This paucity of funds is likely to be a very serious barrier for the future growth of the industry in the country. In this connection, it is interesting to note that public issue in the case of some newly formed companies could not attract even 8 to 10% of the money from the public even when they were totally underwritten by financial institutions. It is reported that many foreign firms wishing to invest in India have not been able to find Indian partners who could find rupee finance of substantial magnitude.

## V. IDLE CAPACITY

In this industry, many units have not been working fully and sometime back there was a considerable idle capacity, ranging somewhere from 20 to 60 %. This has been brought out in a recent study "Idle Capacity in Industry" by the National Council of Applied Economic Research. One of the main causes of the idle capacity has been shortage of raw materials required by the industry. In addition, the idle capacity was also caused by the inadequacy of maintenance, spare parts imports and the additional foreign exchange required for the same. If the chemical industry is to be expanded as much as 10 times during the 4th plan, then the foreign exchange requirement will have to be fully met. It is expected that around Rs. 100 crores per annum of foreign exchange would be necessary to eliminate the idle capacity and for achieving substantial expansion. In some cases, it has been said that many units which happened to be of a smaller and uneconomic size have not been permitted to expand substantially on grounds of regional distribution. This has led to higher costs and under-utilisation.

## VI. GUIDELINES

The Study Group was expected to cover in its scope of enquiry all the aspects of labour policy within the purview of the National Commission on Labour, in so far as they relate to Heavy Chemicals industry. Of necessity, therefore, the Study Group, right from the start had to set for itself certain confines within which framework it would work. This naturally narrowed down, to a considerable extent, both the scope of enquiry as also the nature of recommendations. But this was inevitable in view of the fact that there are several other Groups dealing with specific areas of labour policy as such.

The effort of the Group, therefore, was to concentrate on matters pertaining to Heavy Chemicals industry in particular.

The recommendations therefore have to be viewed against this background. The Group, recognising that general policy matters will rightly fall within the purview of other Groups, gave more attention to problems of special significance to the Heavy Chemicals industry. It has therefore, avoided making recommendations of a general nature. For instance, on a general question like dearness allowance, the Group thought it fit not to comment, but to leave it to be considered by a different Group dealing particularly with that subject. The only exception to this is the subjects of Trade Unions and Employers' Organisations and Industrial Relations where, even though nothing special about the Heavy Chemicals industry as such was to be stated, certain interesting points came up and have been touched upon. It may be that these points have already been covered by the relevant Groups, but the Study Group thought it fit to bring out these points more prominently, so that they should not be lost sight of.

In common matters, therefore, the Study Group would like the Heavy Chemicals industry to be covered by the same legislation as would apply to other industries. No special treatment to labour in Heavy Chemicals industry has been suggested, except for certain special areas for special reasons applicable only to this industry.

The Group thought it necessary to emphasise such differences more prominently, lest in its broad perspective and wide sweep, the Labour Commission should overlook these points which though perhaps not so significant for other industries, may prove of vital importance to the Heavy Chemicals industry. This is necessary in view of the rapidly growing importance of this sector in the national economy. In terms of per capita investment, this industry is probably leading all the other industries. In terms of investment and in terms of employment, the industry is already significant and these figures are going to be scaled heavily upwards in view of the sizeable portion of finance proposed to be allotted towards its development in the future plans. Moreover, owing to its acting as a supplier of basic materials to an increasingly large number of other industries, important repercussions are likely to be in evidence in the wake of any significant changes affecting this industry, adversely or favourably.

**LIST OF UNITS EMPLOYING A TOTAL COMPLEMENT  
OF 50 OR MORE EMPLOYEES**

**Sr. No. Group I : Acids**

1. \* E.I.D. Parry, Ennore.
2. \* E.I.D. Parry, Ranipet.
3. Hyderabad Chemicals, Hyderabad.
4. C D. Thakkar & Co., Calcutta.
5. Hindustan Heavy Chemicals Ltd., Calcutta.
6. Bengal Chemicals, Calcutta.
7. Indian Explosives, Gomia.
8. J.K. Chemicals, Wadala.
9. Dharmasi Morarji Chemicals, Ambernath.
10. Alembic Chemicals, Baroda.
11. Dharmasi Morarji Chemicals, Kumhari.
12. Cawnpore Chemicals, Kanpur.

**Group II : Alkalis**

1. Dhrangadhra Chemicals, Dhrangadhra
2. Mettur Chemicals, Mettur Dam.
3. Dhrangadhra Chemicals, Sahapuram.
4. Travancore Cochin Chemical Ltd., Alwaye.
5. \* A.C.C.I. Rishra.
6. Kanoria Chemicals, Renukut, Mirzapur.
7. J.K. Chemicals, Thana.
8. \* Calico Chemicals, Bombay.
9. \* Century Chemicals, Kalyan
10. \* Calico Chemicals, Ahmedabad.
11. \* D.C.M. Chemicals, Delhi.
12. Tata Chemicals, Mithapur.
13. Govt. Sodium Sulphite Plant, Didwana.

**Sr. No. Group III : Organic Chemicals Units**

1. Industrial Chemicals, Sankarnagar.
2. Allied Resins, Calcutta.
3. \* Birla Jute (Calcium Carbide), Calcutta.
4. Indian Organic Chemicals, Bombay.
5. Atul Drug House, Kandla.
6. \* Carbide Chemicals, Bombay.

**Sr. No. Group IV : Dye stuff Intermediates**

1. \* Atul Products, Atul.

**Sr. No. Group V : Synthetic Rubber.**

1. Synthetics and Chemicals, Bareilly.

**Sr. No. Group VI : Miscellaneous Chemicals.**

1. Mysore Chemical Mfrs., Chikbanavar.
2. Bodha Chemicals, Calcutta.
3. Excel Industries, Bombay.
4. Star Chemicals, Bombay.
5. Pioneer Chromates, Bombay.
6. National Peroxide, Bombay.
7. Golden Chemicals, Bombay.
8. \* Anil Starch Products, Ahmedabad.
9. \* Shriram Vinyl, Kota.
10. Shambunath & Sons, Amritsar.
11. —do— , Shahabad.
12. —do— , Delhi.

\* Indicates units which are parts of bigger Complex Units having several activities other than Heavy Chemicals.

CHAPTER III  
RECRUITMENT AND INDUCTION

**I. RECRUITMENT**

1.1 In the case of Heavy Chemicals industry, the specific problems of recruitment pertain mainly to process operators, special craftsmen like mill-wrights, pipe-fitters, instrument technicians. The other categories like skilled traditional crafts jobs pose a problem which the Heavy Chemicals industry shares in common with the rest of the industry. In actual practice, because of non-availability of trained process operators from the open market, it has been the practice in this industry to train its own process operators in one way or the other. Very often, an employee who starts as an unskilled worker goes up by acquiring an increasing degree of skill over a number of years till such time as he can become a fullfledged process operator. In other words, the filling of jobs of process operators is managed mostly through promotions. While the principle of promotion from within is a good one, it also has certain weaknesses. In this industry in the past, when an unskilled worker was recruited, general education was not always insisted upon with the result that in some of the older units the industry finds it difficult to get the benefit of general education in its process operators which is an obvious disadvantage. Secondly, the process operators thus developed would naturally lack proper theoretical understanding of the chemical processes they handle. This could, in certain instances, prove dangerous. Thirdly, for the same reason, unless the particular unit takes care to broaden their experience, they tend to specialise in very narrow fields of operations.

1.2 But as set out earlier, these features are more particularly present in the older units and not in the newer units. The new units while recruiting their workers, normally insist upon a certain minimum general education because a certain measure of alertness, intelligence and general knowledge are an essential requirement of a chemical worker. Moreover, they are taken up as probationers for a certain term and trained for their specific jobs, though this training is never

satisfactorily carried out. The point that emerges from this is that general education should be considered almost a necessary part of the equipment of a new recruit, in his own interest as well as the interest of the industry. If the unskilled workers are divided into two categories, namely, literate and illiterate, the former has definitely a future whereas the latter would have no opportunity of rising in his career or would have at best a limited future as an operator. The background of general education will be definitely an advantage to all concerned.

1.3 From this follows an important consequence of promotion policy, that in the *matter of promotion*, two factors, namely, general education and experience could be emphasised and this will also go a long way in reducing the area of conflict.

#### **Recommendation No. 1**

We therefore recommend that promotion should be on seniority-cum-merit basis where two factors, namely, general education and experience are taken note of.

#### **1.4 Recommendation No. 2**

The Study Group also recommends that for factory workers, by and large, new recruits should be taken up only at the lowest level and generally, recruitment to higher levels, as far as possible, be made from within subject to properly qualified candidate being available. Only in cases where proper candidates are not available, recruitment of new candidates even at higher categories cannot be avoided.

1.5 At present no separate information is available regarding the shortages in this category of process operators. The study made by the Directorate General of Employment and Training for the period 1961 to 1966 gives some idea of the problem. The study gives the classification called "Craftsmen And Production Process Workers". According to this study, between 1962 and 1966, the shortages in this category as compared to over-all shortage in all occupations work out to 10.4% in public sector and 47.5% in private sector. The same study gives the number of vacancies cancelled by the Employment Exchanges due to non-availability of manpower as 42.6% for the year 1965-66. As against this, the percentage of applications on the live registers of Employment Exchanges as on 31-12-1966 was only 7.4%.

1.6 About the role of Employment Exchanges the members were of the opinion that the employment exchanges have

really not played a very effective part. In order to make the exchanges effective, the members felt that compulsory recruitment through Employment Exchanges could help. But, in practice, this is not possible and may only cause inconvenience to the industrial establishments spread all over the country. The members therefore were not very keen on the continuance of the Employment Exchange system.

### **Recommendation No. 3**

The Study Group therefore does not recommend the retention of the Employment Exchange system.

*1.7 So far as the question of employment of women is concerned, it is only in the material handling section of a chemical plant that they are usually employed. Here again, because of the limitations on the hours of work for women, and because of other factors like provision of creches, maternity leave etc., industry generally finds it very difficult to employ them on jobs which require shift working. By the very nature of Heavy Chemical industry, there does not seem to be any better prospect for employment of women in the future. Even though in the western countries larger number of women is employed in this industry owing to extreme automation, such employment is not recommended in India at least in the present conditions where due attention to standards of safety, health etc., is not paid.*

### **Recommendation No. 4**

Employment of women in any appreciable number is not recommended.

*1.8 This industry, like others, has its own difficulties about the employment of handicapped persons in a situation of large-scale unemployment of able-bodied persons. It is needless to say that legislation on this subject is not worth while. Such persons can be employed in a chemical factory only in sections where very restricted movement is involved. But, sections requiring constant attention and activity do not provide much scope for their employment. In fact, in certain sections, employment of handicapped persons may even increase the hazards for others, if in case of a failure of a machine or operation, the handicapped person is not able to move fast enough to put the equipment right. The Study Group therefore does not recommend employment of such persons in any appreciable number.*



### **Recommendation No. 5**

Employment of handicapped persons in any appreciable number is not recommended.

1.9 As in other industries, employment of a certain number of casual employees is probably unavoidable, though because of the nature of hazards in a chemical industry, it is more difficult to use them, particularly on the chemical processes themselves.

### **Recommendation No. 6**

The Study Group therefore recommends that the number of casual employees should be kept to the minimum, and should be restricted to work of a strictly casual nature.

## **II. TRAINING**

2.1 In Heavy Chemical industry, with its continuous process, considerable amount of automation, and the hazards involved, training plays a very important role. However, in actual practice, because of the engagement of casual and temporary workers and, sometimes in the past because of the policy of promotion from within, training on the whole and training in safety particularly has tended to be neglected. It is necessary to make at least the safety training an integral part of the recruitment and induction procedure

### **Recommendation No. 7**

Safety training should be an integral part of the recruitment and induction procedure.

2.2 So far as training in general is concerned, the experience has been that the training in the necessary skills for process operations is mostly imparted on the job. To a great extent this is unavoidable, because of the difficulty of duplicating processes and equipments outside factory premises in an educational institute of the type of I.T.I. Specially for complicated operations, this difficulty is greater and training on the job becomes practically the only available method. But it should be possible to instal at least the simpler type of equipments in training institutes. This in itself would be a big benefit because otherwise a theoretical background will be lacking in whatever training that an employee would receive on the job. The Study Group recommends that wherever possible the existing institutes should be utilised greater, and in other cases, where there are no such institutes available, joint collaboration between industry and government would go a long way. The Study Group also recommends that

where any particular chemical unit sets up on its own a fairly detailed and comprehensive training programme, the government should come forward and encourage the unit by whatever assistance it would think fit to provide.

#### **Recommendation No. 8**

For purposes of better training it is recommended that wherever possible the existing training institutes should be utilised more, and where no such institutes are available, there should be joint collaboration between industry and Government.

#### **Recommendation No. 9**

Where any particular chemical unit sets up on its own a detailed and comprehensive training programme, the Government should encourage the unit by any form of assistance that it thinks fit.

2.3 In this connection, the efforts at setting up such a training programme jointly by the Government and the Indian Chemical Manufacturers' Association could be mentioned. Though the scheme has not yet evoked the response that it should, considerable thought has gone into the preparation of training programmes and curriculum for different categories of workers. The Study Group recommends the adoption of a similar curriculum whenever a new training programme is chalked out.

#### **Recommendation No. 10**

The Study Group recommends the adoption of a curriculum of the type already evolved by the Indian Chemical Manufacturers' Association and the Government after considerable thought.

2.4 The Apprentices Act has so far not made any progress in this area of training of chemical plant operators. In this connection, it is worthwhile considering whether the chemical factories should be exempted from the responsibility of training other craftsmen and in their place take up a larger number of chemical plant operators for training. Such training, specially by the bigger units, will benefit not only themselves but also the smaller units which by themselves are not in a position to provide adequate training facilities. It may also be worthwhile considering whether some type of sandwich or day-release courses could be evolved where the factories might send their operators for theoretical training. Such centres could be located where there are groups of chemical industries.

### **Recommendation No. 11**

*It is recommended that the chemical factories should be exempted from the responsibility of training other craftsmen under the Apprentices Act and in their place should be permitted to take up a corresponding number of chemical plant operators for training.*

### **Recommendation No. 12**

*Some type of sandwich or day-release courses should be evolved for theoretical training of chemical operators, in centres to be located around a group of chemical industries.*

## **III. PROMOTION**

3.1 The Heavy Chemical industry has relied in the past to a very large extent on the internal promotions. It has been stated earlier that in the matter of promotions two factors should count, namely, general education and the experience in the line. In the interest of the group of industries and the important role it is beginning to play, it is necessary that a cadre of properly qualified and trained operators is built up to serve the industry. As seen earlier, in the past, educational qualifications were not given much weightage; but the situation is different now and educational background is given due consideration.

3.2 But the difficulty that crops up is with reference to the second factor, namely, experience and merit. Unlike in the case of traditional crafts, the chemical industry does not have any standard qualifying tests available for the purposes of selecting employees for promotion. It would, therefore, be a very useful service to the chemical industry if some standard tests for process operators were developed by an expert committee of persons drawn from industry and universities. One method of an objective test of a person's merit would be to maintain a performance evaluation record which includes factors like a worker's regularity in attendance, his safety habits, production, etc. Where trade tests are required to be carried out, a labour representative can be associated as an observer, if the worker concerned so desires. Such objective, concrete, record could further be evaluated annually by a committee consisting of his supervisor plus two or three other senior supervisory or managerial personnel. Judgement of such a committee is likely to avoid extraneous considerations and will inspire sufficient confidence in the matter of promotions. Thus, if an objective method of test is evolved and

if there is further review by a departmental promotion committee, the principle of seniority-cum-merit can be applied for promotions.

**Recommendation No. 13**

For objective judgement of merit, there should be a performance evaluation record based on which a departmental promotion committee consisting of not only the immediate superior but two or three others can take unbiased decisions about matters of promotion.

## CONDITIONS OF WORK

## I. HAZARDS

1.1 So far as the hours of work are concerned, there is no special problem in normal heavy chemical plants, except in certain operations which are of a hazardous nature. There are certain operations in a heavy chemical factory where constant exposure to certain fumes, or gases etc., is hazardous for a man's health, and continuous working over a long period in such an area is not always advisable. In order, therefore, to reduce to the minimum such exposure, various alternatives can be thought of. One alternative could be 6 hours' working with one day off after 8 days' working. Another alternative could be intermittent working in hazardous areas, with short intervals in between the working periods. The third possibility is of working for a short spell in a hazardous area and to work for the rest of the time in a non-hazardous area in the same department. This is possible because all the workers in a particular section are not exposed to the same risk or to the same extent as those directly engaged on an operation. Therefore, a portion of the workers in the section could be asked to work in the hazardous zone and after a time they could change places with workers in the same section working in non-hazardous zones. A fourth suggestion was 5 days' working with 2 days' off where the work-shift is for full 8 hours. The 5th suggestion was to offer some sort of allowance by way of compensation for working in a dangerous or hazardous zone. And finally, there was also a suggestion for 6 hours' work with 6-day week. In this last alternative, the total working hours are themselves reduced from 48 hours a week to 36 hours a week. The Study Group was not in favour of the last suggestion, namely, to reduce the overall working hours nor considered grant of extra allowance as any real compensation. Among the various alternatives, it favoured the idea of encouraging working for short spells in hazardous areas with the rest of the period in the non-hazardous. Superior to all was the elimination or minimisation of the hazards.

### **Recommendation No. 14**

The Study Group therefore recommends on insistence of elimination of hazards or their minimisation to the best extent possible and employment of workers for short broken spells in such areas with the rest of the period elsewhere.

1.2 The problem of contract workers in Heavy Chemicals industry is confined generally to material handling jobs and in certain circumstances to cleaning of apparatus etc. The proposed legislative measures on the regulation of contract workers would deal with this situation and therefore no special attention as such is required. The members of the Study Group could not come to an agreed conclusion on this matter and therefore no recommendation as such is made. Some members felt that engagement of such labour should be recommended only for work of a casual and seasonal nature and on operations where it is unavoidable. Where such employment is inevitable and permissible, these members recommended that the supervision of contract labour is as strict and of the same type as the supervision of regular workers. They therefore felt that there should be a system of licence for contract workers for Chemical Industries which should be insisted upon before any such contract is given. The other members, however, did not agree with this recommendation and were in favour of complete abolition of contract labour. Because of these opposite views it has not been possible for this Group to make a firm recommendation.

## **II. HEALTH AND SAFETY**

2.1 There are in Heavy Chemical industry certain hazards which are absent in other industries. Besides this, the hazards in chemical industry not being of a mechanical nature, are very often difficult to see and therefore, require greater attention and care. Actual statistics, however, reveal that the incidence of accidents arising out of chemical hazards is limited. In the Heavy Chemical industry, in common with other industries, the major accident-causing agents are bad house-keeping, wrong handling of materials, etc.

2.2 All the same, as stated above, the problem of health hazards in Heavy Chemicals industry needs to be studied in great detail by an expert body based on information available over a number of years. Research in this field has to be strengthened for future guidance. This is especially so

because it may be that there are certain hidden dangers in the chemical industry which are not readily identifiable today, but may show themselves only at a later stage. Of course, in this connection, it may be pointed out that the modern plants are designed in such a way that practically all risks can be prevented. Moreover, proper supervision and maintenance of the plants are important. Equally important also is an awareness on the part of the workers of the risks involved and of their responsibilities in this direction. But, even with the modern equipment, complete control is possible, but elimination of all hazards is not possible. In any plant, some escape of contaminants is inevitable. Human body can withstand most of that. But the real picture will be available only after proper research spread over a number of years. In the industry today, the modern plants are much better in this respect. In the older plants very often, ventilation etc., is not proper.

2.3 The study carried out by the Indian Chemical Manufacturers' Association of about 25 to 30 factories in India brought out that there is not always a correlation established between a particular chemical and certain ill effects normally attributed to such chemicals. It was also found that most of the hazards were due to accidental release of gases.

2.4 The Study Group was of the opinion that more care and improvement are necessary on this front. One suggestion was that the university curriculum must also include a study of this aspect, because the chemical graduates who will later on become supervisors must have a full understanding of the problem, because the supervisors have to be as careful as the workers themselves.

#### **Recommendation No. 15**

The university curriculum should include a study of the safety aspect in chemical industry.

#### **2.5 Recommendation No. 16**

The Study Group recommends an yearly medical check-up of the workers in a heavy chemical factory. In certain very hazardous plants, even a 6-monthly medical examination may be necessary.

#### **2.6 Recommendation No. 17**

Refusal to take proper safety precautions on the part of a worker must also be penalised under the Standing Orders.

2.7 The paramount responsibility, of course, must be that of the employer, who must take proper precautionary measures for ensuring the safety and health of his employees. The role of inspection machinery in this regard needs to be reviewed. The present factory inspectorate, it was felt, was more oriented towards the older industries like textiles, engineering etc., and the Heavy Chemicals industry does not command the attention that it should. The situation could be remedied by creating special cells within the factory inspectorate, for the study of hazards in chemical industry and fixing of safety standards etc. The staff on the inspectorate must of necessity be drawn from the chemical field and not from the engineering side as is very often found at present.

**Recommendation No. 18**

There should be special cells within the Factory Inspectorate, for the study of hazards in chemical industry and for fixing of safety standards etc.

**Recommendation No. 19**

The staff of the Inspectorate must be drawn from the chemical field and not from engineering side as is often found.

**2.8 Recommendation No. 20**

Alternatively, the E.S.I. Corporation can have a hygiene wing with it whose job it will be to visit the factories and enforce preventive system and good working conditions.

**Recommendation No. 21**

The E.S.I. Scheme must thus be responsible not only for the treatment of the employees, but also for the prevention of diseases and maintenance of health of the employees.

2.9 There was also a suggestion to do away completely with the factory inspectorate and to introduce a system of evolving national safety codes as in the United States. Under this scheme, it was stated, provisions for working conditions are much better implemented, because the insurance company which insures the company's plants and buildings would not renew the insurance policy unless and until it is fully satisfied about the implementation of measures of safety or hygiene etc.

**Recommendation No. 22**

The system of factory inspections should be replaced by a system of national safety codes under which the insurance companies insuring the assets of the company would take



better care of the implementation of various safety precautions.

2.10 It was also suggested that if any employer takes special measures to offer safety facilities of a very high order, the E.S.I. Schemes must give encouragement by way of some incentives, because such measures will reduce the liability of the E.S.I. Corporation itself. Such an incentive should be given only if it can be proved that the positive action of an employer has resulted in the incidence of sickness etc., going down.

#### **Recommendation No. 23**

The E.S.I. Scheme must encourage employers to take special safety measures by offering some incentives.

2.11 The employer's first concern must be to take proper technical measures for control, and then secondly, provide other safety measures.

2.12 Another suggestion was a scheme of rotation of workers, as an additional measure, over and above the normal precautionary measures. This would avoid continuous long exposures. For this purpose, certain positive hazardous areas must be identified and the rotation need not be drastic. In fact, rotation could be more or less confined to the workers in that department itself.

#### **Recommendation No. 24**

Over and above other precautionary measures, there should be a system of rotation of workers.

#### **2.13 Recommendation No. 25**

There was also a suggestion to permit premature voluntary retirement of workers in certain specified areas, if all the other measures fail and if it is proved, on medical opinion, that the worker was adversely affected by such working.

2.14 There was also a suggestion of introduction of a super-annuation scheme in lieu of the bonus receivable by the employee. This is explained in greater detail under the Chapter on Social Security.

2.15 There is also a great need for research in developing safety equipment suitable to Indian conditions, because the experience of most of the people working in this industry has been that the workers find it difficult, at times, to use the equipment designed for use in the Western climatic conditions. There is also the allied problem of procurement of

safety equipment from abroad in view of our foreign exchange difficulties,

**Recommendation No. 26**

Research should be undertaken to develop safety equipment suitable to Indian conditions.

2.16 While some attempts are being made to give training in safety to supervisors and workers in a chemical plant, there is a great need for making this more widespread and thorough. It would also be necessary for the Government to establish some agency for the training of workers and supervisors in safety, particularly for small units, who might not be in a position to have a separate safety or training department in their establishment. Now that a National Safety Council has been established, it should be activated and should be given every help by the Government to enable it to function effectively and quickly on an all-India basis.

**Recommendation No. 27**

Government should provide training of workers and supervisors in safety for small units who cannot afford to have separate training in this regard.

2.17 As emphasised above, there is a necessity of long-term research and study in this field. But a word of caution must be sounded against the somewhat common habit of quoting from the foreign experts and literature on the subject. This data from abroad is not really relevant to our conditions. Firstly, our climatic conditions are vastly different and the resistance of the human system is related to the climatic conditions. Secondly, the level of nutrition of an average Indian leaves much to be desired, even if he is not working in a heavy chemical industry. In the circumstances, when a person with a low nutrition level is working in Heavy Chemical industry he is likely to be much more susceptible to the unhealthy atmosphere than would be the case otherwise. Again, the human being recuperates and regains his health and vitality through rest, and in our country, the conditions in which the majority of workers live, give them very little scope for proper rest or recuperation.

**Recommendation No. 28**

A long-term research programme should be undertaken for further and more careful study of the effects of working in a chemical factory, with special attention to the conditions obtaining in India today.

2.18 Besides this, the question of housing of chemical plant workers is very much important in view of their continuous 3-shift working. This becomes even more important because the tendency for the new heavy chemical units is to come up in the undeveloped regions of the country. There was a suggestion that all the good companies must be legally compelled to utilise a portion of their profits for construction of houses. The Industrial Housing Schemes of the Government must be more utilised and the responsibility for construction of houses must be cast on the employer himself. The position will improve immediately if Government were to extend all possible encouragement to the employers such as by way of tax exemption and/or increased subsidy and/or interest-free loans, and/or treating all the expenditure on construction of houses as a revenue item and not capital item for purposes of income-tax etc. A scheme of hire purchase of the houses so constructed would also be very helpful so as to provide accommodation for an employee after his retirement, which aspect is at present neglected.

**Recommendation No. 29**

All companies, particularly large ones, should be legally compelled to provide industrial housing and the Government should encourage employers in any manner that it thinks fit, as suggested by the Study Group for this purpose.

**Recommendation No. 30**

In order to take care of the worker after his retirement, a scheme of hire purchase of the houses constructed by the employers should be introduced.

## CHAPTER V

### TRADE UNIONS AND EMPLOYERS' ORGANISATIONS

#### I. INTRODUCTORY

1.1 Political freedom brought to the surface the aspirations and ambitions of the employees and the employers. Immediately after Independence, the country took steps for planned industrial development. The removal of the alien power from this land made the employers and employees think of their own respective interests. As the country went on industrialising, organised efforts became more and more necessary. The clash of interests and the Government efforts to regulate and avoid the conflicts, with legislative measures, strengthened the necessity of forming associations and federations on both sides.

1.2 With resources at their back and more or less common ideological basis, the employers found it easier to organise themselves, practically without any rivalries in their own ranks. With the employees, however, the situation was different. The importance of political parties in a parliamentary democracy, ideological differences and lack of resources created bottlenecks in building up strong unified employees' organisations. The split among employees gave birth to several rival organisations. However, in spite of these difficulties, due to socio-economic compulsions, the overall strength of the organised workers went on increasing. The growing industrialisation, the shortage of resources, the growing aspirations of the employees and such other related matters, demanded a national approach, which helped strengthen the employers' and employees' federations.

#### II. SCOPE OF ACTIVITIES

2.1 The federations provided guidelines to their constituents. By overall policy considerations, they can arrive at national decisions with a view to safeguard broad interests of their members. The federations can further co-ordinate the activities of their members and help them materially, if it is so required, in carrying out the said activities.

2.2 The relations between the federations and their units are conditioned by their mutual interests and are based upon mutual understanding. Though they have the right to take disciplinary action against their members in case of serious breaches, it hardly becomes possible for them to impose decisions on their members. The very nature of federations demands flexibility and voluntary acceptance of broad-based decisions by the units. There is neither any necessity nor possibility of much change in this pattern.

### III RELATIONS BETWEEN THE EMPLOYERS' AND EMPLOYEES' ORGANISATIONS :

3.1 If the general relations between the employers' and employees' organisations are to be assessed on the basis of the strikes or demonstrations, they cannot be called very satisfactory, so far as this industry goes. However, if the relations were to be viewed from the point of view of establishing some channels for direct contacts and exchange of views, there has been some improvement since various bipartite and tri-partite bodies have provided the necessary forums. The Wage Board appointed for Heavy Chemicals industry, for instance, can be helpful to the extent of collecting sufficient data for appreciation of various facts pertaining to the industry. This industry has started developing very recently and hence the federations in this industry have not taken firm roots up till now. Besides, this being a diversified industry, there are some defects in the way of homogeneous approach by such organisations in this industry. But as the industry goes on developing, the federations will go on gathering more strength.

### IV REGIONAL FORUM IS NECESSARY

4.1 As in other industries, the major trade union issues at present are dealt with at the unit level in the Heavy Chemicals industry and in the present circumstances it is perhaps inevitable. There are many common problems, however, such as hazards in the industry, problems arising out of shift rotations, housing etc., which need mutual discussion at industry level as well as at regional levels. No forums are available for communication of such matters at the regional level. The Study Group therefore recommends a sort of regional forum where different units of the region can come together for a discussion and propose solution of common problems. A regional bi-lateral basis for the industry is also

recommended. Such a forum can help in peacefully dealing with the disputes as well as problems relating to efficiency, discipline and productivity.

**Recommendation No. 31**

There should be regional forum for different units of trade unions of the region to come together for consideration and solution of common problems.

**Recommendation No. 32**

Similarly, a regional bilateral basis for the industry is also recommended so that organisations of both the sides come together for solution of problems.

**V PLANT LEVEL UNITS**

5.1 Multiplicity of unions at plant level is creating a problem both to the employers and to the employees. The Study Group would recommend an improvement in this situation and for that matter would recommend recognition of a union having majority backing, ascertained on the basis of a secret ballot. The Study Group recommends that all negotiations should be only with the recognised majority union and no one else. The recognised union should be legally designated as the sole bargaining agent.

**Recommendation No. 33**

A union having majority backing, ascertained on the basis of a secret ballot, should alone be recognised.

**Recommendation No. 34**

The union, so recognised, should be the sole legal bargaining agent.

## CHAPTER VI

### INDUSTRIAL RELATIONS

#### I INTRODUCTION

1.1 The sudden rise in cost of living, bad domestic and housing conditions of the employees and resultant frustration are, in general, the causes of industrial unrest and conflicts. These are *common* causes and are shared equally by the Heavy Chemicals industry where the industrial relations do not present any special feature.

#### II PATTERN OF CONFLICTS

2.1 There has been no significant change in the pattern of conflicts. Some of the legislative measures restricted the scope of the trade unions in resorting to direct action like strikes. The different forums provided by legislation for resolving employer-employee differences were sometimes found inadequate. The various tri-partite bodies, wage boards, adjudications and arbitrations have not always helped the process of collective bargaining, very often leaving both the bodies not fully satisfied. The organised section of the employees, therefore, started thinking and acting in terms of waging struggles, wherever possible. The workers are now becoming more and more conscious of the socio-economic conditions they have to achieve and the political confidence that they have gained has helped them to move in the direction of collective bargaining.

#### III IMPROVEMENT IN GENERAL CONDITIONS IS A PREREQUISITE

3.1 There are bound to be differences between the employers and employees, resulting in conflicts. Unless the general economic conditions improve, and unless the income disparities are reduced, the efforts to eliminate the conflicts are not likely to be successful to any significant extent. Much therefore depends upon the economic and financial policies of the country. The legislative measures seeking to restrict the legitimate expression of organised discontent are not likely to

succeed. What is necessary therefore, is that the Government should take steps towards raising the general standard of the people and encouraging bilateral arrangements and collective bargaining.

#### **IV OBLIGATIONS OF EMPLOYERS' AND EMPLOYEES' ORGANISATIONS**

4.1 Employers' and employees' organisations should help to a large extent in minimising the industrial conflicts. That however, calls for a change in their socio-economic outlook. The employers' and employees' organisations should remain aloof from taking partisan and political attitude in the matter of industrial relations. The obligation on the employers' and employees' organisations is to take proper and adequate steps towards achieving the accepted national objectives.

##### **Recommendation No. 35**

Industrial relations should be kept apart from political considerations. The employers' and employees' organisations should remain aloof from taking partisan and political attitude in the matter of industrial relations.

4.2 The present position in respect of recognition of unions, grievance procedure, bi-partite consultations and services for mediation is not very satisfactory and does not seem to have made the expected impact on industrial relations. In cases where satisfactory steps have been taken in the above matters, direct confrontation has been avoided. On the whole, the employers' and employees' organisations in Heavy Chemicals industry appear to be fairly conscious about their responsibilities.

4.3 The various codes and procedures will be helpful if the employees are taken into confidence and their economic conditions are kept at a satisfactory level. Recognition of majority unions, non-partisan approach and mutual respect are pre-conditions for success of codes and procedures. Union-management committees have also been found helpful in certain units.

#### **V UNDUE EMPHASIS ON LEGISLATION**

5.1 The Study Group feels that undue emphasis should not be placed on legislation and there should be no effort to cover each and every aspect of labour in detail in various pieces of legislation. The country must proceed to evolve national codes laying down certain minimum requirements, leaving the rest to the good intentions of the enlightened



management and collective bargaining. This will also avoid unnecessary Government interference in matters which can easily be settled across the table between the parties, namely, employers and employees. Collective bargaining without much intervention on the part of Government machinery would bring the parties much nearer and would help develop healthy relations between the parties. It cannot be denied that a few stoppages of work might occur. But they do take place even when they are prohibited by legislation. In fact, many times direct pressure becomes a necessity for break-through in a given situation when things do not move at all through other channels.

#### Recommendation No. 36

Undue emphasis on legislation should be reduced and an effort should be made to evolve national codes rather than detailed legislation.

5.2 The efforts, however, should be to evolve a policy leading to reduction in the number of conflicts. One possible approach is to reduce the area of conflicts by making certain matters not negotiable but based on some national codes. Since ultimately the content of any industrial disputes boils down to the wages and allied matters, only these matters should be open for negotiations so that better living conditions are ensured for the employees. The national codes must provide guidelines laying down the principles on which other matters are to be regulated.

5.3 Some members, however, disagree with this recommendation and feel that the national codes must lay down certain minimum conditions but should also leave the door open for collective bargaining for ensuring something more than the minimum provided. They do not agree that matters connected with wages alone should be negotiable. Because of such divergent views on this subject, the Study Group does not make any recommendation.

5.4 It does not mean, however, that there should not be any legislation at all on labour matters. Some amount of legislation has to be there but the emphasis should be more on evolving certain principles rather than trying to provide for each and every contingency pertaining to labour. The Government on its part should not intervene in industrial matters except in cases of grave threat to law and order and in cases of prolonged stoppages of work seriously affecting the security of the economy of the country.

5.5 Various forms of mediations, *tri-partite* and *bi-partite* bodies voluntarily framed, mutually acceptable procedures, and conventionally accepted codes should certainly help in providing a constructive approach to collective bargaining. What is needed is a sincerity of approach and a progressive socio-economic outlook.

## VI FAILURE OF CONCILIATION MACHINERY

6.1 The Study Group was of the opinion that conciliation machinery and procedure were an unnecessary step in the solution of industrial disputes. Conciliation has only had the result of delaying the progress of a dispute. The Study Group would therefore recommend abolition of conciliation machinery altogether. So long as it is retained, conciliation must be made more effective and political and administrative interference should be removed from it.

### Recommendation No. 37

Conciliation machinery should be abolished altogether.

### Recommendation No. 38

So long as it is retained, conciliation must be more effective and political and administrative interference should be removed.

## VII DISMISSALS AND DISCHARGES

7.1 Many times the causes for industrial unrest are dismissals and discharges. Sparing use of these drastic actions, with a provision for suitable machinery for quickly going into merits of such cases is a must for improving industrial relations.

### Recommendation No. 39

Drastic action like dismissals and discharges should be only sparingly taken and there should be a suitable machinery for quickly going into the merits of such cases.

7.2 Good industrial relations are a must in this industry more than in many other industries. This industry is characterised by heavy capital investment and manufactures products for use by several other industries. Any disturbance in the industrial relations for this industry, therefore, is likely to have very serious and adverse repercussions not only on the production of this industry but on the economy of the entire nation. It therefore becomes obligatory for the employers' as well as employees' organisations to work in an atmosphere of mutual faith and mutual respect.

WAGES IN HEAVY CHEMICALS INDUSTRY

I. REGIONAL DIFFERENCES

1.1 The place of Heavy Chemicals industry in the economy of a country is of great importance to the future because the pace of industrial development in general is heavily dependent on its growth. The fact that the Government has a Ministry for Petroleum and Chemicals at the Centre reflects the importance of Heavy Chemicals to the future of our country. As such, any study of wages and other monetary benefits must be examined in this context.

1.2 As we are examining the question of wages for this industry, it would be appropriate to see what role the workmen play in contributing to the success of this industry and towards optimising the resources. On the whole, the calibre of workmen required for Heavy Chemicals industry especially on the operation side, has to be of a high order because of the Heavy capital investment that goes into a Heavy Chemicals plant.

1.3 It will also be appropriate to examine what role the regional differences play in developing wage structure in Heavy Chemicals Industry. Due to the very nature of this industry where large but few plants will normally exist, the question can appropriately be raised as to whether there should be regional differences in the wage structure. On the face of it, it may appear that there should be an all-India wage structure especially in large units; but an examination in depth will reveal that there are many factors which would lead us to the conclusion that regional differences in wages may be in order. With the regional imbalance in economic development it would be desirable that wages in areas of the country which are under-developed should not be so high as to upset the other industries in that area. Besides, it will be found that though the wages may be comparatively low in such areas, other cost components are generally more expensive. It is therefore suggested that in the interest of industrial development of the country as a whole, regional disparities may have to be

tolerated, but the objective should be towards the reduction of such imbalances, as the country advances industrially.

#### **Recommendation No. 40**

In the interest of industrial development of the country as a whole, regional disparities may have to be tolerated, but the objective should be towards the reduction of such imbalances as the country advances industrially.

### **II MINIMUM WAGE**

2.1 The concept of minimum wage needs no restatement. In fact, it is desirable that a minimum wage is imposed for a region of which the Heavy Chemicals industry would be a part. In view of the different levels of skills right from the unskilled Mazdoor going up to the most skilled instrument mechanics required in this industry, the minimum wage has to be for the minimum skill and as such there should not be any disparity as far as the floor minimum is concerned. It should not be that Heavy Chemicals should have a different floor minimum wage compared with other industries in the region. A point in this connection can be raised regarding provision of a floor minimum wage at different skill levels. It can be argued that for semi-skilled and skilled work a certain minimum wage is provided. Though really speaking a proper job evaluation should be made in order to decide upon the various categories from unskilled, semi-skilled up to skilled and highly skilled it would be impractical in the context of the present wage situation where no evaluation whatsoever is made.

#### **2.2 Recommendation No. 41**

In conclusion it may, therefore, be stated that minimum wage must be provided in Heavy Chemicals industry which should be in line with such wage in other industries and the question of minimum wage at different skill levels should be examined to find out its feasibility.

### **III WAGE POLICY**

3.1 The Fair Wages Committee has examined in considerable depth the general wage policy required for the industrial growth of the country. They have propounded certain principles which in brief are given below :

- (a) The minimum wage must provide not only for the bare sustenance of life but for the preservation of the efficiency of the worker. For this purpose it

must also provide for some measure of education, medical requirements and amenities.

- (b) The attainment of the living wage is the objective, but in present-day circumstances it would be possible only to provide a fair wage.
- (c) The fair wage cannot be less than the minimum wage. While the lower limit of the fair wage must obviously be the minimum wage, the upper is met by the capacity of the industry to pay. This will depend on the industry and its future prospects. Between these two limits, the actual wages will depend on :
  - (i) the productivity of labour ;
  - (ii) the prevailing rates of wages in the same or similar occupations in the same or neighbouring localities;
  - (iii) the level of national income and its distribution and
  - (iv) the place of the industry in the economy of the country.

3.2 In fact the Supreme Court also has by and large endorsed these views and most of the decisions of the Industrial Tribunals, High Courts and Supreme Courts on wages in different industries and in different regions are based on these principles.

3.3 If we examine the Heavy Chemicals industry in the context of the above principles and the trend in decisions of the various Courts, it can be seen that it would be inappropriate to treat Heavy Chemicals industry as something apart from the general industrial picture of the country. The Heavy Chemicals industry, due to its sophisticated nature and heavy investments, may appear to be prosperous but, while fixing the wages in this industry, its role as a feeder industry to other industries should not be overlooked.

#### **Recommendation No. 42**

While fixing the wages in this industry, its role as a feeder industry to other industries should not be overlooked.

3.4 The capacity to pay, that has been time and again adopted by various Tribunals and Courts, should be viewed with a little caution because as Professor Sumner Slichter in his

Basic Criteria in Wage Negotiations" says, a wage structure based on ability to pay would discourage improvements by subsidising inefficiency and by imposing a tax on efficiency. Professor Backman in his book on "Wage Determination" has observed : "As a general rule, high profits and high wages have gone together in the past. But if the higher profits of the more successful employers are to be absorbed by higher wages, undistributed profits will not be available to improve the position of a business, and consequently, to expand job opportunities."

3.5 It can therefore be seen that in Heavy Chemicals industry which has a high rate of technological obsolescence, provision of substantial reserves becomes a necessity for the future growth of the industry. Therefore, just because the profitability of the chemical industry is a little over average, it does not mean that these profits should be given away in the form of higher wages. It does not mean that wages should be low but a proper perspective must be maintained in the interest of the over-all growth of industry, especially Heavy Chemicals.

#### **Recommendation No. 43**

While fixing the wages, the factor of the high rate of technological obsolescence necessitating substantial reserves should not be overlooked.

One more factor which needs to be kept in mind is the growth rate of an individual firm. If a firm in the industry has expanded job opportunities, it should be encouraged to expand these opportunities through greater investment and allowing larger proportion to be maintained as undistributed profits.

#### **Recommendation No. 44**

Firms in the industry should be encouraged to expand job opportunities through greater investment and allowing larger proportion to be maintained as undistributed profits.

3.7 In India, wage structure alone cannot be taken in isolation because there are many other components of a total packet of remuneration. These are the Dearness Allowance, Shift Allowance and similar other allowances and fringe benefits which are not common in most countries. Besides these items of wage structure, bonus also plays an important part in India towards increasing the total emoluments of an employee.

### **3.8 Recommendation No. 45**

In Heavy Chemicals industry, participation of Public Sector is also becoming an important feature and, therefore, the wage structure should be so maintained that there is largely a parity between the Public and the Private Sector wages.

## **IV METHODS OF WAGE FIXATION**

4.1 Wages should generally be fixed based on wage surveys on an industry-cum-region basis. The present wage structure is somewhat chaotic and it is not infrequently found that for the same jobs different rates of payments are made. In view of the fact that we are considering in this study, firms of proportionately larger size, it would be quite appropriate to find out if some type of job-categorisation and classification can be done throughout the Heavy Chemicals industry. It may be recommended that an expert committee be set up to examine some of the typical 'key' jobs in the entire Heavy Chemicals industry and develop a certain common format for describing the job as well as specifying the minimum requirements for education, experience etc. It may also be worthwhile, based on such a detailed examination, to suggest a minimum wage in a particular category based on the industry-cum-region practice and job evaluation.

### **Recommendation No. 46**

There should be an expert committee to examine some of the typical key jobs in the industry and to develop a common format for describing the job as well as specifying the minimum requirements for education, experience etc,

### **Recommendation No. 47**

Based on such detailed examination, it should be possible to suggest a minimum wage in a particular category based on the industry-cum-region practice and job evaluation.

### **4.2 Recommendation No. 48**

It is further suggested that while providing such a minimum rate for every category, it should be kept in mind that a range with a certain fixed percentage is specified so that it takes care of industries of varying profitabilities.

4.3 There should not be too wide a range between wages in different companies, purely because one company is much more profitable than the other. There may be some variation but it should be within the limits so that it does not create any problems in other industries.

4.4 In view of the difficulty of measuring productivity, especially in the Heavy Chemicals industry, an examination should be made to find out ways and means of providing some type of incentive for better performance and productivity. Some members of the Study Group feel that the extent of automatic increments should be scaled down and greater encouragement should be provided by way of higher merit increments. It is therefore suggested that apart from providing a normal minimum automatic increment, there should also be a provision for higher increments based purely on merit. This will also serve as a good incentive.

**Recommendation No. 49**

Besides providing a normal minimum automatic increment, there should be a provision for higher increments based purely on merit.

4.5 At the same time, if an industry is amenable to productivity/incentive schemes, full advantage should be taken to introduce such schemes. This aspect is dealt with in greater detail in another chapter.

4.6 The wage differentials within a firm should preferably be based on job evaluation or proper categorisation through a plant committee which inspires the confidence of the employees. In most industries, proper wage differential really does not exist because of the very high rate of Dearness Allowance paid in our country. Dearness Allowance tends to flatten out the wage differentials resulting in not much of an incentive, especially to higher skill categories. It will, therefore, be necessary that some rationalisation is effected so as to provide a better wage differential between different categories of work. In chemicals industry where the job specification of chemicals operators is such that it demands greater amount of versatility and presence of mind, it would be proper to have appropriate differentials between their wages and the wages of the unskilled workmen.

**Recommendation No. 50**

Wage differentials within a firm should be based on job evaluation and proper categorisation through an expert plant committee.

**Recommendation No. 51**

Since the job specification of chemical operators demands greater amount of versatility and presence of mind,



there should be appropriate differentials between their wages and the wages of the unskilled workmen.

## **V DEARNESS ALLOWANCE**

**5.1** With the disproportionate rise in the cost of living index during the last few years, Dearness Allowance has increased completely out of proportion compared with the basic salary. It is therefore essential that some thought is given to merging of a large portion of dearness allowance with the basic salary because it is practically impossible for the cost of living index to come down to a very low level. Some suggestions regarding how to handle dearness allowance are given below :

### **Recommendation No. 52**

The Simla index of 1960 should be used for purpose of all calculations of Dearness Allowance.

### **Recommendation No. 53**

Over a period of next 3 to 5 years, at least a portion of the Dearness Allowance may be merged with the basic wages.

### **Recommendation No. 54**

In many industries, a uniform Dearness Allowance is paid for all levels of wages which it is suggested should be modified and a different Dearness Allowance be made payable at different levels of wages.

### **Recommendation No. 55**

The cost of living index for most of the large cities are available, but for smaller places there are no indices available. For such smaller places, it is recommended that based on the general living conditions in these places, it would be possible to recommend a certain percentage of the cost of living index of the city closest to it.

**5.2** According to some members, the rate of neutralisation should not be 100% because such neutralisation is inflationary in nature. Also such inflationary pressures must be shared equally by all sections of the public. Shri Khanolkar and Shri Rangarajan, however, do not agree with this suggestion and suggest that there should be a hundred per cent neutralisation.

## **VI FRINGE BENEFITS AND OTHER REMUNERATIONS**

**6.1** Fringe benefits (statutory and non-statutory) are those

amenities or benefits available to employees which usually are not in the form of cash but generally in the form of a facility or they indirectly add to the total remuneration. These fringe benefits include the *Provident Fund, Gratuity, Pension, Casual Leave, Medical Leave, Privilege Leave, Canteen Subsidy* etc. The other cash remunerations which are paid in the industry are the shift allowance, attendance bonus and some other similar cash payments.

6.2 In India today, on account of low wages, considerable emphasis is put on the share of fringe benefits in the total pay packet. It is desirable that this emphasis is gradually reduced and cash payments are increased as wages increase. This will improve the wages and avoid making a large number of indirect payments which, though they serve to reduce the burden on the employees, are not really considered worth the amount already spent on them. It would rather be desirable that fair wages are paid and efforts are made to bring up the standard of living of the employee through more cash payments. Fringe benefits not only add to the increased indirect costs in the industry but also lead to larger administrative costs. It may be worth considering if a certain total limit is imposed on these fringe benefits so that they are not more than a certain percentage of the total wage of the employee. Fringe benefits do not contribute towards increased productivity but are instrumental in pushing up the administrative costs of the industry.

#### **Recommendation No. 56**

The emphasis on fringe benefits should be gradually reduced in favour of wage increases. There should be a total limit on the fringe benefits so that they are not more than a certain percentage of the total wage of the employee.

### **VII OTHER GUIDELINES**

7.1 Few guidelines of a rational wage policy are that the wages should be so given that they improve the productivity of the industry and at the same time provide real benefits to the employee. Cash increases by and large are psychologically more desirable for the employee because it exceeds in hand certain amount which is more concrete and helps him towards meeting the family budget.

7.2 In order to promote better productivity in the Heavy Chemicals industry where measurement of individual effort is not easy, the promotion policy should also be so designed that it lays sufficient stress on performance rather than only on seniority.

7.3 Collective bargaining should continue to play its very useful role, but wage boards can definitely be useful for providing clear guidelines which could be used for collective bargaining purposes. In fact, the Study Group would suggest that as an extension of the wage board principle there should be some arrangement whereby even after a particular wage board has made its recommendations, further information gets collected and distributed to the parties concerned. For this purpose it is suggested that there should be a panel of experts at the level of the Central Government to lay down certain guidelines based on information received through wage boards etc. In effect, this will be a special wing in the Labour Ministry whose job it will be to compile statistical information and keep up-to-date information about the movement of wages in different industries and in different parts of the country. This panel will present bare facts to all the parties namely, employees, employers and the State Governments. Thus the panel of experts will act a sort of a continuous advisory body who will bring up-to-date the wage reports presented by the wage board, so that in the case of a strike or industrial dispute in any part of the country, latest authentic information and advice are available to the State Governments as well as to the disputing parties. This will go a long way in reducing the conflicts or at least the bitterness of such conflicts because at least on points of fact there could not be any dispute and disputants would really be more profitably involved in policy matters.

**Recommendation No. 57**

There should be a special wing in the Labour Ministry to compile up-to-date statistical information about the movement of wages in different industries and in different parts of the country, This information should be readily available to any party to a dispute in any part of the country.

7.4 The Study Group also recommends that there should be wage boards from time to time, but in order to make the wage boards more practical in their approach, it should consist of people with intimate knowledge of industrial labour and economic conditions and not of persons merely because of their political affiliations. Also wage boards must give decisions within certain definite time-limits; otherwise they should become *functus officio*.

**Recommendation No. 58**

Wage boards should consist of people with intimate

knowledge of industrial labour and economic conditions and not of persons merely because of their political affiliations. Also they must give decisions within certain definite time-limits.

7.5 So far as this industry is concerned, while determining the wage structure, the structure (size) of the industry must also not be overlooked. This industry is known for its heterogeneous products manufactured by very large and very small units. The units could conveniently be distributed in 4 broad categories namely,

- (i) Units where capital employed is 25 lakhs or less;
- (2) Units with capital employed between 25 lakhs and 1 crore ;
- (3) Units of capital between one crore and 5 crores of rupees ;
- (4) Units with capital above 5 crores.

7.6 Obviously, with such a diversity of units, there cannot be a uniform wage structure and wage levels will of necessity be different for different levels in the above structure in the context of that particular level. Thus, over and above the other considerations in determining a wage policy, the factor of the structure of industry would also have to be given its due importance.

#### **Recommendation No. 59**

Over and above the other considerations in determining a wage policy, the factor of the structure of industry should also be given its due importance,

7.7 The classification of grades in the industry should also be reduced to the minimum which will avoid an unnecessary variety of wage levels, will ensure a proper spread as between different categories, and will also mean better chance of promotion. This of course will have to be based on a study of job evaluation, but once such a rationalisation of scales is made, many of the disputes in the industry would be curtailed.

#### **Recommendation No 60.**

The classification of grades in the industry should be reduced to the minimum so as to avoid an unnecessary variety of wage levels. This rationalisation of scales should be on the basis of job evaluation.

7.8 From the above discussion it will be seen that the wage policy in the Heavy Chemicals industry does not have something special so as not to keep in line with the general industrial situation and yet must take into account the special features of the Heavy Chemicals industry by providing for a proper wage rate for the operators and other similar jobs where versatility, presence of mind and a better level of education is required.

## CHAPTER VIII

# INCENTIVE SCHEMES AND PRODUCTIVITY IN CHEMICAL INDUSTRY

## I INTRODUCTION

1.1 "Wages should not be allowed to rise *ad infinitum* without any corresponding increase in productivity" is a fairly accepted principle. This can be achieved partly by linking wages with production through payment by results and introduction of incentive schemes. The introduction of any system of payment by results in an industry must be viewed as one part of a programme aimed at raising the output, improved productivity and reduced costs by all available means for the purpose of making possible increased earnings and higher general standards of living. The employee's income also goes up in the process.

## II KINDS OF INCENTIVES

2.1 Incentives may be broadly divided into two groups; financial and non-financial. In addition it can further be sub-divided into :

- (a) individual incentives and
- (b) group incentives including departmental and plant incentives.

## III SCOPE AND DIFFICULTIES IN APPLICATION

3.1 To enable a system of payment by results function smoothly and successfully, scientific work and job study is essential, especially so in the case of industries where continuous process is carried on, for example, Heavy Chemicals industry.

3.2 The question of applicability of incentive schemes in Heavy Chemicals industry has been debated for some time and divergent views have been held both by the employers and the employees. One of the central units of I.N.T.U.C. has even gone on record before the Wage Board that in their judgement incentives have no place in the scheme of wages. The representative practically stated that incentive

not only does more harm than good to the workers but even to the factory management. Some of the trade union representatives have confirmed that incentives have a definite scope and role to play in the scheme of wage structure.

3.3 On the face of it, introduction of incentive schemes may appear difficult due to :

- (a) measurement of individual as well as group output being rendered difficult either by technical considerations or other such circumstances;
- (b) the manufacturing process being mostly automatic.

3.4 Individual systems are not suited to work, the speed of which is governed by the speed of production process and/or machinery. Thus, in the case of Heavy Chemicals industry, group systems of incentives would be more workable.

#### **Recommendation No. 61**

In this industry, group incentives are more workable and should be undertaken.

### **IV PREREQUISITES OF INTRODUCTION OF AN INCENTIVE SCHEME**

4.1 The success of any system of payment by results will depend in a large measure on the way in which it is introduced and applied.

#### **(1) Work Study**

If workers are to be paid by results, these results must be accurately measured. This means that the nature of the task which the workers are expected to perform and the quality of the product they have to take out, must be fairly defined.

#### **(2) Job Evaluation**

The introduction of incentive scheme in Heavy Chemicals industry which employs widely different categories of skilled and unskilled workers may cause a number of difficulties. For instance, a semi-skilled machine operator on incentive rate may earn more than the skilled worker who is responsible for maintenance of plant and machinery and who may continue to be paid at time rate. To avoid such difficulties, prior to introduction of incentive schemes, it is necessary to have a system of job evaluation. By applying job evaluation, the relative volumes of different jobs in a given industry can be found out.

It also facilitates the development and maintenance of an equitable relationship among the rates of different jobs.

**(3) Mutual Understanding between employers and employees**

For the success of a system of payment by results, it should as far as possible be developed and applied with the mutual agreement and understanding of employers and employees in an atmosphere of good industrial relations.

**Recommendation No. 62**

The introduction of an incentive scheme should be preceded by scientific works study and job evaluation. Mutual agreement and understanding of employers and employees is equally important.

4.2 Incentive schemes have not been applied on a large scale by many Heavy Chemical industries in India. As pointed out earlier, in this industry, individual incentive scheme is difficult to be applied and the efforts therefore have to be in the direction of group incentives. The attention of the Group was drawn to a scheme introduced by M/s Hindustan Insecticides Ltd., which has brought about good results since its introduction. The Group recommends that schemes of a similar nature can be considered though every individual unit may form its own scheme to suit its own convenience.

**Recommendation No. 63**

Schemes of the nature of the one in Hindustan Insecticides Ltd., should be considered for adoption by units in Heavy Chemicals industry.

4.3 The Study Group would also suggest consideration of introduction of schemes on the lines of the Scanlon Plan which is a scheme for productivity sharing. Under this scheme, manpower inputs are reduced without affecting production and the resultant saving in cost is shared between the employers and the employees or in the alternative, with the same manpower inputs, production increases and this increase in production is mutually shared. However, such a plan can work effectively only in an atmosphere of extremely cordial industrial relations. In at least some of the bigger units it should be possible to adopt such a scheme.



## SOCIAL SECURITY AND LABOUR LEGISLATION

### I INTRODUCTION

1.1 Social security for industrial workers has come to be recognised as an essential part of industrial life. An individual by himself is unable to provide against certain risks and hence the necessity for a group to act together in common interest.

### II HAZARDOUS NATURE OF INDUSTRY

2.1 Over and above the general scheme, it is to be considered whether some additional benefit would be necessary and justified in respect of workers in Heavy Chemicals industry in view of the special nature of the industry. The full extent of such special benefits, if any, would be known only after further fuller research. As brought out in an earlier chapter, today the magnitude and nature of effects of continuous long-term working in a chemical factory are not fully known. Though it may be possible to counteract certain ill effects by providing housing, the necessary safety equipment etc., some of the effects may exhibit themselves even after retirement or at a stage when no preventive action is possible; there may be others which with the present technical knowledge cannot be countered at all. This is important in Heavy Chemicals industry, because social insurance affords protection to a worker after the event, but it does not prevent the event or happening. Social insurance, therefore, becomes important in cases where prevention is either difficult or almost impossible.

2.2 It is worth noting that the nature of accidents in a chemical industry is not widely different from the accidents in other industries. Most of the accidents, as shown by the information available, even in Heavy Chemicals industry, are due to falling of objects, hitting by moving objects, slipping down from a height etc. There are very few accidents that can be ascribed to chemical processes as such.

2.3 However, there are different types of risks in the chemical industry. For instance, certain harmful substances affect

the blood-making organs and cause serious hematological modifications. Others are harmful to the blood pigment or interfere with the red corpuscles. Many toxic substances attack the liver and the kidney, while others give rise to serious lesions of the lung and respiratory organs. Many substances affect the central nervous system. In some cases, the skin is affected directly or indirectly as a result of acquired state of hypersensitivity.

2.4 In such an industry, total elimination of risks cannot be achieved. But, the Workmen's Compensation Act does not provide for compensation for diseases of a minor nature, which cause inconvenience even during the non-working hours. The Study Group recommends that the scope of the Act should be so widened as to include compensation for such diseases. This will also have the effect of making the employers more aware of their responsibilities and making them provide the necessary protective equipment.

#### Recommendation No. 64

The Study Group recommends that the scope of Workmen's Compensation Act should be enlarged so as to include compensation for occupational diseases.

2.5 The workmen in Heavy Chemical industry are distinct entities is so far as their jobs are concerned in relation to jobs performed by their counterparts in other industries. But this is not reflected in their wages and it can be concluded that no special weightage has been given to job performance required in Heavy Chemicals industry. There is a case therefore to give further thought to this factor.

#### 2.6 Recommendation No. 65

In today's conditions, employment of women in an appreciable number on direct chemical processes is not recommended. However, they could be employed in safe sections like packing, designs, laboratories etc.

### III E.S.I. SCHEME

3.1 The Study Group felt that it was not necessary to make the E.S.I. Scheme compulsory even for employers who are both willing and competent to extend equal or better medical facilities. The Group would recommend that option for exclusion should be given to units where the employer and the employees voluntarily agree to exclude themselves from the operation of this scheme and the E.S.I. authorities are satisfied that the benefits extended are equal or superior to the

ones admissible under their Scheme. It may also be pointed out here that a recommendation exactly along similar lines has already been made by the E.S.I. Review Committee.

#### **Recommendation No. 66**

Option for exclusion from the E.S.I. Scheme should be given to a unit where the employer and the employees voluntarily agree to exclude themselves and the E.S.I. authorities are satisfied that the benefits extended are equal or superior to the ones admissible under the E.S.I. Scheme.

### **IV SAFETY & HEALTH**

4.1 On the question of safety and health hazards, the Study Group has already made its recommendations in the chapter on "Conditions of Work". The Study Group, however, would emphasise once again that refusal (to use safety appliances on the part of a worker and refusal to provide such appliances on the part of employers must be penalised under the Standing Orders, and the factory inspectors should also have powers to penalise careless employees causing accidents.)

4.2 Also as brought out in the earlier chapter, the Study Group would recommend proper precautionary action on the part of employers as well as employees, but would also suggest a scheme of voluntary premature retirement for workers in the specially hazardous areas over and above other measures, if such other measures fail.

#### **4.3 Recommendation No. 67**

It is also necessary for an employer in a Heavy Chemical industry to subject new recruits to pre-employment medical examination, periodic medical examination during employment, and to maintain a proper record of these examinations.

4.4 A reference has been made to the superannuation scheme in lieu of bonus. The Study Group recommends that such a scheme should be implemented, where the employees concerned surrender the bonus receivable by them in a year temporarily, and get the same in given instalments over a period of 10 or 15 years after superannuation. This, of course, is in addition to the normal provident fund and gratuity schemes. Though the labour representatives felt that because of the already low level of wages such a scheme is not feasible, the Study Group felt that this would be a better method of utilisation of bonus and the possibility of its application should be explored. At least a beginning should

be made on a voluntary basis and the scheme can be experimented with a part of the workers or part of the bonus. At least the workers should be encouraged to participate in such a scheme.

#### **Recommendation No. 68**

There should be a scheme of superannuation in lieu of bonus, on a voluntary basis.

4.5 As a corollary to this, the Study Group would also recommend that the possibility of increasing the contribution to the Provident Fund should be explored. This will be in the interest of the worker himself because the scheme is contributory.

#### **Recommendation No. 69**

The possibility of increasing the contribution to the Provident Fund should be explored.

#### **4.6 Recommendation No. 70**

The Study Group would also recommend that like the Employees, Provident Fund, workers should be covered by a Gratuity Scheme so that workers' interests will be better guarded.

## **V HOUSING**

5.1 The Study Group has also made recommendations on housing under the chapter "Conditions of Work".

## **VI HOLIDAYS**

6.1 The Study Group expresses its opinion that there is an absolute need to rationalise the number of holidays, in view of the very heavy capital investment in this industry, which cannot be permitted to lie idle both from the point of view of financial working and from the point of view of ensuring the maximum utilisation of the capital. Because of the special nature of the processes used in this industry, it is not possible to shut down certain processes for a short while and then restart them. This is both costly as also difficult. Some of the members of the Study Group therefore would suggest the adoption of a basic principle that for an employee in the beginning of his career higher qualifying number of days should be necessary while computing his eligibility for holidays. Shri Khanolkar and Shri Rangarajan, however, did not agree with this view-point.

## VII LEAVE

7.1 The Study Group also noted the diversity and variation of leave provisions in the different parts of the country and the different industries. This diversity is inconsistent with the industrial practices in the international fields and the Study Group would recommend an effort to bring about a uniformity in these practices to the maximum extent possible. In fact, except for Shri. Khanolkar and Shri. Rangarajan, the other members of the Study Group recommend that in order to reduce the area of conflict, leave entitlements etc. must be governed by uniform practices with no negotiation or bargaining possible.

### Recommendation No. 71

There should be a uniformity in the practice of leave provisions, to the extent possible.

7.2 Some members would recommend leave entitlements on the following lines :

Service Period	No. of working days	Leave entitlement (No. of days)
(1) 0 to 5 years service	280	15
(2) 5 to 15 years	260	20
(3) 15 to 25 years	250	25
(4) 25 to 30 years	240	25
(5) over 30 years	240	30

7.3 While calculating the minimum number of days required to be worked, absence sanctioned as authorised sick leave should be taken note of so that in genuine case of sickness an employee should not suffer in his leave entitlement merely because he cannot put in the requisite number of working days, namely, 280 days or 260 days etc. There could be a proviso for proportionate reduction in the number of days of leave entitlement in cases of such authorised sickness leave.

## VIII STRIKES & CLOSURES

8.1 By its very nature, this industry is characterised by continuous processes and in the interest of greater production and maximum utilisation of capital, it is necessary that the processes are not interrupted on any account. It is of particular importance that sudden closures must be avoided. Closure of plants without adequate preliminary steps can even result in a complete breakdown of the plant resulting in

irreparable loss to the industry as well as to the employees. The Study Group therefore emphasises the need for total avoidance of such closures though it does not recommend a legal restriction on the right of Heavy Chemical employees to strike work since that is found to be impracticable. Some of the members, however, felt that there was a good case for treating this industry on par with a public utility concern so far as the provisions regarding notices of strike etc. are concerned. All the members were agreed that sudden stoppage of work will be harmful to all the parties concerned and especially in an industry like this where stoppage of work will affect the smooth running of other industries as well, a certain cooling-off period is necessary so that the national economy does not suffer. In the opinion of some members, this cooling-off period for a basic industry like this should be a minimum of 90 days. Though the labour representatives were not agreeable to any restriction on their right to strike without notice, the general consensus was that a cooling-off period of 90 days would be all right provided the employees were permitted to strike work at any time after the said 90 days even without a notice, since some settlement could always be possible within a period of 90 days. This would in effect mean a notice of strike of about 90 days. It was also suggested that the same principle should apply to cases of termination of settlements. Statutory period of 2 months as at present provided, during which the settlement cannot be challenged, should be unnecessary. As soon as a new charter of demands is put up on the expiration of the period of settlement, the 90 days cooling-off period should commence. In the meanwhile, however, old settlement should continue until a new settlement/award is drawn up.

#### **Recommendation No. 72**

The Study Group emphasises the need for total avoidance of sudden closures of work in a chemical factory, though it does not recommend a legal restriction on the right of employees to strike work.

#### **Recommendation No. 73**

The Study Group further recommends a cooling-off period of 90 days, after which the employees can strike work any time without any notice since a notice of 90 days has, in fact, been given already.

8.2 It has already been stated elsewhere that in the opinion of this Study Group conciliation proceedings are an unneces-

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sary step and the Study Group would recommend that there should be either voluntary arbitration or if that cannot be agreed upon, then Government should refer the dispute to adjudication. There should be no other steps. This will result in a lot of saving in time for all the parties concerned.

**Recommendation No. 74**

Conciliation proceedings should be abolished and there should be either voluntary arbitration or if that cannot be agreed upon then Government may, at its discretion, refer the dispute to adjudication. There should be no other steps.