

Professions - Unignization

Joseph E. RYAN
2245 College Ave.
Berkeley, 4, Calif.



**COLLECTIVE BARGAINING
FOR
PROFESSIONAL EMPLOYEES**

**Issued by the
Board of Directors for the
information and guidance
of members of the**

AMERICAN CHEMICAL SOCIETY

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AMERICAN CHEMICAL SOCIETY
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Collective Bargaining for Professional Employees

FOR a great many years the SOCIETY has been concerned with various phases of professional chemistry and the professional status of chemists and chemical engineers. There has never been anything approaching unanimity. There have been fears expressed that the SOCIETY might become a union. There have been forthright opinions that the SOCIETY would have to do something for young chemists and chemical engineers to keep them from joining unions; also that direct action should be resorted to, to prevent their joining unions. Ten or more years ago no one feared unionization, or expected it; but with the passage of the National Labor Relations Act things began to happen and have been happening ever since. Throughout these troublesome times your Business Manager, Charles L. Parsons, and your Counsel, Elisha Hanson, have been working diligently in the interest of the professional chemist and chemical engineer. Gradually, decisions of one sort and another have been attained. On December 4 last, your Directors felt the work had progressed sufficiently, so that an intelligent report on the facts and the steps that can and should be taken, could be prepared. Your Counsel was instructed to draw up such a report for the membership. It follows.

THOMAS MIDGLEY, JR.
Chairman, Board of Directors

Opinion of Elisha Hanson, Counsel for the A. C. S.

The AMERICAN CHEMICAL SOCIETY, as chartered by Congress, is authorized not only to promote the advancement of chemistry in all of its branches but to devote its efforts to the improvement of the qualifications and usefulness and welfare of chemists.

The AMERICAN CHEMICAL SOCIETY cannot become a union or bargaining agent.

Section 7 of the National Labor Relations

Act guarantees to employees the right "to self-organization, to form, join, or assist labor organizations, to bargain collectively through representatives of their own choosing, and to engage in concerted activities for the purpose of collective bargaining or other mutual aid to protection".

If this section were not limited by other sections of the law, members of the AMERICAN CHEMICAL SOCIETY through their local sections could avail themselves of the SOCIETY'S OWN organization for the purposes set forth. However, the precise limitations of Sections 8 and 9 prevent this.

1. Sec. 8 (1) of the Act makes it illegal for an employer to interfere with, restrain, or coerce employees in the exercise of rights guaranteed in Sec. 7.

Sec. 8 (2) makes it illegal for an employer to dominate or interfere with the formation or administration of any labor organization or contribute financial or other support to it.

Membership in the SOCIETY embraces both individuals and corporations. The individual membership in turn embraces both employers and employees.

Therefore, by the very nature of its membership it is impossible for the SOCIETY or any of its local sections, as a section of the SOCIETY, to act for any of its employee members in the matters set forth in Section 7 of the National Labor Relations Act or as the representative of such employee members for the purpose of collective bargaining.

What the American Chemical Society Can Do

Even so, there is much that the SOCIETY can do—in fact there is much that it has already done—to assist its members who are employees in obtaining and preserving their rights.

The chief function of the SOCIETY in this respect is to preserve the professional status of its members who are employed in a professional capacity in the fields of chemistry and chemical engineering. In performing this function the SOCIETY not only can but should advise its members entitled to engage in collective bargaining not only as to their

rights but as to their obligations under the law. Through its Counsel it can afford them legal assistance and in any case affecting the professional status of its members or the objects of the SOCIETY as set forth in its charter it can intervene, if necessary, as a friend of the Court, to make its views known and thereby to assist in obtaining a proper determination of controversial issues.

The SOCIETY can do nothing for its members employed in nonprofessional work.

What Is Professional Status?

In 1936, a committee of the SOCIETY made a report on the "Professional Status of the Chemist" as follows:

The committee has made a preliminary study of ways of improving the professional status of the chemist. It has been generally observed that the membership favors some form of action in this direction but no general agreement as to what this should be is discernible. Irrespective of what form of action is ultimately adopted, it is observed that the work must start with defining a chemist.

The committee, therefore, has concerned itself primarily with developing such a definition. This definition and preamble are as follows: For purposes within the AMERICAN CHEMICAL SOCIETY the following definition of a chemist shall hold:

"A chemist is one properly versed in the science that treats of the composition of substances and the transformations which they undergo."

In order that the meaning of the word "properly" shall be adequately determinable, the following specifications shall apply:

"A. Any person who has completed the requirements for a degree in chemistry or chemical engineering in an educational institution accredited by the AMERICAN CHEMICAL SOCIETY and who has had two years of experience or two years of graduate study in chemistry or chemical engineering, shall be deemed to have the proper professional qualifications of a chemist under the above definition.

"B. Any other person who has completed the requirements for a degree in chemistry or chemical engineering at an educational institution not included in the AMERICAN CHEMICAL SOCIETY's accredited list and who in addition has worked as a chemist or chemical engineer exclusively for a period of at

least three¹ years or who had had three¹ years of graduate study in chemistry or chemical engineering shall be considered to have properly qualified as a chemist under the above definition.

"C. Any person who by accomplishment is recognized generally in the chemical profession as being particularly well versed—that is to say, a specialist—in one or more branches of chemistry or chemical engineering shall be considered under the above definition to be properly qualified as a chemist."

(At the time the above definition was adopted, the terms "chemist" and "professional chemist" were deemed to be synonymous and it was our desire to make them so. Since then, court decisions and other considerations have developed that make it appropriate to modify some of the language used. These definitions will be drawn up and submitted to the next Council meeting for approval. Thomas Midgley, Jr.)

In September 1941 [CHEM. ENG. NEWS, 19, 1014 (1941)], the Board of Directors gave careful consideration to the subject of "professional status" as distinguished from nonprofessional work. The question of salaries as first recommended in 1941 was modified Nov. 28, 1942. The Board made a statement on the subject to the membership, reading in part as follows:

Because of efforts to compel chemists and chemical engineers to join labor organizations in order to obtain or retain employment in certain plants, the Board of Directors of the AMERICAN CHEMICAL SOCIETY has given consideration to the broad problems of employment in the field of chemistry.

So that the position of the SOCIETY may not be misunderstood, the Board of Directors issues the following statement for the more complete information of our membership:

The SOCIETY has taken no stand against "collective bargaining" for professional men when such bargaining is not controlled by nonprofessional groups and where the bargaining unit is composed exclusively of professional men.

The SOCIETY condemns no one of its members for joining any noncoercive labor union so long as he does so voluntarily.

¹ This was officially changed by vote of the Council to "five years", April 7, 1941.

The SOCIETY, however, is unalterably opposed to the forcible inclusion of professional men in bargaining units dominated and controlled by nonprofessional employees, whether that inclusion be brought about by economic pressure upon an employer, by intimidation of the professional employee, or by operation of either state or federal law.

The SOCIETY will bend every effort to maintain for all its members the "right to work" and the "right to employment and promotion" on the basis of worth and merit.

Accordingly, the Board of Directors goes on record as opposed to affiliation of its members with any organization that conditions promotion primarily on the basis of "seniority", or that insists that they join any labor organization where they would be in a minority, with no power to protect themselves while paying "protection" thereto as an essential to the privilege of earning a livelihood and with their wage scales negotiated by those whose selfish interest would require that benefits be sought for the larger number of nonprofessional workers to the detriment of the relatively few professional employees.

Letters from some members, supported by facts and intelligent argument, claiming that conditions during the depression and under the emergency have secured for tradesmen and laborers, under union leadership, advances in income not enjoyed by trained professional men often directly associated with the former, have been given consideration.

Already a number of our more progressive employers have made surveys of their personnel and have taken, or propose to take, corrective measures.

In order that some logical conclusion may be reached, it seems wise to consider the distinction between professional and nonprofessional employees engaged in chemical work in order properly to differentiate between professional and nonprofessional workers.

At the present time there are a large number of technicians employed in the field of chemistry.

The term "technician" may be applied to routine workers, trained in the laboratory but with no special education or mental proficiency in chemistry and allied sciences. Normally they will be individuals with secondary school education only, or perhaps ones who have failed to acquire a baccalaureate degree through lack of funds, insufficient effort or capacity, or attendance at under-equipped educational institutions. These are almost always paid wages on the hourly basis and are often included in labor union

agreements. No proper objection can be raised to their inclusion in a bargaining unit composed of employees doing various kinds of skilled, semiskilled, or unskilled work.

The two groups of employees which should not be subjected to forcible inclusion in a heterogeneous bargaining unit are those who have received degrees in chemistry or chemical engineering and are engaged in those fields, either as chemical internes or as professionals.

The term "chemical interne" may be applied to those who are essentially in the final qualifying stage for their life work in the field of chemistry. They have received their baccalaureate degrees with majors in chemistry or chemical engineering, have proved their proficiency not only in chemistry but also in mathematics, physics, modern languages, etc. They are acquiring thereby the necessary training and experience to qualify for full professional status or standing. Those in industrial corporations are engaged in professional work on problems confidential to management, whether their work be control, research, or development.

The term "professional" should be applied only to those who have the baccalaureate degree, or its equivalent by specific accomplishment, and who, having been graduated from institutions approved by the AMERICAN CHEMICAL SOCIETY, have had at least two years of postgraduate training in chemistry or chemical engineering in institutions of like grade or have for an equal period obtained experience in chemical work. For graduates of other educational institutions five years of postgraduate training and/or experience subsequent to the baccalaureate degree should be required. These are the minimum requirements for full professional membership in the AMERICAN CHEMICAL SOCIETY.

The term "employee employed in a bona fide professional capacity" has been defined by the Administrator of the Wage and Hour Division under the Fair Labor Standards Act as follows:

The term "employee employed in a bona fide *** professional *** capacity" in section 13 (a) (1) of the act shall mean any employee who is

(A) engaged in work

- (1) predominantly intellectual and varied in character as opposed to routine mental,

- manual, mechanical, or physical work, and
- (*Important*) (2) requiring the consistent exercise of discretion and judgment in its performance, and
- (3) of such a character that the output produced or the result accomplished cannot be standardized in relation to a given period of time, and
- (*Questionable as applied to chemists*) (4) whose hours of work of the same nature as that performed by nonexempt employees do not exceed 20 per cent of the hours worked in the workweek by the nonexempt employees; provided that where such nonprofessional work is an essential part of and necessarily incident to work of a professional nature, such essential and incidental work shall not be counted as nonexempt work; and
- (5) (a) requiring knowledge of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study, as distinguished from a general academic education and from an apprenticeship, and from training in the performance of routine mental, manual, or physical processes; or
- (b) predominantly original and creative in character in a recognized field of artistic endeavor as opposed to work which can be produced by a person endowed with general manual or intellectual ability and training, and the result of which depends primarily on the invention, imagination, or talent of the employee, and
- (*Controversial in the courts*) (B) compensated for his services on a salary or fee basis at a rate of not less than \$200 per month (exclusive of board, lodging, or other facilities); provided that this subsection
- (B) shall not apply in the case of an employee who is the holder of a valid license or certificate permitting the practice of law or medicine or any of their branches and who is actually engaged in the practice thereof.

The foregoing definition of the Wage and Hour Administrator in its broad aspects has met with general acceptance both in industry and the courts. However, in certain cases the courts have held that it is what a man does, not what he gets for doing it that determines his status. Thus, as one court stated it, a man may be an executive at \$1 a year or \$100,000 a year. In other cases the courts have held that while the minimum salary requirement may seem arbitrary, it is of advantage in determining what the employer's attitude is towards the nature of the employee's work and responsibility.

There has been no reported case in which a court has passed upon this definition in respect of employment in the fields of chemistry and chemical engineering. Should such a case arise it is probable that the chief issue would revolve around the provisions of Sec. (A) (4) concerning work of the same nature as that performed by nonexempt (actually nonprofessional) employees. By the very nature of their profession chemists engaged in laboratory work have to do a great deal of work similar to that performed by technicians and assistants. Likewise, chemical internes must undergo periods of practical training (just as medical internes) the better to fit them for their careers. In any such cases the facts would be the determining factor in the adjudication of the issue.

In my opinion, if the so-called nonprofessional work is an essential part of and necessarily incident to work of a professional nature, the performance of such nonprofessional work in the course of professional employment would not endanger the professional status of the employee performing it.

On the other hand, I cannot emphasize too strongly my opinion that a professional who engages wholly in nonprofessional work has surrendered his professional status. Thus a chemist who accepts employment of

a nature that can be performed by anyone without specialized training in the field of chemistry by that very act divests himself of his professional status while he is so employed.

Personal Obligations to the Society

Therefore, it is not only the personal obligation of each individual chemist or chemical engineer to make certain that when he accepts employment it will be of a professional nature, but it is the obligation of the SOCIETY, in pursuance of the objects set forth in its charter, to advise its members connected with those employers who seek to employ professionals (particularly recent graduates) to do wholly nonprofessional work in the expectation that they can get more out of them than out of untrained and poorly educated "run of the mine" employees. Upon occasion in the past the officers of the SOCIETY have vigorously protested such policies and have warned college placement officials of the danger incident to placing their graduates with such employers. No such employer can avail itself of the advantages of the Employment Clearing House—which is maintained for professional chemists. Notwithstanding its policy and its previous actions, the SOCIETY must be constantly on the alert in such matters. Its officers cannot render the fullest service to this end unless the membership keep them informed of improper employment policies when such policies are put into effect.

What Can Professional Employees Do?

The foregoing discussion, in its detail, is essential to a discussion of what steps professional employees should take in their own interest in the matter of collective bargaining.

First, it should be emphasized that any step that is taken should be taken by an employee in the light of his own convictions upon the subject. The law not only guarantees him this right, but prohibits his employer from interfering with its exercise in any respect.

Second, it should likewise be emphasized that the National Labor Relations Board in two notable controversies has held that a group of professional employees cannot be

roped into a heterogeneous union made up of skilled, unskilled, and professional employees by force of union pressure or by reason of the fact that the union has a majority of all employees in the department or plant or industry, by reason of its numerous skilled and unskilled membership, unless and until the professional employees in a vote of their own group, composed *exclusively* of those engaged in *professional work*, decide by a *majority* that they want *such a union to represent them*.

The effect of these decisions means simply that unions composed of a miscellaneous membership, numerically greater than the number of professional employees employed in a particular plant, cannot use the Labor Relations Act as a means for representation of professional employees unless a *majority* of the latter express their desire for such representation. Sound as are the decisions of the Board, however, they do *not* mean that professional employees either have been made *immune* from unionisation or union representation. In the last analysis all that they mean is that where more than two professional employees are employed they have the right, by majority vote, to select their representatives for bargaining purposes.

1. They may vote for the union seeking such power.
2. They may vote for no representation at all, content to continue the process of individual bargaining.
3. They may create their own organization, composed exclusively of professional persons, and select it to represent them.

The professional man is by the very nature of his work an individualist. Few of them realise that when a union reaches out to bring them within its fold, the union will persist in its efforts just as long as it can increase its membership by doing so, in the hope that eventually it will obtain a sufficient number of the professional group to enforce a right to bargain for all.

Therefore, in my opinion, the *professional employees* in any field, under existing law, as it has been enforced by the National Labor Relations Board, and as it has been construed by the courts, *should give serious thought to the formation of an organisation of their own to represent them in matters of collective bargaining*. Under the decisions heretofore

mentioned the membership of such an organization must be confined to professional employees engaged in professional work. Neither an employer nor an executive employee with power to hire or fire is eligible for membership in such an organization.

Such an organization of professional employees organized for purposes of collective bargaining becomes a "labor organization" from a legal point of view. It would have every necessary qualification for representation of its membership in matters of collective bargaining. There would be no *necessity* for it to affiliate with any union, local or national, in order to exercise its right of representation. It would not only give the group a legal right in the matter of collective bargaining but also it would have the decided advantage of preventing any other minority or heterogeneous group representing them in such a capacity.

In the event of controversy it would have to prove but these things:

1. That it was organized for purposes of collective bargaining.
2. That it is free from employer support, domination, influence, or membership.
3. That it embraces within its membership a majority of the professional employees in the unit in controversy.

(Note. This means all professional employees, irrespective of their profession, not merely chemists or members of the A. C. S.)

The AMERICAN CHEMICAL SOCIETY cannot set up such organizations. Through its Counsel, however, it will be glad, upon request, to advise its employee members as to their rights as well as to their obligations in the matter of protecting their status as professional employees.



The Shell Case

In 1941, a union petitioned the National Labor Relations Board for certification as the representative of all the employees of the Shell Development Company at its Emeryville, California, plant. Chemists employed by the Company objected to such representation and when the Board set the matter down for hearing before one of its Trial Examiners at San Francisco these chemists intervened, through counsel, participated in the hearing, and con-

tested the claim of the union to the right to represent a group of professional employees contrary to the wishes of such employees expressed in a vote confined to those engaged in professional work.

Following the hearing a brief was submitted in behalf of the intervening professional employees. Because of its importance, it is herewith reproduced in full on pages 7 to 26.

Orrick, Dahlquist, Neff & Herrington
Justin M. Jacobs
1000 Financial Center Building
San Francisco, California
Attorneys for Intervenors.

UNITED STATES OF AMERICA
BEFORE THE NATIONAL LABOR RELATIONS BOARD
TWENTIETH REGION

In the matter of
SHELL DEVELOPMENT COMPANY, INC.
and
INTERNATIONAL FEDERATION OF
ARCHITECTS, ENGINEERS, CHEMISTS
AND TECHNICIANS

VANAN C. IRVINE, SEAVER A. BALLARD, H. K.
SUTHERLAND, AHLBORN WHEELER, CHESTER C.
CRAWFORD, KENNETH D. DETLING, FRED RICK
B. HILMER, HAROLD BYCK, DONALD S. LaFRANCE
and CLARENCE L. DUNN

Intervenors

Case No. XX-R-552

BRIEF OF INTERVENORS

Preliminary Statement

The above matter came on regularly for hearing before Trial Examiner C. W. Whittemore on the 27th day of October 1941. The hearing extended over a period of eight trial days and closed on November 4, 1941.

The hearing was held pursuant to the amended petition of the International Federation of Architects, Engineers, Chemists and Technicians (hereinafter referred to as the "Union"), for the purpose of determining whether a heterogeneous group of employees of Shell Development Company, Inc.,—which includes unskilled laborers, skilled workmen and professional chemists, physicists and engineers,—is an appropriate bargaining unit within the meaning of the National Labor Relations Act, as amended.

At the commencement of the hearing on October 27, 1941, Vanan C. Irvine and nine other professional men on the staff of Shell Development Company, Inc., made their motion to intervene. The motion,—which was vigorously opposed by the Union,—was granted on October 28, 1941.

The principal issues are:

1. Is Shell Development Company, Inc., engaged in commerce and subject to the jurisdiction of the National Labor Relations Board?
2. Is the heterogeneous unit of employees proposed by the Union an appropriate bargaining unit?

The intervenors did not actively participate in the issue of whether the Company is engaged in commerce and subject to the jurisdiction of the Board. Accordingly, in this brief we will not discuss that issue.

The testimony introduced on the bargaining unit issue consisted of the testimony of eleven witnesses. The only witness called by the Union on that issue was David E. Adelson, a chemist. The Com-

pany called two witnesses, J. F. M. Taylor, its president, and William E. Vaughan, a department head, both of whom are chemists. The intervenors called:

Vanan C. Irvine, a chemist,
Frederick B. Hilmer, a chemist,
Howard O. Ruliffson, a junior chemist,
R. Robert Brattain, a physicist,
Seaver A. Ballard, a chemist,
Edward B. Wist, an engineer,
John R. Griffin, an engineer, and
Chester C. Crawford, a chemist.

Over the objection of the intervenors, the Union's witness, David E. Adelson, without any foundation whatever, was permitted to testify generally in terms of his opinion and conclusions as to the work done by the 201 professional men and the 203 non-professional men included in the heterogeneous unit claimed by the Union. He attempted to show that there was no difference. His testimony was flatly contradicted by the testimony of the Company's witnesses, J. F. M. Taylor and William E. Vaughan.

In fact, the Trial Examiner stated that the testimony of the Union witness Adelson had been met by that introduced by the Company. He said:

"I think that the company has already met that (Adelson's testimony) in generality." (R.T. page 1067, lines 1 and 2)

The intervenors' witnesses (many of whose duties are substantially the same as Adelson's) testified that they could only testify accurately to the work done in their own research groups and departments.

For the purpose of utterly destroying Adelson's generalizations and conclusions, the intervenors attempted and offered to call one witness from every department

¹ (All italicized and bracketed matters in quotations are added unless otherwise indicated.)

and from every research group to testify specifically as to the vast differences between the work done by the professional men and that done by the non-professional employees in each department and on each research group. The Trial Examiner prevented the intervenors from so doing. He instructed the intervenors to withdraw their witness Chester C. Crawford and not to call other witnesses for that purpose. (R.T. page 1062, line 23 to page 1070, line 3; page 1192, line 22 to page 1195, line 18)

Preliminary Statement of Facts

Shell Development Company, Inc., is a California corporation. It is a research organization which is engaged solely in research with respect to petroleum and its derivatives. It does not engage in any commercial business.

In the course of its research the Company seeks to and does discover and develop new chemical compounds and products, new methods and new processes. Likewise, by its research, the Company seeks to and does improve known chemical compounds and products and known methods and processes. It has no business other than research.

Substantially all of the research of the Company is done in the field of chemistry, physics and engineering by approximately 232* professional chemists, junior chemists, physicists, junior physicists, engineers, and junior engineers.

The research work (other than library and field work) is done in numerous laboratories and a "pilot" plant (also known as an experimental plant) located on the Company's premises in Emeryville, California. The laboratories, though more specialized and equipped with more advanced scientific instruments, are very

similar to the chemical, physical and engineering laboratories of a university.

In these laboratories the exploratory and experimental work on a project is initiated and carried as nearly to completion as the equipment in such laboratories will permit. Most of the experimental work in these laboratories is done in small glass apparatus.

If, as a result of the work done in the laboratories, it appears that a project may have a commercial application, it is then transferred to the "pilot" plant.

In the "pilot" plant the exploratory and experimental work is carried forward for the purpose of determining whether the results obtained in small glass apparatus in the laboratories may be adapted to larger apparatus more closely simulating, in size and type, the apparatus which would be required for a commercial application of the project.

Likewise, in the "pilot" plant further experimental research is done for the purpose of solving such problems as may result from the conversion of the project from small glass apparatus to apparatus simulating that necessary for a commercial application of the project.

When the experimental and development work is completed on a project, the function of Shell Development Company, Inc., with respect to that project is likewise completed. If a project should be carried into commercial production, that would be done by some other company and not by Shell Development Company, Inc.

The laboratories are divided into a number of so-called departments. These departments are elastic, variable and in most instances the name arbitrarily given to a particular department is not descriptive of the actual work done in such department. The division of the laboratories into so-called departments and the designation of them by various names are principally done for convenience in administration.

* There are 201 professional men included in the unit proposed by the Union. The remaining 31 professional men are either department heads or professional men in departments which the Union has seen fit to exclude.

Within the so-called departments the projects upon which research is being done are divided among numerous research groups. There is no uniformity in the composition of such groups. For instance, such a group may contain one or more men from each of the following classifications: chemists, junior chemists, physicists, engineers, junior engineers, laboratory assistants, probationary laboratory assistants, laboratory helpers and technicians. Likewise, a research group may contain only chemists or only physicists or only engineers or only junior chemists or only junior engineers. Likewise, a research group may contain any conceivable combination of either (a) professional men or (b) both professional men and non-professional workers.

The composition of any particular research group depends upon the nature and immediate needs of the project or projects upon which that group may, for the time being, be engaged. For instance, a research group may consist of three chemists, two junior chemists and a physicist during the initial stages of a particular project. At a later stage in the development of that project the same research group may consist of only chemists or of chemists and laboratory assistants or any other possible combination of either (a) professional men or (b) both professional men and non-professional workers. Thus, if a project started by a research group of chemists should require the services of a physicist and one is then available, he will be added to that research group. When the function of the physicist in that group is completed he will leave that particular research group. Likewise, when the professional men in the group have progressed on a project to such a point that routine, manipulative and mechanical work is required, then laboratory assistants and other non-professional men are added to the group for the purpose of doing such work.

The Proposed Bargaining Unit

The proposed bargaining unit which the Union claims to be an appropriate bargaining unit includes 201 professional men and 203 non-professional men.

The heterogeneous nature of the proposed unit is manifest from the following tabulation, which is based upon the Board's Exhibits 12 and 16, viz.:

Professional Men*		Non-Professional Employees	
Chemists	103	Janitors	15
Junior Chemists	76	Glass Washers	4
Physicists	7	Window Washer	1
Chemical Engineer	1	Engine Operators	
Engineers	7	and Mechanics	19
Junior Engineers	7	Pilot Plant Operators	39
		Night Watchman	1
		Various Roustabouts, Handy-men and Helpers	7
		Laboratory Assistants	60
		Laboratory Helpers	31
		Technicians	12
		Curator	1
		Storekeepers and Clerks	6
		Glassblowers	5
		Glassblowers' Helpers	2
Total		201	203

* 44 of the professional men have obtained the degree of Doctor of Philosophy in their respective scientific fields (R.T. page 629, line 25 to page 630, line 4). All of the professional men (except 24 men who have obtained training in the laboratories of the Company, which the Company believes to be the equivalent of a university training) hold either Bachelors, Masters or Doctors degrees, from accredited universities in their respective scientific fields. (R.T. page 628, line 16 to page 629, line 2; page 631, line 7 to page 632, line 14)

The Position of the Intervenor

The ten intervenors are all professional chemists engaged in the practice of their profession in the employ of Shell Development Company, Inc., at Emeryville.

In their motion to intervene, the intervenors stated:

"... each of the moving parties respectfully represents, and upon his oath states that he is a chemist employed by the Shell Development Company, Inc., in its laboratories at Emeryville, Cali-

fornia, and further that his employment is professional employment, in the course of which he is engaged upon highly confidential work. Each of the moving parties further represents that he has an interest in the above-entitled proceeding and asks that he be allowed to intervene for the purpose of presenting evidence to show that he and others similarly employed should not be included in a heterogeneous bargaining unit consisting of a miscellaneous group of employees, including inter alia unskilled and skilled laborers and professional men, for the purpose of selecting representatives for collective bargaining with the company."

The issue in this proceeding does not involve the question of whether professional men who desire so to do should be permitted to retain their status of individualists for bargaining purposes. The issue is solely one of the compulsory inclusion of professional men in such a heterogeneous group as that here proposed.

The intervenors are neither opposed to nor concerned with collective bargaining for non-professional workers. Nor are they opposed to collective bargaining of professional men in professional groups.

The intervenors do, however, strenuously oppose the compulsory inclusion of themselves and other professional men similarly situated in such a heterogeneous unit as that proposed by the Union in this proceeding.

THE INTERVENORS EXPRESSED THE DESIRES OF THE OVERWHELMING MAJORITY OF PROFESSIONAL MEN.

The Overwhelming Majority of Professional Men do not Desire the Inclusion of Professional Men in Such a Heterogeneous Bargaining Unit as That Now Sought by the Union.

The National Labor Relations Board has, by its decisions, indicated that in the

determination of what constitutes an appropriate bargaining unit it will give cardinal significance to the desires of the employees affected by the proposed bargaining unit.

Matter of General Electric Company and Pattern Makers' League of North America (1941), 29 N.L.R.B., No. 29, pages 4, 5 and 6.

Matter of Philadelphia Inquirer Company and Newspaper Guild of Philadelphia and Camden (1941), 31 N.L.R.B., No. 7, pages 8 and 9.

For the purpose of advising the Board of the desires of the professional men, the intervenors obtained and offered in evidence the affidavits of 129 professional men (none of whom is a department head or managerial employee) in the Emeryville Plant of Shell Development Company, Inc. These affidavits were marked Intervenors' Exhibit 4 for Identification (R.T. page 1059, lines 21 and 22).

Each affiant stated under oath:

"That his said employment is professional employment, in the course of which he is engaged upon highly confidential work.

"That he is opposed to the designation of any heterogeneous bargaining unit which would consist of a miscellaneous group of employees, including, inter alia, unskilled and skilled laborers and professional men, for the purpose of selecting representatives for collective bargaining with Shell Development Company, Inc." (Intervenors' Exhibit 4 for Identification)

Each affiant petitioned the Board to exclude the professional men from the proposed heterogeneous bargaining unit, as follows:

"That he respectfully requests the National Labor Relations Board to exclude himself and all other professional employees, including junior chemists,

chemists, junior physicists, physicists, junior engineers, and engineers, from any bargaining unit that may be designated in the above-entitled proceeding." (Intervenors' Exhibit 4 for Identification)

The Trial Examiner excluded these affidavits from evidence on the ground that evidence of the desires of individual employees was immaterial to the issue (R.T. page 1060, line 23 to page 1062, line 22).

The rulings of the Trial Examiner were manifestly erroneous.

He permitted the Union to express its desires.

He permitted the Company to express its desires.

Yet he attempted to prevent the men who are, of necessity, most vitally concerned from expressing their desires.

The Trial Examiner sought to justify his ruling on the ground that the evidence was in effect an election from the witness stand to determine whether a majority of the employees desired the *petitioning union*. He said:

"Well, there is only one union asking for this unit. In effect, it becomes an election, whether or not they want this union. If there were several labor organizations acting for different units it might be somewhat different." (R.T. page 1054, lines 16 to 20)

On the contrary, the evidence was addressed to a much more basic proposition. It was addressed to the question:

Do the professional men want this unit?

It is inconceivable that this Board would not be vitally interested in the desires of a distinct group of men on that question. Indeed,—in this particular case, where the Union seeks to merge two wholly separate and distinct groups of employees into a single heterogeneous unit,—the fact that an overwhelming majority of one of those groups does not desire its inclusion should be the controlling factor.

There are many professional men, in addition to the 129 whose affidavits were offered in evidence, who are opposed to the inclusion of professional men in the proposed unit.

The intervenors attempted to prove through Dr. Seaver A. Ballard that a minimum of 150 and a maximum of approximately 180 professional men were opposed to the proposed heterogeneous unit. The evidence was excluded, whereupon the intervenors made the following offer of proof:

"MR. JACOBS: I offer to prove by this witness that a minimum of 150 and a maximum of approximately 180 of the professional men in the employ of the Shell Development Company—and by that term I mean to include chemists, junior chemists, physicists, junior physicists, engineers and junior engineers—are opposed to the heterogeneous bargaining unit that is proposed by the union in this proceeding.

"Do I understand, Mr. Examiner, by your ruling that I will not be permitted to make that showing through this witness?

"TRIAL EXAMINER WHITTE-MORE: That is correct." (R.T. page 1056, lines 8 to 19)

In sharp contrast to the showing made by the intervenors, there is not a particle of evidence to show that any of the professional men (other than Dr. Adelson) desire such a unit as that now proposed.

Indeed, there is absolutely nothing to show that anyone desires the heterogeneous unit except the officers of the petitioning union.

THE PROPOSED HETEROGENEOUS BARGAINING UNIT IS NOT AN APPROPRIATE BARGAINING UNIT.

It is manifest that there are two basic and inherent defects in the unit proposed by the Union:

First, the attempted exclusion of a portion of the non-professional employees and the inclusion of the balance; likewise, the exclusion of a portion of the professional employees and the attempted inclusion of the balance. In each case there is no sound basis for distinction between those attempted to be included and those attempted to be excluded.

Second, the attempt to disregard the fundamental differences between, and to merge into one heterogeneous unit, the professional men on the one hand and the non-professional men on the other hand, which, of the necessity, must and do constitute two wholly separate and distinct groups.

The intervenors are more vitally affected by the second defect and we intend to devote this brief primarily to that defect.

In passing, however, and by way of specific example of the first defect, we call to the Board's attention:

The testimony of Edward B. Wist, an engineer whom the Union seeks to *exclude* (R.T. pages 1163 to 1171); and

The testimony of John R. Griffin, an engineer whom the Union seeks to *include*. (R.T. pages 1172 to 1190)

Mr. Wist is an engineer who holds both a degree of Bachelor of Arts and a degree of Mechanical Engineer from Stanford University, obtained as a result of six years' study in engineering. He is an engineer in charge of construction and design work in the "pilot" plant at Emeryville. His duties consist of the design and construction of equipment to be used in the "pilot" plant in connection with the experimentation done in the "pilot" plant on projects initiated and partially completed in the laboratories.

Mr. Griffin is an engineer who obtained a Bachelor of Science degree and a Master of Science degree in mechanical engineering

from the University of California as a result of six years' study in engineering. He is engaged in the problem of testing aircraft engine lubricants and in devising a suitable test procedure for that purpose.

The testimony of these two engineers shows conclusively that there is absolutely no basis for distinction between their training or the character of work which they do; that both of them are engaged in professional work, and that the attempted inclusion of the one and the exclusion of the other by the Union is purely arbitrary.

However, since it is our position that all professional men should be excluded, we shall leave any further discussion of the first defect to the other parties to this proceeding.

*The Professional Group
Includes the Chemists,
Junior Chemists, Physi-
cists, Engineers and
Junior Engineers.*

Although the Union's attorney at the hearing professed ignorance of what is meant by the term "professional group" (R.T. page 22, lines 15 to 18), there is no uncertainty as to what employees of the Company are professional men as distinguished from non-professional workers.

From an examination of the decisions which we have cited and quoted below and the definitions contained in the various dictionaries, it appears that the term "professional" means:

An individual who has acquired knowledge of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study as distinguished from:

- (a) a general academic education, or
- (b) an apprenticeship, or
- (c) a training in the performance of routine mental, manual and physical processes,

and who applies his knowledge in work that is predominantly intellectual and varied in character as distinguished from routine mental, manual, mechanical or physical work, whose work requires the constant exercise of discretion and judgment in its performance, whose work is predominantly original and creative in character in the field of his science or learning, and is of such a character that the result accomplished by his work cannot be standardized in relation to a given period of time.

United States v. Laws, 163 U. S. 258, 41 L. Ed. 151;

Cummins v. Pa. Fire Ins. Co., 134 N. W. 79 and 82;

Ex parte Aird, 276 Fed. 954;

Mayor and City Council of Baltimore v. Smith, 177 Atl. 903;

State v. Cohn, 165 So. 449;

People v. State Tax Commission, 26 N. E. (2d) 955, 957.

The United States Supreme Court, in *United States v. Laws*, supra, held:

1. A chemist employed on a sugar plantation in Louisiana was a professional man engaged in the practice of his profession;

2. Such a chemist was a professional man engaged in the practice of his profession;

(a) notwithstanding the fact that he limited his practice to the specialized field of chemistry connected with the manufacture of sugar; and

(b) notwithstanding the fact that he limited his practice to one employer.

The Supreme Court said (41 L. Ed. 155):
“The chemist who places his knowledge acquired from a study of the science to the use of others as he may be employed by them, and as a vocation for the purpose of his own maintenance, must certainly be regarded as one engaged in the practice of a profession which is generally recognized in this country . . .

“It may be assumed that the branch of chemistry which he (the chemist) will practice will be that which relates to and is connected with the proper manufacture of sugar from the sugar cane, or possibly from sorghum or beets. *He is none the less a chemist, and none the less occupied in the practice of his profession because he thus limits himself to that particular branch, which is to be applied in the course of the scientific manufacture of sugar* any more than a lawyer would cease to practice his profession by limiting himself to any particular branch thereof or a doctor by confining his practice to some specialty which he particularly favored and was eminent in.

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“The fact that the individual in question, by this contract, had agreed to sell his time, labor, and skill to one employer, and in one prescribed branch of the science, does not in the least militate against his being a professional chemist, nor does it operate as a bar to the claim that while so employed he is nevertheless practicing a recognized profession. It is not necessary that he should offer his services to the public at large nor that he should hold himself ready to apply his scientific knowledge and skill to the business of all persons who applied for them before he would be entitled to claim that he belonged to and was actually practicing a recognized profession. . . . So long as he is engaged in the practical application of his knowledge of the science, as a vocation, it is not important whether he holds himself out as ready to make that application in behalf of all persons who desire it, or that he contracts to do it for some particular employer and at some named place.”

Manifestly, the considerations which caused the United States Supreme Court to hold that a chemist actively engaged in a particular branch of chemistry is a professional man engaged in the practice of

his profession would require the same conclusion with respect to a *physicist* engaged in the application of his specialized knowledge in the performance of his work.

In *Ex parte Aird*, supra, the District Court of the United States held that an *engineer* engaged in the practice of engineering is a professional man engaged in the practice of his profession. In that case the engineer was employed by Bethlehem Shipbuilding Corporation and was required to apply learning and skill in marine engineering in performing his work of designing marine turbine engines and auxiliary machinery connected with them. The court held that he was engaged in "a recognized learned profession." The court said (276 Fed. 958):

"It is clear that the relator, in the employment he entered this country to perform, was not engaged in labor, skilled or unskilled, within the accepted meaning of those words. *He was a 'brain toiler'; his work required technical training, skill, and learning in various branches of science. What he did, he did not perform with his hands or merely as a skilled mechanic would through application of mere mechanical skill.* His employment, in designing marine turbine engines or auxiliary machinery connected with them, is one in which the planning and working out of the details must be originated in the mind of the designer."

The fact that a professional man may perform some manual or mechanical work obviously does not change his status from a professional to a non-professional. The court of appeals of Maryland so held in *Mayor and City Council of Baltimore v. Smith*, supra, where, in answer to an argument that the duties of a professional nurse required the performance of such manual work as cleaning tables, chairs and other articles for use in the wards and the preparation of beds for patients, the court said (177 Atl. 905):

"The answer to this is that the manual labor mentioned is simply incidental to the profession of nursing and does not destroy its principal and essential quality, which is the special and professional knowledge, technical skill, and experience that comes from the instruction, training, and exercising of the nurse's mental faculties."

The same rule was applied in *Stats v. Cohn*, supra, where the court, after quoting and considering various dictionary definitions and decisions quoted in its opinion, at page 452 said:

"The test as stated by the foregoing definitions and authorities is whether or not the intellectual quality predominates over manual skill in performing the duties of the particular calling. *If the mental aspect is controlling, then the pursuit is classified as a profession. If skill in the manipulation of the hands, tools, and machinery is emphasized over the mental side, then the calling is classified as a mechanical pursuit.*"

From the decisions which we have quoted and cited above (and we have found none to the contrary), it clearly appears that chemistry, physics and engineering are all professions and that men who have acquired an advanced learning in those professions and apply their learning in their work are professional men engaged in the practice of their respective professions.

The Uncontradicted Evidence Conclusively Shows That the Chemists, Physicists, Engineers, Junior Chemists and Junior Engineers Are Professional Men Engaged in the Practice of Their Professions.

The witnesses of all parties, without contradiction or conflict, each testified

that he had acquired an advanced knowledge of his particular science by a prolonged course of specialized intellectual instruction and study.

Vanan C. Irvine, a chemist, called as an intervenors' witness, so testified (R.T. page 889, lines 5 to 9);

Frederick B. Hilmer, a chemist, called as an intervenors' witness, so testified (R.T. page 931, line 21 to page 932, line 6);

Howard O. Ruliffson, a junior chemist, called as an intervenors' witness, so testified (R.T. page 1005, lines 17 to 24);

R. Robert Brattain, a physicist, called as an intervenors' witness, so testified (R.T. page 982, lines 6 to 14);

Seaver A. Ballard, a chemist, called as an intervenors' witness, so testified (R.T. page 1070, lines 6 to 15);

Edward B. Wist, an engineer, called as an intervenors' witness, so testified (R.T. page 1163, line 21 to page 1164, line 5); and

John R. Griffin, an engineer, called as an intervenors' witness, so testified (R.T. page 1173, lines 11 to 15).

David E. Adelson, a chemist, called as the Union's witness, so testified (R.T. page 340, lines 4 to 16).

All of these witnesses, without contradiction or conflict, testified to facts which show that their work is professional work in that it is predominantly intellectual and varied in character as distinguished from routine, mental, manual, mechanical or physical work; in that it requires the constant exercise of discretion and judgment in its performance; in that it is predominantly original and creative in character in the fields of their respective sciences, and in that it is impossible for them to determine at the time a project is assigned to them when the solution of that project may be realized.

Even David E. Adelson, the Union's witness and the International Vice President of the Union, on cross-examination testified:

"Q. (By Mr. Jacobs) Dr. Adelson, is it not a fact that your work is predominantly intellectual as distinguished from manual work?" (R.T. page 523, lines 14 to 16)

(Objection by Mr. Leonard)

"A. In the sense that my work is embrace of such things as correlation, planning, and writing reports, I would assume that the major portion of my time is devoted to intellectual pursuits. I certainly wouldn't want to go on record to the contrary.

"Q. (By Mr. Jacobs) I wouldn't think so, Doctor. Is it not a fact, Doctor, that your work is varied in character so that the problem, the specific problem on which you may be working today in a specific field, may be different from a problem on which you are working, a specific problem, say, a week from now? In other words, isn't your work of a varied nature within the realm of chemistry?" (R.T. page 523, line 21 to page 524, line 7)

"A. Naturally, my work varies as the products and processes that we concern ourselves with change from time to time; but the basic method of attack is essentially the same. We have certain tools with which we pry into the unknown problems and they are applied to a more or less degree in the various problems we concern ourselves with.

"Q. (By Mr. Jacobs) Exactly. In prying into these unknown problems you fall back on all of the training and experience that you have gained in your former education and in your past experience, don't you, in attempting to find an answer to those unknown problems?

"A. Yes. I fall back on that. I also

fall back on the experience and training of the other members of my team.

"Q. Surely. Your work, Doctor, requires a constant exercise of discretion and judgment, does it not?

"A. Yes.

"Q. When you have a problem presented to you, Doctor, at the time it is presented to you can you normally tell when the answer is going to be found, or will that period of time vary with a great deal of elasticity due to the nature of the problem?

"A. That will vary over a complete range of time.

"Q. From an hour up to a year or something like that, depending on the problem?

"A. And you may never solve it.

"Q. Right. The work that you do, Doctor, requires the knowledge, the advanced knowledge in chemistry that you have obtained in your formal education and your past experience, does it not?

"A. Yes, it does.

"Q. And normally a person could not acquire your knowledge and background without spending a good deal of time in study and training, could he?

"A. If you include by that, the experience, I think that is essentially correct.

"Q. The purpose of your work, Doctor, is for you to produce original and creative ideas, is it not, in the attempt to solve these unknown problems?

"A. That is one function." (R.T. page 525, line 5 to page 526, line 18)

There Is a Sharp Distinction between the Education and Training of the Professional Men as a Group and the Non-Professional Men as a Group.

The Professional Men: All of the 201 professional men whom the Union seeks to

include within its proposed heterogeneous bargaining unit are highly trained scientists.

Forty-four of the professional men have obtained degrees of Doctor of Philosophy in their respective scientific fields. (R.T. page 629, line 25 to page 630, line 4)

All of the remaining professional men hold either Bachelor degrees or Master degrees from accredited universities in their respective scientific fields, with the exception of 24 men. These 24 men have, by a training obtained in the laboratories of the Company and by individual initiative and private study, acquired that degree of advanced scientific knowledge which, in the opinion of the Company, is the equivalent of a university training. (R.T. page 628, line 16 to page 629, line 2; R.T. page 631, line 7 to page 632, line 4)

These facts stand undisputed.

The Non-Professional Men: No evidence was introduced with respect to the educational background and training of such non-professional employees as janitors, window washers, glass washers, engine operators, roustabouts, etc., whom the Union has included in its proposed bargaining unit.

None was necessary.

The Union, realizing the significance of the sharp difference in educational background and training of the professional group as distinguished from the non-professional group, attempted to show through its witness Adelson that some of the laboratory assistants held college degrees. However, in answer to a preliminary question, the witness confessed that he did not know whether the degrees with respect to which he was about to testify were granted as a result of scientific study or some wholly unrelated pursuit (R.T. page 458, lines 3 to 5). The facts were later produced by the Company. These

facts, which are not disputed in the record, show:

The great majority of the laboratory helpers and laboratory assistants have a high school education. Some have had junior college training. Some have started university courses in science which, for some reason or another, they have been unable to complete. (R.T. page 634, line 2 to page 635, line 9)

On October 30, 1941, 9 laboratory assistants out of a total of 81 laboratory assistants and probationary laboratory assistants held college degrees. One of these degrees is held by a professional chemist. He took a leave of absence from the Company to serve in the military forces of the United States and left before the professional men then classified as laboratory assistants were reclassified as junior chemists. On his return to the Company he will be reclassified as a professional man. Two of these 9 degrees were granted as the result of courses of study wholly unrelated to the scientific research done at the Shell Development Company laboratories, one having been granted in pathology, the other in commerce. The remaining 6 degrees were granted by San Diego State College, Fresno State College and San Jose State College. All of these are schools which, in the opinion of the Company, do not give an adequate scientific training to qualify a man as a professional scientist. (R.T. page 610, line 3 to page 616, line 22)

There Is a Sharp Distinction between the Work Done by the Professional Men as a Group and the Non-Professional Men as a Group.

The evidence demonstrates that the work of the professional men is profes-

sional work of an intellectual character, whereas the work of the non-professional workers is routine mental, manual, mechanical and manipulative work.

Mr. Taylor, the president of the Company, testified that the difference in work last stated exists throughout the laboratories of the Company. His testimony may be summarized as follows:

Mr. Taylor testified that the professional men are employed to do research (R.T. page 639, line 24 et seq.). The professional men, by virtue of their training and knowledge of the sciences, having been given a project, plan how to attack that project (R.T. page 640, line 5 et seq.). They supervise the work of the non-professionals in the detailed conduct of a particular experiment (R.T. page 640, line 23 et seq.). It is the responsibility of the professional man to see that the experiments are carried out and he must supervise the work of the non-professionals whom he directs to carry out specific manipulations. (R.T. page 641, lines 8 to 15)

The function of the non-professional employees is to carry out the experiments planned and devised in detail by the professional men and under their instructions. (R.T. page 650, lines 3 to 15)

Mr. Taylor testified that the following would be typical examples of the type of work done by a non-professional employee:

1. A chemist will sketch a piece of apparatus which he wants set up. The non-professional man will set that apparatus up for him.

2. A chemist or physicist will issue instructions that a piece of apparatus is to be run under certain conditions for a certain period of time, or will describe a certain experiment that should be carried out using that apparatus. He will leave it to the non-professional assistants to see that those conditions are maintained and that certain readings are taken during the course of the experiments. (R.T. page 650, line 19 to page 651, line 4)

For the purpose of summarizing his testimony, by example, Mr. Taylor distinguished the work of a professional man from the work of a non-professional man as follows:

"...I am thinking, for example, if you go to a doctor for a general check-up he will, perhaps, feel your pulse, take your temperature, and sound you with a stethoscope. He may not do those things himself, but he is capable of doing it. He will send you to somebody else to have X-rays taken. It occurred to me because I just had this happen to me the other day. He sent me to have my teeth X-rayed, my sinuses X-rayed. He had blood tests taken, several of them, and a number of other things, which didn't happen to me at that time, but, I think it will be quite obvious to you, all those tests.

"Now, those tests were not carried out by the doctor, although he knew how they should be carried out and possibly could have carried them out himself, but he sent me to technicians who took samples of my blood and carried out the analyses of the blood. I have no doubt that those technicians were more skilled in carrying out those particular analyses than the Doctor, and I also suspect that the man who examined my blood, for example, and made the analyses of it, could draw conclusions from that analysis, but he would be working within the limited field of his knowledge.

"It is the doctor who decides what ought to be done about my general condition and decides what experiments he wants carried out in order to give him the body of knowledge which he requires in order to make an over-all diagnosis of what is going to happen, of what is the matter with me or is not the matter with me, and what ought to be done about it.

"I think that is as good an illustra-

tion as I can give of the difference which I am referring to between the professional who uses professional training and knowledge and the assistants who are quite skilled in some particular instances and in some particular directions, even more skilled than the doctor himself in carrying out those particular things and can, within their limited field, draw conclusions from those things, but that still doesn't make them professionals. One could go further than that and say that the doctor might have some internes around, for example. Those internes would not be as skilled as the doctor because of their lesser experience. They would still be capable, through their scientific training, of drawing the same conclusions as the doctor if they had his larger experience. They are professionals." (R.T. page 637, line 1 to page 638, line 17)

Mr. Taylor's testimony was fully corroborated by the testimony of Dr. Vaughan, the Company's second witness.

The intervenors' witnesses, each of necessity confining his testimony to his own department and more particularly to the research group of which he is a member, testified that in their respective research groups the work done by the professional men on the one hand is predominantly intellectual work of planning, thinking, and seeking to solve the unknown inherent in the projects upon which they are engaged, whereas the non-professional workers are engaged in manual or routine mental pursuits.

The intervenors were prepared to, and offered to, call at least one witness from each department and one witness from each research group in the Company's laboratories, for the purpose of showing that the facts testified to by those intervenors' witnesses whom the Trial Examiner permitted to testify were likewise applicable to all other departments and all other research groups.

The testimony of all of the intervenors' witnesses who were permitted to testify need not here be set forth. The testimony of Vanan C. Irvine, one of such witnesses, whose testimony is fully corroborated by both the Company's witnesses and the remainder of the intervenors' witnesses, will serve as a summary of the principal portions of the intervenors' testimony.

The Testimony of Vanan C. Irvine.

Mr. Irvine was first employed by the Company as a non-professional laboratory helper in 1929, following his graduation from high school. He continued in that employment for approximately fifteen months. He then entered the University of California and took a Bachelor of Science degree in chemistry in 1934 (R.T. page 889, lines 5 to 9). Upon his graduation from the university he was employed by the Company in a professional capacity. At that time his status was described as "laboratory assistant," a classification which now corresponds to that of junior chemist (R.T. page 891, lines 2 to 11). In 1937 he was promoted to assistant chemist, in 1938 to research chemist, and, by virtue of the reclassification made during the spring of 1941, his classification is now that of chemist. (R.T. page 891, lines 15 to 24)

Mr. Irvine is a research group leader, working in the so-called catalyst preparation department (R.T. page 892, lines 5 to 15). The research group headed by Mr. Irvine consists of himself, two additional chemists, a laboratory assistant and a laboratory helper (R.T. page 893, lines 5 to 10). A project upon which Mr. Irvine's group may be engaged is developed as follows:

Dr. Tamele, the head of the department, and Mr. Irvine discuss the proposed project, at which time Dr. Tamele explains the broad background and objective of the project and makes suggestions as to how the project may be approached. Mr. Irvine then spends a period of time

which, depending upon the nature of the project, may extend over a month or less in library research and consulting with other chemists in his research group, for the purpose of roughly outlining the program of work on the project. When this period of orientation and planning is completed, Mr. Irvine has in rough outline the program of work on the project. He then returns to discuss the matter with Dr. Tamele. (R.T. page 893, line 25 to page 894, line 15)

The two chemists in Mr. Irvine's research group sometimes assist him during the period of orientation and planning (R.T. page 895, lines 4 to 7). *Neither the laboratory assistant nor the laboratory helper ever works with Mr. Irvine during this period.* (R.T. page 895, lines 8 to 11)

As a result of the discussion of the rough outline of work with Dr. Tamele, he and Mr. Irvine (and the other two chemists if they have participated during this period of orientation and planning) decide which line of attack looks most promising. Mr. Irvine and the two chemists then return to the laboratory and Mr. Irvine assigns portions of the work to the other two chemists. (R.T. page 895, line 15 to page 896, line 6)

The laboratory assistant and the laboratory helper are assigned to work under one or both of the chemists and receive their instructions from the chemists. (R.T. page 896, lines 7 to 14)

Each chemist under Mr. Irvine's supervision is in charge of a certain phase of the project and is left to his own judgment and discretion in working out that phase of the project until Mr. Irvine believes that his time could best be devoted to some other course than the one he is then pursuing. At that time he and Mr. Irvine discuss the matter, exchanging their views and determining the best course of procedure from then on. (R.T. page 896, line 18 to page 897, line 25)

The type of work that Mr. Irvine or one

of the other chemists on his research group assigns to a laboratory helper depends upon the capabilities and experience of the individual laboratory helper. A new laboratory helper would be given such general duties as keeping the laboratory clean, making trips to the storeroom and familiarizing himself with the laboratory. The laboratory helper is taught various well-known simple techniques, such as distillations, well-known simple analytical procedures, and such things as setting up simple apparatus, drying, filtering, and all the mechanical operations that go with the operations of a laboratory. After such a laboratory helper has acquired sufficient experience, he may have assigned to him such work as running more complicated apparatus that has been set up and is running smoothly. *He is specifically instructed as to what he is to do.* (R.T. page 898, line 18 to page 899, line 10)

The laboratory helper now on Mr. Irvine's research group has been with the Company less than a year. Mr. Irvine testified that this man:

"goes to the storeroom and gets stores for various of us. He sees that dirty beakers and things are put in a box for the wash room attendants to take up. He checks on the operation of furnaces. He does simple analytical methods that he has been shown how to do. He sometimes watches equipment that is running, and various things of that type." (R.T. page 916, lines 9 to 16)

Mr. Irvine testified that the most vivid recollection he has of the period before he obtained his education in chemistry at the University of California when he was employed by the Company as a laboratory helper was:

"an innumerable number of gas analyses,"

which he estimated to have been approximately one thousand (R.T. page 918, line 20 to page 919, line 12). He further

testified that a gas analysis is a simple procedure which consists of taking a sample of gas and passing it through a number of solutions, one after the other, and measuring the contraction in volume of the gas. Each solution absorbs a selective component of the gas and, by determining the change in volume, you can then calculate the percentage of that particular component in the gas. (R.T. page 919, lines 15 to 22)

Mr. Irvine testified that a laboratory assistant would do such work as distillations, filterings, drying and all of the well-established routine tasks of a chemical laboratory (R.T. page 917, line 19 to page 918, line 5). As a specific example of the work done by a laboratory assistant, Mr. Irvine testified:

"We just had occasion to construct a rather complicated piece of apparatus. The chemist in charge of that was Mr. Mahar. He spent about a month contacting the engineering department and various other project leaders around the building who had done similar work. And he embodied the results of his search into a very detailed drawing. The apparatus was quite complicated, it involved a number of parts. This drawing was then given to the laboratory assistant and the parts that were hard to obtain were gotten for the laboratory assistant by the chemist and he was charged with the responsibility of putting it together." (R.T. page 917, lines 10 to 19)

Mr. Irvine testified that he was co-author of a paper entitled "Potentiometric Determination of Mercaptans in Aqueous Alkaline Solutions" (R.T. page 902, lines 21 and 22); that the project which resulted in that paper was no longer confidential because of its publication; that the work on the project was done by Mr. Irvine, after he received his Bachelor of Science degree from the University of California, and by Mr. Ryland, who was

then a laboratory assistant (the classification of "laboratory assistant" at that time corresponded to the present classification of junior chemist). (R.T. page 903, line 20 to page 905, line 4)

Dr. Tamele, the department head, Mr. Ryland and Mr. Irvine discussed the project. Thereafter Mr. Ryland and Mr. Irvine went to the library and spent several weeks ascertaining what had already been done on similar projects. They then reported the result of their library search to Dr. Tamele and as a result of that discussion it was decided that it would be necessary to determine in the laboratory which of the possible methods of attack shown by the literature was preferable (R.T. page 905, line 13 to page 906, line 5). Mr. Irvine then testified:

"We went out there and became familiar with each method as applied to our problem. That means that we in no way did any routine work. Each day it was practically different. We were investigating different methods and different conditions." (R.T. page 906, lines 6 to 10)

As a result of this work Mr. Irvine and Mr. Ryland ascertained that one method was preferable to the others. They consulted with Dr. Tamele and again returned to the laboratory and, by varying all possible conditions, concluded that one set of conditions was entirely satisfactory. This exploratory work was done with respect to one mercaptan (a sulphur compound with a bad odor). (R.T. page 906, lines 21 to 24)

Mr. Irvine then testified:

"It then became necessary for us to select other mercaptans. This part of the work might have been done by a laboratory helper. None was available at the time so we continued it ourselves. The manipulative work involved was very much the same from day to day. That is, we took a different solution

from a different beaker, added a certain amount from a beaker, added a certain amount of another reagent from another beaker, a certain amount of a third reagent from another beaker and then gradually added the type reading and got our results." (R.T. page 907, lines 1 to 10)

Mr. Irvine then testified:

"We then, as a result of this work with the different mercaptans, chose one set of conditions which were satisfactory for all mercaptans. It was then necessary to confirm our work before we made a final report on it. For this phase of the investigation, we received the services of a laboratory helper and he was instructed by myself for one or two weeks on just how to perform the titration, just what to do, until I was satisfied that he could do it satisfactorily.

"He was then given a series of instructions, just what determinations we wanted, and he did these determinations and turned the results in to me. I might say that these results were merely confirmatory in nature and they were not used in the final paper." (R.T. page 907, line 16 to page 908, line 3)

The testimony of Mr. Irvine, with respect to his research group, is fully corroborated with respect to other research groups by the intervenors' witnesses from such other research groups whom the Trial Examiner permitted to testify.

We submit that, by an overwhelming preponderance of evidence, it has been demonstrated in this record that the professional men on the one hand and the non-professional workers on the other constitute two separate and distinct groups in these two particulars:

First, in their training and education; and
Secondly, in the nature of the work which they, respectively, perform.

These facts were established by the testimony of Mr. Taylor and Dr. Vaughan, the Company's two witnesses. They were established by the testimony of Mr. Irvine, Mr. Hilmer, Mr. Ruliffson, Mr. Brattain, Dr. Ballard, Mr. Wist and Mr. Griffin, the witnesses called by the intervenors. The intervenors offered to establish these facts specifically as to each department and each research group. They were prevented from doing so by the Trial Examiner.

On the other hand, the only testimony which, on any theory, can be said to conflict with that of the Company and the intervenors is the testimony of Dr. Adelson. (His testimony actually is not conflicting testimony.) He attempted to testify as to the work done by all of the various employees which the Union seeks to include in its proposed bargaining unit, i.e., 201 professional men and 203 non-professional workers, as well as all of the department heads, administrative employees and other employees of the Company whom the Union seeks to exclude. His testimony, of necessity, was vague generality, opinion and conclusion. Such testimony is not entitled to any weight in this proceeding.

It is significant to note that, after the factual showing made both by the Company and by the intervenors, the Union did not call a single witness for the purpose of attempting to rebut that evidence. This fact is most significant. It is a confession that the Union could not support its contentions.

The Board, by Its Decisions, Has Repeatedly Excluded Professional Men from Bargaining Units Containing Routine Mental, Manual and Mechanical Workmen.

We do not propose in this section of our brief to list every case in which the Board has excluded professional men from heterogeneous bargaining units. By way of example, we call the Board's attention to its decisions in the following cases:

In *Matter of Brown Company and International Brotherhood Pulp, Sulphite, and Paper Mill Workers* (1941), 31 N.L.R.B., No. 46, the Board excluded twenty-six graduate chemists from a proposed heterogeneous bargaining unit.

In *Matter of Consolidated Aircraft Corporation and International Association of Machinists, Aircraft Lodge No. 1125* (1937), 2 N.L.R.B. 772, at 779, the Board excluded professional engineers from a proposed heterogeneous bargaining unit.

In *Matter of Pennsylvania Salt Manufacturing Company and Local Union No. 12055 of District 50, United Mine Workers of America* (1937), 3 N.L.R.B. 741, at 744, the Board excluded professional chemists from a proposed heterogeneous bargaining unit.

In *Matter of Atlantic Basin Iron Works and Industrial Union of Marine and Shipbuilding Workers of America, Local No. 13* (1938), 5 N.L.R.B. 402, at 405, the Board recognized the difference between professional men and non-professional workers in the field of engineering and held that professional men would be excluded from a unit of production and maintenance employees.

In *Matter of Electric Auto-Lite Company and International Union, United Automobile Workers of America, No. 12* (1938), 9 N.L.R.B. 147, at 152, the Board recognized the difference between professional employees and non-professional employees and excluded professional employees from units composed of production, maintenance and clerical employees.

In *Matter of Trojan Powder Company and International Union of Mine, Mill and Smelter Workers (C.I.O.)* (1941), 29 N.L.R.B. No. 41, the Board drew the

same distinction which we urge in this proceeding between a non-professional laboratory assistant and a professional chemist in the Company's plant. It included in a heterogeneous bargaining unit a laboratory assistant whose functions were substantially those of the non-professional laboratory assistants in this proceeding. It excluded the professional chemist.

In *Matter of Gulf Refining Company and Federal Labor Union No. 22191, Affiliated with the American Federation of Labor* (1940), 25 N.L.R.B. No. 83, at page 4, the Board included non-professional laboratory workers and excluded professional chemists from a heterogeneous bargaining unit.

In *Matter of Lee Rubber and Tire Corporation and Local No. 102, United Rubber Workers of America* (1940), 24 N.L.R.B. No. 119, the Board included in a heterogeneous bargaining unit non-professional laboratory testers and excluded therefrom professional chemists.

In *Matter of Allied Laboratories, Inc. and Indianapolis Speciality Union No. 465 etc.* (1940), 23 N.L.R.B. No. 14, professional chemists were excluded from a heterogeneous bargaining unit.

In *Matter of Jamestown Steel Partition Co. and Local 309, United Electrical, Radio and Machine Workers of America* (1941), 29 N.L.R.B. No. 20, the Board excluded professional engineers from a heterogeneous bargaining unit.

The Company Has, by Its Classifications, Recognized and Perpetuated the Sharp Differences between the Professional and Non-Professional Groups.

In this proceeding the intervenors do not seek the exclusion of any employees who are professional in name only. On the contrary, we seek the exclusion only

of those men who have the educational background and training necessary for professional standing and who are actually engaged in the practice of their professions in the laboratories at Emeryville.

If there be any instance in which the Company may have made an error and may have classified a professional man as a non-professional, he should be excluded. Likewise, if in any instance the Company has classified a non-professional in a professional classification, we do not seek the exclusion of that man.

The assigning of men to the various classifications has not been the result of arbitrary action by the Company. On the contrary, it appears without contradiction in the testimony of both Mr. Taylor and Dr. Vaughan that great care is exercised by the Company in employing men to work in the laboratories of the Company in Emeryville and in assigning such men to the various classifications.

On the record now before the Board, there is not a single instance in which a showing has been made that the classification of any man is in error. We submit that, until it be shown that non-professional workers have erroneously been classified as professional men, or conversely, until it has been shown that professional men have been classified as non-professional workers, the Board and all parties to this proceeding should adopt the classifications made by the Company as correct.

The Following Further Considerations Require the Exclusion of the Professional Men from the Proposed Unit.

Although it is the intervenors' position that the very fact of professional standing and the performance of professional work is sufficient to require the exclusion of the professional men from the proposed hetero-

geneous bargaining unit, we desire to briefly call to the Board's attention the following additional considerations:

The professional men are supervisory employees; the non-professional workers are not: It appears in the record, without contradiction, that the professional men whose exclusion we seek supervise, direct and control the work of non-professional laboratory helpers and laboratory assistants (R.T. page 640, line 23 et seq.; R.T. page 898, line 18 to page 899, line 10; R.T. page 989, lines 10 to 14).

The professional men, on the other hand, are largely left to their own resources and judgment in performing their work (R.T. page 988, lines 17 to 22; R.T. page 896, line 18 to page 897, line 25; R.T. page 1091, lines 17 to 22).

The professional men make recommendations with respect to promotion; the non-professional workers do not: By way of example of this function, Mr. Irvine testified that he makes recommendations to his department head with respect to the promotion of all men on his research group. He discusses these matters with his department head and his recommendations are usually followed (R.T. page 913, line 16 to page 914, line 9). See also: R.T. page 1090, line 18, et seq.

The work of the professional men is highly confidential: Every professional man who testified in this proceeding, including the Union's witness, Dr. Adelson, testified that his work is highly confidential. The professional men, by the very nature of the work which they do, are in a position where the highest degree of confidence is necessary. Manifestly, a highly trained scientist cannot best perform his function of inquiring into the unknown and seeking to solve problems which theretofore have remained unsolved unless he knows the full scope and indeed the purpose of his inquiry. Being a highly trained scientist and knowing the full scope of the project on which he is engaged, a failure on his

part to keep the confidence reposed in him by the Company would do far greater damage to the interests of the Company than a breach of confidence by a non-professional worker. While the Company expects the non-professional workers to respect its confidence, they, due to their limited capacities and lack of understanding of highly technical matters, are not in a position where a breach of confidence could as seriously harm the Company.

There is a radical difference in the compensation of the professional group on the one hand and the non-professional group on the other: Although both the professional and the non-professional groups of men are compensated on a monthly basis, the compensation of the non-professional workers is definitely fixed between a definite minimum and a definite maximum. While a non-professional worker remains in a given classification, he receives the compensation of that classification.

Contrasted with this situation is the case of the professional men. Their compensation depends upon the individual abilities and service of each individual man.

The professional men within a given classification are not readily interchangeable; the non-professional men within a given classification are readily interchangeable: A chemist who has devoted a considerable period of time to the study of a particular project upon which he is engaged could not be effectively replaced by a chemist from another research group who has not had occasion to make that particular study. This is true of all of the professional men.

The chemists and junior chemists, of course, will have obtained the same basic and general training in their field of chemistry. The same would be true of physicists and junior physicists. The same would be true of engineers and junior engineers. However, particular chemists in their work will tend to specialize on the

projects with which they are concerned and to become specialists in the branch of chemistry in the particular small branch of science into which his projects may carry him. These men obviously are not interchangeable. One chemist having, as Mr. Irvine testified, spent a long period of time in the library studying one particular problem would be better equipped to carry that problem to completion than another chemist who had the same general training but had not done the specific research on the particular problem done by the first chemist.

On the contrary, the non-professional men are interchangeable. A laboratory assistant from one research group can perform a gas analysis in any other research group; he can perform a distillation in any other research group; and he can do the numerous other routine mental, manual, mechanical and manipulative things which he has been trained to do wherever occasion in the laboratories may arise for those things being done.

The Proposed Heterogeneous Bargaining Unit Would Not Be Advantageous to Any of the Employees

From what we have said above, it must be obvious that the collective bargaining problems that will confront the professional men on the one hand and the non-professional workers on the other are vastly different. The most extreme example within this proposed bargaining unit would be a comparison of a janitor on the one hand and a research group leader such as Mr. Irvine, Dr. Ballard or Dr. Adelson, on the other. We submit without argument that obviously the problems of janitors as compared to the problems of highly trained scientists are vastly different. A bargaining agency representing janitors could not, at the same time, do justice to a group of scientists. Likewise, a bargaining agency representing a group of highly trained scientists could not do justice to a group of

janitors. A bargaining agent representing both janitors and highly trained scientists in one unit would have to choose between the interests of one group as compared to the interests of the other. It would be in a position virtually of attempting to serve two masters whose interests were conflicting.

What we have said with respect to janitors on the one hand and highly trained scientists on the other is true in varying degree with respect to any comparison that may be made between professional men on the one hand and non-professional workers on the other.

In view, particularly, of the fact that the overwhelming majority of the professional men have petitioned this Board to exclude them from the proposed bargaining unit, it must be obvious that a unit in which so large a group desired to be excluded could not be a harmonious bargaining unit.

Conclusion

In conclusion, we respectfully submit that the National Labor Relations Board in this matter should not disregard the express desires and requests of the great majority of the professional men, where their desires in seeking their exclusion from the proposed bargaining unit are likewise the desires of the Company and where, as far as the record before this Board is concerned, the only persons who desire the inclusion of the professional men in the proposed bargaining unit are the officers of the petitioning unit.

We further respectfully submit that the basic, sharp and fundamental distinctions between the professional men on the one hand and the non-professional workers on the other impel the conclusion that the heterogeneous bargaining unit proposed by the Union in this matter is not appropriate.

Respectfully submitted,
ORRICK, DAHLQUIST, NEFF & HERRINGTON
JUSTIN M. JACOBS
Attorneys for Intervenors

The National Labor Relations Board ordered oral argument before the Board in Washington on the issues raised in the hearing held in the Shell case before its Trial Examiner at San Francisco. The Board heard argument from the various parties on December 11, 1941, at which time Elisha Hanson, counsel for the AMERICAN CHEMICAL SOCIETY, at its request argued the cause of the intervening professional employees.

Subsequently the Board sustained the contention of the intervenors in full, in the following opinion (pages 27 to 34):

UNITED STATES OF AMERICA
BEFORE THE NATIONAL LABOR RELATIONS BOARD

In the matter of
SHELL DEVELOPMENT COMPANY, INC.

and

INTERNATIONAL FEDERATION OF
ARCHITECTS, ENGINEERS, CHEMISTS
AND TECHNICIANS

MR. JOHN T. McTERNAN, for the Board.

McCUTCHEN, OLNEY, MANNON & GREENE, by
MR. WILLIAM E. WRIGHT, of San Francisco,
Calif., for the Company.

GLADSTEIN, GROSSMAN, MARGOLIS & SAWYER,
by MR. NORMAN LEONARD, of San Francisco,
Calif., for the Union.

ORRICK, DAHLQUIST, NEFF & HERRINGTON, by
MR. JUSTIN M. JACOBS, of San Francisco,
Calif., for the Intervenors.

MR. HERMAN J. DeKOVEN, of counsel to the
Board.

Case No. R-3245

Decision and Direction of Elections

Statement of the Case

On July 7 and August 23, 1941, respectively, International Federation of Architects, Engineers, Chemists and Technicians, herein called the Union, filed with the Regional Director for the Twentieth Region (San Francisco, California) a petition and an amended petition alleging that a question affecting commerce had arisen concerning the representation of employees of Shell Development Company, Inc., herein called the Company, at its Laboratories at Emeryville, California,¹ herein called the plant, and requesting an investigation and certification of representatives pursuant to Section 9 (c) of the National Labor Relations Act, 49 Stat. 449, herein called the Act. On September 19, 1941, the National Labor Relations Board, herein called the Board, acting pursuant to Section 9 (c) of the Act and Article III, Section 3, of National Labor Relations Board Rules and Regulations—Series 2, as amended, ordered an investigation and authorized the Regional Director to conduct it and to provide for an appropriate hearing upon due notice.

Pursuant to notice, a hearing was held from October 27 through November 4, 1941, at San Francisco, California, before C. W. Whittemore, the Trial Examiner duly designated by the Chief Trial Examiner. A group of 10 employees at the plant, herein called the Intervenor, appeared by counsel and moved to intervene.² This motion was granted. The Board, the Company, the Union, and the

Intervenor were represented by counsel and participated in the hearing. Full opportunity to be heard, to examine and cross-examine witnesses, and to introduce evidence bearing on the issues was afforded all parties. During the course of the hearing the Trial Examiner made several rulings on other motions and on objections to the admission of evidence. The Board has reviewed the rulings of the Trial Examiner and finds that no prejudicial errors were committed. The rulings are hereby affirmed.

On December 1, 1941, the Company, the Union, and the Intervenor filed briefs, which the Board has considered. On December 11, 1941, pursuant to notice, a hearing was held before the Board at Washington, D. C., for the purpose of oral argument. The Company, the Union, and the Intervenor were represented by counsel and participated in the argument.

Upon the entire record in the case, the Board makes the following:

Findings of Fact

I. The business of the Company

Shell Development Company, Inc., a Delaware corporation, is engaged in research at Emeryville, California, on new or improved methods of producing oil, petroleum products, and chemicals.

During 1940, the Company used approximately 3,083,809 pounds of materials, approximately 50,740 pounds of which were shipped to the plant from points outside the State of California, and equipment valued at approximately \$88,630, of which approximately \$15,331 worth was shipped to the plant from points outside the State of California. During the same year, it produced at the plant approximately 399,230 pounds of mate-

¹ All the Company's departments at Emeryville, and not merely the research laboratories proper, are included in all references herein to the Company's "Laboratories at Emeryville, California".

² Eight of the Intervenor are classified as chemists and the other two (Hilmer and Sutherland) are among the seven employees in the Administrative Department discussed *infra*.

rials, approximately 300,128 pounds of which, valued at approximately \$118,450, were shipped to States other than California. From January 1 to September 30, 1941, the Company assembled at the plant laboratory apparatus and glassware valued at approximately \$12,896, of which approximately \$11,646 worth was shipped to States other than California.

II. The organization involved

International Federation of Architects, Engineers, Chemists and Technicians is a labor organization affiliated with the Congress of Industrial Organizations. It admits to membership employees of the Company.

III. The question concerning representation

The Union conducted negotiations with the Company in April and May 1941 for a collective bargaining agreement. These negotiations failed because the parties were unable to agree on the appropriate unit. A statement of the Regional Director introduced in evidence discloses that the Union represents a substantial number of employees in the unit alleged by it to be appropriate.³

We find that a question has arisen concerning the representation of employees of the Company.

IV. The effect of the question concerning representation upon commerce

We find that the question concerning representation which has arisen, occurring in connection with the operations of the Company described in Section I above, has

a close, intimate, and substantial relation to trade, traffic, and commerce among the several States and tends to lead to labor disputes burdening and obstructing commerce and the free flow of commerce.

V. The appropriate unit

The Union requests a unit composed of all employees at the plant, excluding the employees in the Administrative Department, Engineering Department, Safety Inspection Department, Photographic Department, General Office Department, Secretaries-Stenographers Department, Stenographic Department, Technical Files Department, and Library Department, the Kitchen Staff, executives, the Associate Director, the Assistant Directors, and department heads. The Company agrees that the foregoing unit is appropriate provided that professional employees be excluded therefrom and that non-professional employees in the Engineering, Safety Inspection, and Photographic Departments be included therein. The Intervenor also urge that professional and non-professional employees should not be merged.

Professional employees

The Company employs at the plant approximately 200 professional employees, including chemists, junior chemists, physicists, junior physicists, engineers, and junior engineers, as distinguished from non-professional employees, such as laboratory assistants, probationary laboratory assistants, laboratory helpers, technicians, engine operators, engine mechanics, experimental plant operators, glass blowers, handymen, roustabouts, warehousemen, glass washers, and janitors.⁴

Research projects are assigned to various research groups. Such groups are usually composed of both professional

³ It appears that as of July 7, 1941, the Company had approximately 582 employees at the plant, approximately 398 of whom are in the unit alleged by the Union to be appropriate.

The Regional Director reported that the Union presented 207 membership application cards, all of which bore apparently genuine signatures; that 179 of such cards bore the signatures of persons appearing on the Company's staff list of 1941; that one card was dated in 1938, 57 in 1940, and 113 in 1941; and that 29 were undated.

⁴ The laboratory assistants, probationary laboratory assistants, laboratory helpers, and technicians number approximately 107. There are about 157 other skilled and unskilled laborers.

and non-professional employees; sometimes, particularly in the early stages of the work, a group may be composed of professional employees only. The composition of a given research group may change from time to time, both in number and classification of employees. Professional and non-professional employees work together in the laboratory, and the successful completion of a project depends on the ability, productivity, and cooperative efforts of both classes of employees. Each research group usually has a leader, who is generally a chemist, physicist, or engineer, who is the link between the group and a department head. The leader directs and integrates and is responsible for the work of his group. Members of a research group may seek advice and assistance from individuals in other groups and departments.

All but 24 of the professional employees hold college degrees.⁶ The 24 who do not hold college degrees are regarded by the Company as having had sufficient training and experience with it to merit a professional rating. The non-professional employees generally have had at least a high-school training; some of them have had 1 or 2 years of college or junior college work, but very few hold college degrees. The non-professional employees usually learn the rudiments of manipulative work in the sciences through their general science courses in high school or college, but for the most part their specialized skill in laboratory work is acquired at the plant.

The professional employees, by reason of their wider educational background and experience, by and large are primarily engaged in the theoretical aspects of research, the planning of solutions to the research problems, the correlation of the laboratory data, and the drawing of de-

ductions and conclusions from such data; however, they also frequently do manipulative, mechanical work. The non-professional employees by and large are primarily engaged in the manipulative, mechanical aspects of the research project (such as the taking of readings, the doing of distillations and filterings, and the making of laboratory analyses); however, they sometimes contribute to the theoretical aspects of the work, draw conclusions from data, and are at times consulted by the professional employees on the feasibility of conducting certain experiments.

The professional employees are generally given their assignments in broad outline and enjoy considerable latitude in performing their functions, while the non-professional employees generally receive detailed instructions. Also, the non-professional employees are more easily transferable from project to project.

The weekly laboratory reports, which are compilations of data, may be prepared by a professional or non-professional member of the research group, but the quarterly research progress reports, in which theories are propounded, conclusions drawn, and prognoses made, are generally written by professional employees only. These reports, as well as patents issued, and articles published in scientific journals, bear the names of all employees, professional and non-professional, who have participated in the laboratory work covered by the report, patent, or article.

Professional and non-professional employees are paid twice a month, their salaries are fixed at a monthly rate, and they enjoy substantially the same vacation privileges. However, the salaries of professional employees generally are higher than those of non-professional employees. Also, classes of non-professional employees, unlike professional employees, generally

⁶ Approximately 44 hold Doctor of Philosophy degrees, and approximately 132 hold degrees of Bachelor or Master of Arts or Science or corresponding degrees in chemistry, physics, or engineering.

have fixed minimum and maximum rates of compensation.

Upon the entire record, we find that the professional employees might properly be considered either as a separate unit or as part of a larger unit composed of professional and non-professional employees. Under such circumstances, we apply the principle that the determining factor is the desires of the professional employees.⁴ We shall therefore direct separate elections in order that we may ascertain the wishes of the professional employees.

As noted above, the Union would exclude from its alleged appropriate unit all employees in the Engineering and Administrative Departments.

The Engineering Department has approximately seven professional employees. The Union wishes all employees in this department excluded from the unit on the ground that a substantial number of them are subject to the jurisdiction of other unions, both A.F. of L. and C.I.O. The Company urges that in the event professional employees are held to constitute a separate unit, the professional employees in this department should be included in such separate unit. The record does not disclose that employees in this department are members of or have been organized by other unions. We see no reasonable basis for not including the professional employees in this department in the group of professional employees among whom a separate election is to be held. We shall accordingly include them in such group.

The Administrative Department is composed of one Associate Director, three Assistant Directors, six assistants (Harvey, Scott, Ward, Hilmer, Sutherland, and Thornhill) to the Assistant Directors, and one employee (Vesper) classified as "Chemist (Standardization)". The Union wishes all these employees excluded from the unit because of their close connection

with management. The Company urges that in the event professional employees are held to constitute a separate unit, the six assistants to the Assistant Directors and the employee classified as "Chemist (Standardization)" should be included in such separate unit since they are professional employees engaged in research and do not occupy managerial positions.

Three of the employees in question are assistants to an Assistant Director who is in charge of various research departments and who also handles various personnel questions. Their function is to review, summarize, and edit the reports from the research laboratories and distribute them to the proper individuals. They may make recommendations and suggestions to the Associate Director or the Assistant Directors regarding further research on the various projects and may comment on whether the research theretofore conducted is satisfactory. In order to perform their duties properly they must be familiar with the research carried on throughout the plant.

Three of the employees in question are assistants to an Assistant Director who is in charge of the Market Research Department. Their function is to investigate and develop markets for petroleum products and chemicals. They must be familiar with the nature and progress of the research conducted throughout the plant. They confer from time to time with professional employees in the research laboratories and receive copies of the reports emanating from such laboratories. One of these men testified that he is classified as a chemist, and that since the correspondence he handles is filled with chemical terminology and a knowledge of chemistry is required to determine whether the Company can produce certain products or whether certain products are suitable for certain uses, he could not perform his duties without training in chemistry.

The seventh employee in question, who

⁴ See *Matter of The Globe Machine and Stamping Co. and Metal Polishers Union, Local No. 3*, 27 *Id.*, 3 N.L.R.B. 294, and subsequent cases.

is classified as "Chemist (Standardization)", is a member of and works with the Shell Standardization Committee, whose function is to standardize analytical methods. His duties consist of gathering together analytical methods for the purpose of standardizing them and advising various people regarding changes in analytical procedures and their effects.

We find that the six assistants to the Assistant Directors and the employee classified as "Chemist (Standardization)" in the Administrative Department are not so identified with management as to warrant their exclusion from any appropriate unit considered herein, and that their work is essentially of a professional nature. We shall accordingly include them in the group of professional employees among whom a separate election is to be held.

*Non-professional Employees in Engineering,
Safety Inspection, and Photographic
Departments*

As indicated above, the Union wishes all employees in the Engineering Department⁷ excluded from the unit on the ground that a substantial number of them are subject to the jurisdiction of other unions. The Company contends that the non-professional employees in this department should be included in a unit composed of other non-professional employees.

The Drafting Room, which is one of the subdivisions of this department, designs pilot plants, in which a process is tested on a large scale in order to determine how successfully a given product can be produced commercially, equipment essential for the operation of such plants, and apparatus and machinery used in the research laboratories. The Machine Shop, which is the other subdivision of this department, constructs the pilot plants, equipment, apparatus, and machinery de-

signed by the Drafting Room and also performs functions in connection with the maintenance of buildings and the installation, repair, and maintenance of equipment and machinery.

We see no reasonable basis for excluding the non-professional employees in the Engineering Department from a unit composed of other non-professional employees. As noted above, the record does not disclose that employees in this department are members of or have been organized by other unions. We shall accordingly include the non-professional employees in this department in the group of non-professional employees among whom a separate election is to be held.

The Union desires the employees in the Safety Inspection and Photographic Departments, all of whom are non-professional employees, excluded from the unit on the ground that they are not engaged in research. In its brief the Union urges their exclusion for the additional reason that it has not organized them. The Company maintains that the employees in these departments are engaged in research and that they should be included in a unit composed of other non-professional employees.

The Safety Inspection Department, which is composed of one technician and five monitors, is charged with insuring the safety of the Company's equipment. It is engaged primarily in monitorial work, which is performed during the night shift. The monitors' function is to see that the machinery in the research laboratories runs properly and that no accidents occur.

The Photographic Department, which is composed of one photographer and three technicians, takes and develops photographs of apparatus and equipment which are included in reports, makes photostatic copies of various documents, and photographs and fingerprints new employees.

We see no reasonable basis for excluding

⁷ This department is composed of approximately 79 employees, most of whom are skilled and unskilled laborers.

employees in the Safety Inspection and Photographic Departments from a unit composed of other non-professional employees. The fact that they may not be engaged in research does not warrant their exclusion. Many of the other non-professional employees, who are included in the unit which the Union alleges to be appropriate, are clearly not engaged in research. Although the Union has not organized the employees in these departments, they form an integral part of the unit of non-professional employees herein in question. We shall accordingly include employees in these departments in the group of non-professional employees among whom a separate election is to be held.

We shall order that two elections be held: one among the non-professional employees who are included in the group designated in the Direction of Elections as "Group A", and the other among the professional employees who are included in the group designated in such Direction as "Group B". On the results of these elections will depend the appropriate unit. If both "Group A" and "Group B" select the Union as their representative, they will together constitute an appropriate unit. If only one of the two groups selects the Union as its representative, that group will alone constitute an appropriate unit. If neither group selects the Union as its representative, the petition and amended petition herein will be dismissed.

VI. The determination of representatives

We find that the question which has arisen concerning representation can best be resolved by, and we shall accordingly direct, elections by secret ballot, one to be conducted among the employees in "Group A", and the other among the employees in "Group B", as set forth above.

The Union requests that the pay roll of

July 7, 1941, which is the pay roll or staff list submitted by the Company to the Regional Director, be used for the purpose of determining eligibility to vote. The Company opposes the selection of that pay roll on the ground that it is not sufficiently recent. The record does not disclose any reason why we should depart from our usual practice of using a current pay-roll date. Accordingly, we shall direct that the employees eligible to vote in the elections shall be those in "Group A" and in "Group B" who were employed during the pay-roll period immediately preceding the date of the Direction of Elections herein, subject to the limitations and additions set forth in the Direction.

Upon the basis of the above findings of fact and upon the entire record in the case, the Board makes the following:

Conclusion of Law

A question affecting commerce has arisen concerning the representation of employees of the Company at its Laboratories at Emeryville, California, within the meaning of Section 9 (c) and Section 2 (6) and (7) of the National Labor Relations Act.

Direction of Elections

By virtue of and pursuant to the power vested in the National Labor Relations Board by Section 9 (c) of the National Labor Relations Act, 49 Stat. 449, and pursuant to Article III, Section 8, of National Labor Relations Board Rules and Regulations—Series 2, as amended, it is hereby

DIRECTED that, as part of the investigation authorized by the Board to ascertain representatives for the purposes of collective bargaining with Shell Development Company, Inc., at its Laboratories at Emeryville, California, elections by secret ballot shall be conducted as early as possible, but not later than thirty

(30) days from the date of this Direction of Elections, under the direction and supervision of the Regional Director for the Twentieth Region, acting in this matter as agent for the National Labor Relations Board and subject to Article III, Section 9, of said Rules and Regulations:

Group A: Among all employees of the the Company at its Laboratories at Emeryville, California, who were employed during the pay-roll period immediately preceding the date of this Direction, including employees who did not work during such pay-roll period because they were ill or on vacation or in the active military service or training of the United States, or temporarily laid off, but excluding the employees in the General Office Department, Secretaries-Stenographers Department, Stenographic Department, Technical Files Department, and Library Department, the Kitchen Staff, executives, the Associate Director, the Assistant Directors, department heads*, the chemists, junior chemists, physicists, junior physicists, engineers, and junior engineers, the six assistants to the Assistant Directors and the employee classified as "Chemist (Standardization)" in the Administrative Department, and employees who have since quit or been discharged for cause, to determine whether or not they desire to be represented by International Federation of Architects, Engineers, Chemists, and Technicians, affiliated with the Congress of Industrial

* Ingle, of the Curator's Department, Luck of the Photographic Department, and Christopher of the Safety Inspection Department are excluded as department heads. The Company and the Union agreed to their exclusion on the ground that, while not technically department heads, they are in charge of their respective departments.

Organizations, for the purposes of collective bargaining; and

Group B: Among all chemists, junior chemists, physicists, junior physicists, engineers, and junior engineers of the Company at its Laboratories at Emeryville, California, who were employed during the pay-roll period immediately preceding the date of this Direction, including the six assistants to the Assistant Directors and the employee classified as "Chemist (Standardization)" in the Administrative Department, and employees who did not work during such pay-roll period because they were ill or on vacation or in the active military service or training of the United States, or temporarily laid off, but excluding executives, the Associate Director, the Assistant Directors, and department heads who may be classified as chemists, junior chemists, physicists, junior physicists, engineers, or junior engineers, and employees who have since quit or been discharged for cause, to determine whether or not they desire to be represented by International Federation of Architects, Engineers, Chemists, and Technicians, affiliated with the Congress of Industrial Organizations, for the purposes of collective bargaining.

Signed at Washington, D. C., this 13th day of January 1942.

HARRY A. MILLIS
Chairman

WM. M. LEISERSON
Member

GERARD D. REILLY
Member

NATIONAL LABOR
RELATIONS BOARD

(SEAL)

In 1943, the National Labor Relations Board, in a matter affecting professional employees of the Monsanto Chemical Company at its Everett, Mass., plant reaffirmed the Shell decision in the following opinion (pages 35 to 38):

UNITED STATES OF AMERICA
BEFORE THE NATIONAL LABOR RELATIONS BOARD

<p style="text-align: center;">In the matter of</p> <p style="text-align: center;">MONSANTO CHEMICAL COMPANY</p> <p style="text-align: center;">and</p> <p style="text-align: center;">CHEMICAL WORKERS UNION NO. 22606 (AFL)</p> <hr style="width: 50%; margin-left: 0;"/>	}	Case No. 1-R-1626
<p>MR. CHARLES B. RUGG, of Boston, Mass., for the Company.</p> <p>MR. WILLIAM F. REGAN, of Peabody, Mass., for the Union.</p> <p>MR. DAVID V. EASTON, of counsel to the Board.</p>	}	

Decision and Direction of Elections

Statement of the Case

Upon a petition duly filed by Chemical Workers Union No. 22606, AFL, herein called the Union, alleging that a question affecting commerce had arisen concerning the representation of employees of Monsanto Chemical Company, Everett, Massachusetts, herein called the Company, the National Labor Relations Board provided for an appropriate hearing upon due notice before Thomas H. Ramsey, Trial Examiner. Said hearing was held at Boston, Massachusetts, on November 12, 1943. The Company and the Union appeared, participated, and were afforded full opportunity to be heard, to examine and cross-examine witnesses, and to introduce evidence bearing on the issues. The Trial Examiner's rulings made at the hearing are free from prejudicial error, and are hereby affirmed. All parties were afforded an opportunity to file briefs with the Board.

Upon the entire record in the case, the Board makes the following:

Findings of Fact

I. The business of the Company

Monsanto Chemical Company, a Delaware corporation with its main office located in St. Louis, Missouri, is engaged in the manufacture of various chemicals, chemical products, and pharmaceutical products. For this purpose it owns and operates 12 plants located in various States of the United States, and in addition, operates 3 plants which it does not own. We are concerned herein with the Company's plant located in Everett, Massachusetts. The Company purchases raw materials valued at more than \$3,000,000 per year for use at its Everett, Massachusetts, plant, of which in excess

of 50 per cent originates from points outside the State of Massachusetts. The finished products of the Everett plant are valued at more than \$12,000,000 per year, of which more than 40 per cent is shipped to points outside the State of Massachusetts. The Company admits that it is engaged in commerce within the meaning of the National Labor Relations Act.

II. The organization involved

Chemical Workers Union No. 22606 is a labor organization affiliated with the American Federation of Labor, admitting to membership employees of the Company.

III. The question concerning representation

The Company refuses to recognize the Union as the bargaining representative of certain of its employees unless and until the Union receives certification by the Board.

A statement of the Regional Director, introduced into evidence at the hearing, indicates that the Union represents a substantial number of employees in the unit hereinafter found appropriate.¹

We find that a question affecting commerce has arisen concerning the representation of employees of the Company, within the meaning of Section 9 (c) and Section 2 (6) and (7) of the Act.

IV. The appropriate unit, the determination of representatives

The Union seeks to represent a unit comprised of all employees of the Company engaged in its control laboratory,

¹ The Regional Director reported that the Union submitted 10 application cards, all of which bore apparently genuine, original signatures, and contained the names of persons appearing upon the Company's pay roll for the week ending October 17, 1943, which contained a total of 19 names in the alleged appropriate unit.

including professional employees and all hourly paid employees attached thereto, but excluding supervisory employees. The Company contends that the hourly paid employees should be excluded from the unit, and that the professional laboratory workers should be given an opportunity to express their desires with respect to whether or not they should be included within a unit of laboratory employees.

The Union has been previously certified as the bargaining representative of all hourly paid production and maintenance employees of the Company, excluding, *inter alia*, chemists and laboratory employees not paid at an hourly rate. Attached to the laboratory are two hourly paid employees who act in the capacity of janitor and bottle washer, respectively. It is apparent from their job classifications that these persons are not properly part of a technical unit, but are properly included within the industrial unit. Under these circumstances, we are of the opinion that the two hourly paid employees attached to the control laboratory were clearly meant to be included within the industrial unit previously certified, and we shall therefore exclude them from the voting units hereinafter designated.

The Company employs approximately five persons in its control laboratory who have received degrees in chemistry or related sciences. It contends that these employees should not be included in the same unit as the non-professional laboratory employees on the ground that a dissimilarity exists between them with respect to interests, type of work, qualifications, methods of payment, amount of supervision, and future prospects with the Company. The record indicates that while these employees may perform work similar to that performed by the non-professional employees, they are frequently called upon to do special analytical work of a complicated nature, and to handle new and non-routine analyses on their own initiative. In contrast to the

professional employees, the non-professional employees are required to perform only routine analyses. The professional employees are paid on a monthly basis and receive a minimum of supervision; on occasions they also supervise the work of the non-professional laboratory workers. The non-professional employees are paid on a weekly basis, and require supervision and instruction from the outset. The professional employees are hired through the central office at St. Louis, Missouri, after interviews by several of the ranking research and production supervisors of the Company, whereas the non-professional laboratory employees are hired at the particular plant in which they are employed. Furthermore, the Company considers the professional laboratory employee to be in training for a future supervisory post either in research or production; the advancement of the non-professional laboratory worker is limited unless he undergoes additional training on his own initiative. In view of these circumstances, we are of the opinion that the professional laboratory employees are entitled to voice their desires in the matter of representation in a voting group separate from that of the non-professional employees². Accordingly, we shall direct separate elections among the professional laboratory employees of the Company and the non-professional laboratory employees who were engaged during the pay-roll period immediately preceding the date of the Direction of Election, subject to the limitations and additions set forth therein, to determine whether or not they desire to be represented by the Union. If the employees in both groups select the Union as their bargaining representative, they shall constitute a single unit; if, however, only one group selects the Union as its bargaining representative, it shall constitute the appropriate unit.

² Cf. *Matter of Shell Development Company*, 38 N.L.R.B. 192.

Direction of Elections

By virtue of and pursuant to the power vested in the National Labor Relations Board by Section 9 (c) of the National Labor Relations Act, and pursuant to Article III, Section 9, of National Labor Relations Board Rules and Regulations—Series 3, it is hereby

DIRECTED that, as part of the investigation to ascertain representatives for the purposes of collective bargaining with Monsanto Chemical Company, Everett, Massachusetts, separate elections by secret ballot shall be conducted as soon as possible, but not later than thirty (30) days from the date of this Direction, under the direction and supervision of the Regional Director for the First Region, acting in this matter as agent for the National Labor Relations Board, and subject to Article III, Sections 10 and 11, of said Rules and Regulations, among the following groups of employees of the Company who were employed during the pay-roll period immediately preceding the date of this Direction, including employees who did not work during said pay-roll period because they were ill or on vacation or temporarily laid off, and including employees in the armed forces of the

United States who present themselves in person at the polls, but excluding the chief chemist and the assistant chief chemist and all other supervisory employees with authority to hire, promote, discipline, discharge, or otherwise effect changes in the status of employees, or effectively recommend such action, and excluding any who have since quit or been discharged for cause, and have not been rehired or reinstated prior to the date of the election, to determine whether they desire to be represented by Chemical Workers Union No. 22606, affiliated with the American Federation of Labor, for the purposes of collective bargaining:

1. All professional monthly paid laboratory employees engaged in the control laboratory;
2. All non-professional weekly paid laboratory employees engaged in the control laboratory.

Signed at Washington, D. C., this 13th day of December 1943.

HARRY A. MILLIS
Chairman

JOHN M. HOUSTON
Member

NATIONAL LABOR
RELATIONS BOARD

(SEAL)

A Gracious Tribute from the American Society of Civil Engineers

"Our Society is grateful to the AMERICAN CHEMICAL SOCIETY for its pioneer activities in this matter. I refer to the vigorous efforts and the large amounts of money spent by your society in defending the professional chemists in the matter of the Shell Development Company, Inc., and the International Federation of Architects, Engineers, Chemists, and Technicians. In this matter the professional man as such was recognized by the NLRB and excluded, if that be his desire, from membership in union groups of a heterogeneous nature. In accordance with a strict interpretation of the law, these professional individuals were excluded from the union organization. Nevertheless, the union was granted a contract and the union organizer spoke for the professional men even though the professional man as an individual did not have to join the union. This proved conclusively to us that the professional individual as such is helpless before the law unless he join with others of his kind in group action. I do not believe we could have arrived at this viewpoint without the experiences and pioneer ground work initiated by the AMERICAN CHEMICAL SOCIETY."

Copies of this pamphlet can be obtained from Mack Printing Co., Easton, Pa., at

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