Supervisor Training A Case Study
Edward M. Miller

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Chapter I

Introduction

There are many definitions of training. One is "Training is the process by which manpower is fitted for the particular job it is to perform." ¹ Everyone has certain potentialities for any given job. In order for him to perform the job to the best of his abilities the potentialities must be developed. It is the function of training to develop these potentialities to the point where the individual is fitted for the job he is doing or is to do. This same idea of changing the employee to fit him for the job is expressed by a psychologist who defines training as "...the process of bringing about a change or improvement in employee attitudes or potential behavior patterns for a definite purpose." ² In the case of supervisor training, the definite pur-


An important principle of training is that any program presented must maintain the interest of the employee being trained. The trainee must be motivated. He must want something from the program and must be personally convinced that he will get it. "A fact or a skill or an attitude can only be learned when there is present a feeling that the fact or skill or attitude will help to satisfy a want of the learner." Trainees should be convinced that the program has something to offer which will help them perform their duties, which will make their jobs easier, or will improve their performance in some way. A program is valueless unless it produces results, and results require action of the participants. To incite the participants to action, real interest must be maintained. Failure to realize the necessity of creating interest will reduce the value of the program.

"Pleasing the boss" is one way of expressing the principle that any program presented must be acceptable to management. Management expects to get its money's worth and also expects the program to follow the general policies of the company. It is, therefore, important to consult management concerning the plans for training and to report regularly to management.

Constant evaluation is necessary in any continuous training program. The same methods used to determine the need for training

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can be used to evaluate training. Management reports are excellent if it is possible to determine how much of the change is due to the training program. If other factors are fairly constant, a reduction in scrap can be indicative of a good training program on scrap reduction. If grievances occur less frequently after a training program on labor relations, it indicates that the training has been successful.

"An industrial training program today should provide for continuous...learning. Training is never completed." As needs arise, a series of classes can be planned to fill the needs. Such factors as procedure changes, new labor contracts, or alterations in company policies make a one-time program impossible. Sometimes unforeseen events call for an enlargement of the work force, thus making a course in operator training expedient. Since new needs for training constantly arise, training plans must be kept flexible.

Objectives of a training program must be clearly defined.

"The...principle can be stated as follows: The aim determines the subject matter which industrial training departments should eventually teach." These aims or objectives may be such things as improving labor relations, reducing costs, training for promotion, or even making the employee satisfied with difficult working conditions.


5. Ibid., p. 65.
Minor objectives must be selected to lead to the over-all objec-
tives. These may be an understanding of the labor contract, how
to fill out reports properly, or how to participate in conferences.
In each case, however, the objective must be based on an established
need for training.

To sum up these principles, a supervisor training program
must be based on a need for training, must be interesting to the
trainees, must satisfy management, must be such that it can be evalu-
ated, must be continuous and flexible, and must have definite objec-
tives.

**Installing a Supervisor Training Program and Beginning Training
Activities**

The procedures suggested in the following paragraphs should
establish a sound supervisor training program. "When no formalized
training has existed, top management must do certain preliminary
work to establish the training organization. The potential train-
ees should be advised that a training program is to be presented
and that management is in favor of such a program. Failure to
prepare for training...can lead to partial or complete failure...
 thorough preparation can build up momentum strong enough to carry
a training staff of medium ability through the difficult beginning
period."

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6. Ibid., p. 75.
The first step in installing a supervisor training program is to set up an organization. This organization will vary depending on the requirements. It may be a training director with a complete staff of instructors, or it may be an additional duty of a personnel manager or plant superintendent. In all cases, the organization and its purpose should be announced by management.

The first job of the training organization will be to determine the needs to be fulfilled by training. The definition noted at the beginning of this paper indicates that training brings about a change or improvement in employees for better performance of their jobs. A job description for supervisors is necessary to guide the training organization in its work. If none exists, the training organization should make a job analysis and job description, and have it approved by management.

Some concerns have established merit rating or efficiency rating procedures. A study of the ratings indicates deficiencies which can be eliminated by proper training.

Management reports, if studied for trends, will often indicate training needs. A rise in scrap percentages may indicate a lack of appreciation for the cost of scrap. It can also show that production has been over-emphasized in order to meet schedules. Quality control reports, especially where statistical quality control has been established, can tell whether quality needs emphasis in a training program. Personnel records and reports often are indicative of training needs.
High turnover rates, increases in grievances, or excessive absenteeism may indicate that a course in human relations will produce an improvement in the supervisory force.

A word of caution on the use of reports to determine needs must be given. Reports merely indicate that something has affected a change. The change may be beyond the supervisor's control. Grievances are sometimes high just prior to and during negotiations for a labor contract. High scrap can suggest poor maintenance as well as poor supervisors. Vague manufacturing instructions can lead to both labor and scrap inefficiencies. During periods of expanding business conditions, new operators and new equipment can influence both efficiency and quality.

After the reports have been analyzed, it is advisable to consult management concerning the indicated training needs. Management can point out the aspects of the reports which have been affected by factors other than a lack of training. At this time expected business requirements which may suggest training needs can be discussed. These requirements may include anticipated new products or the expansion of existing facilities. For example, an expected government contract may make operator training particularly important. A discussion of past trends and future trends in business can lead to a clear definition of training needs and can determine their relative importance.

The training needs lead naturally to a set of objectives. Objectives must be carefully planned and clearly defined since they
directly influence choice of subject matter and evaluation.

The next logical step is to decide on the subject matter itself and to arrange it into units suitable for presentation. Details such as timing, methods of presenting the subject matter, selection of instructors and place of meeting must be determined. An actual schedule of classes can then be distributed and the program can be begun.

After the program is established, evaluation of each series of classes should be made. Quizzes or tests may be used to determine whether the subject matter is being properly taught, but the program as a whole can be evaluated only in the light of the problems it is to solve.

**Purpose of This Study**

The purpose of this study is to follow the development of a supervisor training program at the Reynolds Metals Company's South Plant. In most respects, the initial program followed the principles of training set down in this chapter.

At the present time the program has been in progress one year and the second year has been planned. The program is not represented here as an example of a perfect supervisor training program (if indeed such a program exists). This paper is a record of what was done and an explanation of the reasoning used by management in developing the program. An evaluation of the program in relation to the general principles of training and especially in relation to the objectives of the program will be presented in later chapters.
Chapter II
REYNOLDS METALS COMPANY'S SOUTH PLANT AND ITS NEED FOR
A TRAINING PROGRAM

The Reynolds Metals Company

At the time the supervisor training program was developed, Reynolds Metals Company was engaged principally in the production of aluminum and aluminum products. Its operations included mining, production of primary aluminum, fabrication of aluminum parts and production of various foil products. Plants varied in size from those having one hundred employees to those with several thousand employees.

The major responsibility for training was at plant level. The plants, however, could call on the home office training staff for assistance. Each plant determined its own needs and established its own program. Training needs, organization for training, and subject matter naturally varied from plant to plant.

Reynolds Metals Company's South Plant

The South Plant consisted of a foil rolling plant and a foil processing plant. Prior to World War II these plants were under separate plant managers, but were placed under single management after the war. The staff functions of maintenance, accounting, personnel, safety and industrial engineering were organized so as to serve both plants, while each plant had its own plant superintendent.
and production planning department.

Immediately following World War II, a further consolidation took place, whereby coloring, glue mounting, and embossing were moved from the Richmond North Plant to the South Plant. A consolidation of both supervisory and operative personnel was necessary. This led to differences of opinion over procedures. Most of the differences were soon overcome, but when training was begun, foremen still spoke of the "North Plant way" or the "South Plant way", showing that a need existed to change the attitudes of supervisory personnel.

The South Plant was producing a wide variety of products, including candy wrap, cigarette foil, decorative foil, and various products for packaging. Some products were mass produced, while others were produced on a job shop basis. Government contracts made up a part of the production. This wide diversity of production created a peculiar problem in quality control and cost control. For example, one customer was buying a special chemically-cleaned foil for photographic plates and also buying regular foil for the same purpose. Candy wrap sold to wrap hot caramels had a different specification from that sold for wrapping cold candies. A need existed for the foremen to appreciate not only the necessity for quality, but the necessity for carefully meeting specifications.

Several staff departments were created or enlarged after World War II. These were quality control, industrial engineering, cost accounting, and production control. Many foremen were unfamiliar
with the responsibilities of these departments in relation to their own responsibilities. For example, all foremen were reluctant to lay off men and often said nothing when work fell below normal, for they felt that the production planning department should have notified them. The need existed to demonstrate to foremen that reduction in force had to be carefully considered by the production planning department, the personnel department, the plant superintendent, and the foreman.

When supervisor training began, Reynolds Metals Company had a labor contract with the Foil Workers Union of the A.F. of L, which specified a union shop with departmental seniority and which contained very specific union security clauses. Few written grievances had been presented, but many situations had been poorly handled because the foremen were not familiar enough with the contract. One foreman, before taking the training course, complained that the union always won anyway, so why fight it. Many foremen formerly went to the shop steward to get the answer to a questionable point because they themselves lacked knowledge of the contract. On one occasion the company paid an employee who did not work but was entitled to do so. There was a need for the foremen to understand both the terms and intent of the various clauses in the contract. Yet, in this case, an examination of management's personnel reports showed no grievances since all complaints had been settled at plant level without formal action. The contract was exacting, but it was believed by management to be fair to both sides.
Experience of the supervisory personnel varied from less than one year to over twenty years. Most of the foremen had been promoted from operators and had no training in the work of the staff departments. On the other hand, personnel in the staff departments were inexperienced in the work of the foremen. They, too, needed knowledge of the relationship of the jobs held by staff department personnel and operating personnel.

Reynolds Metals Company had the usual needs of all large, fast-growing concerns, such as appreciation of company policy, an understanding of the company's pay and promotion policy, prevention of excessive turnover, etc. An examination of the records and reports of Reynolds South Plant revealed a low labor turnover rate, low grievance rate, and low absenteeism. Although a need existed for cost reduction, this objective was not included in the training plans.

Supervisors had had some training. During World War II, training courses on Job Instruction Training were presented to all foremen. Some supervisors had also taken courses at universities. For several years prior to the training program, the company had maintained 7 membership in the Research Institute of America, which had supplied the foremen with excellent pamphlets in the field of human relations and foremen training. Regularly scheduled foremen's meetings were being held twice a month. Training had not been lacking, but management

7. Research Institute of America, Inc., 292 Madison Ave., N. Y.
realized there was an antagonistic feeling toward anything called training. Creation of interest was, therefore, a major requirement. Perhaps creation of an appreciation for the benefits which could be derived from a planned program is a better way of expressing the need felt by management.

Need for Training Summarized

The needs recognized by management can be summarized as follows:

1. To improve the attitudes of supervisors.
2. To create a better understanding of the relation between staff departments and operating departments.
3. To develop a better understanding of the union contract and methods of working efficiently within its limitations.
4. To broaden the experience of younger foremen.
5. To create an appreciation of a formal training program.
Chapter III

METHODS USED TO DEVELOP THE SUPERVISOR TRAINING PROGRAM

The Training Committee

The plant manager of the South Plant appointed a training committee and instructed it to install a program and begin training activities. This committee consisted of the plant manager, assistant plant manager, superintendent of Plant I, and superintendent of Plant II. Since the training director of the company is located in Richmond, he was asked to work with the committee.

The first meeting of the training committee was held August 20, 1952. The following items were brought before the committee:

1. The primary problem was to create interest in the training program.

2. Field trips to customers were discussed, but were considered outside the scope of the program.

3. Tours of the Reynolds plants were considered within the scope of the program, but no plans were made to include them in the initial courses.

4. Including union shop stewards was discussed, but was considered inadvisable during the initial program.

5. All supervisors and all others whose work was of a supervisory nature were to be included. (This was later expanded to include all who deal with foremen such as quality control personnel,
industrial engineering personnel, etc.

6. An evaluation questionnaire was to be used at the end of each series. (This questionnaire will be discussed later under evaluation of the program.)

7. Size of classes was to be between ten and twenty.

8. Outside instructors from labor relations and other branches of the company were to be used.

9. The first four series were to be inaugurated without a predetermined plan.

10. Courses were to be one hour a week.

11. The following four courses were selected to make up the program for the first year:

   A. Union Contract and Labor Relations
   B. Human Relations
   C. Plant Organizations
   D. Staff Departments

Creating an appreciation for training was considered by the committee to be one of the most important objectives of the first year of training. In 1952 Reynolds Metals Company foremen personnel had little interest in a training program. There were some who believed that long experience had put them above a need for training, some who wanted more facts about the company as a matter of interest, and some who were merely curious about the operation of other departments. The fact that few recognized the need for training was discussed at length during the first committee meeting.
The exploratory nature of the program should also be pointed out. So-called "canned programs" were available. In fact, two other Reynolds plants had completed the initial courses of their training programs. These could have been presented, but such a procedure was not considered advisable.

The committee realized at the time of the meeting that it did not know exactly what was needed. It was the decision of management to begin the program before detailed plans could be completed. The program was to be kept flexible, one course being underway before another was planned. Much of the work of the committee was done while the initial courses of the program were being presented.

Job Description and the Program

Foremen in different industries have different responsibilities and duties. The job description for foremen was considered in determining the subject matter of the program. See Appendix I for the complete Job Description.

To do his job, a foreman at Reynolds South Plant had to work with the other departments of the plant. While he did not hire men, he had to train them and was solely responsible for accepting or rejecting employees during the first thirty days of their employment. He was the first man to deal with any labor complaint that arose, but, if he was unable to work out a satisfactory solution, the labor relations department settled the complaint. While the quality control department determined standards of quality, the foreman gave the
actual instructions to pass or reject stock. The production office
drew up departmental schedules, but it was up to the foreman to
schedule machines in his department and to see that the master sched-
ule was met. Reduction in force and new hires were left to the fore-
men, but to control these factors intelligently required close coordi-
nation with the production office. The ability to work with other
departments, with personnel, with maintenance, with quality control
and still keep efficiencies high was a primary requisite of a foreman.

The series on plant departments was designed to aid the foreman
in working with other departments. The series on the union contract
and labor relations was included to aid the foreman in keeping within
the terms of the contract, thus preventing grievances. The series on
human relations was in keeping with the exploratory approach and was
not expected to aid the foreman directly in the performance of his
duties. The series on company staff departments was designed to
broaden the foreman's knowledge of the company.

Thus, two of the initial four series were directly based on the
job description and the other two were intended to extend the foreman's
horizons in the field of human relations and in knowledge of his com-
pany.

Questionnaire to Other Companies

In order to see what other companies were doing in supervisor
training, the questionnaire in Appendix II was sent to twenty-five
companies. A complete summary of answers is included in Appendix II.
The companies were chosen at random from a list of training directors published by the National Association of Training Directors. Thirteen answers were received. Many training directors not only filled in the questionnaire, but sent copies of their programs, while others gave quite sketchy answers. A variety of training situations was covered.

The industries polled covered a range from recently established to long-existing training programs. Schedules varied from infrequent lectures to complete yearly curricula. Objectives ranged from training of new foremen to stimulation of a better attitude toward the company. Each company apparently had tried to fit the program to its own needs.

Since creation of interest was selected by the committee as a major objective, the answers concerning this aspect of training were important. Foreman participation of some type was mentioned by several companies as a means of creating interest. Timken Roller Bearing Company had the foremen develop a foreman's manual. Several companies used conferences preceding the training program in order to create interest. The problem of creating interest was generally recognised, but answers to the questionnaire indicated that each company had its own method for solving this problem.

Twelve of the thirteen companies polled were training inexperienced and experienced supervisors in the same classes. Some had assigned additional work to recently hired supervisors. Only one of the companies polled had taken men off the job for a full week
of training. The other twelve were scheduling from one to two hours of training a week.

The conference method was used most frequently. Classes numbered from ten to twenty. The companies using lectures used visual aids, handouts or company pamphlets as supplemental material. The answers to the questionnaire indicated that most companies vary the method of presentation.

No definite pattern of evaluation was shown. Four of the thirteen companies answering had no evaluation. Tests, reports, questionnaires to department heads, shop follow-up, and progress reports were mentioned by the others.

The questionnaire was not extensive enough to be statistically accurate. It was used as a means of classifying the data given by the companies polled. The programs and the subject matter differed widely. None of the companies polled had attempted to use the first year of training as an experiment to determine the policies to be adopted for future programs. This idea seems to have originated with Reynolds Metals South Plant.

Other Sources of Information

In addition to the questionnaire, training information was obtained from several other sources. The most interesting in relation to the program at the South Plant was that obtained from Ford Motor Company Assembly Plant at Norfolk, Virginia. Ford had had a situation similar to that at Reynolds when they established their
program in 1947. The experience, ability and past training of foremen varied, some having had twenty years' experience and some having had very little experience.

The following facts were mentioned during an interview with Mr. P. G. Barreis of the Ford Motor Company Assembly Plant:

1. The primary objective was to get a workable program started.

2. The first classes included both newly appointed and experienced foremen with the initial courses being on very practical subjects concerning procedure. The experienced foremen were told that it was felt by the company that information given the new foremen should also be given to the experienced men. Their comments and suggestions were invited during discussions. An attempt was made to make them feel that the program was not a belated effort to make them over, but was designed to give them necessary information.

3. Classes were on company time for foremen.

4. Trainees were required to attend classes on their own time.

5. All classes were of the conference type with movies, sound slides, and fly charts as aids.

6. No textbooks were used.

7. No set curriculum was used. Changes were made whenever management felt it necessary.

8. No full time instructors were used. Department heads or men from other plants were asked to act as instructors.

9. Subject matter was obtained from the company's central
training office, but the plant determined the order in which subjects were to be presented and added to or deleted from the subject matter.

10. Evaluation of the program had been extremely difficult. When asked about evaluation, Mr. Barreis stated, "Trends in merit ratings are followed closely to determine training needs, but are of little aid in evaluation of the program since experience improves ratings more than training." 8

The Federal Reserve Bank of Richmond was visited to determine how their training program was conducted. Mr. Brantley Watson emphasized the importance of participation to create and maintain interest. At the time of the interview, over a year had been spent in working with bank officials on a personnel manual. This manual was to be presented to department managers as a tentative draft, with suggestions invited. After suggestions had been discussed and acted on, the manual was to be put into use. Mr. Watson stated that in this way the manual would serve as the subject matter of the course and would also create interest. 9

South Plant foremen were asked what problems they thought could be solved by a training program. The subject was put on the agenda for discussion at a regularly scheduled foremen's meeting;


but there was little interest shown. After the subject had been discussed and the foremen realized that management wanted them to help determine the program subject matter, a few suggestions were made. Several foremen commented on the fact that, in the past, no encouragement had been given to put training material to practical use. One foreman asked that the labor contract be covered. Another when asked about training, commented, "We need it," but failed to respond when asked what subjects he needed.

The subject was put on the agenda for a second time. After leading questions from the plant superintendent, a desire was expressed for a knowledge of "how other departments work." Questions on taking up plant procedure brought the response, "We cover that in our foremen's meetings." The discussions showed that the foremen were not interested in a training program.

Search of Periodicals

This research was largely devoted to periodicals from 1950 to 1953. The articles selected discussed the following aspects of training:

1. Planning a new program.
2. Training methods and procedures.
3. Programs used by other companies.
4. Evaluation of training.

Perhaps the best article was that entitled "How to Start a Training Program from Scratch" which suggested that the following principles be followed when a new program was started:
1. Let the people involved help.
2. Enlist the "Active cooperation" of the trainees.
3. Never expect to finish the job.
4. Look at what others are doing.
5. Launch one project at a time.
7. Use a variety of methods.

This article, though in outline form, covered the subject adequately. Other articles made similar statements or gave methods for carrying out these principles. For example, the principle of the plant superintendent and the foremen co-planning the program was brought out in "Careful Planning Produces a Training Program That Clicks"\(^\text{11}\), describing a program at Armstrong Cork Company. Armstrong Cork Company found that a program which the foremen had taken an active part in planning had been successful.

The only successful program is one designed by a company to fill existing needs. This was emphasized in many articles. The Crosley Division of Ayco Manufacturing Company surveyed its foremen after several years of "professors, outside consultants, and staff members". The results were disappointing to management, for

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10. Murphy, M. J., "How to Start a Training Program from Scratch", Factory Management, 109, (June, 1951) pp 126-131

the foremen still expressed a desire for a true definition of their responsibilities. This article points out that Crosley executives are "...turning away from bargain counter programs and are making their own". 12

The objectives of the program described in the various periodicals showed considerable differences. Some objectives discussed were:

1. To increase morale of foremen. 13
2. To teach basic economics. 14
3. To increase foremen's capabilities as trainers. 15
4. To create supervisors' feeling of responsibility for their own development. 16

Over and over, the articles emphasized foremen participation, either as a stimulant to create interest or as an effective training device. For example, Motorola Inc., Chicago, divided its sixty foremen into teams of five men each, with each team selecting its own topics and conducting the training. The results created high interest and were quite effective. The subjects selected were

13. Ibid.
14. Ibid.
15. Ibid.
similar to other training programs and covered cost, company policy, waste, etc. The fact that the foremen selected and presented the program is the point emphasized in the article.\textsuperscript{17}

Only discouraging answers could be found to the question of evaluating supervisor training. Many articles can be found evaluating operator training, but the value of supervisor training appears difficult to determine. "It is difficult to evaluate in any sort of terms the benefits from any training program. Results are usually felt over a period of years and even then indirectly."\textsuperscript{18} Most articles profess value derived from supervisor training, but support the statement by opinions of training directors, superintendents or top management. Many others such as Croley Division of Avco have found the foremen themselves to be the best judges of the value of the program.\textsuperscript{19} "If you're going to demand concrete results in the form of so many facts learned, so many ideas applied in the mill and so much improvement in production...then you may be disappointed...Even if a foreman learned absolutely nothing, (which fortunately isn't likely) he still would have the knowledge that you had invested in his future...This alone would pay off."\textsuperscript{20}

\textsuperscript{17} Lambert, George, "Supervisors Train Themselves", \textit{Factory Management}, (December, 1949) pp. 102-105.


Summary of Information from Observations at the South Plant, Questionnaires, Search of Periodicals, and Interviews

The training committee had a peculiar problem to solve. Management desired a training program, but realized that much of the groundwork for such a program had not been done. It asked the committee to present a program while determining simultaneously the general training policies to be followed. The program, therefore, takes on many of the aspects of an experiment. "We will feel our way along" is the way the training committee expressed the idea in the minutes of its first meeting. The following chapters of this study summarize the program and evaluate the effectiveness of the first year.

At this point, a summary of the information about supervisor training as determined by the questionnaires sent out to other companies, by the search of periodicals, and by interviews with others connected with training is helpful. The job description shows that foremen had been given considerable responsibility, but that a great deal of their work depended on coordinating their efforts with those of the various staff departments. Foremen's meetings indicated a lack of appreciation for training.

Other companies have had a training situation similar to that at Reynolds. They created interest by foreman participation. Companies generally have designed their supervisor training programs themselves rather than follow programs established by other companies.
Objectives, therefore, have varied. Methods of training emphasized conferences, visual aids, participation, and other devices to create interest. In general, programs were flexible and, at the time this study was made, the companies polled planned to continue their supervisor training programs indefinitely. Industry, in general, has evaluated its supervisor training subjectively. No case of a really objective evaluation was found in periodicals, interviews, or answers to questionnaires.

The following chapters will indicate how the information obtained from the sources noted in this chapter aided the committee in carrying out its assignment.
Chapter IV
THE TRAINING PROGRAM

Class Schedule, Personnel Selected for Training and Facilities

Classes were made up of experienced foremen, new foremen and supervisors other than foremen. A typical class consisted of the following:

1 plant superintendent
1 quality control employee
2 production office schedulers (one from each plant)
1 personnel department employee
1 industrial engineer trainee
1 warehouse foreman
6 foremen (3 from each plant)
1 industrial engineer supervisor

Classes were scheduled for one hour once a week. Since fifty-two persons, some on the midnight shift, were included in the program, four classes had to be scheduled, three during the day and one at night. Classes were on company time. No hourly employees or union members were included. The comfortable, air-conditioned conference room had a long table which seated up to twenty. A blackboard, a stand for flip charts, and a movie projector were available.

The training program for the first year consisted of four
distinct courses, each having definite objectives. Each course was a complete unit. The attempt to create an appreciation for training was an over-all objective, but in other respects the objectives differed. The courses were:

1. The Union Contract and Labor Relations
2. Human Relations
3. Plant Organizations
4. Staff Departments.

Each course will be described in this chapter.

The Union Contract and Labor Relations

Objectives of this first course were:

1. To create interest in the program.
2. To develop a better understanding of the union contract and to learn to work efficiently within its limitations.

Little effort was needed to create interest in this subject since labor relations was a matter of prime importance to all supervisors. Further interest was created by obtaining an instructor from the labor relations division, then located in Louisville. The instructor, Mr. Carlton Best, was already known to the personnel of the South Plant since he had worked there prior to his transfer to Louisville. He had participated in negotiation of labor contracts for several years and could speak with the authority of one who was present when certain clauses were incorporated into the contract. The fact that the company was willing to go to the expense of
bringing Mr. Best from Louisville added to the prestige of the program.

Mr. Best was given a free hand in planning his discussions. He passed out copies of the contract and, taking one clause at a time, he explained it in detail. No effort was made to hold the discussion to definite time limits. All questions brought up were discussed freely and completely. This course, scheduled for one hour per day, took five sessions to complete. No blackboard, fly charts, movies, or training aids were used. The textbook was the contract. Each person made notes on his copy of the contract if he wished.

Members of the committee carefully observed the class for interest shown and for indications of other subject matter needed later on. Interest was high. There was no doubt that a subject close to each man had been chosen. No request to be absent was made by any foremen, and no extra reminders for attendance were needed.

Comments after class were all favorable. A few comments are noted below:

"We've needed this for a long time."

"I've always wanted to know how that clause got in there."

"Those temporary transfers are tricky."

"This is the first copy of a contract I've had since 1949. It hasn't been changed much."

The following conclusions were drawn by the committee:
1. Foremen were receptive to courses covering specific material useful to them.

2. An instructor from another city, if well qualified, increases interest.

3. A course on plant rules was definitely indicated.

4. A course on plant procedures was indicated.

**Human Relations**

Prior to the beginning of this section of the program, the chairman of the training committee, the training director and the leader of the series on "Labor Relations and the Contract" met together to plan the approach to be taken for the second series. The following was decided:

1. Emphasis would be placed on getting the men to talk and bring out their problems.

2. The conference method was to be used.

3. Classes would consist of the same personnel as in the first series.

4. Classes would be held one hour per week.

5. Notes would be made on this series to be used in future programs.

6. The basic need still existed to create real interest in a formalized training program.

7. The exploratory nature of the program was to be preserved.

With the exception of one class, this course on Human Relations was conducted by Mr. N. N. Noble, the company training director.
Additional information about this course is in Appendix III.

Mr. Noble began the first meeting by telling about his recent trip to the Reynolds Mining operations in Jamaica. The point was made that supervisors were being trained before operations were to begin. Various facts of interest about the company were brought out, with the leader emphasizing that, at each location he had visited in his brief service with the company, he had learned a great deal from the men in the plants. Mr. Noble then gave a brief history of his past experience and had each supervisor do the same.

As an incentive to "open up", he added the years of experience of the men, arriving at 217 years of accumulated experience as supervisors in the class. Instead of asking for their problems, the leader asked, "What makes some men good employees and others poor employees?" By leading the foremen in a discussion of this question, he obtained the problems the men encountered in their employees. These he listed on a chart. At the second session the items listed in all four classes were analyzed, showing they could all be reduced to the same basic problems. The list of problems was as follows:

1. Need for information to combat the idea that the company is making a fortune and can pay higher wages.

2. More and better job training for employees.

3. A lack of feeling of security among employees due to recent
layoffs.

4. Getting the men to want to do a good job.
5. Developing a realization of the value of materials.
6. The employee who demands too much attention.
7. Failure of employees to follow instructions.
8. Poor morale caused by changing the status of employees without warning.
9. Goldbrickking or loafing on the job.
10. Getting the employees to continue to follow instructions.
11. Employees unfit for the job.
12. Drinking on the job.

The second session was based on what the employee wanted from his job and showed how the problems were related to the employees' wants. For example, the foremen had recognized the problems created by a feeling of insecurity, so several studies were reviewed which put job security near the top of the list of what employees want from their jobs. The advisability of discussing the reasons for layoffs was emphasized. Foremen found themselves talking about how poor quality, poor delivery, bad packing, etc. could lose customers and lead to a layoff. They began to realize that they could use the desire for security as a strong incentive to motivate employees.

The conferences were skillfully handled. One of the men commented on how "we are using over 217 years of experience to figure these things out." The comments of class participants
showed interest had been created. During this series various pamphlets were made available to the foremen on a library loan basis through the personnel office. These ranged from company publications to small leaflets.

By the close of this series, interest in the program was well established. Questions were being asked about the next series.

The committee drew the following conclusions from the series:

1. An appreciation of human relations was definitely established by these conferences.

2. The foremen became interested in pamphlets, books, and information about the company. This indicated that a lack of communications existed between management and the foremen.

3. Foremen appreciated being heard and were not reluctant to participate in group discussions.

4. Human Relations were not adequately covered in this short course and must be covered more fully at a later date.

5. Since such interest was shown in the literature which was made available, a library shelf was indicated.

The training director issued a summary of the program to all participants at the close of the series. This summary is in Appendix III.

Plant Organizations

The experimental nature of the training program was continued in the third course. Each department was assigned a class period.
The chairman of the training committee discussed the course and explained that the following objectives were to guide the series:

1. Creation of a better understanding of the relation between staff departments and operating departments.

2. A broadening of the experience and knowledge of all foremen.

3. A determination of training policies for later programs.

Each department head was asked to confine his discussion to the work of his department. Each was given complete freedom in his methods of presentation, his selection of visual aids, his use of movies, and details of subject matter. The men were largely men of college training in their respective fields and were capable instructors. In addition, they had all attended the two former courses and were extremely interested in the program since it offered them an opportunity to create better relations with operating personnel.

The following departments were included in this series:

1. Personnel
2. Production Office, Plant I
3. Safety
4. Production Office, Plant II
5. Quality Control, Plant I
6. Metallurgy
7. Quality Control, Plant II
8. Personnel - Plant Rules
9. Accounting
10. Industrial Engineering
11. Maintenance
12. Training

A tour of each plant was conducted by the respective plant superintendents to complete the course.

The personnel department used its forms as a basis for a discussion period. Each form was explained in detail. The discussions began with the foreman's request for personnel and proceeded through the application blank, medical forms, union cards, insurance papers, time cards, transfer slips, complaint slips, and finally, layoff notices. The personnel manager took this opportunity to emphasize that the foremen were responsible for many of these forms.

The Plant I production office followed the planning necessary to produce an order. Standard order procedure was discussed, followed by the procedure necessary for non-standard items, rush orders, and orders held up for credit. A dittoed outline was passed out and charts were used as training aids. Interest was very high since meeting schedules was a difficult problem for all foremen.

Safety was taught with the aid of charts showing accident rates in various plants and in various companies. Reynolds Metals top management reports were used as training aids.

The Plant II production office representative used charts showing how metal inventory records were maintained and followed
through the plant. The inventory sheet was explained and it was shown how the quality of each size and type of reroll coil was recorded.

The quality control engineer followed company complaint procedure to illustrate the work of his department. Large flow charts were used to follow the steps taken to satisfy a complaint.

The plant metallurgist used a company movie, "The Shape of Things to Come", which showed extruding and sheet rolling operations. This was followed by a discussion of the current metallurgical projects now under study in the South Plant. Those studies were on a company-wide basis with each plant having a portion of the project assigned to it.

Plant rules were discussed by the personnel manager using copies of the rules as a guide. The procedure was similar to that used for the labor contract, emphasis being placed on the events that made each particular rule necessary. The need for this discussion had been shown during the course on Human Relations.

The plant superintendent of Plant II had a short discussion period followed by a plant tour. A plant layout was distributed along with sheets showing what item was running on each mill and each spooler. Plant II foremen who were attending the classes assisted in the tour when their respective departments were visited. The tour of Plant I was conducted in a similar manner except that each department foreman explained the operation of his department to the group.
The accounting department representative went into detail on the fine points of producing a cost card. This is the only department which was believed to have had too technical a discussion.

Industrial engineering had been in operation only three years. Here was an excellent opportunity to explain its functions since this had been one of the most misunderstood departments in the plant. The plant industrial engineer explained how standards were used to determine prices, to evaluate new processes, and, incidentally, to judge the efficiency of the various departments.

A gratifying by-product of the session conducted by the plant engineer on maintenance was a better understanding of the difficulties encountered when scheduling maintenance work. This session was conducted as a conference with the plant engineer asking the question, "How can we do a better job of maintenance for you?" A tangible result of this conference was a weekly maintenance priority list kept up to date by the plant superintendent and distributed to each foreman. It scheduled the larger maintenance jobs.

The course was concluded with a conference conducted by the chairman of the training committee asking, "What do you think of the program so far and what can we do to improve it?" A questionnaire was given out evaluating the series on Human Relations and asking for a vote on subjects for the 1953-54 program. The results of this questionnaire are shown in Appendix IV.

The training committee felt that the following had been indicated by the series on Plant Organizations:
1. Qualified plant personnel made excellent discussion leaders.

2. Better understanding of plant departments had been created.

3. Foremen participation had increased during this course, but more training was necessary for real conference participation.

Staff Departments

The fourth course consisted of a one-hour session conducted by men from each of the following departments of the company:

1. Sales
2. Products and Applications
3. Development Laboratory
4. Purchasing
5. Personnel (Salaried)
6. Traffic
7. Payroll
8. Public Relations

The men who conducted this series of classes were high in their respective departments. They were allowed complete freedom in both subject matter and method of presentation, the only request being that they confine their discourses to work done by their own departments. Aside from the general aim of creating interest in the program, the only other objective was to increase the foremen's knowledge of their company. There had been no direct contact
between the operating departments and those company-wide organizations.

Most of the classes were of the illustrated lecture variety with questions and discussion. Since the men leading the classes were all accomplished public speakers, this form of presentation was satisfactory. The foremen participated very well, but not to as great an extent as in the course on Plant Organizations.

The training committee's conclusions were as follows:

1. Company officials, although they were better speakers, were not as effective as men who worked in daily contact with the foremen.

2. The type of program represented by this course is of interest to only about 50% of the training program participants.

3. The direct value of this course cannot be measured. The committee simply does not know whether it was worthwhile or not. It did not have negative value, so it must have been worth something.
Chapter V
EVALUATION OF THE PROGRAM

The Difficulty of Measurement and Evaluation

Measurement and evaluation of results are the most difficult aspects of supervisor training. Neither questionnaires sent to other companies nor a search of periodicals showed a good, objective method for evaluating a supervisor training program. The experimental nature of the program described in this paper added to the difficulty. The training needs recognized by management were of a general nature, extremely hard to measure objectively. These needs, discussed previously in Chapter II, are listed below:

1. To improve the attitudes of supervisors.
2. To create a better understanding of the relation between staff departments and operating departments.
3. To develop a better understanding of the union contract and how to work efficiently within its limitations.
4. To broaden the experience of younger foremen.
5. To create an appreciation of formal training.

The problem facing the training committee was to determine whether definite value had been derived from the program and to measure the improvement due to training. No suitable method of measurement of the benefits of the training program could be found, so the committee had to rely on subjective methods. Three methods were used—a questionnaire to trainees asking their opinions, random
interviews with trainees, and interviews with various members of plant management. The training committee gained more information from the random interviews with trainees than from the other two methods used. No attempt was made, however, to tabulate the results of the interviews. Notes were kept and discussed at various training committee meetings. An evaluation was made of each course. The conclusions drawn were listed in the chapter on "The Training Program".

Evaluation by Class Participiants

As an aid to evaluating the program, questionnaires were distributed to the trainees. These are shown in Appendix IV with a tabulation of results. The questions were not designed to measure the amount of knowledge gained, but to get the opinions of the trainees on the value of the course. The questionnaire on The Union Contract and Labor Relations was distributed by company mail with a note requesting its return. Only eleven were returned. The committee members asked several foremen why they had failed to return the questionnaires. Various excuses were given. Interviews were used to supplement the results of the questionnaire. All foremen questioned stated that the program was worthwhile and that it would help them in their jobs. Most stated that they wished the course followed with classes on plant procedures and practices. Such unanimous approval of the first course was gratifying to the training committee.
The questionnaire on the course on Human Relations was distributed at a regular training session. Each question was explained and time was allowed for the answer to be filled in. This procedure proved much more satisfactory than distribution by company mail.

All questionnaires were returned and only four had incomplete answers. Forty-five of the forty-seven answering stated that the course had been of value. The question on whether any human relations problems were solved showed only four stating "definitely", forty-two stating "of some help, but not an entire solution", and two stating "didn't help me at all". This would indicate that to most of the trainees the course on Human Relations had fallen short of its goal. This was brought out in conversations with trainees who seemed to have difficulty connecting theory and practice. Case studies were indicated to overcome this difficulty.

The conference leader in his report to the training committee stated, "We all recognize that our discussions served more to bring up problems than to find solutions..." These notes are in Appendix III.

The same procedure of passing out the questionnaires and helping the trainees fill them in was used after the course on Plant Departments. All answers indicated that the program was of value. In this questionnaire each participant was invited to make any comments he wished. These comments indicated that foremen wanted more specific information on how to do their jobs. The entire list of comments is in Appendix IV along with a tabulation of the answers.
No questionnaire was used after the course on Staff Departments. In conversation with trainees the committee found mixed reactions to having departments such as sales or accounting explain their functions. The chairman of the training committee took a vote on this at a later class and found 55% in favor of "outsiders" explaining their duties and 45% against having such courses. Such a large percentage of trainees who felt the course was not of value indicated that such courses should be eliminated from future training plans.

Interviews With Management and Department Heads

An attempt to evaluate the program was made by informal interviews with plant management and various department heads. Comments were all favorable, but not specific. The plant manager stated that the program was definitely valuable and that he had heard very favorable comments about it. The assistant plant manager stated that the first year's program had done some good, but that he did not believe anyone could say how much.

The plant superintendent of Plant I noticed a decided attempt by the foremen to appraise their labor problems in terms of the explanations given in the course on the Union Contract and Labor Relations. At least two difficult situations concerning seniority were settled at foreman level. There has been a much better spirit of cooperation between foremen and the various departments of the plant.
The Plant II superintendent stated that better morale had been created by the program. He believed that the program had shown each foreman the importance of his job and had convinced him that the company recognized that importance.

The plant industrial engineer commented favorably on the program. When asked if he felt that his job was made easier, he replied that he was sure the men understood the functions of industrial engineering better now than they did a year ago. He felt, however, that a good bit of the accounting detail had been "over their heads".

The personnel manager, who is also the labor relations representative, pointed out that there had been a very decided improvement in labor relations. He had no way of determining what percentage of the improvement was due to the training. The plant had had a very stable labor force with few layoffs or new hires. There had been a definite reduction in complaints by the union, but again there was no way of determining the credit due the training program.

One foreman who had over forty years of experience was asked what he thought of the program. "It's bound to do some good" was his answer. He went on to say that no "cut and dried" rule could be given a foreman on how to run a department, but that the information given in the program could be used by any of the men to help him do his job more efficiently. He felt that the program should be continued and the courses repeated every few years. This foreman's commendation was particularly significant in the evaluation
of the program, for, when the program was first announced, he frankly stated that he doubted the value of a formal training program.

Comments from other department heads were similar to those noted above. Each one believed the program to be worthwhile, but each also pointed out that the improvements of the past year were due to many factors and the part played by training could not be ascertained. The consensus of opinion was that the training program should be continued.

Evaluation of the First Year of Training

Since the courses varied in objectives and subject matter, the committee evaluated each course separately. No attempt was made to make a statistical analysis of results of the questionnaires or to tabulate the answers to questions asked in interviews.

All comments on the course on "The Union Contract and Labor Relations" were favorable. One foreman was particularly impressed by the fact that emphasis was based on past precedent and what the foreman was expected to do rather than on the actual wording of the contract. Another commented, "I've always wondered why the thirty-day clause was put in on temporary transfers." This showed he appreciated the explanation of the practice that had led to negotiation of that clause. The actual value of this course will be shown by the labor relations of the years immediately following the course.

The course on Human Relations was very difficult to evaluate
since it was more an exploration into foremen's problems than a course to solve their problems.

For example, one foreman asked about company policy concerning a man who apparently drank on the job, but masked the alcohol on his breath with chlorophyll tablets. He wanted to know how far he could go in accusing this man who carefully remained sober enough to do a satisfactory job. Many foremen brought up specific cases pointing out that they needed explicit information about "how far I can go". Many interviews which started as evaluation of the training program ended in a discussion of a particular problem. Three troublesome employees were dealt with satisfactorily after these interviews. One was the drinker previously mentioned; one was a man who complained when it was necessary that he be transferred to another department; the third was one who constantly found fault with his fellow workers. None had to be discharged and no labor problems were created. Such specific results indicated that the program was of definite value. However, measurement of that value appears difficult.

The course on Plant Organizations was considered by the committee to be the most helpful course presented. Everyone who was questioned stated that the course had been valuable and pointed out details to illustrate the value gained from the course. One foreman rechecked his direct and indirect labor and found one man charged incorrectly. Another foreman in requisitioning men specifically stated that work was available for only nine months. He had not
realized before that such a notation on his requisition would aid the personnel department in their selection and would be passed on to the applicants. Many expressed a new understanding of the problems of the various plant departments. There has been a decided improvement in the foremen's attitudes. They now realize that each department has a definite function to perform and that they can help the various departments perform those functions.

The course on Staff Departments created interest among the foremen, but comments were varied. Certain speakers were praised, but the value of the course could not be determined. Interviews showed interest, but did not indicate specific benefits derived from the lectures. This was to be expected since the primary objective of the course was to broaden the knowledge of the foremen.

The first year of training appears to have been worthwhile. Management was satisfied with the results. Criticism of the first year of training was largely constructive. Praise was lavish and, for the most part, sincere. The training committee concluded that the program had been a success.
Chapter VI

CONCLUSIONS DRAWN FROM THE PROGRAM

General Discussion of the Program

In Chapter III the minutes of the training committee meeting were quoted and included the following items:

"The biggest problem is to create interest in the training program...The first four series will be done without a pre-determined plan. We will feel our way along..."

These statements point out the nature of the program. It was not planned to be a scientific determination of the best program. Its primary aim was to create interest in training, and "we will feel our way along" set the policy for advance planning. No studies were made beforehand; no close control was exercised over instructors or subject matter; and no objective evaluation was made. The program appears to be found wanting as a scientifically designed method for training. Yet the opinion of the plant management is that the program was a success in that it created interest, improved the attitudes of the foremen, and had a definite effect in bettering conditions at the plant.

There would be no value in attempting to derive statistically accurate conclusions from the evaluation of the program. It must be examined by the same criteria which the committee had in mind when the program was originated. Did it create interest? What could the committee learn from observing the program? What policies did the program indicate for future training programs at Reynolds South Plant?
This rather unsystematic approach would have caused difficulty with any other form of training organization. At Reynolds South Plant the training committee was composed of top plant management, the same men who determined foremen responsibilities. These men also completed merit rating forms, set policy on personnel procedures, received reports on efficiency and performed the other functions of management. They were, therefore, well qualified to evaluate training in the normal conduct of business. This form of organization eliminated much of the necessity for meetings and reports. Fortunately, the plant was small enough for plant management to take an active part in training. The committee was represented at each class by one or more members and, therefore, received first hand information.

Analysis of the Program in Relation to General Training

Principles

A good training program must fill a need for training. The needs of Reynolds South Plant were pointed out in Chapter II and were as follows:

1. To improve the attitudes of supervisors.
2. To create a better understanding of the relation between staff and operating departments.
3. To develop a better understanding of the union contract and how to work efficiently within its limitations.
4. To broaden the experience of younger foremen.
5. To create an appreciation of a formal training program.

These needs are very general. This led to very general objectives and a program very difficult to evaluate objectively. While the needs were real and quite obvious to the committee, they should have been reduced to more definite terms in the planning of the training program. For example, the ways in which the attitudes were reflected in the daily work of supervisors should have been examined.

Plant I, the converting plant, was using foil from Plant II, the rolling mill. Plant I personnel were critical of the quality of that foil. This was a definite criticism and the program could have been designed to show that aluminum foil rolled in Plant II is of average or above average quality. Late deliveries of foil caused hardships on Plant I personnel. The program could have been designed to correct the late deliveries or to explain them adequately.

These examples show that the needs could have been better defined to lead to a clearer statement of objectives and to a program which could fill the needs more quickly. Class participants criticized the fact that the program was too general and asked for discussions on specific problems. This has led to a decision for a more detailed program in the future.

A good program should maintain the interest of the employees being trained. In the situation described in this paper, appreciation of training was made one of the objectives of the program. This was difficult to measure, but the opinion of the committee was that this
aim was achieved. Supervisory personnel has not only accepted training as company policy, but has realized that it can be a real help to them. Although many suggestions have been offered about future programs, no one has suggested that training be discontinued.

The principle that the program should be acceptable to management certainly caused the committee no concern. The approval of management was automatic since the various aspects of the program were approved by management sitting as a training committee. This form of organization served very well, especially since the company training director attended each training committee meeting. Its big disadvantage is the possibility that more immediate problems may crowd out proper planning. The advantage of quick decisions, overall knowledge of plant needs, lack of the necessity for reports and approval of plans, and the automatic approval of management make the committee organization desirable where the circumstances allow its use.

Proper evaluation is essential to a training program. This was perhaps the weakest aspect of the program at Reynolds South Plant. Evaluation was purely subjective. While it is true that management, having made the evaluation itself, is satisfied with the results, an objective evaluation should have been made. Lack of detailed planning made objective evaluation impossible and, therefore, plant management does not know how much has been accomplished by training. The committee has not shown which methods of presentation are best, which nine classes are best, which type of instructors is best. No facts nor figures can be shown to justify the expenditures for equipment. Any belated attempt
to measure these factors would fail since proper evaluation depends on detailed planning prior to the presentation of the program.

There would have been disadvantages to an objective evaluation. It would have been time-consuming. The men who were being trained were experienced supervisors who would have resented quizzes and experiments unless complete and detailed explanations were made to them. Another disadvantage would have been the formality required for accurate statistical evaluation. Keeping all factors constant except the one being evaluated would have stifled the program to some extent. The instructors and subject matter would have had to be carefully controlled. This would have been difficult in the Reynolds program since the instructors had to take time from their regular work to prepare and present their part of the program.

A more scientific evaluation was discussed at several committee meetings, but was decided against because the committee felt that the disadvantages outweighed the advantages.

Value to Reynolds Metals Company

In 1952 continuous organized training was now to Reynolds Metals Company. The policy was to allow the plant relative freedom with the central training department supplying help when needed. The program was closely followed by the training department, as were programs at other plants. Due to the policy of allowing each plant to decide its own training program, the actual program material was not to be used elsewhere. The principles established have been of value. Several persons
from other plants have attended the classes and reviewed the program. Correspondence has been used to exchange ideas between plants. The training director has noted the desire for more detailed information on the part of foremen and the corresponding need for more detailed subject matter in training programs.21

Training Policies Established at Reynolds South Plant

The training committee listed the following policies which were indicated by the first year's program, by a search of current periodicals, and by contacts with other companies having supervisor training programs. The policies, with some ways in which they were to be carried out, were listed by the committee as follows:

1. Be specific and detailed in planning, in establishing objectives, and in selecting subject matter. Actual management reports were to be covered in the first series of 1953. Plans included a study of actual cases which had come to the attention of labor relations. This policy came about as a result of requests by class participants for a more detailed or specific problem.

2. Have a continuous program. The continuous nature of the program was to be stressed to all trainees.

3. Have more participation. Foremen had participated in discussions. They had helped select subjects for the second year (see

21. Noble, H. H., Personal Interview, November 17, 1953
questionnaire in Appendix V). Training in conference participation was needed for more successful conferences. A tape recorder was purchased to aid in this training, and one member of the training committee has attended the National Foreman's Institute on Conference Leadership.

4. Use a variety of methods. Movies, conferences, tape recorders, skits, pamphlets, and case studies are planned for the future.

5. Plan only one course at a time. Many factors make it difficult to plan more than six months in advance. A change in company policy, a new labor contract, excessive costs, or a request from the foremen themselves can indicate the subject matter to be covered. It was resolved that one course should be in progress before the next was planned.

6. The committee type of organization was to be continued.
Chapter VII
AN EVALUATION OF METHODS USED TO SET UP AND EVALUATE THE PROGRAM

In previous chapters it was pointed out that the first year of training was considered to be an experiment with the primary objectives being creation of interest and determination of training policies. Perhaps some value can be gained from an appraisal of the program by asking the following questions: (1) Was the proper program presented? (2) Could an objective evaluation have been made? A critical appraisal of the program is necessary to answer these questions.

The training needs were established at the first meeting of the training committee. No studies were made; no reports were analyzed; no records were reviewed. At the same meeting the areas of training were chosen. These were labor relations, human relations, plant departments and staff departments. The program was set up very quickly with very little information made available on which to base decisions. This does not mean that the needs established were non-existent nor that the areas of training were the wrong ones. Since the committee consisted of men who are in daily contact with the foremen, the committee undoubtedly stated real needs. The committee, however, cannot be sure that the most pressing needs were selected. They had nothing but their own opinion to justify selection of the areas of training.

The same criticism can be made of the evaluation of the results
of supervisor training which was more a statement of opinion than an evaluation. On several occasions the matter of a more scientific evaluation was brought up at committee meetings, but in each case the idea was discarded as unnecessary. The majority of the committee felt that the daily contact of committee members with the trainees was sufficient to evaluate results.

The committee later recognized the impossibility of objective evaluation. This is indicated in Chapter V where it is pointed out that "no suitable method of measurement of the benefits of training could be found ...." It was also pointed out that the course on Human Relations "was more an exploration into foremen's problems than a course to solve their problems." "... The value of the course could not be determined" was used concerning the course on Staff Departments. In Chapter VI the first policy listed by the committee was "Be specific and detailed in establishing objectives and in selecting subject matter...." The training committee thus recognized the very general nature of the first year of training.

The comments made by the foremen show the lack of detailed planning. Some of the comments were as follows:

"Series too general- should be more specific."

"We shouldn't have to listen to long drawn out talks on systems, but to problems that need to be solved or have been solved...." Other similar comments are in Appendix IV.

The weaknesses of the program can be summed up as follows:
(1) Lack of detailed planning which led to a general program based only on the personal opinion of the committee members.

(2) Lack of objective evaluation.

This does not mean that the program was without value. Chapter V shows that both the participants and management believe it was worthwhile. It does mean that no one, including members of the committee, will ever know how much good was done by training or how much more value could have been derived from equal cost and effort applied on better planning and less training.

There is a good possibility that the basic weaknesses of the program could have been minimized. More detailed planning would have led to more specific objectives which could then be evaluated in relation to specific needs. Several methods of determining needs could have been used to aid the committee in its decision.

Both training needs and evaluation could have been based on merit ratings. Two needs stated in the minutes of the first training committee meeting would have been evident from merit ratings. These were:

1. To improve the attitude of supervisors

2. To create a better understanding of the relation between staff departments and operating departments.

If these needs were obvious enough to be selected by the committee, they certainly would have appeared as low ratings on merit rating forms. This is doubly certain since the committee was composed of
the same men who would be responsible for merit ratings. Just as these items would appear as low average scores prior to training, they would appear as improved scores following an effective training program.

A second method of determining needs could have been a study of management reports such as the variable budget, labor and scrap efficiency reports, and the report on cost of goods manufactured. The size of the variances would have indicated training needs. A program to reduce the variance between scrap reported and scrap baled was conducted in 1951. Accounting records indicated that some items of scrap were not being reported. The procedure used by the accounting department was explained in a series of foremen's meetings and a more exact procedure was developed. The result was virtual elimination of the scrap account variance. Actual reduction of losses due to scrap was an objective of training following the program for 1952-1953 which is outlined in this paper. Scrap efficiency rose over ten percent in the months following this course. The committee knows the value of the course on scrap reduction from management reports. If management reports had been used to determine original training needs, an improvement in the items shown on the reports would indicate the value of training, provided other factors remained relatively constant.

A third method the committee could have used to determine training needs is one that has been used at other Reynolds plants. The training director and plant management develop a questionnaire which
will indicate training needs. Each foreman is interviewed by a
member of the central training department of the company. In the
course of the interview the questions are asked and the answers are
noted along with comments made by the foremen. The interviewer
tabulates the answers and condenses the comments into a single
report to management. A similar interview is used at the end of the
training program to evaluate the results. This procedure has been
used where persons unfamiliar with the abilities of the individual
foremen are conducting the training.

Conferences with the prospective trainees could have been used.
A skillful conference leader could have developed answers to such
questions as "What problems do you have with employees?" or even
"What part of your job has been the most difficult during the last
month?" Very successful conferences were conducted at the South
Plant during 1953. One such conference was held to determine methods
of reducing the warehouse space necessary to operate the plant so as
to eliminate an outside warehouse. The conference began with a un-
animous statement from the foremen that reduction of required ware-
house space was impossible. Further discussion developed a proposed
method. Later conferences which included employees from the inventory
control department and industrial engineering determined the details
of a procedure for reduction of inventory. The result was a saving
estimated at over ten thousand dollars for 1953. In this example
a problem evident from management reports was presented to the foremen.
The need for education in coordinating efforts to reduce inventory was
realized by the conference leaders. No formal training program was outlined, but the method used to fill the need was training nevertheless. An actual value can be shown which was derived from the training.

The methods discussed above could have been used in addition to the judgment of the training committee members. Actually no single method for determining needs is best. Many procedures are available and usually the method used to determine needs will also serve as a good method of evaluation.

There is one other criticism which can be made of the first year of supervisor training at Reynolds South Plant. There was a tendency to think of training as consisting only of the weekly training classes. Plans should have included a follow-up in the plant or at least discussion on the application of what was learned. In the normal course of everyday contacts each foreman was receiving training. Without planning to do so the committee recognized this fact when it included those who work with foremen in the program. Original plans did not include shop follow-up as a method of training. Evaluation did not include a tabulation of the situations where training had improved the way the situation was handled.

An example will illustrate this point. Due to a government contract, a group of new men were employed. The plant superintendent had several talks with the foremen involved concerning the fact that, after thirty days, the new men would become members of the union and would be presumed to be satisfactory. This was an excellent opportunity
for the plant superintendent to remind the foremen of the clauses in the contract since the subject had recently been discussed in training classes. In fact, the superintendent was probably more aware of the problem since he too attended classes. Three undesirable employees were dismissed. Had the supervisor training program not been conducted, these men may have been kept past the trial period when attempts to dismiss them may have caused serious problems with the union. Actually this was training. Plans for both training and evaluation of training should include normal plant activities. Programs presented in 1953 and 1954 included follow-up, showing that the committee recognized its value.

Supervisor training for 1952-1953 at the Reynolds South Plant can best be described as a series of courses presented on the basis of the experience of the training committee. No studies were made to determine needs or to classify needs as to their relative importance. No studies or statistics were used to evaluate results. There are ample records which indicate improvement in plant operation. The committee believes the improvement was partly due to training but has no way to prove that fact. The program for 1953-1954 was much more specific and was designed to fill definite needs.
Appendix I

JOB DESCRIPTION FOR FOREMAN

The following job description was made by the training committee.
It was used as a guide in developing the supervisor training program.

Job Title = Foreman

Description of Duties:

1. Directly supervises department and workers.
2. Requisitions necessary materials from warehouse.
3. Requisitions maintenance, but does not supervise maintenance men.
4. Suggests and assists in studies concerning alterations of equipment to improve production or products.
5. Follows and reports on practical manufacturing aspects of experimental work, but does not make final decisions.
6. Trains new employees.
7. Does not hire, but has sole responsibility for acceptance of new employees during thirty day trial period.
8. Makes production reports, checks time cards, and makes other routine reports.
9. Passes on quality of production on basis of tests run by Quality Control in matters of quality.
10. Must interpret and correctly follow production orders.
11. Schedules department on the basis of a weekly schedule from the production department, advising when schedule cannot be met.
12. Fills out "Requests for Personnel" or "Change of Status"
13. Directly responsible for adherence to terms of the labor agreement.

14. Handles grievances and refers them to superintendent if he cannot settle them at foreman level.

15. Disciplines workers within terms of contract.

16. Responsible for plant rules being followed.

17. Sees that plant procedures are followed in his department.

Mental and Personal Requirements:

1. High School education or equivalent.

2. Ability to direct activities of others.

3. Ability to accept responsibility.

4. Must be above average in ability, i.e., a man who would have "made college" had he gone.

5. Must know and have working knowledge of labor contract, grievance and complaint procedures.

6. Must know product specifications including aspects of product not written in specifications.

7. Five years' experience in plant is considered necessary to acquire skills.

Skill:

1. Must understand operation of equipment, preferably be able to operate equipment in his department.
2. Must know the "feel" of raw materials, i.e., be able to note defects, errors in marking, or errors made by warehousemen.

Effort:

1. 75% of time is spent standing.
2. No labor is involved.
3. Forty to forty-eight hours per week.
4. Regular attendance is of primary importance.

Responsibility:

1. Value of product produced or handled = $10,000 to $50,000 per day. Spoilage of total amount unlikely.
2. Safety of men.
3. Quality of product as related to adherence to specifications and customer requirements.
APPENDIX II

SUMMARY OF QUESTIONNAIRES TO OTHER COMPANIES

In order to see what other companies were doing in supervisor training, the questionnaire shown in Figure I was sent to thirty companies. Only thirteen companies answered and many questions were qualified. The replies are summarized below.

Question 1- Twelve of the thirteen companies had supervisor training programs.

Question 2- Two programs had been in progress less than two years, three had been in existence from five to ten years, and two companies had had long established programs.

Question 3- Only one company originally set up separate programs for experienced and trainee supervisors. Twelve had them in the same classes or had special introductory courses for new supervisors.

Question 4- Answers show that nine companies had continuous training programs, three had intermittent training programs, and only one had put on a one-time program.

Question 5- This question on how interest was initially created was very important to the committee who believed that the benefits gained from Reynolds Metals program would be in direct ratio to the interest created and maintained in the training program. Some of the answers are quoted below. Many of the methods
were used in the program at the South Plant.

A. "Mostly by personal contact in the plant."
B. "Discussing individual problems."
C. "Having them suggest course material."
D. "Previous interesting conference with full foremen participation. No canned material."
E. "Have them help to develop and build a Procedure Manual which they know they would have a copy of and would be governed by the accepted procedures developed in a series of conferences."
F. "Invited their participation in formulation of manual for supervisors and solicit their thoughts and ideas for special programs."
G. "Their entire position was redescribed and given proper consideration of its place in the organization and our objectives clearly stated."

Question 6- Eight companies had from one to two hours per week of training for supervisors, four had a varied amount, and one gave a full forty-hours of training in one week.

Question 7- Seven companies had one-hour classes, four had classes from one to two hours long, and one reported five-hour sessions.

Question 8- This question on the method in use showed the conference method was used most, averaging over 55% of the total of all methods. Visual aids were used by most companies to a varying degree. The lecture method was in limited use. No company reported more than
15% of their training by this method. Only two companies showed
trainees removed to a separate place for training. Answers, notes
and letters show that this question was difficult to answer when a
varied, flexible program was offered. Some checked all methods,
others added notes of explanation.

Question 9- Of the companies polled, seven had full time
instructors, and six used part time instructors or assigned instruct-
ing as additional duty for existing personnel.

Question 10- This question pertained to the evaluation of the
program. Four reported no method of evaluation. Seven used tests
for evaluation. Questionnaires to department heads were used in five
cases and analyses of reports in five cases. Other methods of eval-
uation mentioned were shop follow-up, foreman evaluation, question-
naires and progress reports.

Question 11 and 12- These questions were included to determine
the extent of control of subject matter by central training offices.
Eight reported that material was supplied by both the training office
and the plant, four reported by the training office only, and one
stated that all material came from the plant.

Question 13 and 14- Wide variations ranging from all "practical"
to all "general" were noted. The only conclusion drawn here was that
subject matter varied according to each company's needs.

Question 15- All companies polled showed that classes were on
company time, with three noting that classes were also on employees'
time.
Question 16- Six companies used quizzes, four did not, and two reported quizzes sometimes used. One did not answer this question.

Question 17- Only four of the thirteen answering companies used textbooks.

Question 18- All companies gave out printed matter before, during, or after class.

Question 19- Twenty-five was the highest number in classes with about twelve being usual.

Question 20- This question on the method of presentation preferred must be considered along with question eight on the method in use. The poll showed the conference method preferred by an overwhelming majority. Many companies noted that programs having class participation were also popular.

Question 21- The number of hours per course could not be ascertained by the replies given.
QUESTIONNAIRE
(Appplies to supervisor training only)

1. Do you have a supervisor training course at your company's plants? ________

2. How long have you had it? ________

3. When you started the program did you train new and old supervisors under the same program? ________

4. Is it continuous or a one-time program? ________

5. How did you create interest among old and experienced foremen? __________________________________________________________________________
____________________________________________________________________________________
____________________________________________________________________________________

6. How many hours per week? ________

7. How long is each session? ________

8. Show percentage of program presented by each method listed below. Show none if method is not used.
   A. Conference ____________
   B. Movies ____________
   C. Other visual aids ________
   D. On job training ________
   E. Lecture ____________
   F. Handouts and pamphlets ________
   G. Formal schooling ____________

Figure 1
II. Man removed from job to separate training school away from plant ______

I. Other (Please state method) _____________________________

J. " " " "  _____________________________

K. " " " "  _____________________________

9. Do you have regular instructors who train as their solo duty? ______

10. Do you have any method of evaluating your training program? ______

Please check method below.

A. Tests ______

B. Regular questionnaire to department heads ______

C. Statistical analysis of absentee, production, scrap and other reports __________________

D. Other (State method) _____________

11. Is subject matter distributed by the central office? ______

12. To what extent can local plants add or take from material sent by central training office?

13. What percentage is practical subjects such as "How to fill out production reports," "Plant Rules," "Safety," "Fire Prevention," etc? ______

14. What percentage of your supervisor training program is of general nature such as "Improving Morale," "Coordination and Control," "Line and Staff Organization"? ______

15. Are classes on company time or employee time? ______
16. Do you give quizzes? ____

17. Do you use textbooks? ____

18. Do you distribute any printed matter before or during classes? _________

19. How large are classes? _________

20. Have your supervisors shown preference for certain methods of presentation and what are they? ________________________________

____________________________________________________________

21. How many hours instruction in each course? _______
APPENDIX III

TRAINING PROGRAM DATA

This appendix includes class schedules for the courses on Plant Organizations and Staff Departments. Also included is a summary which was sent to the class participants after the course on Human Relations.
SCHEDULE OF CLASSES FOR THE COURSE ON PLANT ORGANIZATIONS

January 5 & 6 - Personnel Department
January 12 & 13- Production Office, Plant I
January 19 & 20- Safety
January 26 & 27- Production Office, Plant II
February 2 & 3- Quality Control, Plant I
February 9 & 10- Metallurgy, Plant II
February 16 & 17- Quality Control, Plant II
February 23 & 24- Plant Rules
March 2 & 3- Plant II Operations and Tour
March 9 & 10- Plant I Operations and Tour
March 16 & 17- Accounting
March 23 & 24- Industrial Engineering
March 30 & 31- Maintenance
April 6 & 7- Training
SCHEDULE OF CLASSES FOR THE COURSE ON STAFF DEPARTMENTS

May 7 & 8—Sales
May 11 & 12—Products and Applications
May 18 & 19—Development Laboratory
May 25 & 26—Purchasing
June 1 & 2—Personnel (Salaried)
June 15 & 16—Traffic
June 22 & 23—Payroll
June 29 & 30—Public Relations
HUMAN RELATIONS

GENERAL NOTES

Six Sessions—November 11 through December 16, 1952

Supervisory Program

South Plant, Richmond

These notes are compiled from the sessions with all four
groups. It is hoped they will give each member of super-
vision some concrete reminders of the discussions. Some
of the topics that were discussed may also point to future
discussions.

I. WHAT PROBLEMS DO SUPERVISORS HAVE WITH PEOPLE?

We asked ourselves what our most common problems were in work-
ing with employees under us. Here is the list:

- Getting employees to follow instructions
- Handling grievances (real and imaginary)
- Absenteeism
- Gold Bricking
- The employee who gives up too easily
- Getting employees to produce to their best ability
- Handling the employee who demands unnecessary personal
  attention
- Combating the feeling of lack of security among employees
Getting the best training for employees
Getting employees to realize the value of materials
Getting the employee to follow through on instructions
Handling the employee who is wasting time
Getting the employee to take pride in his work
Handling the employee who is constantly complaining about the job
Handling the employee who covers up mistakes

II. WHAT ARE EMPLOYEES LOOKING FOR?

In trying to find solutions for employee problems we felt we should first find out what the average employee is looking for on the job. Here is what we felt most people wanted:

- A fair wage
- Security
- Good working conditions
- Opportunity for advancement
- Fair treatment
- Feeling that the job is worthwhile
- Recognition as an individual
- Recognition for a job well done
- Good fringe benefits
- Information about the company
- Information about how he stands
- Friendly associations with other employees
Pride in the company and in the product.
Good supervision
Knowledge of how to do the job the best way
Being held up to a high standard of work

III. HOW CAN WE TAKE CARE OF THESE EMPLOYEES NEEDS AND BUILD A TEAM?

We agreed that it was necessary to satisfy employee needs. We felt that these needs were the same as our own. We also agreed that if we could satisfactorily take care of our employees in this way we would be taking a great step toward building a cooperative employee team.

In order to accomplish this purpose, we felt that it would be necessary for us to have:-

- As complete information as possible, ourselves
- Efficient, well-run staff meetings
- A cooperative spirit among supervisors
- Good leadership ability ourselves

As we discussed a few of our specific problems with our employees and our methods of handling them, we found there was a need for all of us to:-

- Try to search out information
- Think of the group as well as the individual employee
- in planning our approach to employee problems
In handling specific problems we also felt we should take into account, the regular steps in "Job Relations" procedure.

They are:

- Get the facts
- Analyze the facts
- Make a decision
- Put the decision into effect
- Follow through

IV. CHECKING OURSELVES ON LEADERSHIP

In trying to put ourselves into a better position to handle our employees relations, we decided to discuss leadership. Here is what we felt was involved in good leadership:

- Good judgement of people (Recognize individuals
  - (Study them
  - (Put yourself in their shoes
  - (Try to understand them

- Knowledge of the job
- Ability to make good decisions
- Necessary authority to carry out decisions
- Good knowledge of individuals in our group
- Good personality
- Ability to handle people (Individually and in groups)
- Well-balanced thinking
Ability to plan for group

We agreed that if all of us took a list like this and checked ourselves against it periodically -- and then tried to do something about it -- we would be taking a good step towards improving our leadership of our employees.

We also recognized that this kind of leadership leads to:

Real job satisfaction for ourselves
An easier time in handling our responsibilities, and promotion.

V. TOPICS FOR FUTURE DISCUSSION

In our six sessions, we realized that we had only touched the surface of "Human Relations". We discussed the possibility of future sessions on Human Relations. Here are the topics we suggested:

Better cooperation between departments
How can we develop leadership?
How can we get and give better information? (Communications)
How can we get employees to produce to their greatest ability?
How can we get employees to take pride in their work?
What is Company policy?
What can be done toward establishing a definite company promotion policy?
What will help us in the way of Supervisory Education?
How can we get cooperation?

Supervisory problems

(Take up one by one, spending two or three sessions on each, trying to find specific solutions)

Reports and discussions on training programs of other companies

How to carry things we learn in discussion sessions to other employees

How to get more information up and down the line faster and more accurately

VI. CONCLUSION

We all recognize that our discussions served more to bring up problems than to find solutions. Perhaps the most important thing is that we did some thinking about the problems together. If we can take up specific Human Relations problems in some future sessions and arrive at solutions which we can put into action, this will be of still more help to us. Out of this may also grow suggestions which we can pass up the line.

General Training Director
Reynolds Metals Company
Appendix IV

QUESTIONNAIRES TO TRAINEES

Included in this appendix are the questionnaires sent to the participants in the training program. A tally of the answers is put in the spaces which the trainees filled in with check marks. Summaries distributed by the training committee are also included.
TO: Foreman and Supervisors

We have had one series of our training program. What did you think of it? Please answer the following questions and leave them with Mr. Best.

1. Are you a foreman _9_ trainee _0_ other _2_ (Check one)

2. Was it worthwhile to you? Yes _11_ No _0_

3. Do you think it will help you in your job? Yes _11_ No _0_

4. Was the schedule of classes satisfactory? Yes _11_ No _0_

5. Did the explanation of the contract agree with your ideas of what was in the contract? (Check one)
   a. In most cases _9_
   b. In few cases _0_
   c. Entirely _2_

6. Would you like this course followed at a later date with one or two sessions with the plant personnel department to review our plant practices and procedures? Yes _11_ No _0_

7. Do you think our plant practices are in line with the terms of the contract? Yes _11_ No _0_

8. If answer to above is NO, please jot down the practice you are thinking of so it can be discussed and brought
You need not sign this if you prefer not to.

Signed
QUESTIONNAIRE ON HUMAN RELATIONS

Since these conferences are primarily for your benefit we want to go to you at the end of each series to get your ideas. Please answer the following questions to help us plan in the future.

1. I am a foreman  trainsee  other
2. Was the series on Human Relations worthwhile to you? Yes  No
3. Was the class schedule satisfactory? Yes  No
4. Were any of your problems on Human Relations solved?
   Check one.
   A. Definitely
   B. Of some help but not an entire solution
   C. Didn't help me at all
5. Following the present series, we will have a short series of conferences conducted by Main Office departments. Plans beyond that are left open. Please check the general topics you would like in the series starting next September.
   Write 1st, 2nd and 3rd.
   1. More on Human Relations
   2. A series using "To make a Long Story Short" as a guide
   3. A series on Labor Relations and Contract
   4. A series on Employee Relations, i.e., training,
absenteeism, indoctrination of new employees 26

5. Study of Industrial Engineering, i.e. motion study, cost studies, etc. 17

6. A series on management reports such as Variable Budget, scrap efficiency, labor efficiency. How these are calculated and how each foreman can control them. 32

7. Leave selection to Training Committee 0

8. Suggestions from you

________________________________________

________________________________________

________________________________________

________________________________________

Training Committee

Figure 3
Here are the results of the questionnaire on the course on Human Relations.

45 said the program was of value. 2 said it was not.

48 said the class schedule was satisfactory. One commented that afternoon was a bad time.

Only four felt the section on Human Relations definitely solved their problems. 42 said it was of some help and two said it didn't help at all.

The suggestions point to the reason. Under No. 8 several commented that the series on Human Relations brought up the problems but no solutions could be worked out in the brief five sessions we had. Perhaps we should have stopped at two or three problems and worked out a solution to them.

Voting on future courses was as follows:

33 votes for No. 6- a series on Management Reports
26 votes for No. 4- a series on Employee Relations
21 votes for No. 1- more on Human Relations
20 votes for No. 3- Labor Relations and the Contract
18 votes for No. 2- using "To Make a Long Story Short"
17 votes for No. 5- Industrial Engineering
Remember you each had three votes. Some didn't vote for but one, some two and some three. Some merely used check marks.

We, therefore, tallied all selections.

Management Reports, particularly on costs will be presented next September. Don't hesitate to make suggestions. Who shall conduct the conferences? How long a series shall we have? What will be covered? Speak up and get what you want.

Training Committee
This is a summary of the answers to the questionnaire on the Plant Department series of our training program. I believe these suggestions will be of interest to all of us.

1. I am a foreman 26 trainee 1 other 13

2. Was the series on Plant Departments of value to you?
   Yes 32 No 0 One - no answer

3. How much value. Check one
   Little- not worth the time One
   Worthwhile but barely so
   Well worth the time 31
   Very valuable 7 (1 no answer)

4. Was the procedure of having our own men as conference leaders satisfactory? Yes 32 (1 no answer)

5. Please make any comments you wish below about the series just completed and about the future series. Include any questions you have. Some of the comments are listed below.

"More time on everyday problems- less time on matters which do not affect the average foreman or the men that work with him. Create pride and pleasure in working for the company. Explain company policy."

COPY OF LETTER SENT TO ALL TRAINERS

TRAINING PROGRAM

DATE: 4/19/53
"The idea of presenting the jobs of the various departments is very good, but I believe this can be carried too far. In the future, I think that more plant information and information other than filling out forms and papers should be given. More training aids as slides, motion pictures, models, etc., should be used. Take problems in plant such as spooling, rolling, mounting, etc., that affect quality and go over them to bring out what should be done to increase quality."

"What I gathered in the past meetings was very valuable and educational. As long as I have been working for Reynolds Metals Company I feel that I can never learn too much, and I hope to gain much more as our meetings continue."

"Suggest that questionnaires be filled out on completion of a subject to determine how much and what was gotten across. I suggest that review periods be set up to re-emphasize points that the questionnaire shows have not been gotten across. I also suggest that a series be set up whereby each departmental foreman give a period on his department, emphasizing what his department does, its relation to other departments and the general problems that arise."

"I think I have learned a great deal from these meetings and I would like to see them continued in the same manner."
"I believe the next series coming up will pretty well cover the procedures of the company. Let's have more. By the foreman conducting the meetings and having their problems brought before the group, I think we can gain a lot of knowledge plant-wise."

"The series just completed has been very helpful in many ways and was "put over" very well by the committee. I would suggest more movies on Labor Relations, Production, Supervision, etc."

"Would like to have more movies and handout pamphlets."

"Time limitations required that some departments either skip or touch briefly on certain points which would broaden the understanding of that department, if the points were discussed more completely."

"Some of the series were very good. We think the other fellow's job is easy until we hear what he has to do."

"I have found the previous classes very educational and believe that they should continue in the future."

"Our program so far has been helpful and interesting. The next planned session will also help the men know their company better and should be interesting. After that we should figure out some program that will help the individual foreman with his personal problems—something that will bring weaknesses to the attention of the man who has them. Make
him realize this weakness and get help and training in special ways to help overcome these things that others call "Faults". Maybe this will get too personal, but we all need help in this regard."
"Series too general—should be more specific. Would like more information on company policy and plans. What is in the future? Where do we stand? Instructors should be trained."
"Most of the department heads explained their work very well. Some speakers weren't very good. They didn't know how to explain their work.
In the future I think we should have some movies and explain them as we go along. This will keep the men awake and alert. In that way they will learn more."
"Outside speakers are better. They should discuss problems common to our plant and their departments or all plants. We shouldn't have to listen to long drawn out talks on systems, but to problems that need to be solved or have been solved. Sample problems."

Training Committee
Bibliography

Books


Magazines


Interviews

Barreis, P. G., *Personal Interview*. (Ford Motor Company,
Norfolk, Virginia), Aug. 27, 1952.


Watson, Brantley, *Personal Interview*, (Federal Reserve Bank of Richmond, Virginia), 1953.
When this thesis was written, Edward E. Miller was plant superintendent of Plant I of Reynolds Metals Richmond South Plant. He was first employed in 1939 as plant chemist.

In 1941 he was given his first supervisory position--foreman of the salvage department. In 1943 when he volunteered for army service, he was chief plant chemist and plant inspector, in addition to supervising salvage.

After basic training in Chemical Warfare, Mr. Miller was put in the Army Specialized Training Program where he studied metallurgy at the University of Illinois and sanitary engineering at Harvard University. After Officer Candidate School, he was commissioned in the Sanitation Corps and received further training in sanitation at Carlisle Barracks, Pennsylvania.

Lt. Miller served as medical registrar, sanitation officer, hospital adjutant, and pharmacy officer at an Air Transport Command Station Hospital in Memphis, Tennessee. He received a letter of commendation for versatility since the above assignments were held concurrently.

Returning to Reynolds Metals Company in 1946, Mr. Miller worked on special assignments for one year. In 1947 he became superintendent of the printing department. The printing department was closed in 1950, and Mr. Miller became staff assistant to the chairman of
Reynolds Metals printing committee, again working on special assignments for a year. In 1951 he became plant superintendent.

Edward H. Miller received his B.S. degree in chemistry from the University of Richmond in 1928. Prior to his work at Reynolds Metals Company, he held temporary jobs as shipping clerk, sales clerk, and grocery store clerk. At the time of his employment with Reynolds, he was an instructor at Fork Union Military Academy.