

CONFERENCE ON
EVALUATION OF TECHNICAL PERSONNEL

Sponsored by The Industry Program, College of Engineering
The University of Michigan

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INTRODUCTION

This Industry Program conference was held for two reasons. First, we all recognize the importance of policies and programs which will increase the productivity and encourage the development of our technical people at a time when our best efforts in all phases of research and engineering are needed for the healthy survival of our economy and our nation. Second, the problems of evaluating technical personnel are general to many industries, making feasible the conference approach, with representatives from a number of companies.

Nineteen people from industry, representing twelve companies, and twelve men from the University of Michigan faculty attended the conference. Dr. John Riegel, Director of the Bureau of Industrial Relations of our Business Administration School, consented to act as chairman of this discussion meeting, and we feel that he did an excellent job.

The meeting took place in the Baer Conference Room, Cooley Memorial Laboratory, North Campus. Without exception, speaking was done extemporaneously, and participants were asked to make as few changes as possible in the transcription which was sent out for review some weeks after the meeting; this accounts for the informal style of the text.

We would like to remind you that this report of the November 13th conference is not a publication, and should not be referred to or quoted from in any formal way. If you wish to quote one or more of the attendees in a paper you are preparing, we suggest that you correspond directly with the individuals in question. The Industry Program office will be pleased to furnish you with complete addresses.

ATTENDEES

ARGUS CAMERAS, DIVISION OF SYLVANIA ELECTRIC PRODUCTS, INC.

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Section Head, Engineering Department

Frank E. Ammermann
Technical Service Manager

ARMOUR AND COMPANY

E. F. Cavanaugh
Director of Scientific Personnel

J. C. Clamp
Personnel Manager

CHRYSLER CORPORATION

Max W. Johnson
Supervisor, Personnel Development

J. S. Brierley
Chief Engineer, Research Administration

DOW CHEMICAL COMPANY

John Wardwell
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ETHYL CORPORATION

T. J. Carron
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A. R. Jennings
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EX-CELL-O CORPORATION

Edward Schumacher
Training Director

GENERAL MILLS, INC.

George W. Swanson
Personnel Manager, Research Laboratories

GENERAL MOTORS TECHNICAL CENTER

L. A. Aldinger
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J. Burt Sparhawk
Personnel Staff Engineer

FORD MOTOR COMPANY

Robert Stewart
Supervisor, Employee Relations and Analysis
Industrial Relations Staff

KELSEY HAYES COMPANY

Robert T. Hall
Industrial Engineer

Rupert L. Atkin
Assistant Chief Engineer

OWENS-ILLINOIS

H. F. Zink
Personnel Director

UPJOHN COMPANY

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Professor of Chemical Engineering

J. W. Riegel
Director of the Bureau of Industrial Relations
Professor of Industrial Relations

Wray Smith
Associate Research Engineer and Member, Technical Operations
Staff, Engineering Research Institute

S. S. West
Study Director, Survey Research Center

J. W. RIEGEL, CHAIRMAN: Our subject pertains to the appraisal of the performance and the possible services of technical people as individuals.

The Bureau of Industrial Relations in the Business School at Michigan has spent about two years in a study of managers' relations with engineers and scientists. Those of us who have participated in that study have found that the supervisors and managers of technical units regard the appraisal of their subordinates and the subordinates' work as one of their major responsibilities. Your presence here indicates that you agree.

We have found that part of the difficulty with appraisal methods and results arises because the people who are appraising do not pause before they start the process and say, "Why are we doing this?" The cause of some of the difficulty with personnel appraisal is that the parties use the same procedures and the same focus in various types of appraisal which have different purposes.

My introductory remarks, therefore, will present the various purposes of appraisal and we will see presently how these purposes affect the focus of the appraisal, the standards which are used and the procedures which are followed.

Let me suggest that in your own comments in the discussion period you make clear to the rest of us the particular purposes of the appraisal procedure that you will describe.

But now let's put these purposes on the board. They are interesting to survey and to contrast.

As to the first: the supervisor in charge of any group of professionals appraises their work in his observations day in, day out, in fact, almost hour in, hour out. His purposes are to see how the work is going and, if necessary, to instruct his subordinates. He centers his attention mainly on their methods and the results they are achieving. He judges these in terms of the standards of method and of performance which he has in mind. And he may judge the degree of the application which any one individual is giving to his work and the way in which the individual is going about it. Some things which the supervisor observes may lead him to correct the man

or to praise him. Another one of his observations may cause him to ask an individual about the objectives of the project in hand. At other times, the supervisor may comment upon the individual's behavior on the job.

In summary, this type of appraisal is focused upon current happenings and results. There is no difficulty on the part of supervisor or subordinate in identifying what the supervisor is talking about or in making reference to the subject of any comment upon method, behavior or results achieved. The point of the supervisor's remarks is a recent action or occurrence and it can easily be identified. The purposes of such identification and conversation include direction, correction, encouragement and praise of the subordinate with regard to something which the subordinate is doing right at the time or has recently done or has omitted doing.

This kind of appraisal serves its immediate purposes, but it cannot adequately serve some other purposes. Some appraisals serve a second purpose. This is to afford recognition of the work and the contributions of the individual. The reference is to his work or contributions over a period of time or in connection with a particular project. One of our findings has been that of the total number of reasons given by professional employees for their satisfaction or dissatisfaction with the intangible rewards they obtained from their work--that of the total number of these reasons roughly twenty per cent refer to recognition of their achievements. They were satisfied when their work and their contributions were recognized and they were dissatisfied when these were seemingly overlooked.

The supervisor who wants to give credit or praise for work done by any individual subordinate must appraise that individual's performance occasionally. But this type of appraisal is not focused on what the man is doing or just has done within a few hours. It pertains to achievement which has resulted from effort over a considerable period. The review and appraisal and comment may occur when an individual has finished a project or when he has come to a certain stage of progress. At such a time the supervisor looks over the work, possibly looks over a report which has been submitted, and he may decide that he should not only give the man a word of praise but also should report the progress and achievement to higher authority.

Appraisals for this purpose, as for the first one, are made usually and acted upon by the immediate superior alone. Unfortunately, we have found in our survey that appraisals for this purpose and recognition based upon them are not made or acted upon as often as they should be in some quarters.

Some appraisals have a third purpose. It is to regulate individual salaries. Immediately we see a difference between an appraisal for this purpose and the appraisals which have been mentioned. One is that an appraisal for purposes of regulating salary adjustments occurs at relatively long intervals, seldom more frequently than six months or a year in the case of any given individual.

You will note that these reviews usually are periodic and not geared in time to the completion of projects. There is another difference--these appraisals, because of their importance, are usually made by two or more persons who collaborate in one way or another. Not only the immediate supervisor participates but a secondary supervisor and sometimes one or two additional persons who are familiar with the individual's work. Moreover, each appraisal results in quite specific recommendations which usually are put into writing and which need to be supported by statements of one kind or another.

Because these appraisals are done at rather substantial intervals, the people who make them are often troubled because they know the weakness of their memories. They want to be fair and base their judgments on comprehensive reviews but they have no systematic performance record and so they express an opinion on the value of the individual's services which they can support only in a rather general way.

There is another difficulty with appraisals for this purpose of salary adjustment. They deal with a subject on which there is some immediate conflict of interest. This is true in the sense that the man whose work is being appraised sees the problem from his particular point of view. Also, he usually desires an increase in salary. His supervisor and possibly other of his superiors see his work from another point of view and they may have somewhat different standards in judging it. Also, they may be economy minded.

In the prior appraisals there was a high degree of unity of interest. For example, if a boss can give a subordinate direction and coaching that will help the subordinate be a better man on the job, there is advantage to both parties in the appraisal and the ensuing conversation. The supervisor's manner may antagonize the subordinate but the supervisor's major purpose serves the interests of the subordinate also.

Then, also, there frequently are discussions between supervisors and individuals reporting to them on the subject of salary. The subordinate puts forth his reasons for thinking that he should have a salary increase. The supervisor states his reasons for his position. Since he must take a

fairly definite position on the subject, he needs reasons for it and this means that he needs to stand on a sound appraisal of the man's performance.

Other appraisals have still another purpose. From time to time in some of your companies there are appraisals or reviews of the individual's work and his characteristics in order to determine what aid, if any, should be given him in his self-development efforts as a productive member of the organization. Such an appraisal ranges over past and future; and it is concerned with the future in a long-run sense. It is not focused sharply on present achievements, but on basic knowledge, skill, perception, attitudes and interests. It is inherently subjective. Therefore, it cannot be accurate. Also, it is inherently speculative. Because of this fact, it should preferably reflect a consensus of opinion rather than one man's judgment. Action on the basis of such an appraisal can be momentous so far as the life of the individual is concerned. For example, it may encourage him to undertake work in a somewhat different field. If the appraisal is sound, the man will find success there; if the appraisal is unsound, it will lead for a time to the investment of much effort on his part and on the part of others in trying to help him accomplish something which is beyond his abilities. On the other hand, such an appraisal may require a statement to an individual that he must find ways of changing his attitudes and behavior in certain respects or his usefulness to the organization will be at an end. Such an appraisal may lead to the conclusion that a man should obtain additional experience in some other department, that he might profit from a committee assignment, that he should be given special work without change of location in order to build up his basic knowledge of a related field, and so on. In fact, the advice may suggest some developmental undertaking of a quite private nature, such possibly as enrolling in an extension course or other academic course to build certain basic technical knowledge.

Closely related to the educational purpose just mentioned is that of an appraisal to test or to aid in judging where an individual can render his best service to the company. Such an appraisal is made, for example, when a desirable applicant is being interviewed. This appraisal, as was true of the previous one, has a scope which extends to the past and to the future. It also is speculative. Here, however, the focus is not only on the individual but also on a range of jobs which conceivably he could fill. His qualifications, so far as they are known, are considered in the light of the requirements of one or more positions in the organization. It is the purpose of the appraisal to see to what extent his qualifications match the requirements of any given position. As in the case of the appraisal for the purpose of guiding self-development, this appraisal which pertains to placement includes within its scope consideration of the man's specific achievements--his performance, if you will--and also personal characteristics and behavior.

An appraisal which can be bracketed in purpose with this one pertaining to a new applicant is an appraisal with regard to the placement or re-assignment of an employee with company service. Here we are asking the question whether the individual is in work for which he is best suited. And at times the question presents itself whether he is going stale on his present job and whether a reassignment would provide strong motivation. This type of decision is made sometimes with engineers. I have in mind the reassignment of one methods engineer who actually was going stale on the job because he had been working for a number of years in the same factory division.

Finally, we can mention appraisals which have as their purpose the making of judgments with regard to the potential usefulness and highest levels of achievement of particular individuals. Of course, these appraisals are made with regard to persons who obviously have considerable promise. Of all the appraisals mentioned thus far, these are the most speculative. And since they are concerned with people of outstanding ability, the actions taken or the reliance placed on judgments of this kind can be very consequential. Not only do these appraisals differ from some of the others in that they are made with regard to only selected individuals, but in the second place the results of these appraisals are seldom discussed, or at least fully discussed, with the individuals themselves. The results are so speculative and could arouse ambitions to such an extent, to say nothing of rivalries, that the appraisals are of a highly confidential character. It is true, of course, that as an individual lives within an organization his peers and his superiors are better able to judge his potentialities. However, there have been many instances in which individuals upon promotion have surprised their associates with their success in rising to their new responsibilities.

The attached chart shows appraisals for these several purposes and indicates some of their differences, particularly as regards focus or range of things taken into account, and also some aspects of the procedures involved.

This concludes these introductory remarks.

In the discussion we would like to have some of the members describe the appraisals or evaluations of technical personnel which you conduct in your organizations. Will you please tell the rest of us about your experiences in this connection. It might help if you identified the major purpose or purposes of the appraisal system which you describe.

We have some very reputable companies represented here. I will deal from the top of the list alphabetically and then deal from the bottom. The men from Ford and General Mills, therefore, can relax for a while. Let us start with Argus, then go to Upjohn and so on.

Will the Argus representatives tell the rest of us about appraisals of technical people in that company - the methods followed, the problems and the successes?

PURPOSES	FOCUSES OR CENTERS ON	INTERVAL	APPRAISAL BY WHOM	REMARKS
1. Direction and Coaching	The man's methods, results being achieved, etc.	On observation	Immediate supervisor	Attention of supervisor drawn by action or inaction of subordinate.
2. Intangible rewards, Recognition	The man's achievement on a project or over a period.	When suitable	ditto	Supervisor reviews work done and decides whether and how to recognize individual.
3. Salary adjustment	The man's performance over period. Comparison with performance of others. Supporting data.	6 mo. or 1 yr. except new employees	Supervisor and his supervisor, possibly 1 or 2 additional persons	Procedure should be systematic and somewhat formal. Should be followed by a post-appraisal interview.
4. Aid to basic personal development	The man's experience, performance and personal characteristics.	1 year or longer	ditto	Should be followed by an informal post-appraisal interview. Get man to suggest his goals.
5. Placement or re-assignment	The man's performance, personal characteristics and the requirements of jobs to be filled	Time of hiring, transfer, etc.	Employment supervisor in initial placement, otherwise as #3	Also department which might receive transferee will appraise him in advance.
6. Potential	The man's personal experience, performance, personality, progress, etc.	At management inventory time	As #3	Decisions speculative and highly confidential.

As we move down the scale more and more matters are taken into account, and the appraisals become more speculative. Several persons should collaborate in 3, 4, 5, and 6 to pool available information and judgments and reduce effect of bias. Appraisals for salary adjustment should be well supported by evidence pertaining primarily to performance.

M. K. CARR: In the first two -- direction and coaching, and the intangible rewards -- I would say that it would be very difficult for anybody to be different in those two areas. Those are just a part of supervision and I don't believe that we have any techniques that would be different. In the salary adjustment area, we do the evaluation primarily in a group meeting of the engineering supervision in which the direct supervisor's voice counts the most. We are a small engineering department with about 60 technical and professional people. This is product engineering that we represent. We try to keep the salary adjusted on the basis of what the man is doing for us and as little as possible on some out-of-the-blue feeling on his potential; but it's always very difficult to keep that out of it. In the next area-- the aid to personal adjustment--we have a policy of reviewing our people yearly. We have a standard sheet similar to these that are shown here. On the other hand, we don't always use it. The supervisor is given the option of returning this sheet to the Personnel Department for the man's file, or just a memorandum stating that the man was interviewed and perhaps the major points of the interview. We use this sheet as a guide more than anything. We find that it is not sufficient in many cases.

RIEGEL: Do you conduct a post-appraisal interview when your purpose is basic personal development?

CARR: That's right. We recommend at this time certain areas of education. We also try to point out to him when we feel that his problem is basically personality. We frequently find that the man who's most concerned with his technical development is the man who should be devoting time to personality development and vice versa.

RIEGEL: See how you've broadened out? As you've gone from this (Purpose 1) to this (Purpose 6) you've extended the scope of the inquiry and the review?

CARR: Yes.

RIEGEL: What problems do you have in Argus, if you don't mind telling us?

CARR: I have just stated one. People are frequently working hard on something that isn't their main problem. I would say that we have no unique problems in this area. We have people just like everybody else. They're all different. Some of them are difficult.

RIEGEL: Does your colleague from Argus have any comments to add?

F. AMMERMANN: Because of our size, perhaps, we differ as would be expected in the emphasis and timing on the various categories that you put on the board, and I think that we place more emphasis on results rather

than method on the supervision. We're not expected to follow a pattern but we're expected to achieve personnel results. So we're very flexible.

CARR: I might add that our personnel department follows this up to make sure that we have done this once a year, but in many cases it is more frequent.

RIEGEL: Yes. I think perhaps we should have that understood. I would understand, and I think all the people around the room would understand, that this is something in the nature of at least once a year. This doesn't mean that anybody is constrained. Any supervisor who thinks the time is ripe to counsel a man of course has the privilege to do it, but I think just as you said some agency will remind you after you've covered this subject with each of your people at least during the calendar year so-and-so. This is the idea. It doesn't mean just do it once a year.

CARR: We try to time these interviews when the opportunity presents itself rather than on a scheduled basis. For instance, when we have a reassignment which isn't reassignment between basic functions or jobs, but from one project to another we find this to be a good time. This frequently offers itself as the best time.

L. L. KEMPE: I'd like to comment on one point. In discussing this with a company that isn't represented here, one of the features of this kind of interviewing program was pointed up as being particularly useful to the persons being interviewed. That involved scheduling ahead of time so that the individual being interviewed gets some idea of when his session is coming. Thus, he has the opportunity to determine the questions he wants to ask and possibly to talk over with his wife and some other people that might be concerned some of the problems that he would like to have solved for him--or at least discussed. I wonder if this kind of thing is done?

CARR: The form that we use in talking to our technical people is blue and we find that our people are very conscious of the anniversary of their "blue sheet" reviews, and if they don't get it at the time, they frequently ask for it.

KEMPE: So they know about when it's coming.

CARR: Yes, they know about when it's coming.

ROBT. STEWART: What about the relationship between that blue sheet anniversary and the salary increase (which every employee expects)?

CARR: We simply divorce the two. We didn't divorce them ourselves exactly; we used to have the blue sheet every six months, but when we were absorbed by a larger organization, they had different policies about salary adjustment schedules. We also reached the opinion that every six months wasn't as necessary as we had thought it was, but even before that we had been able to divorce the two, by saying that it would be divorced -- that was all.

RIEGEL: Any other comments or questions that you would like to address to the Argus people?

H. A. OHLGREN: When you evaluate an individual, at what various levels of supervision is this evaluation conducted? Is there a level removed from the direct supervision in these evaluations or not?

CARR: The individual is always evaluated by the supervisor immediately above him. The evaluation has to be approved--whatever is turned in to Personnel has to be approved by the supervisor's immediate supervisor. It is frequently discussed before it is made. If there's a tough one, generally the immediate supervisor plus his supervisor will sit in together. We offer the individual being evaluated the opportunity to have any other member of the engineering supervision sit in on this evaluation. I don't believe since we instituted this system, that we've had very many of them request that other people sit in.

OHLGREN: Are these evaluations then on a personal basis?

CARR: Yes, you sit down and talk about it. As far as I'm concerned you can have all the forms in the world and not do the man any good. This is a discussion between the man and his supervisor and don't forget that this is a very personal thing. It's a personal relationship, and part of the man's not getting ahead can very well be that the supervisor doesn't like the way he wears his hat. I think this is personal and that both personalities are involved.

RIEGEL: Your statement, I believe, is that in this product engineering unit, the appraisal is conducted by a committee or small group.

CARR: That's salary adjustment.

RIEGEL: Now what about the appraisal preparatory to advising a man on his basic personal development? Is that done by the immediate supervisor and his supervisor in the chain of command?

CARR: It rests upon the immediate supervisor.

RIEGEL: The main burden is on the supervisor.

CARR: When we get to draftsmen and layout designers, there may even be people sitting in who are not what we call supervisory level. They are team leaders, who have no hire or fire responsibility, but are directing much of the man's effort. The person being interviewed can request this.

RIEGEL: Are the results of this evaluation given to the man?

CARR: The results of this evaluation in many cases are no more than the interview plus a memorandum that the interview has taken place and a list of the main topics of discussion. If he wants to see the blue sheet (if we make it out), he is allowed to look at it.

STEWART: Now does that become a part of his record?

CARR: To be very truthful, one of the reasons that some of us don't care to use the form is that interpretation of any form varies from one person to another. During World War II, we had a very good example of this in the rating of officers in the army. When the war opened, superior rating was something that was very seldom given. By the end of the war I think there were many times that officers were getting superior ratings. The whole thing had shifted at least one category upward. And you'd find one commanding officer rating differently from the next one. We find the same thing to be true on a sheet where you check one of five spaces. What one man considers average, another man marks as below average, and another man says is above average. If this is a permanent part of personnel records, it is affected by the way the actual supervisor felt about the form. I don't know how you get that down on paper. We do have turnover or reassignment, and turnover of supervision, so having something like this in a man's record can hurt him as well as help him.

AMMERMANN: We want each man to feel that the results of this evaluation--the judgments on these categories--lies in his immediate supervisor, not in forms, not in formalities, not in some stylized refuge to which the supervisor can go, and say, "Well, I have only these five categories, you're good, and I checked that, and that takes care of it."

J. BRIERLEY: What use does management make of this procedure? It's oriented to the individual, but to what use do you place the evaluation? How does it help you?

AMMERMANN: We believe that it enables us to get more return from our people, more for our dollars. That's the chief value that it has as far as we can see.

BRIERLEY: In other words, you don't look at it as a direct aid to management in carrying out or reassigning or upgrading pay or whatever other factor management might be interested in?

AMMERMANN: Well, our intention is to improve the individual so as to benefit his work. Our motivation is to have better and happier people.

BRIERLEY: Well, isn't that fundamentally the problem of any organization, large or small?

AMMERMANN: In the smaller organization we are more intimate with our people. I'd say that in this aid to basic personality development I have an hour's discussion once a week with one of the people, and they feel free

to come to me and talk about this sort of thing. It is encouraged. The salary area is formalized. They know this. This we decide by a company-wide general principle as to timing and review, but the others are discretionary.

RIEGEL: You point out that your personnel evaluations for salary adjustment purposes are formal. And they result in a recommendation of some sort which is made a matter of record. The recommendation states why the individual was recommended for a salary increase or why he was not recommended. In contrast, you mention that your reviews of an individual's self-development and what he might do in that regard are informal.

Let us now hear from some other people. Homer, are you or Mr. Lane going to carry the torch for Upjohn?

H. ELWELL: We flipped, and I lost! Talking about this subject I'm reminded of a cartoon I saw just this morning about an employee talking with his boss at one of these post-appraisal affairs. The employee says, "Let's talk about my raise, not my performance." This is the kind of problem we get into here. My immediate problem right now is to decide how candid to be. From one point of view, we've got the best bunch of supervisors in the world, and they're doing a swell job. From another point of view, here is an area where improvement probably is needed. This is being pretty honest. It's safe to say that of our 420 members of supervision in Kalamazoo, every one of them is appraising employees for every one of these purposes listed on the board, for better, for worse, frequently or not so frequently, etc.

Following the distinctions you were trying to draw as far as a formalized program is concerned, we probably have only two. First of all let me mention what we call an "employee's performance review." This actually is an omnibus form. In other words, it's used company-wide for all types of people whether they're plant, technical, clerical or what have you, and it's used in this fashion. A new employee in any category is evaluated at 2 months, 6 months, and one year. He is a so-called probationary employee and gets a little more careful treatment, we hope, in that period. Thereafter, every employee is evaluated annually. There are other occasions for the use of the same form. If a man is transferred from one department to another, he is rated in the department from which he left at the time he left, and three months later in the new department. And finally, the same form is used terminally when the person leaves the company.

I share the feeling of our Argus friends here--this is an utterly simple form. It has no "gadgetry" about it; as a matter of fact, there are only three items on the form. After certain identifying information at the top, the supervisor is asked to indicate what he regards as this employee's

strong points, and he is asked to indicate areas where improvement is needed. He's also asked to indicate what he suspects, as of that moment, is this person's potential, and whether or not a possibility of transfer, or some other personnel action, is indicated. This is done in most cases by the immediate supervisor. We feel he is not only the man who should have that responsibility, but he's in the best position to exercise it. His evaluation is routed up through the line organization as far as the division head, and that may be two or three steps above, depending on the particular unit of organization.

Every higher level of supervision has an opportunity to agree or disagree with the immediate supervisor's evaluation of the situation, to throw the thing back for further comment or explanation, and so forth, and finally this winds up in the man's personnel folder.

Again, we agree with Argus people that any form which asks people to verbalize is difficult for supervisors--first of all, it's difficult for a supervisor to say what he thinks, and what he means--to put it in writing. This causes him a problem. It causes anybody else a problem who looks at the form because he's always wondering what the supervisor meant by what he wrote. Likewise, there's a certain reluctance to put all the truth, the whole truth, on any piece of paper. People don't like to commit themselves in writing.

To take care of some of these things, we have this little deal. The rating form, once in the personnel folder, can be seen by no one except the guy who made it out, or members of the personnel division. In other words, if information is wanted from these ratings in terms of a person's status or trend in his development, it's up to the personnel division to interpret the data in that folder in relation to the specific situation for which the information is wanted--if you follow me on that.

At any rate, this procedure is designed, we hope, to encourage a supervisor to be completely candid about what he puts down. We think this helps because if he is assured that not everybody is going to have a chance to read what he wrote, he's more likely to put down what he thinks.

Hit me on that one again if you have further questions, but I assume we have two formalized programs. That's one of them. Add just this much--that this annual review is not done on an anniversary date, and this whole procedure that I refer to is completely disconnected from the next formalized program that I want to mention, and that is the salary review.

RIEGEL: May I interrupt you, Homer. Can you classify the procedure you've just given to us as falling under one or more of these headings

on the board? It certainly fell under "assignment and reassignment," that was clear to me. Does it also fall under "aid to basic personal development"?

ELWELL: Well, according to my classification it falls under your 6, 5, 4, 2, and 1, provided one thing--this is where I think our primary weakness is, over and above the ones I've mentioned already --that much of the value of this review, maybe 90% of it, is lost unless the man involved ultimately finds out how he is evaluated. Now we have recommended for a long time that these matters be discussed with the employee. We have no power to insist that it be done, with the result that some supervisors do and some don't. I think there's a growing trend toward more and more supervisors realizing the desirability of doing it.

This is the first problem--the supervisor being aware of the fact that he should discuss it. Then comes the second problem, one which is the subject of another meeting like this--maybe many of them; it is how he should talk to an employee about these things and get the results he's after. There are altogether too many supervisors who attempt this business of talking with the employee about his rating and come out of it negatively. How you do it is a matter of technique. Here and there we have groups in the company studying this problem because they realize there is a right and wrong way of doing it even after you've decided you should do it. Unfortunately, there are a few supervisors who haven't decided they should do it as yet.

This is being more candid than I have to be, isn't it? But we're probably all confronted with the same problem to a degree. Does that answer your question, John?

RIEGEL: Yes, I think we can go on to the next procedure. Will you outline it, please.

ELWELL: I said this salary adjustment procedure is disassociated with the performance review. This so-called salary review is done twice annually. Here the supervisor is confronted with a little different situation. He is given, for all of the employees under his direction, a sheet which has them grouped together by job-classifications and shows their current salary status, the time of the preceding salary increase, the amount of it and so forth.

But before continuing, a little background is necessary. In our wage and salary administration system we have grades of work and each grade has a salary range. And the salary range is fairly wide and the ranges overlap each other. This is not new to personnel people or maybe to any of you--this general idea. But where a given person winds up in a given salary range is the result of what we call a merit review.

The supervisor has a guide--we sort of use the midpoint of the range as a pegging point. We feel that the average performers, in a given job classification, should cluster somewhere near this midpoint. The poor performer or the new, inexperienced person is likely to be on the low side of the range; the outstanding performer will be on the high side. It's up to the supervisor to decide on these two reviews a year where each person falls in this range in relation to other people doing the same work. Here the comparison is with other people.

Again, his recommendations are reviewed on up the line organization, reviewed still further by the personnel division, looking for obvious inconsistencies, etc. As far as any further assistance, form-wise, as to the rating of the people at that time, there is none, except the sheet which lists the current status of his people, salary-wise, at a given time. Need there be anything else said about that?

OHLGREN: How many degrees of job classifications do you have?

ELWELL: Well, I'll try to break this down. First of all, we have four schedules, one of which is the professional and technical, that has six grades in it. Each grade may have quite a number of jobs in it, but the rate range I speak of applies to the grade and all jobs in it.

OHLGREN: Now, does an individual in advancing have to successively go through each grade?

ELWELL: Not necessarily, no. We hire directly into some of the top grades, at times. A new man might start in 3, he might start in 1, he might start in 6. A man might jump over a grade or two in his upward progress, although this is not common.

OHLGREN: Do each of these grades then have a title, a fixed title?

ELWELL: The grades are merely numbers; it's the jobs within the grades that have titles.

STEWART: There are about six grades in each one of these four groups?

ELWELL: No, one of them has 9, 10, 11.

B. LANE: Production has sixteen grades.

STEWART: When you call six grades professional, are you getting into the supervisory category there?

ELWELL: No, there is a separate supervisory schedule. Actually, if you want the rest of it now, there is what we call a plant schedule, a clerical schedule, a professional and technical schedule, and there's the supervisory schedule I just referred to.

OHLGREN: Do you then distinguish between merit increases and promotion?

ELWELL: Well, I'm inclined to answer you this way. They are part and parcel of the same thing essentially. They both recognize increased worth. Certainly, if a man is promoted from one grade to another, to a job requiring greater responsibility, he first of all must have merited this promotion and if this calls for additional amounts of money to put him in the grade and proper position, it's done. But within the grade, he can move within the rate range, depending upon his worth, in the estimation of his supervisor.

RIEGEL: May I ask, Homer, as to the procedure here? I would suppose that the pay recommendation starts with the immediate supervisor.

ELWELL: This is generally true.

RIEGEL: And he clears it (has an understanding) with his boss.

ELWELL: Right.

RIEGEL: Now, do they check with somebody in Personnel to see whether they are in line with the pay structure and so on?

ELWELL: Actually, it goes to the division head level, in our organization. And at that point they all come from the division to the Personnel division for studying in relation to each other, for inconsistencies, etc.

RIEGEL: Notice that two types of procedures have been mentioned. Under some circumstances, one is to be preferred and under other circumstances, the other is better. The first procedure requires a conference; the second is what might be called a "tandem" procedure.

In the first, the people responsible for an appraisal get together, talk over the man's work and possibly other matters such as his personal qualifications and, in this way, add to one another's knowledge. Also, they express opinions which at first may not entirely agree. In the discussion, however, they come to a consensus with regard to the individual and what might be done in his case. For these reasons if the purpose of the appraisal is to offer advice to the individual regarding his self-development, or if the question of his placement or promotability is under consideration, the committee procedure

is appropriate. A committee for these purposes can well be made up of the two persons directly in line of authority over the individual and one or two others who are qualified to express opinions on the man in connection with the particular purpose of the conference.

On the other hand, if the appraisal is preliminary to making a recommendation on salary, then the main participants should be those in line of authority. Any others who are present should have only advisory status.

The tandem procedure is followed when the immediate superior fills out an appraisal form, possibly includes a salary recommendation or some other recommendation, then sends this form to his boss who notes on it his endorsement or other comment. The boss then passes the form on for action by his superior, and usually this is final approval. There is nothing in the procedure to prevent the people at two or more steps from conferring on a case. Also, there is nothing to prevent their neglecting to confer.

This tandem procedure is definitely less formal; therefore, it may not result in such comprehensive and careful appraisals. The opinions of the first and second supervisors may have become pretty well set regarding an individual; these opinions are not challenged as they might be in some type of committee set-up. The tandem procedure is not so likely to reveal and correct bias or inadequate grounds for opinion. Furthermore, the second or subsequent man who handles the paper under the tandem system may do so somewhat superficially. On the other hand, he may express a dissenting opinion on the appraisal form without notifying the immediate supervisor. Where does this leave the immediate supervisor? With all this, the system still may be appropriate for a company which has many small scattered branches or units.

About the only criticisms that one hears of the committee procedure is that it takes too much time and the committee might be dominated by a strong-willed individual at fairly high authority. The first criticism has to be considered along with the question whether careful appraisals and reasonably unbiased ones which are well supported are worth the time devoted to them. As regards the second criticism, it would seem that several people in committee might have more influence with a strong-willed individual than if he acts by himself on a paper which crosses his desk.

AMMERMANN: I'd like a reply to a question regarding your motivation for us as supervisors going to this considerable effort. We sometimes accuse our own personnel department of just wanting to build bigger files, but what is the motivation of our personnel department for this thing? You have additional factors to consider, don't you, because of the size of the company? Certainly, some of these procedures are not personnel motivations or entirely management motivations. You must have records so you can put your finger on employee #1006, etc.

ELWELL: If I guess correctly the intent of your question, I would say we don't want those records for tight control as you were suggesting. I'll be perfectly candid in saying that those forms, in our files, are worth much less than the use that's made of the form by the supervisor in planning his discussion with the employee. To me, that's the key to this whole darn thing. But as to the usefulness of that form in our files, we are by this and other means compiling a chronology, a total picture of a man, his progress in our organization, for purposes of promotion or transfer and other personnel actions, which in our organization are all handled as an individual matter, on an individual basis. And in this file, we hope, is a fairly complete picture of that person, his progress, his hopes, his ambitions, his failures, etc.

But I'll also say this, this form is not for use like in a library. It's used only by our personnel staff when the object is, for example, to review a man's qualifications for the possibility of a promotion. We interpret the data in that folder in relation to that situation. There may be something on these forms that would be detrimental over here in Z department, but it doesn't figure one bit over in Y department. So this particular information is not disclosed in this particular action.

AMMERMANN: So you use it to help you classify, or reassign?

ELWELL: Well, yes.

AMMERMANN: Do you also use it to force supervision to do what is part of their job?

ELWELL: To force them, this is a nasty word, but I heard another one over here I like better--to encourage the supervisor to do these things on a systematic basis.

OHLGREN: I have another question. How do you differentiate between the so-called technical growth of the individual in this type of a line organization as compared to his growth into management and gradual divorce-ment from strict technical problems? Do you have the two plans or one plan?

ELWELL: I neglected to say, and this is a good point to mention, that the performance review procedure I outlined applies to everybody in the company. It applies to everyone but members of supervision, that is. I am embarrassed to say that at this moment we have no formalized plan for evaluating or appraising members of supervision. There's one in the works, but not yet approved. I don't know how in Sam Hill to answer your question otherwise. Perhaps in this manner--when a need for additional supervision develops, we do have a procedure which requires the line organization involved to nominate a candidate and support their nomination in writing as objectively as they

can. And we have what amounts to rating form which paints his history in terms of vital statistics, progress in the company, and asks for some opinions about why he is considered qualified to direct the work of other people. This form must clear through the line organization. If it's a department head job or higher, for example, it has to clear the whole line organization up to the chairman of the board. It goes the whole way. If it's less than a department head job, it has to clear at least through the division head.

This is for a number of reasons. First, it is to help insure that everybody who should be considered is considered for the supervisory job. We long ago got away from promoting the best lab man into a supervisory job--I hope I can say that. Another reason is that the man who finally is selected has the endorsement of the whole line organization into which he now goes as a new member.

In this process, to answer your question, this differentiation you speak of is made in the minds of men, yes, and the men closest to the job involved. Does that answer it?

OHLGREN: Yes. Underlying this whole thing I was asking two questions really. The man who may discover U-235 as a fissionable material may be a very poor supervisor.

ELWELL: True.

OHLGREN: The second thing is that there is this opportunity of encouraging management training through the ranks, so that when a vacancy occurs you don't hire O'Shea in Chicago or something like that to find a new supervisor for it. This is the reason for the question.

RIEGEL: Homer, am I right that you, along with some of the other companies that I know here, have a dual hierarchy that is built on the first one or two professional levels like junior engineer or engineer. One "ladder" resting on that base enables a researcher or engineer to rise in rank and earn a high salary as a technical man. He doesn't have to have supervisory responsibility to rise in rank and earn a high salary.

ELWELL: I think I can agree with that, John. There is increasing recognition of the fact that a good lab man can make as significant a contribution to an organization as an administrator. There was, at one time in our company and probably all over the country, the feeling on the part of lab men that the only way to financial success was to leave the bench and transfer over to administrative responsibilities. This resulted in some very unhappy individuals trying to direct the work of others when they'd much rather be out in the lab. I think it's being fairly well established that an engineer

or scientist does not have to leave the bench to match the salary and status of a classmate who is in administration. This is, I believe, the dual hierarchy that John speaks of. We may not have achieved that 100% yet. I don't think we, for example, have anybody on the bench that's making as much as the director of research, but certainly in some research sections and maybe even in some departments, there are men in the lab that are doing as well, salary-wise at least, as the guy that's running the show. This creates some beautiful problems, too, but I guess this is not the purpose of our conference.

KEMPE: You have one thing at Upjohn that should be mentioned that I think is worthwhile noting. You have these awards occasionally that come up--unless I misunderstand their application--but they do seem to stimulate people, I know, from talking to them.

ELWELL: Again, I don't know how candid to be, but let's say the influence of that kind of award is debatable. There's another side of that coin, too.

KEMPE: There always is.

RIEGEL: Let's give the Upjohn people a little respite here and ask Mr. Clamp of Armour to tell us how that company is appraising its professionals.

J. C. CLAMP: First, let me define my scope of authority, because Armour is split in half--food industries and chemical industries--and even beyond that it's split so far as applied and basic research are concerned. So my remarks will be confined to a number of the Armour chemical industries which have been, and this is no secret, a relatively profitable group of the company, and which use more technical personnel relatively than the meat side of the company. In terms of appraisal or evaluation, we do have formalized approaches. I think in our formal appraisals we would cover your points 6, 5, 3, 2, and 1. In our formalized evaluations there are rating forms which are required annually, and which follow the lead of one of our good friends, General Electric. This formalized appraisal sheet should be included with any salary adjustment form before it receives any further treatment by our end of the company. Now this is relatively new with us, only of about eight months standing. If I may digress for just a moment, I attended a council meeting of an organization a few months ago, and described that procedure in a trip report to our vice-president and two days later it surprised me. It is now a requirement. We think it's good.

I've got to give you one minute of history--we have an organization that has grown quite rapidly in the past fifteen years as the non-food industries of Armour, consisting of chemicals, soap, abrasives, etc. We have

approximately 5,000 employees, many of whom must be technically trained. We don't have a large backlog of technical employees to draw from the rest of the corporation--some 55,000 to 60,000 non-technical employees. Therefore, we've had to use to the ultimate all the technical ability we had and we've had to recruit other technical personnel very actively. One of our major problems is securing technically trained people for administrative jobs, for sales, and for plant supervision. Obviously, the best source for us has been our own laboratories. Armour has a good history in terms of research, and a long one, and we have spent a lot of money on research. This is being very candid, but that's been one of our ways of life.

The use of the appraisal system in the non-food divisions, most of them chemical in nature, has been actually keyed toward 5 and 6 in your list more than anything else, because of the need to develop an organization that is sound technically. For example, in our chemical division, we have no single employee in the field sales organization, the technical sales service organization, administrative management or division management, who is not a minimum B.S. chemist or B.S. engineer. Twelve years ago our chemists were few in number. Today, the opposite statement can be made and it can be substantiated. Obviously, then, in terms of reassignment we've drawn very heavily from our research personnel. Research generally includes applied research, process development, and as near basic research as we have, because up to recent months most of the basic research has been performed by the Central Research Division of Armour and Company. Therefore, we have insisted upon a formalized evaluation of our people annually.

Now let me move into the salary adjustment side. We have not systematized or formalized our evaluation procedures to the extent that we have only to give a man a salary adjustment. We don't believe in such an emphasis. We are very much more interested in the potential of a man and his eventual reassignment in the spot where, first, he will be of most value to the company, and, second, in which his own individual potential will be recognized more completely. To that extent we have designed appraisal forms which deviate from the standard Armour forms. We've designed four different forms, in fact. One is for plant supervision up to and including plant superintendents; another one for sales personnel--that includes both technical sales, product sales management (these are all in technical areas) and field sales; a third separate form for our laboratory personnel, chemical engineers, and pilot plant operators; and fourth, a standardized evaluation form for all other salaried employees. So, it may seem just a little bit over-formalized. Actually it isn't, because, very obviously, all personnel fall into either production, sales, research, or general administrative and clerical.

We have conducted, with the assistance of some very notable professors (I'm sorry to say none of them from Michigan), training courses for all of our supervisors up to what we would call our management group, in how to appraise

people. We started this about four and a half years ago with the help of a man from the University of Chicago, originally from M.I.T., and continued with a second professor from the University of Chicago. One was a more or less behaviorist psychologist, the other a sociologist and an anti-psychologist. Trying to put the two together seemed to solve some of our needs in this area of appraisal training.

During a post-appraisal interview, the employee signs the appraisal form, which is filled out during the interview session. Now let me digress one moment. When I say we require an objective evaluation, we insist upon such a review annually. We receive, candidly, 90% cooperation. The personnel department has been a prime mover in this direction; we simply had to have it to aid in organizational development. Our personnel department follows up on the procedure until it receives the appraisal, and as I said, the employee's signature is on it. He is evaluated and counselled by his immediate supervisor. After the interview is over and the post-appraisal discussion has been held, then the supervisor's supervisor sees the form and also signs it. Then, if a salary adjustment is indicated, the form is stapled to the back of the salary adjustment form and we receive it in the personnel department. I would like to say--and this is a rough guess--that maybe one out of three of these appraisals is discussed with members of our personnel department prior to the interview and the appraisal, which are coincident. This I would strongly suggest is a short-run proposition, because, as these supervisors and the supervisors' supervisors become more adept at this game, they feel that they need less help from the personnel department, and I think they should need less help. So, we're happy to see a descending curve of pre-appraisal and pre-interview solicitation of help from the personnel department take place; I think that's a good sign.

The requirements of the procedure are formal, the procedure itself is very informal. Most of our men in whom we have the most confidence in terms of giving us a good appraisal follow a very informal rating procedure. They use the appraisal form itself more or less as a check sheet. They may sit down at the end of the interview and then fill it in and sign it together with the employee. Others, and this is particularly true of some men with the scientific bent, follow the form very systematically. They fill out the form beforehand and then check it, making only what changes might be necessary. So, what I've tossed out was really a highly formalized structure originally, that tends, however, to become less formalized, more personal, more adaptable as time goes on.

I'd like to move along to number 4, "Aids to Basic Personal Development." You can very obviously see that, since we're young (our major consumer product, "Dial" soap, is quite young, although it's a leader now) we've had to develop our own people, and it's been the two vice-presidents in these divisions who have placed the burden upon the supervisors to aid, encourage, and inspire

the personal development of their promotable people. To that end, we have another form that supervisors must fill out, which is entitled "Analysis of Key Personnel"--by that we mean, promotable personnel. All supervisors try to pull from these analyses what each man needs, what the individual employee needs in terms of assistance in his personal development. Psychological coaching...now, again, I shouldn't use that term because I'm not implying psychotherapy. As an example, perhaps I'd better say, personality coaching may be indicated, which could best be given by the supervisor or by somebody else who knows the man--the supervisor's supervisor, a personnel counselor, or (and I'll have to say it again) an outside consultant from one of the universities who have helped us. We've never brought a man in from the outside in this item number 4 unless he knew the organization from top to bottom, and that has generally meant in the case of the three men that we've used, about twelve to eighteen months close contact with the entire organization. The supervisor in item 4, if he indicates personality coaching, fine, we supply it. If he indicates American Management Association-type seminars in the human relations area or in the field in which the employee operates, good, all the better. If he advocates a shift of assignment, the employee could be moved from technical sales service into process engineering or vice versa, a move that may, of course, be simple reassignment, but not necessarily. It could be part and parcel of an across-the-board management training.

I think that covers most of the areas. We have essentially a formalized appraisal form that's stapled to the salary adjustment form or forwarded to the personnel department if no salary adjustment is recommended. From that appraisal we try to tackle item 4 separately, I think because of problems unique with our own organization. This procedure goes only up to the level of what we would call management personnel. On that level we have an entirely different form, based upon five factors. We receive not only the appraisal of the supervisor, but also the appraisal of other members of management, and then we use just a little bit of the projective testing techniques which are so fond to many of the academic people and we think are most applicable to industry. For the benefit of the specialists, we believe very much in the Gardner and Moore type of thematic apperception tests. We did not begin such a program for a number of years until we were well into this area of appraisal because we didn't want to go "test happy." But in the growth situation which we are in, we have felt that we've got to analyze our people just as carefully as we've analyzed our organizational structure. Now that's enough of a sermon.

T. J. CARRON: May I ask you a question?

CIAMP: Yessir.

CARRON: On this business of getting the employee to sign the appraisal form. I can foresee a possible problem there, and I'd like to have your comment on whether you've run into the problem, and if so, how you handled it. Quite often you have enough things on the appraisal form so that they represent more than what you would want to bring to the attention of the employee in any one counselling interview. In other words, there might be many areas for him to work on, and if you talk about them all at one time you might snow him or discourage him; I wonder what happens then in a case like that when a man gets to see the appraisal form and sees the whole picture at any one time.

CLAMP: Well, very obviously, we have seen definite reluctance of an employee in some instances to sign the form. We have had other instances where it's been necessary to have three or even four sessions to cover all points in the appraisal. If an employee doesn't agree with the appraisal, he may sign the form indicating that the appraisal and the interview took place, and that he would like to discuss the proposition with the personnel department. So then we see the burden passed over to personnel. Whether that's good or not (I personally don't think it's good) I've tried to imply that we've been under a forced draft situation. As a result, we've had a little bit of "let's take 80% of the package" thinking, rather than 100% of the package. Of course, I'm really dodging your question. It has been a problem, but not as frequently as you might expect. There are approximately 1200 people involved in this appraisal program and we haven't had enough instances of refusals to sign or to accept the opinions of the supervisors to cause a significant problem at this time.

CARRON: Well, I wasn't thinking so much of the refusal to sign as the problem, but merely the discouragement of the employee, If you appraise him, you find there are several areas where he needs improvement, decide how much he can take at any one counselling interview, how much of a program you feel he can handle, you limit your discussion to that.

CLAMP: Surely.

CARRON: Now with this system he kind of sees the whole picture all in one session and if it happens to involve quite a bit, it may be too much for him to take.

CLAMP: Well, that again depends upon the skill of the supervisor doing the interviewing and we've tried to help them along with that. Bear in mind that coming out of this session in two out of three instances is some positive action under item 4, so there may be a problem. The employee may be a good chemist, but a poor administrator, and his human relations may be lousy. A couple of weeks later we'll find him assigned to a human relations session.

OHLGREN: Are these job-in-training programs or educational programs here that you're suggesting for a deficiency in human relations?

CLAMP: For about three years we have been running a four-hour-a-week human relations course conducted by a human relations psychologist who knows our organization and has been familiar with it for about nine years. Each course lasts nine weeks, and is conducted during working hours as an educational program.

STEWART: You mentioned one thing that I think is rather unique to those of us who have performance review programs as such. What is your philosophy or thought behind having the supervisor's immediate supervisor sign the form after the interview?

CLAMP: Well, for two reasons. Number one, we have placed a different burden on him. To generalize, the supervisor's supervisor may be pretty much responsible for developing a five-year plan for the expansion and development of his organization, which must include people. So, we wanted the supervisor's supervisor to sign it, just to see what he has in terms of manpower coming up from behind.

STEWART: So it's an after-the-fact sort of thing for his own information?

CLAMP: A very much after-the-fact thing as far as we're concerned, because we've tried to push this responsibility of appraisal down to the first-line supervisor. I might add as an overlay to this entire discussion that there is a very decided philosophy of decentralization in the non-food industries of our company as opposed to the meat business until recently. The signature requirement is more or less to give him the information to prepare a five-year plan of people which he then can match with his five-year plan of products, processes, and installations.

BRIERLEY: You don't give the supervisor's supervisor an opportunity to rate the same individual in those characteristics in which he knows him?

CLAMP: Not at the non-management level. Generally a man in management will be rated by his supervisor and his supervisor's supervisor and then two or three other members of management who, of course, at the level would know him quite well.

J. H. WARDWELL: You appear to have a fairly complex procedure. I was just wondering what problems you get into in explaining and selling it to your new employees.

CLAMP: We see to it that each employee in the salary group, which includes technical personnel, gets a copy of the evaluation sheet at the time of his employment. We explain what our rating procedure is and what it is used for. This ties back again to item 4 in that we are under a sort of forced-draft program of growth, such that we've got to--we want, I'd rather say--to develop our people as rapidly as we can. So we explain to most of the people involved at the time of employment what our procedure is. On paper, our forms are close to Minnesota Mining's forms, rather short forms, so they do not look too complicated.

RIEGEL: Let us hear next from the Owens-Illinois representative.

H. F. ZINK: It's always impressive to note that when you do come to a session like this, so many common problems arise. My position right now is that we've already covered many of the major facts, so I think I can shorten this. In noting the points that you've put on the board, it seems to me, not to oversimplify, that they break down into two fields: items 1, 2, and 4 might relate to communications between the employee and the supervisor and Items 3, 5, and 6 might relate to evaluation of potential and utilization of a man.

I think in the first one, when you're talking about relations between an employee and his supervisor, we rely to a considerable extent on what we call a progress interview which has already been described, I think, by one of the other gentlemen. It's a discussion held semi-annually or annually, at an indeterminate time between the man and his supervisor to try to determine the direction he should be taking, work out any personal situations that may arise, to promote an understanding of the objectives of the group and also to determine what the man is trying to accomplish. We find that this system works very well.

As to how you promote such interchange, what you can do to encourage it, I think it must be encouraged very definitely by the management, in our case, the chief engineer. Personnel can ride along with it as far as they want, but when it comes down to the crux, it's the encouragement of top management that makes such a program effective. Once it's established, I think the supervisors pick it up very readily and encourage it themselves. They like it; it helps them a great deal in their jobs.

On the other point of evaluation of potential, this is a little more difficult. The first things we talked about are informal things--an informal manner--not conducted regularly, often not written. As to the formal program on item 3, appraisal of salary adjustment, we, too, have a rate structure program. In that program, all jobs within the company are assigned a value, and I might point out that we feel that you should evaluate the job and not the man. You describe what the job encompasses and the man then fits into it. As he

indicates progression he can be rewarded in the same job, and he also can go on to a higher calibre job or bracket as he improves. But that very definitely patterns our salary situation.

For potential above a certain point in the rate structure program, our people are fed into a management inventory file in which is recorded their background, their history, and appraisals of supervisors under whom they have worked. This file indicates whether they have very high potential, medium potential, or essentially whether they've reached the top of their particular abilities. We rely on the supervisors to provide that information. It is not always written; I would say, many times it must be acquired verbally.

I think I have covered the essentials and can stop except for one thing. I'd like to find out a little more of something what we haven't discussed. That is the problem of utilizing or determining the potential of a person and the area in which he will be of best service very early in his career. I would cite as an example summer students working for you; in three months you want to determine what that man's potential might be and where he might be utilized. Or take the case where you have an engineering training program. We, for instance, have a job rotation program in which the man works in three different areas. Through those three areas that he works in, how can we determine and get the supervisor to tell us in which area he will be most effective upon his ultimate placement?

A. R. JENNINGS: If you've got supervisors that can tell you that, you've got a rare individual.

ZINK: That's exactly the point.

JENNINGS: No matter what the supervisors say, or management says, what about the individual? What does he want to do? What is his interest? After all, measuring how far the frog can leap is one thing, but planning on how to make him leap, or if he wants to, is a different thing. I think you've got a very complex problem there and I don't think there's an easy solution or answer to it.

ZINK: I don't think there is either.

JENNINGS: Do I understand that your review for salary adjustment is somewhat different from your review for purposes of aiding personal development, in determining potentials and so on?

ZINK: In the review, the basis upon which you're gathering information would be the same, but the procedure of authorizing salary adjustment is formalized.

RIEGEL: In your consideration of basic personal development and potential, and possible reassignment, I believe you use the committee system. Am I right?

ZINK: I would say that determination of which rate group this job would originally fit into is done on a committee basis. Otherwise, evaluations, merit increases in salary, reassignment are worked out by the supervisor.

RIEGEL: That pertains, however, to job evaluation, not to the appraisal of the man's services.

ZINK: That's right.

RIEGEL: But contrasting the salary adjustment, the people who participate in salary adjustment and the way they participate--is there any contrast in who participates and the way they participate in purpose 3 and purpose, let's say, 4 and 6?

ZINK: Purposes 4 and 6 would be related to the supervisor and in most cases the chief engineer, the chief engineer knowing who in his division would be most eligible for movement.

RIEGEL: Any questions of Owens-Illinois? All right, we've heard a number of procedures described. Let me invite people in the usual order to ask questions of the group. Mr. Clamp, do you have any comments or questions?

CLAMP: I've just one question. Have any of you come to grasp with this problem of identification of creativity among scientific research personnel? I notice that the Minnesota Mining form has as its second column--its second consideration for rating--"Creativeness," which identifies those who frequently contribute worthwhile ideas. Have any of you measured it with success or have you had any dismal failures that you'd like to just toss out, or pitfalls that you've run into?

CARRON: I think you might be talking about two different things there. One thing is the measurement of it through a test which might help you to identify creative potential in an applicant that you know very little about. I think there is some work being done there, but the people working in this field would be the first to admit, I believe, that the tests aren't at a stage of development where you could actually use them for selecting employees with any large measure of success.

CLAMP: I'm aware of the tests, but I mean beyond that.

CARRON: On the other hand, I think all of us in organization--research supervisor, directors of research, people like that--have some pretty definite

ideas after a couple of years or so about the originality and imagination of some of their technical people and they probably couldn't prove it, but they arrive at these judgments nevertheless. We, at least, have a factor on our form for them to check on originality and imagination, and you find some pretty definite opinions there.

CLAMP: Well, I think that gave me the answer. Time is what's involved.

_____ : It's also a danger, it occurs to me, first admitting that identifying a man that has imagination, initiative, and comes up with money-making ideas "this is a nice boy." But to say that X technical man is better than Y because one rang the bell and the other didn't, isn't necessarily correct either. A man can do a beautiful piece of laboratory work and come up with a commercial "0". Does that mean he's any less a good man than the guy that by accident of fate, perhaps as much as anything, really rang the bell? I just point that out as something to be careful of.

CARRON: I think you're quite right. You can have a very creative individual who doesn't really turn out much in the way of money-making ideas for you, but the originality of his thinking and the unusualness of his approach to these problems nevertheless comes to the attention of the people who evaluate him and, if the program is being tackled correctly, they should give him credit for that.

F. BLACK: Sometimes he merely stimulates somebody else in the group.

_____ : Well, aren't you calling for the conclusion that arrives at a decision based on our present frame of reference rather than what a potential might be?

_____ : Yes.

_____ : Even this idea which today might not result in a new product might well be the answer to a product tomorrow. So you've got to watch the preciseness of our language as well as the exercising of our judgment.

RIEGEL: Next gentleman?

JENNINGS: Well, I'd say our biggest problem is how to get supervision to conduct interviews under item 4.

RIEGEL: How to encourage them to do it and perhaps how to help them do it.

JENNINGS: That's correct.

RIEGEL: So, as someone said a moment ago, sometimes they try but the effect isn't what they hoped for.

_____: We certainly subscribe to the idea that top management must set the example if you're going to have these programs successful at all, but there certainly is an awful lot to be learned, and there's an awful lot in the training end of it.

RIEGEL: Has anyone here conducted training programs to help supervisors at any level to conduct post-appraisal interviews? Good, Chrysler has.

_____: We've done some.

RIEGEL: And you have, General Mills? Tell us, what have you done and how has it worked out?

G. W. SWANSON: As I'm sure you know, Dr. Riegel, our program has taken a three-pronged attack up there in Minneapolis. About four years ago we started a supervisory discussion group--if you want to call it that--to now where it consists of 1200 supervisors throughout the company discussing the "General Mills way." This is a statement of company policy regarding people-centered management, but it also gets into the problem of coaching individuals, of dealing with problems of their personal life as well as their job life. Along with this program we call the "General Mills way," (incidentally, we're running them again this year for the fourth year) we have what we call the "How Am I Doing?" talks. I think Mr. Zink was rather modest about something they have at Owens-Illinois.

ZINK: That Owens-Illinois booklet, you mean.

SWANSON: Yes, I think so much of it that I brought it along! And I'd just like to let you see it anyhow. It's a green booklet called "Progress Interview" by Harold Mayfield at Owens-Illinois, and I think it's a booklet that should be in every personnel man's vest pocket, because it tells you how to handle many of these problem interviews. Well, we adopted much of this. I've got a few of our adaptation along if anyone is interested. It is entitled "How Am I Doing? Talks."

We have a little bit different approach to progress interviews, and I haven't heard it brought up yet. It's a little bit new. We ask the individual employee to set up objectives for himself. What does he want to do for the coming year, six months, three months, or whatever the period might be, to do a better job at work and in his personal development. Then, at the

end of the period, we have a review of those objectives. Now, here you have a situation where the individual is actually criticising himself, and I think some psychologists will tell you that an individual will tend to be modest, he will tend to be more self-critical than is normal. So the supervisor finds himself in a position of not criticising in a down-to-the-employee manner, but uplifting him, raising his sights, raising his opinion of himself, because really he's done a better job than he usually thinks he has. Well, then at the end of the period you have an automatic review of the objectives that he has set previously, plus setting objectives for the coming period. See, you have a constant turnover, a constant build-up of these objectives, a review, and a projection into the future.

Since this is so new to us, we really haven't evaluated the thing completely, but from the extent of the experience we've had so far, I think it's going to work extremely well. We have individuals coming and asking "when can I have my 'How Am I Doing? talk'?" and this literally is happening. They're asking for it. Supervisors are being constantly trained in these discussion groups, they know they're not getting into a situation they can't handle, they look forward to these interviews, and the thing is as formal or informal as anyone wants to make it. We encourage but we don't require from personnel. We think this setting of objectives is the key to it--letting the individual decide what he should be graded on.

_____ : And set his objectives--that is, on this matter of aid-to-basic personality.

RIEGEL: I can imagine nothing more fruitless than trying to educate somebody who does not want to be educated.

SWANSON: In these interviews, then, by setting these objectives, we often find out whether a man wants to be in management or in pure research. We find whether or not he wants to be transferred into operations or somewhere else. These things automatically come up because of the individual's starting to talk about himself.

RIEGEL: What you have said is important. By and large, industry up to this time has been pretty authoritarian. But a boss finds that he cannot ask a man to improve his ability and that the man then will do so. Personal development is really self-development and it requires a great deal of persistence. It occurs only when the individual is strongly self-motivated. Therefore, it is a good thing for a man to set his own objectives. Of course, he can be influenced to do this, and he can be encouraged and guided in the process. But it is a good thing when he commits himself to attain certain long-range objectives which require a self-motivation to achieve.

SWANSON: We've had a good example within the last week in one of our supervisory discussion sessions. I happened to be the leader of this one group. We have what we call "bootleg" time in the laboratory where scientists can devote up to 20% of their time to any kind of project that they want to. The problem came up--Are they embarrassed if they work on a project that's totally unrelated to our present work or profit picture? Well, they said, why not discuss this in the "How Am I Doing" talks? Let the supervisor and the man set the objectives for this bootleg time, then there's no misunderstanding. It was a natural tie-in.

RIEGEL: I think our next gentleman is from Survey Research?

S. WEST: The several methods of the assessing performance which were mentioned have had just one criterion--the judgment of the supervisor. I wondered whether anybody had used any kind of objective measure of performance?

RIEGEL: The question is, "Have you discovered or been able to find objective indicators of performance on at least some aspects of professional work?"

M. W. JOHNSON: I think perhaps we, at Chrysler, are striving in some way for that in our appraisal system. We do not appraise personality traits, whether or not the man is honest, loves his mother, salutes the flag and so forth. The first part of the appraisal cycle is that a man's specific job responsibilities are established in the job area. If he has any responsibilities for organizing the work force they are listed specifically; any responsibilities for costs are established, and any organizational responsibilities; all these are discussed with the man so that the man knows what he's held responsible for, and then in a coordinated appraisal--where a staff man sits down with a man's immediate supervisor--we determine how well the man is performing on each of these specific responsibilities (we have a 5-point scale). We list supporting data. One function of the coordinator is to try to nullify the biased effects of recency, "halo effects," and so forth. We list supporting evidence, factual information, that will justify a rating. If we get no justification, we can't pay too much attention to the intuitive judgment or opinion. We ask very specifically that the supervisor think through and give specific data to substantiate his rating on each employee. This may occasionally take as much as two hours. We think that's more objective than just a general "yes, he's very original" or "yes, he's very something-or-other."

AMMERMAN: Yes, that's a good deal better than intuitive judgment.

_____ : Well, isn't this intuitive judgment, as you call it, based on many things that are subjective generally? For instance, in a very

simple area, if you're rating draftsmen, the amount of work that they turn out-- the work that you're talking about--whether it's good or bad or indifferent, the amount of supervision or direction that they need, how many questions they have to ask and whether the questions are good ones or ones they should be answering themselves. You base all your intuitive judgment on specific instances. You get a little bit higher in design work and the number of assignments, the ability that the man has to work out a design assignment, the complications and so forth, how much help they have to have and so forth. Still higher, you get into the group where men are responsible for overall design and they have a budget to operate on. You can rate your men against one another on how much does it cost this man to do the job compared to how much does it cost this man? He's directing anywhere from two to ten people, how much does it cost him to do the job? Does he do it with a minimum of dollars, or are his costs always high compared to other people?

WEST: Well, sometimes these things are implicit in supervising judgment, yes, but sometimes they aren't; I was just wondering what procedures were used for ascertaining whether they were there or weren't there.

_____: On that point, I'd like to suggest this, with a little background. Anyone who's traced the progress of this business of rating people has seen a lot of things done, a lot of quarrels over what factors, how many of them, how weighted, what degree, score, not score, etc.--we're all acquainted with this. The object of all this work in terms of scientific endeavor was validity and reliability. Is that right?

_____: Yes.

_____: I would like to suggest that it's probably less worthwhile to fool around with that aspect of it when there is one good thing that will increase the objectivity of anything you do.--whatever it is, whatever form you use, or whether or not you use a form. It's this very fact, that if a supervisor is expected to discuss this with an employee, the mere fact that he has to discuss it will make him objective. The first time he gets a little too subjective, he'll learn better. He says, "I think you're lazy." "What makes you think so? Tell me, when was I lazy, how was I lazy?"--see what I mean? The fact of discussion will give you a very high degree of objectivity, I think.

STEWART: Along that same point, if I might get out of turn--Mr. Carroll passed out to you a gimmick that we're using at Ford but which certainly isn't unique at all. Mr. Chrysler just mentioned it. We recently revised the performance review system we've had for a number of years since most supervisors and employees were generally dissatisfied with it. Our former system was built up on the basis of rating various traits and characteristics rather than an appraisal relating specifically to job performance. Consequently,

very recently, just in the last few months, we rebuilt the program on the basis of indicating specific levels of performance on the job. In other words, the supervisor describes all of the responsibilities of a certain employee's position or job, and then as performance incidences occur worthy of mention, both good and bad, he not only mentions them to the employee at the time, but records them for further discussion or future discussion with the employee.

We believe the new program has considerable merit. At least our experience so far shows that it will develop into a better program than the one we had before. But on the point of an employee taking issue as to when things happened or didn't happen, we find this form--using this form--enables the supervisor to pretty well tie that down. And, of course, the employee is privileged to see this report. The report is not filed in the employee's record, but he is asked to sign that he has had such an interview. Employee performance appraisals and personnel interviews are conducted at least once a year. The third copy of the little package shows the front and back of the form. It's designed solely to assist the supervisor in being able to better conduct and better handle an employee appraisal interview. The reaction to it so far on the part of the supervisors and the employees has been very good. Maybe others have had greater use of it than we have at this point.

RIEGEL: Is there any comment on this? Note the emphasis by the Chrysler representative on being sure that the individual knows his responsibilities. His boss should be sure that these are clear to him. Also, the Chrysler representative talked about the use of substantiating data. A Ford representative, in that connection, spoke about recording noteworthy incidents at the time of their occurrence. Over a period of time, these can indicate what opinions should be formed with regard to performance, methods, conduct and so on. These opinions would still be judgments but they would be supported by memoranda. Fred, do you have a question?

BLACK: It seems to me it would be interesting to know in evaluating or in determining item 4 there, to find the objectives of the individual.

RIEGEL: Yes. Invite him to set his goals. This I picked up from the General Mills representative. The next gentleman.

R. T. HALL: I have one question. In setting up a program of this type to evaluate technical personnel, who gets the job of instituting and initiating this program? Does this fall in the realm of the personnel department or the chief engineer? Who gets the ball rolling in some of your experiences?

RIEGEL: If you're asking me, I think you get a better job done if your chief engineer or director of research wants this and sees certain values

in whatever he wants. I think the personnel division does its finest work when it's regarded as an aid to the operating organization. I suppose there are some personnel people here who would have some comment on this.

JENNINGS: Unless they buy it, you might as well just forget about it.

_____ : Personnel department is only the salesman to the top management. If they buy it, then it's going.

JENNINGS: We had a very critical situation of that sort. We had our New York office propose a plan. It was put into effect throughout the company by the industrial relations department. It was only a matter of two years and the thing got--it was so unsuccessful that it became a waste of time, and only then did we get local management to participate, and to appoint a committee of supervision to meet and say, "How can this program be revised, how can we make this program a better program?" And only through their participation did we come up with something that's acceptable to them. Again, without top management's endorsement you're not going too far. Personnel can pound on the table but to no avail.

RIEGEL: The next gentleman?

E. F. CAVANAUGH: Well, my question, perhaps, may be a little afield, but I'm interested in any experience anyone has had in the use of some of the psychological tests that are available. Particularly in area 4, but also selection and placement of people, perhaps areas 4 and 5. Do they seem to carry some validity, and if so, what use can be made of them. Do you have to have a major in psychology to use them? I'd like some comment from someone who has used them.

SWANSON: Well, I've had the feeling that most of your technical people have two approaches to tests. Either they go "all out" for them, think they're the answer to everything, or they have a basic distrust of them. Because of these extremes, I have assumed a very middle-of-the-road attitude about them and don't encourage them at all. It's a middle-of-the-road approach in that, if they are too optimistic about them, I can take a negative approach at least until the balance is preserved.

JOHNSON: I feel that they are of value. If used properly, they're a useful tool, but you should not go overboard on them. I feel very strongly that you must have highly qualified personnel in charge of administering them and interpreting them to your technical personnel. Because it is a profession that is just as abstruse, I think, as physics, maybe more so, because you're dealing with people. There was some mention made of the projective techniques. Those require a very skilled psychometrician or a clinical psychologist. We use tests in placement and for screening applicants. We have run some validation

studies on the predictors of engineering success. When, on the basis of an appraisal, we feel that reassignment is necessary, we may use a battery of them. If we find a man is not performing successfully in his work and he indicates he doesn't feel happy there, we try to find out where his interest and ability lie. This has, on a few occasions, resulted in a man's leaving the company. However, we think we're doing both the man and the company a service. So, in general, I think tests are useful. There are different degrees of validity for different tests and I think they do require that you shape them to the needs of the organization, run validation studies, and often develop your own norms. In our division, we've been using tests for many years. We have developed our own norms for selection.

CAVANAUGH: Do you have a trained person who both renders and evaluates the tests?

JOHNSON: Yes.

CAVANAUGH: Which tests have you found that have been the most successful?

JOHNSON: Offhand, the one that we have found that best predicted success is the Minnesota Engineering Analogies Test. We have found that to be one of the best single predictors.

RIEGEL: Didn't somebody from Dow have a comment?

JOHN WARDWELL: Yes, Dr. Riegel, I'd like to make a few comments on this use of psychological tests.

RIEGEL: Are you a middle-of-the-roader, may I ask?

WARDWELL: Yes, I will classify myself as that. First of all, I would like to limit most of my remarks to the Midland Division. In our company, different divisions make different use of psychological tests. Our company does not say that we must test each employee before hiring them; however, some divisions do. One of our divisions tests all their technical people before they hire them. In Midland, however, we do test each technical person after he is hired. We have an industrial psychologist who administers the tests and the results of the tests are kept confidential to the individual himself, to the industrial psychologist and to the man's immediate supervisor. And we have found these tests quite useful in counselling our people. I know that a number of our supervisors, if they have a problem with an individual, if they feel that he needs help, will first go and talk with our industrial psychologist to determine the best way to approach the individual--the best way to motivate him and so forth. So, we have found the tests extremely

helpful here. As far as a guide to hiring technical people, if we have the tests, we will use them. We think they are one of the tools to evaluate the person that we hire.

JENNINGS: Can I ask you a question on that?

WARDWELL: Yes.

JENNINGS: What if the supervisor goes to the psychologist to ask what his approach should be. The psychologist says one thing. Is that taken as gospel? I'm afraid that most supervisors would be afraid to deviate from what the professional told him to do, and that's why most tests do become a one-way street because most of the supervision are afraid to go contrary to the predictor. That they kind of rely on it, they don't want to take the responsibility of going contrary to what the tests indicate. That's what I think the problem is. How many supervisors have the courage to make up their own minds in the face of data which say the other way is the right way or the other person is the one to hire. That's the problem. Where do you find the management personnel with the courage to use their own judgment sometimes in lieu of test data?

BRIERLEY: I think--and this is based on personal opinion--that too often an attempt is made to reduce something to a numerical value and the minute you get it to a numerical value, you make comparisons across the whole spectrum of numbers. Certain people do. Even people in management have a tendency to do this. If you're lucky enough to get it into a formula, you'll perform a maximum or minimum operation on the formula. In other words, it's a means of homogenization. The more remote you get from the immediate testing or rating area, the more latitude will be taken in these results, and you've got to watch it carefully. What the solution is I don't know. Instead of saying "middle-of-the-roader" maybe we ought to use the term "completely confused." This is entirely on the operational side rather than on the administration side.

WARDWELL: In answer to your question, I think the supervisor is going to the industrial psychologist for advice, and he has to make his own decision whether he's going to take that advice or not. In general, the advice that our industrial psychologist has given is good. I know when I used it in talking with several of my men, I found it helpful. It depends upon the individual supervisor. Some of them have backbone, and some of them haven't.

RIEGEL: I think we're along to the Argus people?

AMMERMANN: I have two questions. First, how many of the people here are personnel department people?

RIEGEL: About seven, I believe.

AMMERMANN: The balance, I presume, are engineering supervision or engineering?

RIEGEL: I suppose that is right.

AMMERMANN: My other question is on area 4. How do you--this "how am I doing" business and so forth--how do you distinguish and get your person to distinguish between the lip service goal that you frequently come up with, and their actual real goal. This business of "this is what I want to do" and you tell them, "well, as far as this group is concerned, these are the things you need to do, to do that", and that's the end of it as far as he's concerned. He believes in this, he'll swear on a stack of Bibles that this is what he wants to do, but he won't lift a finger to do it. How do you distinguish, how do you get him to distinguish what his own real goals are?

RIEGEL: I think you brought this up, Mr. General Mills. Would you want to answer this?

SWANSON: Well, in those individuals, first of all I pointed out that the supervisor must have some training as to establishing rapport with the employees in these interviews. He must do this because he has to evaluate some of the goals the employee is setting for himself. Now, you'll also notice that it's set up on a periodic basis. Annual or semi-annual--could be every week if necessary. Some individuals require objectives that are short in range, others require objectives that are long in range. It very soon becomes obvious, as these are reviewed, which ones are being accomplished and which ones are not being accomplished, because they're there in black and white. The man has a copy of it and the supervisor has a copy of it. So you immediately separate lip service from the "will-do" type of thing, and those that are accomplished, fine. How well are they accomplished? That's a matter of discussion. Those that aren't accomplished, why weren't they accomplished? And, again, it is a matter of discussion, because they're immediately brought to the forefront by these reviews. We've had individuals reviewed every week in some cases.

_____: How does your supervisor keep up with all this paper work? It means he has to read it.

SWANSON: The supervisor wants to do it, it's not our telling him to do it. He feels that it's necessary to develop this individual, to get him into a habit pattern that he is going to be productive over a longer period of time.

I tend to think on supervision as a constant on-going appraisal all the time. This review we've been talking about is merely a summary--once

a year, once every six months, or at some interval, and records it and systematizes it as an active part of the supervising people. The supervisor's supervisor holds him responsible for this and so on up the line. I think it will become a part of the supervisor's responsibility.

I think the point I'd like to make here, though, is I don't think you can just generalize and say that every supervisor should use an annual review. I think people differ, supervisors differ, and the work differs, so some may require it more often than others.

_____ : Of course, there's one thing that hasn't been brought out this afternoon, and any one of this type of discussion I've ever been to hasn't really discussed it. That is the problem of what you do with a person who's reached the limitation of his abilities and still thinks he has to go on beyond. This is the area I'm really in when you come right down to it. The fellow who has goals beyond his abilities and so forth. How do you really handle this?

SWANSON: It would seem to me in most of your setting of the goals that you can set up criteria of achievement, can you not? And if those points of achievement are not reached, it becomes obvious to the supervisor and the man that he does not reach those goals. It's self-leveling, as it were.

RIEGEL: You called attention, I believe, to the requirements of the job to which the fellow aspires, or such other requirements, so that the individual begins to see that he's not meeting the requirements.

_____ : On the first part of the form we ask what his job is, what his responsibilities are and what he's expected to do.

AMMERMANN: I'd like to point out something here, because we appear slightly different and there's probably a good reason. I'd like to point out that we do not have job classifications in our technical areas. Our people have a name that goes with their personal evaluation. When they reach a certain grade, usually senior engineer, then they go into a file showing potential, so this is automatic. We classify people, and not jobs. Personnel men think, depending upon the company, that this is either a good way of doing business or a bad one. I believe most of the people here are dealing with job classifications. We deal with engineers, senior engineers, and then we go into either scientists or supervisors. So we have perhaps compounded our problem. Our people are constantly reminded of our opinion of them every time they think of what they are, not of what they're doing. We pay them on the basis of what they do, not on how we describe their personal ability.

STEWART: Do they have to achieve certain levels of performance or job responsibilities before they are given a specific title, a different title.

AMMERMANN: They have to be capable of doing a certain job. We hire a master's degree as an engineer on the basis of background and education automatically. We may have him doing the work of a technician and pay him less than we pay a technician who has been with us for fifteen years, but his potential is greater, because he's called an engineer, to develop himself provided he wants to, and provided we can convince him that he should and show the way.

In our objective, our particular business of making new products, it is important that our man have the greatest potential possible, regardless of the type of job he's on, because we never know when he's going to come across something in which a personal limitation costs us money. The better man we can put on a job, the better we like it. Again, this is particularly true of, I think, creative areas, areas that are not only creative, but where we expect a man to have commercial sense, management judgment, and so on. We bring our senior engineers into management, they are brought face-to-face with the plant manager, with groups from the central office. Again, I think we have pretty well tailored to an operation.

Now, in a large research organization I don't know whether you can separate your individual departments and allow them more freedom this way, though I know they have little dodges to get it. I've heard of super-super-supervisors and things like this in strict classification systems, but our spans of wages are large and overlapping, and so on. Now, this will account for some peculiarities, I believe, that you will notice between our outlook and, I think, the general tone which has been toward more rigid categories of people and what they do.

Actually, we did have more rigid categories until several years ago. And we changed over to this system because we thought we could do a better job of getting more out of our people, by rating the man instead of the job.

STEWART: Plus the fact, I'm sure, that the system would make it much more attractive to the prospective engineer that you employ.

AMMERMANN: Yes, we find that that is an aid not only to prospective engineers, but people who are in your group feel that they're their own limitation; they are told that. You are your own top, it's up to you. Now, of course, don't forget we're small. Engineering supervision in this group that we represent is only seven people, and we have only three levels in that group of seven.

RIEGEL: Could I pass on rapidly then to the gentleman between General Mills and Argus--this is the only way I can identify him, I'm sorry.

R. L. ATKIN: Well, I would say from what I've heard this afternoon that perhaps Kelsey-Hayes has a system less formalized than any that's been

described so far, probably most similar to that of Argus. We're pretty much at the cross-roads right now as to whether it is of value to us to introduce a form for appraising performance. I think we cover the six points or purposes that have been discussed in an informal way with the individual supervisors talking to their people periodically. The question in our minds has been whether a form such as some companies use will serve a purpose that will justify the time involved or not. We can see value in it, in that it impresses the individual as to the attention that's being given to his well-being and, of course, it has a value as a permanent record of individual performance. I'd like to ask whether, beyond those two points, there are additional values that a company of our size would find from this procedure.

RIEGEL: When you say a company of our size, what do you mean, how many engineers?

ATKIN: Well, I'm speaking of our product engineering group of about 140 men.

RIEGEL: Any comments on the development of a form for a group of this size? Should they have a form? If so, what should its scope be?

WARDWELL: We've taken a rather firm stand on that, Dr. Riegel, and I think it applies to your question. At Dow, we don't have a form. We feel that each department is an individual case; we feel that the counselling and appraising problems in each department are different from any other department and each supervisor, each department head, has considerable freedom in this area to do whatever he wants and use whatever form he wants. As a result of that, our evaluation procedures, our appraising and counselling procedures, vary all the way from very exacting forms which arrive at a numerical rating down to a simple informal chat between the department head and the individual concerned. I think some of our problems have already been brought up. Under this system, we do have supervisors who shirk their duty and are not conducting evaluations and appraisals, counselling, as we feel they should. This was brought out, I think, rather neatly in a survey of our research organization that we made a few years ago in which we found a very definite relationship between morale in the research group and the amount of or lack of appraisal and counselling which each group received. But the mere fact that they had counselling and appraisal was an important factor, not necessarily the manner in which it was carried out.

_____ : I would tend to go along with all of that. The form is no panacea, that's the incidental. It's the ability and understanding and philosophy in which the job is done. I think probably the smaller the organization, the less need there is for a form; in the larger, some type of consistent approach is perhaps necessary.

RIEGEL: Gentlemen, I see that our time has almost elapsed. I wish we could go right around the circle and hear from the other people present.

Let me conclude the meeting by re-emphasizing my original point. It was that much of the trouble with our appraisals in the past has grown out of our failure to determine their purpose, in fact see the different purposes of appraisal and then to design and conduct them accordingly. We have not seen as clearly as we should that an appraisal for one particular purpose should be focused, conducted and followed up differently from an appraisal for another purpose. The second difficulty we have had has grown out of our failure to obtain general appreciation on the part of all supervisors in the company of the importance of the appraisals for each purpose which needs to be served. The result has been appraisals of very uneven quality and the poor ones have discredited the good ones.

Turning quickly to the items on the board, and looking at the first purpose of appraisals which pertains to the focusing of supervision correction on the job and training, a supervisor who does not observe his people's work and does not appraise it currently and take corrective action is likely to be a poor supervisor.

Secondly, the appraisals which serve as the basis of recognition of the professional's contribution to the business are certainly important. Our interviews with engineers and scientists indicate their keen desire to have their contributions recognized.

As regards the appraisals which are the basis of salary recommendations, we can say that the major complaints of professionals with regard to salary center upon failures to adjust personal salary to personal contributions. Personal salary adjustments which reflect performance make such adjustments serve as rewards. The possibilities of such adjustments in the future serve as incentives. In the evaluation of personal services for salary adjustment purposes, I suggest that we focus mainly on what each individual's assignments are and how well he has performed them. This will help us to be objective and specific. If data are available which show the man's productivity and the quality of his work, such data certainly should be a basic consideration.

This procedure, together with the idea of having the appraisals made by a committee, will certainly help the immediate superior who, of course, should be a member of the committee, to prepare for the post-appraisal interview regarding salary. The supervisor will be ready to explain why the individual did get a raise or why he did not get a raise.

By all means, eliminate ratings on personality traits in your evaluations of the services of individuals. Such ratings set the stage for trouble.

They are resented by the persons to whom they pertain. Supervisors realize this and they often avoid post-appraisal interviews when the appraisals refer to personality traits. On the other hand, supervisors can discuss aspects of performance and, in doing so, can encourage the individual to improve his work and in that way to earn the raise which he desires. The supervisor can then appear in the role of a helper rather than primarily a judge or critic.

Appraisals preliminary to counselling on personal development are quite different in nature. These are focused more broadly. They pertain to performance and often to personality. Comments on personality should be minimized but it is not necessary to be definitive about the matter since any appraisal dealing with personal development does not need to be accurate. The appraisal is sufficient if it points out areas which should be improved. Furthermore, in the interview which follows such an appraisal, the supervisor's interest and the man's interest coincide to a large degree. If a criticism is expressed, it is expressed mainly to guide the man's efforts to improve his ability and value.

So we need to be clear about the purpose or purposes of an appraisal, then ask ourselves what should we focus on, who should express judgments, when should the appraisal be conducted, and in what ways, if at all, and to whom, should the conclusions be reported.

Turning to appraisals which deal with reassignment, transfer and promotion, here again we have to consider not only performance but personality traits. We have to stack the man up against the pattern of the job that we think he may fill. We have to make comparisons and forecasts of his ability to fill that job. These are speculative procedures. We have opened up the lens wide compared to the way it was focused in the salary review.

An appraisal of a man's potential is even more speculative. Who knows what a man's potential is prior to his actually being tried in the position and being given real responsibility.

Speaking of post-appraisal interviews, it is obvious that an appraisal of a man's potential is usually not followed by an interview with him, at least if the appraisal has been focused on that subject entirely. Furthermore, I would not show a man a report of the appraisal of his potential. This could arouse hopes which later could turn out to be unfounded. On the other hand, if the report was negative, it could discourage him tremendously.

In contrast, there is value in showing a man an objective report pertaining to his performance if the report can be well supported. But if the report were to deal with personality traits, the case could be quite different. A man might very well challenge any statement that he is not

entirely "dependable" or if his "co-operation" is marked at the fourth level, or if he is given a neutral grade with respect to his "attitude." Any such statements are extremely difficult to defend, they set up barriers and strains between the supervisor and the subordinate and they seldom serve a constructive purpose.

Furthermore, even with regard to interviews on performance, it is well to consider the impact of the conclusions on the individual before discussing them with him. Assuming that you want to help the man to earn a raise or to resolve to improve his ability, the key question at this point is what and in what way should you tell him. You want to encourage and challenge but you do not want to dishearten. Many professionals are very sensitive to criticism. In fact, the more conscientious they are, the more sensitive they are likely to be.

The time involved in making appraisals and in post-appraisal interviews is an important consideration, but it is only one consideration. Equally important, if not more so, are the purposes which can be served by sound appraisals and by well conducted post-appraisal interviews. With regard, for example, to evaluations of the services of individuals, one can well ask, "How important is it that we have well adjusted personal salaries?" How important is it that an individual be informed as to why he was not given a raise and how he could earn one?

In closing, let us remember that professionals do want individual treatment, recognition and salary adjustment according to their personal contributions. Many of them are interested in further development as professionals. Their companies are interested in their potential value. For all these reasons, it is believed that well focused and well conducted appraisals, which are followed by suitable post-appraisal interviews, can be big factors in improving the productivity and the satisfaction of the members of a technical organization.

