WHEN *You Hire* WOMEN

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FOREWORD

This is addressed to employers hiring women for production jobs.

The women workers coming into industry now are chiefly inexperienced so far as factory work is concerned, and many women are wholly without work experience of any kind.

The examples were chosen to illustrate how some employers have met specific problems, but they will not be *the* answer for every individual employer. In most cases the examples have been selected from Women's Bureau schedules of plants visited.

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The Women's Bureau will send on request its complete list of war publications. Occupational surveys have been made of the following war industries: Aircraft assembly and aircraft engines, artillery ammunition, instrument-making, machine tools, cannon and small arms, steel mills, shipbuilding and naval repair. Various other industries were included in a State-wide survey made in New Jersey in 1942.

Single copies of special bulletins and all mimeographed material may be obtained from the Women's Bureau of the U. S. Department of Labor. Larger numbers of bulletins may be ordered from the Superintendent of Documents, Washington 25, D. C., at prices listed. A discount of 25 percent on orders of 100 or more copies is allowed.

Women's Bureau pamphlets on standards for women's working conditions (and related subjects) include the following:

Lifting Heavy Weights in Defense Industries. Spec. Bul. 2. 5 cents.
Safety Clothing for Women In Industry. Spec. Bul. 3. 10 cents.
Safety Caps for Women in War Factories, with illustrated supplement. Spec. Bul. 9. 5 cents.
Washing and Toilet Facilities for Women in Industry. Spec. Bul. 4. 10 cents.
Women's Effective War Work Requires Time for Meals and Rest. Spec. Bul. 5. 5 cents.
Night Work for Women and Shift Rotation in War Plants. Spec. Bul. 6. 5 cents.
Women's Effective War Work Requires Good Posture. Spec. Bul. 10. 5 cents.
Hazards to Women Employed in War Plants on Abrasive-Wheel Jobs. Spec. Bul. 7. 5 cents.
Effective Industrial Use of Women in the Defense Program. Spec. Bul. 1. 10 cents.
Absenteeism. (Mimeographed.)
The Woman Counselor in War Industries—An Effective System. Spec. Bul. 16. 5 cents.
Standards for Maternity Care and Employment of Mothers in Industry. (Multilithed.)

WHEN YOU HIRE WOMEN

Today women—hundreds of thousands of them—are at work in war industries. Unafraid of the hard, tedious, and dangerous jobs, they are working in shipyards, in aircraft and instrument factories, in arsenals and steel mills.

World War II, with its great influx of women into jobs previously marked "men only," presents both management and labor with many new and puzzling problems. Employers may benefit by reading of the successful experiences of others in employing women, and the essential steps in successful induction and utilization of women in war industries, that are presented in this pamphlet.

> *"We didn't want women, but now they're here we've found they are just as fast and just as capable as the men. They are all right."*

First —Sell the idea of women workers to present employee staff—the foremen and men workers.

Second —Survey jobs to decide which are most suitable for women.

Third —Make adaptations of jobs to fit smaller frames and lesser muscular strength of women.

Fourth —Provide service facilities in the plant to accommodate anticipated number of women.

Fifth —Appoint a woman personnel director to organize and head a woman-counselor system.

Sixth —Select women carefully and for specific jobs.

Seventh—Develop a program for the induction and training of women.

Eighth —Establish good working conditions.

Ninth —Supervise women workers intelligently.

Tenth —Give women equal opportunity with men.

WHEN YOU HIRE WOMEN

FIRST—Sell the idea of women workers to present employee staff—the foremen and men workers.

The foreman's cooperation must be secured; men workers' cooperation should be won before women are employed.

One company determined that its major labor shortage lay in the skilled occupations and that they would begin the employment of women by seeking women of ability to train for skilled jobs. They called together the men who did the skilled work, explained the situation, promised each man as good or a better job if a woman took over, and asked each man to bring a woman relative whom he regarded as capable of holding his job. It became a matter of pride on the part of each man to have his woman substitute succeed, so no effort was spared in teaching her his work. The company has developed a nucleus of skilled, respected women and is regarded as an excellent place in which to work by both men and women.

A shipyard called its foremen together, the labor stringency was discussed, and the foremen themselves decided it was advisable to employ women. They in turn sold the idea to the men in their respective departments. Though this yard had been strictly a male domain, the men have been exceptionally cooperative. Another shipyard distributed to every foreman mimeographed material which contained the statement, "Half the people in the world are women—your mother, wife, sister, daughter. The women who are coming into the plant are just like them."

A special training program for the supervisory staff of a large chemical company emphasized two points—(1) the necessity of bringing women into the operative jobs, (2) the necessity of the foremen making the women feel that they were really helpers and not just nuisances.

Sometimes foremen and fellow workers need to be shown that women can do the job before they will cooperate.

A machine-tool plant chose from its factory workers one woman who seemed to show the most promise. She was used as a "laboratory experiment," the director said, with the idea that if she succeeded she could then act as a supervisor or women's counselor in case a large number of women were hired. This woman was tried out on one job after another on a wide variety of machines. The director reported that she was successful in almost all of them. As a result, the company foremen were convinced that women could successfully undertake almost any of the jobs that had been performed by men.

In an aircraft plant, the foreman of a department where the two first women to be hired were placed said, "I honestly don't believe any of us expected them to last the day. The office had talked me into taking them on, and I agreed with the leadmen that we'd give

them a fair trial. And we meant 'fair trial,' no special favors, no babying. These two girls came in. I handed them each a bucking bar, teamed them with a couple of good guys, and told them to get busy. When I walked by an hour or two later I expected to see a couple of tired girls. I was pretty surprised to find the girls had the guns, and the boys were bucking for them. Next day I teamed the girls together, and they're still at it, doing as well as anyone could ask." The performance of those girls sold that foreman on the use of women.

In another establishment, where the superintendent of the plant realized early that he would need to recruit women, the following incident was reported. When the first women taken on had been trained, the foreman of machine work rushed to the superintendent and said, "Where have I been all these years? Why, these women are easier to train than men and can do finer work."

SECOND—Survey jobs to decide which are most suitable for women.

Base choice on successful experience of other firms, and on outstanding characteristics of women.

The Women's Bureau has records of women's success in specific types of jobs in many industries covering many years. It is studying current experiences every day. These data are available on request to those who need them for war service or an essential civilian activity. Application of others' experience, however, must take into account the conditions of operation in each plant. Women's Bureau representatives are available to a limited extent to give immediate assistance.

In an excellent job analysis in a gun plant, the following procedure was followed: Women were asked to lift repeatedly weights of varying amounts while in a sitting and in a standing position. The results were plotted and it was found that fatigue was noticeable at the point where 18 to 21 pounds was lifted from 20 to 25 times an hour. Eighteen pounds was set as the limit for women where direct lifting of parts, fixtures, and arbors was done repeatedly. Another test was made by the company on operations where parts and fixtures had to be slid on the machine bed, not lifted. It was found that when the boxes were handled only occasionally, 35 pounds was not too heavy for women to lift and this amount was fixed as the limit under such conditions.

A chemical company in the fall of 1941 undertook a survey of jobs in its many plants, when it decided women probably would have to be employed, and investigated the experience of other firms that had employed women for years in communities where the company had plants. The survey of its own jobs brought out in detail the description of each man's job, whether it could be filled by a woman, and if so, by a slight or a moderately husky woman. The survey noted such factors as (1) the location of the job (to guide the plant personnel department in its placement of women to work in pairs, as no woman would be assigned singly to a department otherwise staffed with men);

(2) whether the building was in an isolated area of the plant; (3) the distance of the job from the proposed location of women's washrooms; (4) type of work-companions the women would have; (5) whether the manufacturing divisions were indoor or outdoor; (6) the general working conditions; (7) hazards; (8) fatigue factors; (9) whether the employee was required to stand most of the time. On completion of the survey, jobs were classified as to degree of practicability for women: Class 1, most easily filled by women, such as those requiring skill of hands or quickness of action; and Class 2, less desirable for certain types of women, such as those involving heavy work.

THIRD—Make adaptations of jobs to fit smaller frames and lesser muscular strength of women.

Adapting the job to women may mean re-engineering, job break-down, or both. Women's work must be done without strain or undue fatigue if they are to be employed continuously.

A drill manufacturer installed a conveyor system, electric-button controls instead of levers and wheels, platforms to bring about better relation of arm to machine-bed.

A steel-castings foundry eliminated much heavy lifting by reducing the size of shovels, dumping carts, and sand buggies, and installing chain hoists.

A machine shop designed fixtures and bench vises to hold parts for filing that formerly were held by hand.

An engine-parts manufacturer broke down operations so that light work could be segregated from heavy work.

Engineers of a machine-tool company put a new lever on a special spinning lathe so that it could operate with 70 percent less exertion than before.

An aircraft plant that had steel jigs too heavy for women to lift replaced them with masonite jigs weighing less than one-tenth as much.

Suspending an air-operated wrench from a counter-balanced support eliminated the necessity of lifting and handling it. A woman replacing a man in the use of the wrench was able to operate two such wrenches simultaneously instead of the one formerly operated by the male employee.

FOURTH—Provide service facilities in the plant to accommodate anticipated number of women.

Service facilities are related directly to the most effective utilization of women.

Washrooms and locker rooms, toilets, and rest rooms should be planned for, after consulting standards recommended by authorities in these fields. The Women's Bureau calls attention to the recommendations of the American Standards Association in these matters, and to leaflets of the Bureau that set forth the standards together with observations based on the Bureau's investigations of working conditions of women.

In a foundry that took on a considerable number of women, the second floor of the men's recreation building, which is adjacent to the foundry, was converted into a rest room for women. The rest room is spacious and airy, having many windows. One end of the room is furnished with comfortable chairs, several davenports, and tables. The back of the room contains the lockers, toilets, and showers. In addition, toilet and washroom facilities have been built at intervals in the plant, either by partitioning off floor space or by constructing a balcony washroom.

A shipbuilding company has provided excellent rest rooms for women. They are clean, have leather chairs and lounges, tables where lunches may be eaten. The washrooms also are clean, well lighted, ventilated; many washbasins, hot and cold water, soap and paper towels, mirrors; metal lockers. Toilets are enclosed.

In a steel plant considerable thought is given to providing facilities for women, though in the various mills scattered throughout the large area, some of the units are new and roomy and some are not. A few have been built up above the main floor, but are approached by railed and well-guarded stairs. One had to be built at considerable height (two flights of stairs, steep but safe). All have proper equipment and are kept clean. In one of the mills there is the following example of combined service facilities for women: One room has toilets, washbasins, and a large spray-fountain; another has showers; a third, many full-length mirrors. The rest room is carpeted, has two chaise longues and two easy chairs, a long shelf and mirror. Another room has a long table for the use of the girls at lunch; a deep sink where the girls keep their soft drinks cool in water; and a 2-plate electric hot plate for cooking. All rooms have tile walls, linoleum floor covering, good light and air, and are cheerful and attractive. Even the smaller, more makeshift facilities of this company are so arranged and divided that there is a little rest room and place to eat and to cook separate from the toilet and locker-room spaces.

A chemical company had to start from scratch to provide the necessary service facilities for women. This involved remodeling present structures or units, or erecting frame structures similar to the old wooden schoolhouse with the cast-iron stove in the middle. Lockers provided for women were larger than those for men because of bulky coats and additional garments women wear. Shower stalls were partitioned or curtained. Make-up cases, odds and ends, and other incidentals were provided, especially mirrors; the assistant director of industrial relations said, "A man can put on his tie or comb his hair reasonably well by looking in a window, but a woman must have a mirror or she is most unhappy."

In a steel mill where matrons go constantly from one toilet to another to check on cleanliness, the Women's Bureau agent reported that all were in good condition. In another, a matron in each washroom has charge of seeing that supplies are on hand always and supervises the cleaning of the room (all very clean).

In an aircraft plant, all the toilets are sterilized several times in each 24-hour period, after each meal period and after each change of shift. Very thorough inspections are made of the cleanliness of the rest rooms.

FIFTH—Appoint a woman personnel director to organize and head a woman-counselor system.

The head of women's personnel and the woman counselors must be given well-defined status and duties that are accepted by department heads, foremen, and unions and made known to men and women workers.

Employment of large numbers of women with no previous shop experience at a time when foremen are overwhelmed with production problems necessitates a decentralized personnel service to adapt women to factory conditions and cope with many matters that cause absenteeism and labor turn-over.

A large ammunition plant, with thousands of women employees, put into practice an effective counseling system, with a director, assistant director, area [roving] supervisors, and consultants [counselors]. There were two consultants in each building and on each of the three shifts; they rotated with the shift in order to remain with the same group of workers. The consultants assisted in induction of new women workers, job transfer, transportation and housing problems, child-care and other personal difficulties, and conducted exit interviews to discover causes of turn-over and if possible prevent terminations.

Appointment of a woman as the assistant personnel manager is the plan of a large company for each of its plants. Where it is impossible to carry this out, either because of the small number of women workers or inability to obtain immediately the proper type of woman for such position, the company's assistant director of industrial relations—a woman, who is in charge of the whole program for employing women—tours the plant at intervals, acting as counselor to the women employees, to hear any complaints they have and to advise them on their work activities. On these trips her arrival time is made known in advance to the women employees. She then transmits to plant managers, either with or without identification as the case may warrant, any situation that requires plant-management attention, with a copy of her report going simultaneously to the head of industrial relations for the company. Her report on her next trip to the plant will indicate whether her recommendations have been acted on. In selecting women for the position of assistant personnel manager, the policy is to avoid the dean-of-women, housemother, or chaperone type.

In one aircraft plant the assistance given by woman counselors to new women employees includes loans (granted after investigation) for lodging, food, and transportation until receipt of the first pay check.

In some plants counselors have given the shopping problem their immediate attention, as women employees reported this a reason for absenteeism. In one instance they called on grocery stores in nearby towns, where most of the women workers lived, as a result of which the stores take turns staying open evenings. In more than one instance a shopping service has been set up in an establishment on the outskirts of a city, so that merchandise orders based on daily news advertisements can be left and filled; packages are delivered to this

office, where the women pick them up. In at least one case a shoe-repair service operates in the same building.

SIXTH—Select women carefully and for specific jobs.

Determine what requirements the job makes of the employee.

What is demanded in terms of height, long reach, strength, steady nerves? Does it call for alertness, judgment, manipulative ability, speed? Is it a noisy, dirty job and is the worker exposed to all conditions of weather?

One aircraft plant gets out a daily requisition sheet stipulating the physical requirements of the job, which is used by the intake interviewer. The employment office of the plant issues this sheet, showing departments and occupations where new workers are needed (indicating numbers required, priority rating of jobs, and shifts on which shortage is reported), with the general classifications under which all applicants are to be coded, as follows:

Worker is capable of—

A. Heavy sustained labor.
B. Moderately heavy labor.
C. Light labor.
D. Very light labor.

There are modifying codes qualifying the foregoing. These follow:

Condition of worker:

1. Has monocular vision or severe visual defect.
2. Has severe defect of hearing.
3. Should have partial sitting.
4. Is capable of sitting job only.
5. Has poor coordination.
6. Has nervous instability.
7. Has sensitive skin.
8. Has one arm.
9. Has hernia.
10. Has tendency toward developing hernia.
11. Has history of back strain or injury.
12. Has chronic illness (cardiac lesions, nephritis).
13. Has apraxic characteristics (senile).
14. Has arrested TB, asthma, chronic bronchitis.
15. Unsuitable for climbing, working around dangerous machinery (by reason of age, weight, or other—diabetes, epilepsy, hypertension, or leg defects).

No woman is given the "A" rating, because of the heavy manual work required under this classification. Ratings are assigned by the intake interviewer. The physical examination itself is not given the applicants until after they are hired—and the plant physician reports surprising accuracy by the interviewer in classifying them.

Applicant should be given a preemployment physical examination.

From this can be determined (1) physical condition of applicant, (2) fitness for work, and (3) types of work on which applicant can be placed. Plant doctors give an

examination that usually includes blood and urine tests, skin examination, sometimes X-ray of the chest, and whatever additional tests are called for to meet various job requirements and protect the woman worker. It should be sufficiently thorough to discover physical defects, such as bad pelvic condition or varicose veins, that make some types of job hazardous. A few jobs are more hazardous to women than to men, especially where certain chemicals are used. The medical history of the applicant should be on record.

For crane operators in a navy yard, special eye and ear tests are given to women, with emphasis on depth perception, a neurological examination, and blood pressure.

A shipyard that has a rigid preemployment examination, including the Wassermann test, sends positive cases to the State health clinic, and a strict check on visits to the clinic is kept by the head of the company's hospital. In a navy yard, if the Wassermann test is positive, the applicant has the choice of going to a private physician or to a clinic for treatment.

A steel mill has a strict medical examination for applicants, checking eyes, ears, heart, lungs, blood test, and for hernia and other diseases or effects of diseases. Another steel company reports a similar rigid preemployment examination which, when combined with the study made of all jobs as to fatigue, and weight to be handled, enables the company to select the proper person for the job. "A person thoroughly able on one job might soon give out on another job."

In an aircraft engine-parts factory, the preemployment examination is a general physical with special emphasis on eyesight, since so much of the work is close inspection that requires good vision.

A rubber-products plant examines eyes, takes Wassermann, checks heart and lungs, and records medical history. There is a follow-up of all persons who appear anemic.

Manual dexterity and intelligence tests may be given applicants, but they are used only as an aid to personnel selection.

High-scoring women should be placed on work that will use their mental abilities and so not bore them.

Industries long employing women, such as electrical-products manufacturing, have used aptitude tests for a number of years. Among the new war industries, many aircraft companies are using such tests in selecting women workers, employing experts in the field, and unusually successful placement has resulted.

A shipyard gives a mathematics test to determine ability to add, subtract, multiply, etc. An aptitude test consisting of 53 questions also is given. The average grade (at time of report) was 65, but if a woman makes over 50 she is considered capable of assimilating facts and of analyzing, and is given 3 days' further indoctrination in shop crafts.

In another shipyard, IQ and mechanical tests were said to be very helpful, the latter being used only as indication of manual ability. The company reports high correlation between test results and successful placement.

A machine-gun plant gives applicants tests for intelligence, aptitude, and personality. The company is satisfied with the practice and continues them; at present they are used to sift out the misfits. "Both those who do very well and those who do very badly are queer and need careful placing."

A series of tests for classifying new workers is given by a steel mill; over 1,250 women have been given the series. Scoring is by a definite scale of values, so bias of the checker is eliminated.

A shell-loading plant for 40-mm. shells gives a dexterity test after the applicant is interviewed and the women with the highest rating are sent to the fuze area, where there are many small hand jobs such as assembling detonators.

Family responsibilities of women should be taken into consideration.

The interviewer should know what home duties the woman has, and if possible place her on the most appropriate shift. Employment of mothers of children under 14 is strongly opposed by authorities. If they must work, their placement on the day shift is recommended. Mothers should be questioned closely as to whether adequate provision for the care of young children has been made. Harassed mothers make poor workers.

A large chemical company, in making plans to hire women in its various plants throughout the country, reported that its first women employees, if married, are those without small children; if women with small children are hired, the personnel department makes sure that the children are adequately and consistently cared for while the mother is away. It also tries to keep mothers on the day shift only, if at all possible. Plants that hire women with children find it difficult to avoid high absenteeism "because the women, and rightfully so, regard their responsibilities to their home or children as greater than their responsibilities to their employer."

In an ordnance plant employing thousands of women, the final hiring of a mother is not completed without checking with the various child-care agencies in the city to see that the children of this mother are actually enrolled or have been provided for in an approved manner.

The intake interviewer in a shipyard inquires how many children the woman applicant has, their ages, what care has been provided for them; the mother is given definite information on day-care programs for children available in that area.

SEVENTH—Develop a program for the induction and training of women.

A friendly introduction to the plant and its personnel will go far to ease the strain of adjustment to new environment, new work, and new associates.

Many women employees have never been inside a factory before, they may be frightened and disturbed by machines

and noise, and the majority naturally will lack self-confidence.

A chemical company has in one of its plants a 6-day induction program for all women. They are told about the company's products. Talks are given on policies and procedures of the company—its employment terms (for the duration of the war only), secrecy about the job, insurance policies and opportunities, dismissal compensation, as well as wage-progression rates, hours of work, shifts, rest periods, reporting of injuries, safety rules, housekeeping. These talks alternate with tours through the buildings so that the women will learn about the plant and about their jobs, though actual work instruction is given on the job itself. The women are reassured about the attitude of their male coworkers, that the men will not resent them. The last two days are devoted to fire-drill instruction and a review of the week's program, with an individual check on memory of operations; the applicant is graded on her examination. The woman applicant is taken into the plant by the personnel representative and is shown the job for which she is being considered, to obviate the possibility that she will accept and then suddenly discover that she doesn't like the job or surroundings and check out. This procedure is said to reduce turn-over.

A shipyard has its newly employed women spend the first day learning company policy and procedure. They are given talks on safety and hygiene. Talks and films both are used and time is allowed for questions. Foremen have asked that this policy be adopted for men also, as they say that women start in to work better than the men.

Some of the major points that an induction program should include—carried out by those in charge of personnel, woman counseling, safety, training, and health—are as follows:

1. Explanation by personnel official as to company policies and procedures—such as hours of work, shifts, time clocks, how wages are paid, and so on.
2. Talks by woman counselor head to women workers on their attitudes and responsibilities in the factory as workers (for example, importance of regular attendance), relations with fellow workers, and an explanation of woman counselor's function. Personal hygiene should also be discussed.
3. Talks by plant doctor on health, and by safety official on safety habits and safety rules of the plant.
4. Films (on job processes; safety illustrations; good work habits; company's product).
5. Questions encouraged.
6. Plant tour, emphasizing importance of each job operation to the war product manufactured.
7. Women workers assigned lockers, shown first-aid room, rest room, and lunchroom, and told about uniforms if required.
8. Handbook distributed, containing information on plant policies and safety rules, and other useful information on women's health.
9. Women workers introduced to foremen by woman counselor.

Job training should be such as to assure that each woman becomes a safe and efficient worker.[1]

Wherever possible, both preemployment and preassignment training should relate to the job to be done.

New women workers resent being taught one type of work and then being assigned to another type in the shop.

Though school training may be excellent, it rests with the foreman to teach the specific job and working methods that will insure standards of quality and quantity.

As the majority of women are without knowledge of the subject, foremen should explain what has to be done, why it must be done, and how to do it.

One shipyard places workers with low test scores on simple jobs, but the others are given a 6-day course in nomenclature, tools, phraseology, and the requirements of future assignments. They are then assigned by groups to vestibule schools for an additional 2-weeks training. They operate power tools and familiarize themselves with the elementary fundamentals of shop operations. On completion of the 2-weeks vestibule training the women are assigned to shops for productive work.

A large paper mill, realizing that women who have never worked before start out under an emotional strain, believes that "just plain kindness" during the training period hastens the adjustment.

Job instructors in the plants operated by a chemical company explain the work to women slowly, point by point, and with considerable patience. They point out all hazards but they are careful to do it in such a way as not to arouse in the employee a feeling of overanxiousness or nervousness.

At one shell-loading plant, new employees are first shown films of all operations with accompanying lectures. Safety rules are given and discussed, and a tour is taken through the plant to observe actual operations. Trainees are then divided into groups according to job preference and again films are used on specific jobs with lecture and discussion on details. New employees are then placed with old employees, but they must work for a minimum of one week with inert materials before going on jobs involving explosives. Each new employee is closely supervised for from 3 to 5 weeks after employment.

One aircraft plant says that women get most out of a training period if it is conducted by an older woman, for the following reasons:

Women are less dismayed by criticism from another and older woman than they are if it comes from a man.

Women learn more readily and are less inclined to become discouraged when they can work with women who have already achieved skill in the same job operations.

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[1]A good deal of literature has been issued about training, and Government agencies in charge of specialized programs stand ready to offer assistance at all times: In the War Manpower Commission are the Training-Within-Industry Service offering job-instructorship training, job-relations training, and job-methods training, and the Apprenticeship Training Service; also the U. S. Office of Education, which supervises Nation-wide Vocational Training for War Production Workers, and Engineering-Science-Management War Training.

The transition into factory life is less abrupt for the average woman if she is working with a group of women and under the direction of another woman.

The following paragraphs are taken from general instructions issued by the Office of the Assistant Secretary of the Navy:

Get off to the right start in teaching the women. They are impressionable. The first few hours may establish their attitude toward their work. Be kindly, businesslike, and make them feel that the work they will do is important.

Since the women are unfamiliar with terminology, encourage them to ask questions, and give them considerable drill on the names of machines, machine parts, and operations. Use visual instruction—diagrams, pictures, slides, films, actual models and demonstrations whenever possible.

Plan to have patience in teaching women * * * They are sensitive to criticism of their work. * * * But experience has shown that women are anxious to do well, conscientious, and appreciative of assistance and instruction.

Women like to know what they are doing and why. If it is not a military secret, give them broader explanations or reasons for their job. Relate it to things they understand.

Women need more safety instruction than men because of their lack of familiarity with tools and machines. Relate such instruction to experiences they understand. Once they understand the regulations, they are more careful. Their safety records are higher than those of men.

EIGHTH—Establish good working conditions, effective in reducing turn-over, improving morale, and recruiting new women workers.

Working schedule.—The maximum 8-hour day and 48-hour week, with 1 day of rest in 7, has been advocated jointly by eight Government agencies, including the War and Navy Departments, as best for both men and women and conducive to the highest output when employees must work under pressure or over a long period. The 7-day workweek is injurious not only to health but to morale and to production. If the daily and weekly hours are too long, the rate of production tends to decrease and the quality of work to deteriorate. Rest periods of 10 to 15 minutes also should be provided, in the morning and afternoon. Chronic fatigue among women workers is reported to be increasing.

Seats.—Where possible, women should be provided with chairs, built on posture lines and adjustable to both the worker and the job. In many cases jobs could have been

done seated but the employer gave no consideration to seats in planning the job set-up.

In an aircraft plant, management tries to see that women may sit properly at work on every job that can be done seated. A frequent practice is to have seats available even if women can sit only part of the time.

In a hosiery mill not all operations can be done seated, so chairs are placed about the plant for the occasional rest of employees who must stand at their work.

In a rubber-products plant, the use of chairs resulted in 16 girls doing as much work as 20 had done before.

In one establishment there was an increase of 2 to 13 percent in output when workers alternated standing and sitting.

Work clothing should be suitable. If jobs require safety clothing, wearing it should be compulsory.

If women are told on taking the job that a specific type of clothing must be worn, there should be no difficulty concerning clothing. If women have already been employed before clothing rules are established, committees of women workers should be appointed to work on this matter with safety experts.

Safety-clothing essentials are, first, safety; and second, convenience, wearability, comfort, cleanliness, suitability as to warmth. Safety clothing is not necessarily a uniform. The "dress" may be slacks and blouse, or coveralls. Caps are necessary around moving machinery. Safety shoes, goggles, gloves, also may be required for certain jobs. Safety clothing is designed to protect the worker from the hazards of the job or the environment, or from dusts and poisons in the materials used.

Specific styles of work clothing have been adopted in some plants after consulting employees through a woman's committee. A choice of colors may be permitted; on the other hand, there are plants where color indicates department. For convenience in obtaining the required uniforms, a salesroom should be arranged at the plant office.

In a large small-arms-ammunition plant where safety clothing is required only in certain areas, the company furnishes and launders the uniforms, which are changed daily. Safety shoes also are provided, the company paying part of the cost. [Some companies supply safety shoes free when special kinds are required.] Goggles and goatskin gloves are provided for all employees where the job requires them. Blue denim aprons are furnished and laundered for all women who will wear them, but some prefer their own kitchen aprons. The women do not like standard uniforms and the company is opposed to regimentation in the matter unless hazard is involved. New women employees are requested to wear slacks, but compliance is voluntary.

In another company, a standard uniform suit was chosen by the woman assistant director of industrial relations to be worn by all women in its various plants throughout the country "to meet the feminine psychology and physiology and at the same time be entirely practical from the standpoint of wearability and in accordance with requirements of safety engineers." Employment is conditioned on wearing the uniform, this policy being established before the first woman was hired. Many women work overhead, and there is much running up and down stairs and climbing ladders. The two-piece slack suit can be worn by women of broad or narrow hips; it has safety cuffs buttoned snugly around the ankles. The jacket has a form-fitted top with action-belted back, and a slightly flared peplum that comes below the hips, cutting off the broader aspects of the slacks. The jaunty cap has one peaked side with a place for the photo identification button to be worn as an ornament; it is worn with the hair out unless the job is around moving machinery, when the hair must be tucked in. The uniform is sold at cost to the employees.

NINTH—Supervise women workers intelligently.

Careful supervision, after the training period is over, to aid adjustment to job and to discover lack of understanding of operations, is good policy for any new worker.

Foremen and leadmen may need special training if they are not experienced in supervising women.

In a shipyard, after training in the vestibule school and assignment to job, the new employee remains under the jurisdiction of the training department for 30 days so that if not adapted to the work of the shop to which assigned, shifts may be made.

The following paragraphs are taken from general instructions on supervision of women, issued by the Office of the Assistant Secretary of the Navy:

Proceed slowly for about the first two weeks. After they lose their fear of the machines, and after they become accustomed to the noise and vibration, they may be quicker than men in their work.

Help women who have never worked in industry build confidence in themselves. Help them see that they can do the job successfully, that they need not feel "dumb."

In your effort to be kind, don't do a woman's work for her or she will become bored. Help her to do it well by herself.

A foreman should be tactful, wise, and understanding in his treatment of women workers. He should be able to soothe ruffled feelings as well as to administer first aid. Women are inquisitive and willing to learn. For a competent and tactful foreman, they will be loyal and conscientious.

After the women are inducted properly, give them no special privileges other than those relating to physical limitations.

The Industrial Personnel Division of the Headquarters Army Service Forces emphasizes these major points on supervision in its "Guide to the Immediate and Maximum Utilization of Womanpower":

Good practices in the supervision of men employees can be used with success in supervising women.

Supervisors should take into consideration some important differences between men and women, as for example:

Women resent any evidence or appearance of favoritism.

Women require closer supervision when assigned to tasks involving unfamiliar mechanical equipment.

Special promptness in dealing with women's grievances is essential.

Follow-up in matters of health, safety, and personal adjustment should be carried on to detect any misunderstanding or non-observance of rules.

Expansion of health services may be necessary.

Weekly talks on safety regulations, including safety clothing, and on personal hygiene and better health habits are the practice in many cases.

There should be medical supervision of women who are suffering from any physical disability such as varicose veins, and follow-up physical examinations for such workers to see if the job is proving harmful in the light of the specific disability, with recommendation for transfer to other work where necessary.

A suitable place should be provided where women can lie down for short periods. This policy is especially beneficial in reducing absenteeism at time of menstruation.

A program of physical conditioning of women through exercises may be necessary.

An aircraft factory considers that calisthenics are an essential part of conditioning a woman to meet the requirements of certain jobs. The program is intended to accustom muscles gradually to constant use on the job, as well as to build up general physical resistance to fatigue and colds. The woman is prepared to expect soreness and stiff muscles as a normal but temporary condition.

There should be set up a clear policy about work for pregnant women.

In an aircraft-engine plant, women are required to report to the medical department as soon as pregnancy is certain so that they may be placed on work that will protect them from any possible harm to themselves or the child. From reports obtained from each woman's own physician at regular intervals the company physician determines and requests job changes or shift changes as indicated. Facilities are available for check-ups by the company physician. When women are forced to stop work because of pregnancy their employment is terminated but if they wish to return to work every consideration will be given their application.

A navy yard has the following policies regarding women who become pregnant after their initial employment (women who are pregnant when they apply for work are not hired): Pregnant women are not to be employed on the graveyard shift and under normal circumstances

will not be assigned to the swing shift. They shall not be given assignments that involve heavy lifting or other strenuous work that requires agility, endurance, continuous standing or sitting. They shall not be placed on work that calls for a good sense of bodily balance, such as on ladders, scaffolds, and so forth. They shall not be placed on work involving exposure to toxic substances considered to be extra hazardous during pregnancy (list of these is given), and other toxic substances that exert an injurious effect on the blood-forming organs, the liver, or the kidneys. They must submit a statement from their own doctor that continued employment will not adversely affect their health.

In a factory where a pregnant woman was to be discharged by her foreman, the industrial nurse took the matter to top management over the foreman's head presenting the Government's pamphlet issued by the Women's Bureau and the Children's Bureau on standards for maternity care and outlining a plan for the woman's continued employment in accordance with Government recommendations. The management was impressed with the justice of the case and agreed that the woman should be transferred to a job where she could sit.

TENTH—Give women equal opportunity with men.

When women make good on their jobs, they should be given a chance to be upgraded and an opportunity to transfer.

Training on the job and supplementary training should be followed by actual promotion when a woman has demonstrated her capacity for an advancement in both job and wages. Develop foreladies.

In an aircraft factory, a former saleswoman was given as her first assignment the job of operating a surface grinder. She quickly mastered her machine, and was soon given a more difficult job, building jigs. Again she made good, and as a result was allowed to try her hand at making dies, a job in which her accuracy and skill could be utilized fully.

An aircraft-engine plant gives all women doing monotonous work an opportunity to take the training for more complicated machines or more skilled inspection jobs. Requests for transfer are given careful consideration.

In a plant making small-arms ammunition, various tests are used for the upgrading of machine operators, and women have been trained to replace set-up men as need arises.

In a tubular-steel-products plant, a woman who started as an inspector in the tin-plate division was promoted eventually to forelady, and now, after 20 years, has become assistant to the industrial-relations manager. She has real authority, is consulted by department heads and foremen, and has charge of work for women in the operating departments and offices.

In a plant making brass casings for shells, there are 35 to 40 forewomen directly responsible for supervising the work of employees in their departments, and in the inspection department is a forewoman who has been with the company for a very long time, supervising both men and women. The vice president considers her one of his most able supervisors. She has taken many training courses at night,

both vocational courses and courses for foremen. She knows thoroughly the work that the employees in her department are required to do, having worked on all the processes, and frequently she fills in herself when a girl is absent or off the floor. She plans the work of her department. When asked if men resented being supervised by a woman, she stated that she has learned to handle that situation so as to avoid any resentment; she has a young man as an assistant through whom she gives all her directions to the men.

In a shipyard where the upgrading is left to the various shop foremen, a woman was given the leading man's job (he had been removed by the foreman), being placed in charge of the 22 women and men in one section of the lay-out department. In this same yard a woman was in charge of the light-riveting crew on the ship.

Equal opportunity with men means that wage rates throughout the plant should be based on a straight job analysis.

An aircraft factory reports a set rate for each job, with certain specifications for each. The question of sex is not considered. The job break-down follows the National Metal Trades Association list and there are various grades in each job specification.

A shipyard that has an equal-pay policy for men and women has made every effort to build up the confidence of its women workers through equal pay and by giving them a chance to use their best ability. The manager said, "It is poor psychology to pay women less than men, for it would at once make them feel inferior to men, and then they couldn't be expected to do so well."

The National Foremen's Institute says, "You can't induct a woman into war work and tell her she's going to fill the shoes of a man who has been called to arms, and then pay her only 80 percent of his wages, without stigmatizing her instantly with the idea that she really isn't so good as the man whose job she took over."

A steel mill reports that all jobs are studied and definite job rates set. An employee is paid the rate of the job. "The comptroller's office sends out men to police the plants and see that this policy is being carried out at all times." In another steel mill, men and women begin at the same rates as laborers, and as they are upgraded they are paid the same rates for the same jobs; women are upgraded to as many jobs as they can perform.

Encourage women to make suggestions.

Women's inventiveness and ingenuity may develop short-cuts.

Two women shipfitter trainees invented a device that cuts the time on their job by 60 percent—a stop gage that performs a cutting operation on a shearing machine in the plate shop; it is automatic and is more accurate.

A woman working in the sand-mill department of a steel foundry suggested an ingenious device that cut down the time involved in communicating test results—a clock-like device above the door of each testing room that enables the mill operator to see at a glance what the moisture content is, and so forth. Formerly, a tester would walk over to the mill each time and shout the results.

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