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Night Work for Women

and

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WOMEN'S BUREAU

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Night Work in Wartime

The undesirability of night work has long been recognized by workers and employers alike. Workers object to it because it requires them to live under abnormal conditions. Either they are reduced to a dreary routine of sleeping by day when the rest of the world is active or they are compelled to go without sufficient rest in order to have some part in community life. Employers also are opposed to night work because they find that in the long run workers on the night shift are less alert, their morale is lower, accidents are more frequent, and productivity suffers. War production necessitates 24-hour operation of machinery. Hence many war industries now require a full force of workers on the night shift—in general, some part of the period between 10 p. m. and 8 a. m., with exact hours varying from plant to plant.

The Women's Bureau recommends that night work not be used except as the lesser of two evils in an emergency—the other being long overtime hours for day shifts. Further, all possible measures should be taken to moderate the dangers and difficulties of night work.

Reducing Health Dangers of Night Work

To reduce the dangers of night work to the worker's health, the Women's Bureau recommends the following action—

A. By Management

- (1) Making sure the individual is able to work on the night shift.

Not all workers are able to take their turns at night-shift work throughout extended periods. While a shift arrangement involving

night work is in progress, careful study should be made of effects on the individual, and those not suited to night work should be relieved of the night shift.

No employee should work on a night shift if there is a history of anemia, respiratory disease, digestive disease, or nervous disorder.

Women with home responsibilities should not work on the night shift except in a short and definitely limited emergency. It is inevitable that household duties during the day plus work at night will cause chronic fatigue.

Loss of regular sleep is more serious for young workers who have not attained full growth. Hence, young girls should not be placed on the night shift.

- (2) Providing time and facilities for a hot and nutritious meal.
- (3) Preserving the week-end rest.
- (4) Assuring effective health supervision for night workers.
- (5) Providing well-trained supervisors for night workers.
- (6) Providing good lighting, which lessens fatigue and the likelihood of accidents.
- (7) Giving attention to workers' transportation problems.
- (8) Paying a differential rate for work at night, thus providing some compensation for the additional strain of night work.

B. By Workers

- (1) Spending 7 or 8 continuous hours in bed.
- (2) Eating a hot meal at lunchtime on the night shift.
- (3) Exercising daily in the open air.
- (4) Reporting health disturbances to plant medical department.

Rotation of Shifts: How Frequent?

To distribute the burden of night work and equalize employment conditions, some employers have adopted the practice of rotating shifts, thus giving each worker a share in the advantages of day work and the disadvantages of night work. There is considerable disagreement as to the frequency with which shifts should be rotated. Decision as to the best periods for rotation of shifts can be based on the experience of workers, on the available results of tests, and on the testimony of various authorities on workers' health and capacity to maintain output.

Women workers themselves, speaking from experience, object to frequent change of shifts because it upsets their eating and sleeping schedules. Women with family responsibilities find it hard to arrange for the care of their families and children, harder still to get someone to do this. On the other hand, there is objection to permanent night schedules because the workers seldom get sufficient sleep during the day and health and efficiency are seriously undermined.

The Women's Bureau finds, from testimony both of working women with night-work experience and of health authorities, that shifts should be rotated not so often as 2 or 3 weeks, and not at intervals so long as to develop chronic fatigue of the workers. Periods at which fatigue shows itself most severely have been found to be in the first days after going on night work and again at a time about a month or 6 weeks later. It is difficult to suggest an invariable rule, since conditions vary widely, and authorities of today differ in their recommendations. The one point of agreement is as to the disadvantages of night work.

Rotation Should Not Be Too Frequent

If shifts are too frequent, rotation causes excessive fatigue in both day and night workers, and production standards cannot be kept up. Dr. Thomas Parran, Surgeon General of the United States Public Health Service, made the following statement in January 1942:

Workers changing over from day to night shift every 2 or 3 weeks find it difficult to adjust their eating and sleeping habits. In plants operating on a 24-hour schedule, shifts should not be rotated more often than 2 or 3 months.

Dr. Nathaniel Kleitman, professor of physiology at the University of Chicago, states that frequent rotation affects a worker's efficiency to such an extent that it lowers his productivity. This is based on numerous experiments on the adaptability of the individual to living conditions which reverse the normal cycle of day and night. Dr. Kleitman recommends that rotation be no more frequent than every 3 or 4 months. On the basis of his experiments he states that the best practice from the point of view of output would be the continuous shift system with no rotation.

Dr. Howard E. Collier, for more than a decade a certifying factory surgeon in Redditch, England, and more recently a reader in industrial hygiene and medicine at the University of Birmingham, England, recognizes that it takes a long period to reverse the physiological functions. He therefore believes that shifts should not be made frequently, and says this about weekly changes:

Our own observation leads us to the conclusion that short shift changes produce fatigue conditions among workers engaged on both the night and day shifts. After a few months of alternate shifts, the whole personnel becomes weary and exhausted both physically and mentally.

Dr. Collier recommends a continuous period of 4 to 6 weeks as a compromise between night shifts too long continued and very frequent shift-changes.

Night Work Should Not Be Continuous for the Worker

While continuous night work would allow time for the individual to adjust to the change from his normal cycle of day and night, the evidence is that output decreases and chronic fatigue develops. Most important to the health of the night worker is to adapt to day-sleeping rather than night-sleeping. Adaptation to day-sleeping is very difficult under the living conditions of industrial workers. Few can sleep well in a noisy house or street. Change to the day shift is necessary to repair the results of lack of sleep during the night-work period.

Dr. H. M. Vernon, formerly investigator for the British Health of Munition Workers Committee and for the British Industrial Health Research Board, and for long the most outstanding authority on fatigue in industry, believes that *under industrial conditions* it is unlikely that workers ever can adjust well to working at night and sleeping during the day. He says:

During their periods of night work their hours of sleep are almost inevitably interrupted by the daytime activities of the other dwellers in their homes, and at the week-ends, when they are free from night work for one or two nights, they more or less observe daytime conditions.

Dr. Vernon believes night work in any case to be disadvantageous, and states that where night work is continuous absenteeism among women is greater and output is decreased. He has recently requoted as a present recommendation the conclusion of the British Health of Munition Workers Committee, based on experience in the first World War, "that continuous night work is productive of definitely less output than is the discontinuous system,"

Recommendations

1. Night work should be used only as an emergency measure.
2. When night work is necessary, all possible measures should be taken to protect the workers' health.
3. In regard to the rotation of shifts, change should be made (1) not too frequently, (2) not at intervals so long as to develop chronic fatigue.

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