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WOMEN'S BUREAU

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WASHING AND TOILET FACILITIES
FOR WOMEN IN INDUSTRY

WOMEN'S BUREAU SPECIAL BULLETIN No. 4

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Washing and Toilet Facilities for Women in Industry

*Recommendations for Installation
and Maintenance*



SPECIAL BULLETIN NO. 4 OF THE WOMEN'S BUREAU

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Letter of Transmittal

U. S. DEPARTMENT OF LABOR,
WOMEN'S BUREAU,
Washington, April 4, 1942.

MADAM: I have the honor to transmit herewith the fourth in the series of this Bureau's special bulletins making recommendations for the employment of women in the war program. This bulletin deals with washing and toilet facilities for women.

The research and writing of the report are the work of Margaret T. Mettert of the Research Division.

Respectfully submitted.

MARY ANDERSON, *Director.*

Hon. FRANCES PERKINS,
Secretary of Labor.

WASHING AND TOILET FACILITIES FOR WOMEN IN INDUSTRY

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|--------------------------------------|-------------------------------|
| I. Location. | VIII. Materials for fixtures. |
| II. Separate construction. | IX. Construction of fixtures. |
| III. Entrances. | X. Ventilation. |
| IV. Standard number of toilets. | XI. Lighting. |
| V. Standard number of lavatories. | XII. Heating. |
| VI. Space. | XIII. Care of the room. |
| VII. Materials for walls and floors. | XIV. Cost of installation. |
| | XV. Sources of information. |



WITH new plants under construction to meet defense needs, old ones expanding and employing women in many cases for work once done by men, the construction of suitable washrooms becomes an important part of every building program.

The Women's Bureau has prepared this pamphlet with the purpose of supplying authoritative recommendations for such construction. The requirements set forth conform to those of the American Standards Association sponsored by the United States Public Health Service.

Washroom facilities should be designed to take care of the maximum number of employees in the shortest time at lunch periods and shift changes. If sufficient in number, conveniently located and laid out, a minimum of working time is consumed.

While most States have minimum requirements as to toilet facilities, these are not always sufficient to maintain top-notch physical efficiency. Nevertheless, in every State the requirements of the State Board of Health and the State Department of Labor should be consulted in preparation for any building program.

I. Location

Toilet and washing facilities should be easily accessible—located as near as possible to the workplace of those who use them.

Washing facilities should be provided in every toilet room.

II. Separate Construction

It is necessary first to provide separate toilets for men and women.

Privacy demands that each toilet unit be enclosed and have a door provided with a fastener. The top of the partitions should be at least 6 feet from the floor and the bottom not more than 1 foot from the floor. For ventilation it is advisable that partitions extend neither to the ceiling nor to the floor.

The walls of all toilet rooms should extend to the ceiling or the rooms should be independently ceiled over. The installation of toilets in corners of workrooms with only dwarf partitions is never satisfactory because of contamination of the air in the workroom as well as the lack of privacy.

III. Entrances

In cases where toilet-room entrances adjoin or are within a few feet of each other, they should be separated by a screen in the shape of an L or an inverted T; and even where the entrances do not adjoin, they should be screened in some way so that the interior of the rooms cannot be seen when the doors are opened. Entrance doors should be equipped with a self-closing device and should be plainly marked to show for whose use the rooms are intended. In establishments frequented by the public, the use of employees' toilets by the public should be prohibited in order to prevent overcrowding and annoyance to the workers, and toilets especially for public use should be provided. The Women's Bureau considers designation of toilet entrances important. Such designation should protect employees with regard to public use.

IV. Standard Number of Toilets

On the basis of field investigations the Women's Bureau recommends the ratio of *1 seat to every 15 women employed*, regardless of size of establishment. The maximum number of women to be employed at any one time should be the base.

V. *Standard Number of Lavatories*

At least one lavatory with adequate water supply should be provided for every 10 employees, up to 100 persons; and one for each additional 15 persons. A lavatory supplied with hot and cold water from one faucet should be provided for every 5 employees exposed to skin contamination by poisonous, infectious, or irritating material. Twenty-four inches of sink with individual faucet is considered equal to one basin.

VI. *Space*

In new installations the minimum floor space allotted for toilets and washing facilities should be as follows:

	<i>Minimum width</i>	<i>Minimum depth</i>	<i>Minimum total floor space</i>
Toilets	32 in.	3.6 ft.	16 sq. ft.
Lavatories	24 in.	3.6 ft.	12 sq. ft.

Each water-closet bowl should be set entirely free from all enclosing wood work and so installed that the space around the fixture can be easily cleaned.

VII. *Materials for Walls and Floors*

In the interest of sanitation it is important that walls and floors of toilet rooms be of material as nearly as possible non-absorbent. Wooden floors absorb moisture and their use is to be discouraged; nor is Portland cement nonabsorbent, unless treated with a hardening process. The use of such materials as marble, tile, or glazed brick in both walls and floors is advisable. Wooden walls and ceilings are permissible if these are painted with several coats of light-colored, nonabsorbent paint. Floors and side walls to a height of 6 inches may be made of asphalt, concrete, tile, or Portland cement, if treated with a hardening process to make them more nearly impervious to moisture.

VIII. *Materials for Fixtures*

Though toilets of vitreous earthenware are recommended, other substances are considered permissible by the Bureau of

Standards of the United States Department of Commerce, which recommends that—

All receptacles used as water-closets, urinals, or otherwise for the disposal of human excreta, shall be vitrified earthenware, hard natural stone, or cast iron white enameled on the inside.

IX. Construction of Fixtures

As to the type of bowl, the following is recommended:

Water-closet bowls and traps shall be made in one piece and of such form as to hold sufficient quantity of water, when filled to the trap overflow, to prevent fouling of surfaces, and shall be provided with integral flushing rims constructed so as to flush the entire interior of the bowl.

Seats should be of the open-front type and of washable material.

A matter of vital importance is the construction of the plumbing system in such a way as to preclude any cross connection that would permit the flow of sewage water, at a time of stoppage or other emergency, into the source of the drinking supply. The Bureau of Standards code states that—

No plumbing fixture, device, or construction shall be installed which will provide a cross connection between a distributing system of water for drinking and domestic purposes and a drainage system, soil, or waste pipe so as to permit or make possible the back flow of sewage or waste into the water-supply system.

HOLDERS for toilet paper should be provided at convenient height—approximately 35 inches.

Covered receptacles should be kept in women's toilet rooms.

Washing facilities may be acceptable whether individual bowls, troughs, or wash fountains. Troughs or wash fountains have the distinct advantages of being economical to install and economical of space for the number to be accommodated, and of requiring less janitor service to keep them clean. Having no stoppers, dirty water does not stand in the basin to accumulate a ring of grime.

A suitable dispensing container for soap should be provided

at each washbasin. Holders for individual towels of paper or cloth should be provided, with receptacles for disposal conveniently placed.

Mirrors over a narrow glass shelf and adequately lighted should be provided. To prevent crowding, and as a protection to plumbing, they should not be over the lavatories.

X. Ventilation

The most desirable method of providing proper ventilation is through window space opening to the outside air. Window space or skylight area of 6 square feet is sufficient for a toilet room with one seat. For each additional toilet seat an additional square foot of window space is necessary. Windows and skylights should open to one-half their area. Artificial ventilation is permitted generally by State regulations.

XI. Lighting

Satisfactory lighting is important to the comfort of workers and the cleanliness of the room. Natural light is not sufficient unless all parts of the room and compartments are easily visible at all times, hardly possible without some form of artificial light. The code of lighting for workplaces prepared by the Illuminating Engineering Society recommends as desirable 4 to 6 foot-candles of illumination. (A foot-candle is a unit of illumination representing one standard candle at a distance of 1 foot.)

XII. Heating

The heating of toilet rooms is necessary to the comfort of workers in winter. It is permissible for the temperature to be slightly lower than workroom temperatures.

XIII. Care of the Room

The responsibility for the cleaning of toilet rooms should be given to special employees, and the cleaning should take place at regular and frequent intervals. Hot water and soap should

be used. Frequent use of disinfectants in addition to soap is conducive to a sanitary condition, but disinfectants alone should not be relied on.

Attention should be given to an adequate and continuous supply of soap of good quality, individual towels of paper or cloth, and toilet paper.

XIV. Cost of Installation

A common objection raised against the employment of women is the cost of installing separate washrooms and toilets. Through careful use of space and of existing plumbing, costs can be kept at a minimum, as illustrated by the estimate of a large employer in New York State.¹ In September 1941 he reported the cost of a washroom for 100 women workers as about \$500, the installation to fulfill the State requirements for this number, i. e., 5 lavatories and 5 toilets. This cost included labor and material for the following:

Purchase and install 5 closet tank and bowl combinations, including seats.

Purchase and install 5 wall mounted lavatories, complete with fixtures and traps.

Build wooden compartments with doors and latches around closets (app. 250 sq. ft. wood).

Lay waterproof floor in room with 6-inch high mop-board effect at walls—at least $\frac{3}{4}$ inch thick—(assume area of room app. 250 sq. ft.).

Install radiator under window—app. 20 sq. ft. of radiation—inc. valve, trap, and piping.

Install 12-inch fan in top of window for ventilation—equipped with motor-side guard and automatic louvres—including wiring and switch.

Install 2 lights overhead with wall switch.

Install 3 paper-towel dispensers, 5 soap dispensers, 5 toilet-paper holders, 1 napkin machine, 5 covered metal containers for napkins, and 3 wire baskets for towels.

Allowance for painting of new partitions, as well as walls and ceiling of room—including stenciling of "Women" on door.

¹ U. S. Office of Education. Training Women Defense Workers. Jan. 9, 1942. (Mimeog.)

XV. Sources of Information

- American Standards Association. Safety Code for Industrial Sanitation in Manufacturing Establishments. Approved Apr. 1, 1935. Sponsored by U. S. Public Health Service.
- U. S. Department of Commerce, Bureau of Standards. Recommended Minimum Requirements for Plumbing, 1932.
- Illuminating Engineering Society. Code of Lighting: Factories, Mills, and Other Work Places. Approved Aug. 18, 1930, by American Standards Association. See p. 16 for recommended levels of illumination in toilet rooms.