

**ADMINISTRATIVE AND
SERVICE BUILDINGS
SNIP 2.09.04-87***

Official Edition

Moscow 1996

UDC 725.011

SNIP 2.09.04-87*. Administrative and Service Buildings / Russia's Ministry.-M.: GP TsPP, 1996. – 18 p.

DEVELOPED by TsNIIpromzdanii of the USSR Gosstroy (L.A.Scrob, Cand. Arch. – Theme Leader, L.N.Sherman) with participation of the Institute of Occupational Hygiene and Diseases of the USSR Academy of Medical Sciences (L.A.Serebryanyi, D.Sc.(Med.)), the All-Union Research Institute of Social Hygiene and Health Management named after N.A.Semashko of the USSR Ministry of Health (T.M.Sharovar, Cand.Sc.(Med.)), VTsNIIOT of VTsSPS (L.P.Koroleva, Cand.Sc.Med.), TsNIIIEP of educational buildings of the State Committee for Architecture (a.m.Garnets, Cand.Arch), GhiproNIIselkhoz of the USSR Gosagroprom (e.I.Pishchik), GhiproNIIelektro of the USSR Ministry of Electrical Engineering Industry (m.Ye.Yevdashkin), Promstroyproect of the USSR Gosstroy (p.G.Tereshkin).

Introduced by TsNIIpromzdanii of the USSR Gosstroy.

PREPARED FOR APPROVAL by the Directorate of Standardization and Technical Regulation in Construction of Russia's Gosstroy (G.M.Khorin, N.N. Svetlikova).

SNIP 2.09.04-87* is a re-edition of **SNIP 2.09.04-87** with changes No.1,2 approved by resolutions of Russia's Gosstroy No.18-23 of 31.03.94 and Russia's Ministry No.18-21 of 24.02.95, and put into effect since 1 July 1994 and 1 March 1995, respectively.

Sections, items, tables, formulas with introduced changes are marked with an asterisk in the present building codes.

When using the normative document one should take into account the approved changes of building codes and regulations and state standards published in journal "The Bulletin of Building Technology" and in information index "State Standards" of Russia's State Committee of Standards.

c GP TsPP, 1995

Kositskiy central institute of standard design and urban development, CJSC

www.citp.ru – adaptation of design and cost estimate documentation.

Our contact phones: +7(495) 225-57-10; +7(495) 975-58-02; +7(495)262-76-84

State Building of USSR (USSR Gosstroy)	Buildings Codes and Regulations	SNIP 2.09.04-87*
	Administrative and Service buildings	Instead of chapter SNIPII-92-76

The present codes extend to design of administrative and service buildings¹ up to 16 storeys high inclusive and spaces of enterprises.

The present codes do not extend to design of public-use administrative buildings and spaces.

In design of buildings to be reconstructed due to expansion, renovation or technical re-equipment of enterprises it is allowed to depart from the requirements of the present codes in terms of geometrical parameters.

1. SPACE-PLANNING AND STRUCTURAL CONCEPTIONS

1.1*. Architectural conceptions of buildings should be assumed with account of town planning, climatic conditions of the construction area and the nature of built environment. The interior color finish should be provided in conformance with GOST 14202-69 and GOST 12.4.026-76*.

At enterprises (in shops and bays) where a possibility of using the labor of handicapped is provided, the requirements to sanitary-service and special spaces, work and rest condition arrangement, medical services should be observed; this is stipulated by “Uniform Sanitary Rules for Enterprises (Production Associations), Shops and Bays Intended for the Use of Labor of Handicapped and Old-Age Pensioners” of the USSR Ministry of Public Health (No.2672-83 of 01.03.83) as well as additional requirements specified in the appropriate paragraphs of the present codes depending on the type of disablement.

1.2. Administrative and service spaces of building and erection organizations should be located, as a rule, in mobile buildings. For these purposes it is allowed to use buildings of projects under construction and those to be demolished.

1.3. The total area of a building should be determined in conformance with SNIP 2.09.02-85*.

1.4. The space height from floor to ceiling shall be at least 2.5 m, in climatic sub-areas IA, I, I, I and IVA – at least 2.7 m. the height of meeting halls, canteens and administrative spaces with occupancy over 75 persons shall be at least 3 m.

Introduced by TsNIIpromzdani Of USSR Gosstroy	Approved by resolution of USSR State Building Committee No.313 Of 30 December 1987	Date of putting into effect 1 January 1989
--	---	---

¹ Below – buildings

N o t e s: 1. The space height in mobile buildings is allowed to be assumed as 2.4 m.

2. The space areas at heights 2.4, 2.5 and 2.7 m with permanent occupancies should be increased by 7%.

Kositskiy central institute of standard design and urban development, CJSC

www.citp.ru – adaptation of design and cost estimate documentation.

Our contact phones: +7(495) 225-57-10; +7(495) 975-58-02; +7(495)262-76-84

1.5. The height from floor to the bottom of projecting elements of ceilings, equipment and utility lines as well as the height from floor to ceiling in corridors should be assumed at least 2.2 m.

The height of utility storeys should be assumed with account of equipment to be installed, utilities and their operation conditions; in places of personnel passage the clear height shall be at least 1.8 m.

1.6. Administrative and service spaces can be arranged in insets and built-in sections² of production buildings of I, II, IIIa and IVa fire-resistance degrees and categories B, and .

1.7. In built-in spaces³ of production buildings it is allowed to provide toilets, rooms for rest, warming and cooling, female personal hygiene, hand baths, drinking water supply facilities, hand-wash rooms, semi-showers, rooms for foremen and other personnel which due to production conditions should be located near working places, while in spaces of categories B. and – also smoking-rooms.

In buildings of IVa fire-resistance degree the built-in spaces (except rest-rooms, female personal hygiene rooms, hand baths, drinking water devices, hand-wash rooms and semi-showers) are not allowed to be located at external walls, on mezzanines and platforms.

The height of built-in spaces (from floor to ceiling) is allowed to be assumed at least 2.4 m.

1.8. The lobby area in buildings should be assumed as 0.2 m², while at enterprises located in the Northern building and climatic zone, - 0.25 m² per employee in the most numerous shift, but at least 18 m².

1.9*. In multi-storey buildings with the difference of floor elevations between the lobby and the upper storey of 12 m and more, as well as with spaces for handicapped in wheelchairs located on the second floor and higher, one should provide elevators.

The number of elevations should be assumed by calculation and shall be at least two; one of them is allowed to be assumed as a freight elevator. One of the elevators shall have the cabin at least 2.1 m deep, at least 1.1 m wide, with the door opening of a least 0.85 m wide.

² Inset, built-in section – a part of building intended for accommodation of administrative and service spaces and located within a production building along its total height and width (inset), a part of its height or width (built-in section) and isolated by fire separations. It is allowed to mount (partially) mechanical equipment in insets (built-in sections).

³ Built-in spaces should be made, as a rule, from light-weight enclosing components including prefabricated demountable ones, and dispersely located.

1.10. The elevator hallway width when elevators are located in one row, shall be at least 1.3 of the elevator cabin least depth, when located in two rows – less than the double value of the cabin least depth of one of the elevators in the opposite shall be at least 2.5 m.

In basement and ground storeys the exits from elevator shafts should be provided through vestibule-locks with excess air pressure in fire. In buildings with two elevators they are allowed to be located in staircases.

1.11. In buildings one should provide spaces for cleaning tools storage, washing and drying equipped with the cold and hot water supply system and, as a rule, adjoining the rest-rooms. The area of these spaces should be assumed as 0.8 m² per each 100 m² of the floor area but at least 4 m². with the floor area less than 400 m² it is allowed to provide one space for two adjacent storeys.

1.12. In multi-storey administrative buildings with 300 and more employees as well as a in multi-storey service buildings with the total area of 3000 m² and more one should provide vertical refuse chutes with refuse bin chambers. The enclosing components of the refuse chute shaft shall have at least 0.5 h fire-resistance rating.

The refuse bin chamber should be placed under the refuse chute shaft and isolated with fire walls of the 1st type. The refuse bin chamber should be provided with sprinklers fed from the water line. The exit from the chamber shall be directly outside. Above the exit one should provide a canopy from non-combustible materials.

1.13. Communication between heated production buildings and separately standing service buildings should be provided through heated passages. The heated passages are allowed not to be provided from buildings located in IV climatic area (except IV sub-area) as well as irrespective of the climatic area – from heated production buildings with the number of employees of not more than 30 per shift in each of them. In production buildings one should provide spaces for keeping warm street-clothes, furnished with hangers.

1.14. Fire escapes from basements should be provided, as a rule, through isolated staircases having exits directly outside. It is allowed to provide a fire escape from basements through common staircases with an exit outside separated from the staircase other part by a blind fire wall of the 1st type.

Communication between the basement and the first floor should be provided by individual stairs leading to a corridor on the first floor.

1.15. Canteens, conference and meeting rooms shall be located on floors in conformance with Table 1.

Table 1

Fire-resistance degree of buildings	Number of seats in space	storey
I, II	Up to 300	1-16
	Over 300 up to 600	1-5
	“600	1-3
III	Up to 300	1-3
	Over 300 up to 600	1-2
IIIa,III,IV,V	Up to 300	1
IVa	“100	1

1.16. It is allowed to provide one fire escape (door):

a) from a space located on any floor with simultaneous occupancy of not more than 50 persons, unless the distance from the remotest point of the space floor to the above fire escape exceeds 25 m;

b) from a one-storey building with the total area of not more than 50 persons;

c) from any floor of a multi-storey building with the fire-resistance degree, the number of storeys and the number of people to be evacuated from the most occupied floor conforming to those in Table 2, when a second fire escape from this floor is provided to the stairs of the 3d type made in conformance with SNIP 2.01.02-85* and SNIP 2.09.02-85*.

Table 2

Fire-resistance degree of building	Ultimate number of people to be evacuated from one Storey of building with the number of storeys		
	2	3	4 and more
I, II	70	35	15
III, IIIa	50	35	15
IV, V	30	-	-

1.17. The number of people to be evacuated from sanitary-service and administrative spaces shall conform to the number of employees in the shift, those from canteens, conference and meeting rooms – to the number of seats in these spaces increased by 25%.

1.18*. The width of passages, corridors and other horizontal means of egress should be assumed so that the density of evacuated flows shall not exceed 5 persons per 1 m²; the width of an aisle in spaces should be assumed at least as 1 m, that of a corridor or a passage to another building – at least 1.4 m, and if there are handicapped in wheelchairs among the employees – at least 1.2 and 1.8 m, respectively.

The width of a fire escape from spaces and from a corridor to a staircase shall be set with regard to the number of people to be evacuated through this exit (but not less than 0.8 m) per 1 m of the exit (door) width in buildings with the following fire-resistance degrees:

I, II.....	not more than 165 persons
III, IIIa, III.....	“ 115 “
IV, IVa, V.....	“ 80 “

The width of flights of stairs shall be not less than that of the exit to a staircase from the most occupied floor, but not less than 1 m.

If these are handicapped with impaired organs of support and motion among the employees, the width of fire escapes from spaces and from corridors into staircases shall be at least 0.9 m, the width of flights – at least 1.2 m.

1.19. The distance along a corridor from the door of the remotest space located between the staircases or outside exits (except rest-rooms, hand-wash rooms, shower-rooms, smoking-rooms) to the nearest exit into the staircase or outside shall not exceed the values given in Table 3.

Table 3

Fire resistance degree of building	Distance, m, at the human flow density in corridor ¹ , pers/m ²			
	Up to 2	Over 2 up to 3	Over 3 up to 4	Over 4 up to 5
I, II	60	50	40	30
III, IIIa, III	40	35	30	25
IV, IVa, V	30	25	20	15

¹Ratio of the number of people to be evacuated from the spaces into corridor and the area of this corridor.

In excess of the permissible distances between staircases one should provide in insets and built-in sections the staircases of the 2nd and 3^d types to be pressurized in case of fire in production spaces. It is allowed to provide fire escapes from the above staircases into buildings (spaces) of I-III fire-resistance degrees of categories and .

Note: The distances to the exit into the staircase from spaces with exits into a dead end and corridor should be reduced by half.

1.20. Form built-in spaces to be located in production buildings on mezzanine floors and platforms it is allowed to provide exits into production spaces along open stairs.

The distance from exits of built-in spaces to exits outside should be assumed in conformance with SNIP 2.09.02-85* with regard to the space category by explosion-fire and fire hazard.

1.21. The distance from any point in the space to the nearest fire escape from this space shall not exceed, m, in buildings with fire-resistance degrees: I, II – 25; III, IIIa – 15; IV – 12, III, IVa, V – 10.

1.22. The number of storeys and the area of fire compartments with regard to fire-resistance degrees of separately standing buildings, annexes¹ and insets should be assumed by Table 4.

Table 4.

Fire resistance Degree of building	Floor area within fire compartment, m ² , with the number of storeys				
	1	2	3-5	6-9	10-16
I	6000	5000	5000	5000	2500
II	6000	4000	4000	4000	2200
III	3000	2000	1200	-	-
IIIa	2000	1400	1200	-	-
III	2000	-	-	-	-
IV	2000	1400	-	-	-
IVa	1200	-	-	-	-
V	1200	800	-	-	-

¹ Annex is a part of building intended for accommodation of administrative and service spaces to be isolated from production buildings and spaces with fire separations. It is allowed to install (partially) mechanical equipment in annexes.

Note. buildings of IIIa fire-resistance degree are allowed to be designed with not more than 3 storeys. In two- and three-storey buildings the load-bearing elements shall have at least 0.75 h fire-resistance rating.

1.23. When designing 10-16 storey buildings one should take into account the additional requirements to these buildings in conformance to SNIP 2.08.02-89*.

1.24. Annexes of I and II fire-resistance degrees should be isolated from production buildings of I and II fire-resistance degrees with fire separations of the 1st type.

Annexes with less than II fire-resistance degree as well as annexes to production buildings with lower than II fire-resistance degree and annexes to spaces and buildings of categories A and should be isolated with fire walls of the 1st type. Annexes of IIIa fire-resistance degree are allowed to be isolated from production buildings of IIIa fire-resistance degree with fire walls of the 2nd type.

1.25. Insets should be isolated from production buildings with fire walls of the 1st type.

In buildings of I and II fire-resistance degrees it is allowed to isolate insets from production spaces of categories B, with fire partitions of the 1st type, in buildings of IIIa fire-resistance degree – with fire walls of the 2nd type; in the above walls it is allowed to use slow-burning materials under assurance of the zero fire-resistance rating.

Built-in sections should be assumed with not more than two storeys and isolated from production spaces of categories B, with fire partitions having 1.5 h fire-resistance rating and with fire-resisting floors of the 3d type.

The total area of insets to be isolated by fire partitions of the 1st type and by fire walls of the 2nd type as well as built-in sections and production spaces, shall not exceed the fire compartment area established by SNIP 2.09.02-85*.

1.26. Corridors should be divided by fire partitions of the 2nd type into compartments not more than 60 m long.

1.27. From corridors of any area located on the above-surface and ground floors and having no natural lighting and from locker-rooms of over 200 m² in area one should provide smoke exhaust ventilation in conformance with SNIP 2.04.05-91*.

1.28. In buildings, annexes, insets and built-in sections one should provide regular staircases of the 1st type, except the cases specified in 1.14.

In buildings of I and II fire-resistance degrees with not more than three storeys 50% of staircases are allowed to be of the 2nd type with top natural lighting; the distance between the flights shall be at least 1.5 m. In these buildings the main stairways are allowed to be open to the total building height, if other (at least two) stairs are accommodated in regular staircases of the 1st type.

Lobbies and floor hallways with the open stairs shall be isolated from adjacent spaces and corridors with fire partitions of the 1st type.

1.29. Glazed doors and transoms above them in internal walls of staircases are allowed to be used in buildings of all fire-resistance degrees; in buildings with more than four storeys the glazing should be provided from wire glass.

1.30. Facing and finishing of surfaces of walls, partitions and ceilings in halls with more than 75 seats (except halls in buildings of V fire-resistance degree) should be provided from non-combustible and slow-burning materials.

1.31. An automatic fire alarm system shall be installed in separately standing buildings and annexes with over four storeys, in built-in sections and insets – irrespective of the number of storeys in all spaces, except those with wet processes.

2. SERVICE BUILDINGS AND SPACES

2.1. Service buildings of enterprises are intended for accommodation of employee-servicing spaces: sanitary service, medical aid, public catering, trade and every-day services, cultural.

It is allowed to provide spaces or social facilities not accounted for by the present code but conforming to the approved plans of an enterprise' social and economic development or the quote of jobs for handicapped. Design documents for the above spaces of facilities shall comply with design codes.

2.2. The design's process part shall set the number of employees according to the roll in the most numerous shift¹ as well as in the most numerous part of the shift at the difference of 1 h and more of the shift start and finish to be assumed for calculation of service spaces and facilities; the roll should include probationers receiving occupational training.

For mobile buildings it is allowed to assume the number of shift employees equal to 70% of the roll including 30% of females.

2.3*. Geometrical parameters, minimum distances between axes and width of aisles between equipment rows in service spaces should be assumed by Table 5.

Table 5

Description	Value, m
Dimension in plan	
Cabins of: Shower-rooms, closed Shower-rooms, open, and with a through passage, Semi-showers Female personal hygiene rooms Rest-rooms Benches in locker-rooms Drinking water supply unit Lockers in locker-rooms for street and home clothes Depending on climatic areas and for special clothes and footwear*: II, II, II, III, III, IV IB, I, IIA, IIIA IA, I, I and for handicapped	1.8x0.9 (1.8x1.8) 0.9x0.9(1.2x0.9) 1.8x1.2(1.8x2.6) 1.2x0.8(0.6x0.8) 0.5x0.7 0.25x0.5 0.33x0.5 0.4x0.5
Dimension by height	
Dividing partitions: To the partition top From the floor to the partition bottom Clothes lockers	1.8 0.2 1.65
Distance between sanitary fixture axes	
Individual hand-wash stands Hand and foot baths, urinals	0.65 0.7
Width of aisles between rows	
Closed shower cabins, group hand-wash stands open shower and W.C. cabins, urinals Individual hand-wash stands Hand and foot baths, female personal hygiene and photaria cabins Lockers for clothes with the number of sections in a row Up to 18 From 18 to 36	1.2(1.80) 1.5(1.8) 1.8 2 1.4/1.**(2.4/1.8) 2/1.4** (2.4/1.8)
<p>*Below – industrial protective clothing. For common articles of industrial protective clothing (cloaks, aprons, light overalls) one should provide lockers 0.25x0.5 m in plan, for additional articles (a common set plus underwear, personal protection means) – 0.33x0.5 m, for bulky industrial protective clothing (an expanded set plus sheepskin semi-coats, felt boots, special overalls) – 0.4x0.5 m.</p> <p>**The denominator gives the width of aisles between locker rows without benches.</p> <p>N o t e s : 1. the width of aisles between walls and equipment rows is allowed to be reduced by 40%, with the number of equipment units over six in a row – to be increased by 25%.</p> <p>2. With dead end aisles between lockers the number of sections in a row should be reduced by 35%.</p> <p>3. The values for handicapped with impaired organs of support and motion are given in brackets.</p>	

Kositskiy central institute of standard design and urban development, CJSC

www.citp.ru – adaptation of design and cost estimate documentation.

Our contact phones: +7(495) 225-57-10; +7(495) 975-58-02; +7(495)262-76-84

SANITARY-SERVICE SPACES

2.4. Sanitary-service spaces comprise locker rooms, shower-rooms, hand-wash rooms, rests-rooms, smoking-rooms, places for accommodation of semi-showers, drinking water supply units, warming or cooling spaces, spaces for industrial protective clothing treatment, storage and issuance¹.

2.5. Sanitary-service spaces for employees engaged directly in production shall be designed with regard to the production process groups according to Table 6.

The list of professions with their reference to production process groups is to be approved by ministries and departments upon coordination with the USSR Ministry of Public Health and central committees of branch trade unions.

¹ In conformance with departmental normative documents it is allowed to provide other sanitary-service spaces and equipment in addition to those specified.

2.6. In locker rooms the number of sections in the lockers or hanger pegs for home and protective clothing should be assumed equal to the employee roll number, that of street clothes – the number in two contiguous shifts.

2.7. With the roll number of employees up to 50 persons it is allowed to provide common locker rooms for all production process groups.

2.8. Locker rooms of home and protective clothing for production process groups 1, 2, 2 and 3 shall be separate for each of these groups.

2.9. In locker rooms of mobile buildings with the roll number of employees under 150 persons it is allowed to allocate a place for accommodation of special clothing lockers for the 3d group of production processes, unless their number exceeds 25% of the total locker number.

2.10. In locker rooms one should provide store spaces for industrial protective clothing, W.C., rooms for personnel on duty with a place for cleaning utensils, places for shoe-shining, shaving, hair drying².

2.11. For production process groups 1 and 2a with the number of employees not more than 20 per shift the protective clothing store-rooms are allowed not to be provided.

2.12. When cleaning and decontamination of protective clothing shall be carried out after every shift, instead of locker rooms one should provide distributing centers.

2.13. The number of shower-rooms, hand-wash stands and special service facilities specified in Table 6 should be assumed by the number of employees in the shift or a part of this shift who finish their work simultaneously.

2.14*. Shower-rooms are furnished with open shower cabins. Up to 20% of shower cabins are allowed to be provided as closed ones.

For handicapped with impaired organs of support and motion and for blind persons the closed cabins should be provided.

Shower cabins with a through passage are provided for production process groups 1, 3 as well as in cases established by departmental normative documents.

2.15*. Rest-rooms in multi-storey service, administrative and production buildings shall be on each floor.

With the number of employees on two adjoining floors of 30 persons or less the rest-rooms should be located on one of the floors with a higher number of employees.

With the number of employees on three floors of less than 10 it is allowed to provide one W.C. for three floors.

If there are handicapped with impaired organs of support and motion among employees, the rest-rooms should be located on each floor irrespective of the number of employees on the floors.

2.16*. In rest-rooms with more than four sanitary fixtures one should provide one cabin for the aged and handicapped.

If there are handicapped with impaired organs of support and motion among employees, the cabin for handicapped should be provided irrespective of the number of sanitary fixtures in the rest-rooms.

2.17*. A common rest-room for males and females is allowed to be provided for not more than 15 employees per shift.

At enterprises when a possibility of using the labor of blind persons is provided, the male and female rest-rooms shall be separate.

2.18*. The entrance into the rest-room should be provided through a vestibule-lock with a self-closing door.

In male rest-rooms in conformance with departmental regulations it is allowed to provide wall-flushed trough urinals instead of individual ones.

When there are wheelchair handicapped among employees, one of the urinals in the rest-rooms shall be mounted not higher than 0.4 m from the floor.

2.19*. The distance from working places in production buildings to rest-rooms, smoking-rooms, warming-up and cooling-spaces, semi-showers, drinking-water facilities shall be assumed as not more than 75 m, for handicapped with impaired organs of support and motion and blind persons – not more than 60 m, while from working places on the site – not more than 150 m.

2.20. For washing industrial protective clothes the laundries with dry cleaning shall be provided at production enterprises or groups of enterprises. When justified, it is allowed to use city laundries, if they have special sections (process lines) for protective clothing treatment.

The composition and area of spaces of laundries, dry cleaning, clothing impregnation and decontamination shall be established in the design's process part with account of sanitary requirements to its treatment.

2.21. Fore decontamination of protective clothing soiled with non-volatile substances it is allowed to use a separate process line in laundries.

2.22. Walls and partitions in locker-rooms for protective clothing, shower-rooms, shower ante-rooms, hand-wash rooms, rest-rooms, clothes drying, dedusting and decontamination rooms shall be made to 2 m height from the materials allowing their washing with hot water and detergents. Walls and partitions in the these spaces above 2 m height as well as ceilings shall have a water-resisting coating.

2.23. In laundries one should provide spaces for mending protective clothing at a rate of 9 m² per working place. The number of working places should be assumed as one working place for footwear repair and two working places for clothes mending per 1000 persons on the roll.

Table 6

Group of production processes	Sanitary characteristics of production processes	Design number of persons		Type of locker-rooms, number of locker sections per 1 pers	Special service spaces and facilities
		Per one shower head	Per one tap		

1	Processes resulting in soiling with substances of the 3d and 4 th classes of hazard: hands only	25	7	Common, one section	-
1a		15	10	Common, Two sections	Protective clothing washing or dry cleaning
1	Body and protective clothing	5	20	Separate, one section each	Cooling spaces
1					Same Protective clothing drying
2	Body and protective clothing, to be removed with special detergents				Warm-up and clothing drying spaces
2	Processes taking place with excess heat or under unfavorable meteorological conditions:	7	20	Common two sections Same separate, one section each	
2	With excess of evident convective heat	3	20	Separate, one section each	
2	With excess of evident radiant heat connected with moisture effects resulting in wetting of protective clothing	5	20		
3	At air temperature up to 10 C including outdoor activities				
3		7	10	Common, one section separate, one section each	Dry cleaning, mechanical ventilation of clothing storag
3		3	10		
	Processes resulting in soiling with				

4	<p>substances of the 1st and 2nd classes of hazard as well as with substances having a strong odor: hands only</p> <p>Body and protective clothing</p> <p>Processes requiring special conditions of cleanness and sterility observance in product manufacturing</p>	In conformance	with requirements	of departmental	<p>places; deodorization of</p> <p>ments</p> <p>-</p> <p>documents</p>
---	---	----------------	-------------------	-----------------	--

Note s: 1. When combining indicators of various groups of production processes, the type of locker rooms, the number of shower heads and taps in hand-wash rooms should be provided by the group with the highest requirements, while special service spaces and facilities – by summary requirements.

2. With processes of 1a group the shower-rooms and locker-rooms and with processes of 1 and 3a groups the benches at lockers are allowed not to be provided.

3. With any processes connected with emission of dust and harmful substances the locker-room should have breathing apparatus sections (for the number on the roll) as well as spaces and facilities for protective clothing dedusting or decontamination (for the number in the shift).

4. In mobile buildings made from block-containers it is allowed to reduce the design number of shower heads down to 60%.

5. When handing infectious and radioactive materials as well as substances hazardous for humans due to skin penetration, the sanitary service spaces should be designed in conformance with departmental normative documents.

6. In conformance with departmental normative documents the open storage of clothing is allowed, including those on hangers.

7. Harmful substances should be assumed by GOST 12.0.003-74, the substance hazard classes – by GOST 12.1.005 – 76.

8*. The design number of handicapped with impaired organs of support and motion and blind persons per one shower head – 3, per one tap – 7, irrespective of the sanitary characteristics of production processes.

2.24. Upon coordination with local councils of trade unions it is allowed to provide a centralized warehouse of industrial protective clothing and personal protective means.

2.25. The space area rates per 1 person, unit of equipment, the design number of employees serviced per unit of equipment in sanitary-service spaces, should be assumed according to Table 7.

Table 7*

Description	Value
Space area per 1 person, m²	
Locker-rooms for street clothing, protective clothing distribution centers ¹ , warming-up and cooling spaces	0.1
Store-rooms for protective clothing ² :	
For common protective clothing articles	0.04
For extended set of protective clothing	0.06
For bulky protective clothing	0.08
Breathing apparatus rooms	0.07
Space of centralized storage of protective clothing and personal protective means:	
For storing	0.06
For issuance, including trying-on and fitting cabins	0.02
Spaces for personnel on duty with places for cleaning utensils, smoking-rooms adjacent to rest-rooms or recreation spaces	0.02
Places for shoe-shining, shaving, hair drying	0.01
Spaces for protective clothing drying, dedusting or decontamination	0.15
Spaces for washing of protective clothing including helmets and special footwear ²	0.3
Space area per unit of equipment, m²	
Shower ante-rooms adjoining open and through-passage shower-rooms	0.7
Vestibule-locks in rest-rooms with cabins	0.4
Number of people serviced during a shift per unit of equipment, persons	
Floor-type W.C. bowls and urinals in rest-rooms:	
In production buildings	18/12
In administrative “	45/30
Near conference and meeting halls, locker-rooms, canteens	100/60
Hand-wash stands and electric towels in rest-rooms' vestibule-locks:	
In production buildings	72/48
“ administrative “	40/27
Drinking water facilities with regard to production process groups:	
2a. 2	100
1, 1, 1, 2, 2, 3, 3, 4	200
Semi-showers	15

¹ Provide individual spaces for clean and soiled clothing.

² For groups of production processes 1, 2, 2, 3.

N o t e s: 1. In climatic area I and sub-areas IIA and IIIA as well as when self-serviced, the area of street clothing cloak-rooms should be increased by 25%.

2. Near spaces of clothes distribution centers, drying, dedusting and decontamination one should additionally provide a place for clothes changing with an area of 0.1 m²/person, while in street clothing – places for clothing return and receipt with an area of 0.03 m²/person. Near the breathing apparatus rooms for more than 500 persons one should additionally provide workshops with an area of 0.05 m²/person for checking and recharging of personal breathing apparatus.

Kositskiy central institute of standard design and urban development, CJSC

www.citp.ru – adaptation of design and cost estimate documentation.

Our contact phones: +7(495) 225-57-10; +7(495) 975-58-02; +7(495)262-76-84

3. The area of spaces listed in Table 7 shall be at least 4 m², that of shower ante-rooms and vestibule-locks – at least 2 m².
4. The numerator gives values for males, the denominator – for females.
5. With the number of those serviced below the design value, one unit of equipment should be assumed.
- 6*. When there are wheelchair handicapped among employees, the area of spaces per unit of equipment should be assumed, m²: shower ante-rooms next to shower cabins – 1.0, vestibule-locks next to rest-rooms with cabins – 0.6.

MEDICAL SERVICE SPACES

2.26. When designing enterprises, one should provide first aid rooms, medical service centers, female personal hygiene rooms, steamers (saunas), while according to departmental codes – spaces for inhalator facilities, photaria, hand and foot baths as well as spaces for rest during working hours and psychological relaxation.

By an individual assignment approved by local public health authorities and councils of trade unions the provision can be made for polyclinics (out-patients' clinics), hospitals, sanatoriums-dispensaries, ambulance and first aid stations and other medical-sanitary services as well as sporting and health-improving buildings and structures. It should be taken into account that they can be used as common projects for groups of enterprises, while for enterprises to be located within urban developments or in human settlements with account of services to local communities.

2.27. At enterprises with employees on the roll over 300 people the surgeon assistant's dispensaries shall be provided.

2.28..

2.29. The number of those serviced by one surgeon assistant's dispensary is assumed:
At underground works – not more than 500 persons;

At enterprises of chemical, mining, coal and oil-processing industries – not more than 1200 persons;

The composition and the area of spaces at the surgeon assistant's dispensary should be assumed at the surgeon assistant's dispensary should be assumed by Table 8.

Table 8

Spaces of surgeon assistant's dispensary	Area, m ²
Waiting lobby with a cloak-room and registry	18 (10)*
Room for patients' temporary stay	9 (9)
First aid and procedure rooms	24 (12)
	(2 spaces)
Doctor's consulting room	12 (10)
Physiotherapeutics room	18
Dentist's room	12
Gynaecologist's room	12
Store-room for medicines and medical equipment	6 (6)
Rest-room with a hand-wash stand in the vestibule-lock	With 1 W.C (with 1 W.C.)

*in brackets – for mobile buildings.

Notes: 1. The dentist's room shall be provided upon coordination with local public health authorities.
2. One gynaecologist's room should be designed for 1200 to 3600 females on the roll. With the available gynaecologist's room a female personal hygiene room should be provided.

2.30*. With 50 to 300 employees on the roll a medical station shall be provided.

The medical station area should be assumed: 12 m² – for 50 to 150 employees on the roll, 18 m² – for 151 to 300.

At enterprises where a possibility of using the labor of handicapped is provided, the medical station area is allowed to be increased by 3 m².

The medical station shall be equipped as approved by local public health authorities.

2.31. By assignment coordinated with local public health authorities it is allowed at enterprises to provide surgeon's dispensaries instead of assistant surgeon's.

A category of the surgeon's dispensary should be assumed with regard to the number of employees on the roll: I – the doubled number of those serviced as compared to that in 2.28; II – in compliance with 2.27, 2.28.

The composition and areas of surgeon's dispensaries should be assumed according to Table 9.

Table 9*

Spaces of surgeon's dispensaries	Area, m ²		
	At category of surgeon's dispensary		When accommodating surgeon's dispensaries in mobile buildings
	I	II	
Lobby with places for waiting and registry	24	18	15
Dressing rooms-purulent and clean	36	36	15
Doctor's consulting rooms	(2 spaces) 48	(2 spaces) 24	16
Physiotherapeutics room	(4 spaces)	(2 spaces)	
Dentist's room	24	18	12
	24	12	12
Procedure room	(2 spaces)		
Room for patient's temporary stay	18	12	-
	12	9	9
Head surgeon's office			
Gynaecologist's room ¹			
Store-room for medicines and a kiosk	9	9	-
Room for autoclave and dressing materials	12	9	-
	9	9	6
Store-room for medical equipment	9	9	6
Rest-room with hand-wash stand in the vestibule-lock			
Shower-room	6	6	6
	With	one W.C.	
	With	one shower	head

¹In conformance with note 2 of Table 8.

Note*. at enterprises where the labor of handicapped is provided, the composition of the surgeon's dispensary can be supplemented upon coordination with local public health authorities and with consideration of disability types, groups of diseases and disability degrees.

2.32. Surgeon assistant's or surgeon's dispensaries should be located on the first floor. The door widths in waiting lobbies, dressing rooms, consulting rooms and rooms for patients' temporary stay shall be at least 1 m.

2.33. Spaces for female personal hygiene should be located in rests-rooms (in addition to those specified in Tables 8 and 9) at a rate of 75 persons per unit. In these spaces the places for undressing and a hand – wash stand shall be provided.

2.34. Steaming rooms (saunas) are allowed to be provided in conformance with the assignment coordinated with local councils of trade unions.

2.35. A steaming room (sauna) shall be located at the external wall on the first or ground floor in buildings of I and II fire-resistance degrees, have an independent fire escape, be isolated from other spaces with fire separations of the 1st type, have fire-resisting floors of the 3d type.

2.36. In the steaming room (sauna) one should use factory-made furnaces equipped with an automatic system preventing their operation more than 8 hours a day.

2.37. Inhalation facilities should be used upon coordination with local public health authorities, when there are production processes connected with dust or irritating gas emissions.

2.38. Photaria should be provided at enterprises located to the north of the Polar Circle for those working in spaces without natural lighting or with the day-light factor less than 0.1% as well as for those engaged in underground works.

Photaria should be located, as a rule, in home clothes locker-rooms. The surfaces of photaria walls and partitions as well as the surfaces of cabins shall be coated with light-hue silicate paints.

2.39. Photaria are not required, when production spaces are equipped with artificial lighting enriched with ultra-violet radiation as well as in industries where employees are exposed to chemical agents with photosensitization effects.

2.40. Hand-baths should be provided for those engaged in production processes connected with hand-transferred vibration.

2.41. When the number of employees using hand-baths per shift is 100 and more, the hand-baths should be located in hand-wash rooms or in separate spaces equipped with electric towels; with the less number of users the hand-baths are allowed to be located in production spaces.

2.42. The area of the hand-bath room should be determined as 1.5 m² per one bath, the number of baths as one bath per three employees-users a shift.

2.43. Foot-baths (foot hydromassage units) should be provided for people employed in production processes and doing their work standing on feet or when vibration is transferred to their feet. Foot-baths should be located in hand-wash rooms or locker-rooms at a rate of 40 people per one unit 1.5 m² in area.

2.44. Spaces and places for rest in working hours and spaces for psychological relaxation should be located, as a rule, next to home clothing locker-rooms and medical stations.

With allowable parameters of the working zone air in production spaces and with the absence of contacts with substances of the 1st and 2nd hazard classes it is allowed to provide open places for rest inside the shops in the form of areas not used for production purposes.

2.45. In spaces for rest and psychological relaxation, when justified, one can provide devices for special tonic drink preparation and dispensing as well as places for physical exercises.

2.46. The sound pressure level in spaces and places for rest as well as in psychological relaxation spaces shall not exceed 65 dBA.

2.47. The rates of area per 1 person in medical spaces should be assumed by Table 10.
Table 10

Description	Area per 1 person, m ²
Steaming room (sauna)	0.7
Inhalatorium	1.8
Photarium	1.5
Space (place) for rest in working hours, psychological relaxation, physical exercises	0.9

SPACES OF PUBLIC CATERING ENTERPRISES

2.48. Public catering enterprises should be designed with account of a possibility of their use as common facilities for groups of enterprises to be located within urban developments or in human settlements bearing in mind supply of services to local communities.

2.49. When designing production enterprises, one should provide canteens intended for supply of all employees with common and diet nourishment, and by special assignments – with therapeutic- profylactic nourishment.

With the number of employees a shift over 200 one should provide a canteen cooking, as a rule, semi-finished products¹, under 200 –dispenser-canteens.

With the number of employees a shift under 30 it is allowed to provide a meal-room.

2.50. Next to the canteen servicing visitors in street clothing one should provide a lobby with the street clothing cloak-room which shall accommodate 120% of visitors in street clothing.

2.51. The number of seats in the canteen should be assumed at a rate of one seat per four employees a shift or the most numerous part of the shift (see 2.2). Depending on the process and industrial engineering requirements at an enterprise the number of seats in canteens is allowed to be changed.

2.52. *The meal-room area should be determined at a rate of 1 m² per each visitor or 1.65 m² per handicapped in wheelchair, but not less than 12 m². the meal-room shall be equipped with a hand-wash stand, a stationary water heater, an electric range, a refrigerator. With the number of employees a shift up to 10 instead of the meal-room it is allowed to provide an additional place 6 m² in area in the locker-room to install a meal table.

2.53. -2.62 to be deleted.

3. ADMINISTRATIVE BUILDINGS AND SPACES

3.1*.Administrative buildings may accommodate spaces of management, design offices, information technology, reproduction and copying, computing equipment, occupational safety.

MANAGEMENT AND DESIGN OFFICES

3.2*. The office area should be assumed at a rate of 4 m² per one executive, 6 m² per one designer, for working handicapped and those in wheelchairs – 5,65 and 7.65 m², respectively.

When equipping working places with large-size facilities and accommodating collective-use equipment (computer terminals, microfilm-viewing machines, etc.) in working spaces, the areas are allowed to be increased in compliance with the equipment performance specifications.

3.3. The area of managers' offices shall be not more than 15% of the total area of working spaces.

¹When justified, it is allowed to provide canteens cooking raw materials.

3.4. Next to offices of enterprises' heads and their deputies one should provide reception-rooms. It is allowed to provide one reception-room for two offices. The area of reception-room shall be at least 9 m².

3.5. In general factory administration buildings with the number of engineers and technicians of 300 and more one should provide conference-halls rated for 30% of employees.

3.6*. The area of administration conference-halls should be assumed at a rate of 0.9 m² per seat in the hall. Next to meeting rooms it is allowed to provide lobbies at a rate of 0.3 m² per one seat in the hall. The area of lobbies adjoining a conference-hall shall include the area of a corridor next to the conference-hall.

With available handicapped in wheelchairs among the employees the conference-hall shall have seats for them at a rate of 1.65 m² per seat.

3.7. Rest-rooms should be provided at the distance of up to 30 m from conference-halls.

3.8. At enterprises with the number of engineers and technicians of up to 300 in order to hold meetings it is allowed to increase the area of one of the managers' offices at a rate of 0.8 m² per seat. The office area shall be determined by the assignment for design but shall not exceed 72 m².

INFORMATION TECHNOLOGY SPACES

3.9. The composition and the area of the technical library spaces should be assumed by Table 14.

Table 14

Space	Unit of measurement	Area per unit of Measurement, m ²
Reading-hall	1 seat	2.7
Book depository	1000 depository units	2.5
Service space	1 working place	4
Lending literature section	Same	5
Place for catalogue and new entries show	1000 depository units	0.6

3.10. Technical libraries of not more than 90 m² in area should be located in one space.

3.11. The composition and the area of archive spaces should be assumed by Table 15.

Table 15

Space	Area, m ² , per 1 seat
Reading-hall	2.7
Working space	4

Note: the depository area is determined by the assignment for design.

3.12. Archives not more than 54 m² in area should be accommodated in one space.

3.13. The area of computing technology spaces shall be determined by assignments for design.

3.14. The areas of dispatcher's and programmer's offices in computing centers should be assumed at a rate of 4.5 m² per one working place.

3.15. The area of computing center head's office should be assumed with regard to the number of employees: up to 20 persons – 12 m², if more – 18m².

3.16. The area of copying and reproducing spaces should be assumed by assignments for design.

3.17. The area of a space for receipts and issuance of copying and reproducing orders should be assumed at a rate of 6 m² per one working place.

3.18. Copying and reproducing spaces with large-size equipment shall have doors of at least 1400 mm wide.

3.19. Light-sensitive and photocopying exchanges and radio relay centers shall be determined by assignments for design.

3.20. The area of automatic telephone exchanges and radio relay centers shall be determined by assignments for design.

3.22. The teletype-room area should be assumed at a rate of 4.5 m² per one working place.

LABOR PROTECTION OFFICES

3.23. The area of labor protection offices, m², is determined with regard to the number of employees on the roll, persons:

Up to 1000.....	24
Over 1000 to 3000.....	48
“3000 “5000.....	72
“5000”10000.....	100
“1000”20000.....	150
“20000.....	200

N o t e: For mobile buildings it is allowed to provide labor protection offices the area of which is established with coefficient 0.5.

3.24-3.29 to be deleted.

SPACES FOR TRAINING

3.30*. The composition and areas of training spaces are established by assignments for design.

3.31. to be deleted.

4. HEATING, VENTILATION AND AIR CONDITIONING

4.1. When designing heating, ventilation and air conditioning systems for buildings and spaces one should observe the requirements of SNIP 2.04.05-91*.

The design air temperature and the air exchange rate in spaces in the cold season should be assumed by Table 19.

4.2. In the cold season the heated supply air should be provided into a space upper zone, and when necessary, into a corridor to compensate the amount of air removed from spaces where the air exchange rate is set by exhaust.

4.3. To make up for the air removed from shower-rooms, shower ante-rooms and locker-rooms one should provide louver air grids.

4.4. In buildings with the total space area of not more than 108 m² accomodating not more than two rest-rooms in the cold season it is allowed to provide natural air inflow through windows.

4.5. In the warm season the natural inflow of outdoor air into spaces should be provided through opening windows. Mechanical supply of the outdoor air should be provided for spaces without windows as well as when outdoor air treatment is needed.

4.6. In areas with the design outdoor air temperature in the warm season above 25 C (parameter A) in spaces with permanent occupancy one should provide ceiling-type fans to increase the air motion speed up to 0.3-0.5 m/s.

4.7. Air removal should be provided, as a rule, directly from spaces using natural or mechanical ventilation systems. In shower-rooms and rest-rooms with three and more sanitary fixtures it is allowed to use natural ventilation systems.

Table 19

Space	Temperature in cold season, C	Air exchange rate per 1 hour or air exchange volume, m ³ /h	
		supply	exhaust
1.Lobbies	16	2	-
2.Heated passages	Not lower than by 6 C temperature in spaces connected with heated passages	-	-
3. Street clothing cloak-rooms	16	-	1
4. cloak-rooms for joint storage of all clothing with incomplete clothes changing by employees	18	At a rate of exhaust make up from shower-rooms (but not less than single air	According to 4.8
5.locker-rooms next to shower-rooms (shower ante-rooms) as			

well as those with complete clothes changing by employees:		exchange per 1 h	
a) locker-rooms for industrial protective clothing	23	5	5
b) locker-rooms for home (street and home) clothing	23	At a rate of exhaust make up from shower-rooms (but not less than single air exchange per 1 h	According to 4.8
6. shower –rooms			
7. rest-rooms	25	-	75 m ³ /h per 1 shower head
	16	-	50 m ³ /h per 1 W.C. and 25 m ³ /h per 1 urinal
8. hand-wash rooms next to rest-rooms	16		
9. smoking-rooms	16	-	1
10. spaces for rest, warming-up or cooling	22	-	10
		2 (but at least 30 m ³ /h per person)	3
11. spaces for female personal hygiene	23		
12. spaces for mending protective clothing	16	2	2
13. spaces for footwear repair	16	2	3
14. spaces for managing personnel, design offices, public organizations with area:		2	3
a) not more than 36 m ²	18		
b) over 36 m ²	18		
15. spaces for clothes drying	According to process requirements within 16-33 C	1.5	-
		By calculation	ulation
16. spaces for protective clothes dedusting	16	sa	me
			“ -

Note: the design air temperature in the warm season in spaces are not rated except those specified in 10-13, 14b where the design temperature should be assumed in conformance with instructions of SNIP 2.04.05-91*, while the air exchange rate to be determined by calculation.

4.8. Air removal from locker-rooms should be provided through shower-rooms. When the air exchange rate in locker-rooms exceeds that in the shower-room, the air removal should be provided through the shower-room in the amount set for it, while the difference – directly from the locker-room.

4.9. Individual exhaust ventilation systems should be provided for spaces of surgeon assistant's and surgeon's dispensaries, shower-rooms, rest-rooms. It is allowed to provide combined exhaust ventilation for shower-rooms and rest-rooms next to locker-rooms according to 4, 5a in Table 19.

4.10. In locker-rooms according to 4, 5 in Table 19 for 5 persons and less working in one shift in the cold season it is allowed to assume single air exchange providing natural inflow of the outdoor air through windows.

When justified, in locker-rooms it is allowed to install cabinets for clothes drying in non-working hours, equipped with natural exhaust ventilation in the amount of 10 m³/h from each cabinet.

4.11. The design air temperature and air exchange rate in spaces of typewriting, copying and reproducing offices, laundries, dry cleaning, canteens (meal-rooms – by the rates for canteens), medical stations, radio relay centers, telephone exchanges, libraries, archives, cine-projecting rooms, studios, computing centers, trade and every-day services, conference and meeting halls should be assumed in conformance with SNIP on design of appropriate buildings.