

(AUTHORITATIVE ENGLISH TEXT OF GOVERNMENT NOTIFICATION NO. TCP-F (1)-1/2008 DATED AS REQUIRED UNDER CLAUSE (3) OF ARTICLE 348 OF THE COSTITUTION OF INDIA).

**GOVERNMENT OF HIMACHAL PRADESH
TOWN AND COUNTRY PLANNING DEPARTMENT**

NO. TCP-F(1)-1/2008

Shimla-2, Dated,

2009.

“NOTIFICATION”

Whereas the draft Himachal Pradesh Town and Country Planning (Amendment) Rules, 2009 were published in the Rajpatra, Himachal Pradesh (Extra Ordinary) vide this department notification of even number dated 29.08.2009 for inviting objection(s) and suggestion(s) from the person likely to be affected thereby, as required under sub-section (I) of section 87 of the Himachal Pradesh Town and Country Planning Act, 1977(Act No.12 of 1977);

And whereas, no objection(s) and suggestion (s) have been received within the stipulated period by the State Government in this behalf;

Now, therefore, in exercise of powers conferred by section 87 of the Himachal Pradesh Town and Country Planning Act, 1977 (Act No. 12 of 1977), the Governor, Himachal Pradesh is pleased to make the following rules, namely:-

1. These rules may be called the Himachal Pradesh Town and Country Planning (Amendment) Rules, 2009.
2. In Appendix-I appended to the Himachal Pradesh Town and Country Planning Rules, 1978, after serial number 19, the following shall be added, namely:-

“20. Solar Passive Design.

(I) Scope:

Solar Passive Building Design shall be required in the buildings as under:-

- (i) All the Government and Semi-Government buildings.
- (ii) Public and Semi-Public Institutions including educational, health, community centres, banquet halls, inns and buildings of autonomous bodies.
- (iii) Urban Local Bodies and Panchayati Raj Institutions
- (iv) Residential buildings in urban and urbanisable areas.
- (v) Residential colonies and apartments
- (vi) Commercial complexes and buildings related thereto including hotels, resorts, lodges and guest houses.

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- (vii) Industrial buildings and complexes thereof.

- (viii) Transport buildings such as Airport terminals, Bus terminals, Railway stations etc.
- (ix) New townships

2. Building Map:

The map for the proposed building shall accompany a statement giving detail of specifications of solar passive heating and cooling system, day lighting features, solar photovoltaic panels, energy efficient and other renewable Energy devices as shown in the drawing and proposed to be installed where required . Expected energy saving in the building shall also be mentioned.

3 Site Selection :

The site shall preferably be selected on southern slopes or sunny side. Availability of sun shine duration during the winter months of December to March shall also be mentioned.

4. Orientation

The longer axis of the building shall preferably lie along east-west directions to trap maximum solar energy during winters.

5. Planning of Spaces:

The main habitable spaces of a building may be planned and designed in such a manner, so that natural day light is available. The stair cases, garages, toilets and stores may be planned preferably on northern side. Minimum door and window openings on north side be proposed to avoid heat losses. In order to capture maximum heat in winters, maximum glazing be proposed on southern side. Glazing in proportion to total surface area of sought wall shall not exceed more than 50% in mid-altitude regions i.e. 1500 mtr. to 2200 mtr. and not more than 70% in high altitude regions i.e. 2200 mtr. and higher

6 Integrating Solar Heating Systems in Building Designs:

- 6.1 Passive solar heating systems like solar air heating, water heating, sun space, solar walls , space heating green houses and solar trombe wall etc. shall be integrated in the building design, wherever possible on southern side, so as to allow maximum direct solar access to these systems.
- 6.2 The suitability of space heating systems to be installed or incorporated in the design of a solar passive building is to be decided by the Architect/ Planner/ Engineer/Designer/solar expert in accordance with building site, climate and space heating requirements.

7 Solar Photovoltaic Panel (SPV) for lighting:

Wherever possible and required, the solar photovoltaic panels shall be integrated preferably in the building design for providing light in the building, emergency lighting and street lighting, so that use of electricity is minimized.

8. Solar Passive Cooling Design Features:

The ventilation and Solar Passive cooling features may be incorporated wherever required as follows :

- 8.1 **Cross Ventilation:** Windows on opposite sides of rooms shall be provided for proper circulation and ventilation of fresh and cool air in summers. Windows on Southern side shall be fixed with overhangs of adequate height and width to provide shade during the Summers.
- 8.2 **Colour and shading:** The external surface of the wall shall be painted with white or light colours to reflect instant solar radiation.
- 8.3 **Ground embankments:** Ground floor shall be provided with earth berming upto a height of around 1.00 metre for taking the advantage of constant temperature of the earth through out the year.
- 8.4 **Outside temperature:** Outside temperature shall be modified by land- scaping.

9 Reducing thermal losses:

The local building materials including stone, slate and mud shall be utilized to meet the heating and cooling requirements by storing warmth and keeping the building cool.

10 Outer Wall Thickness:

Outer walls of the building shall be made atleast 0.24 metre thick or with cavity with air or with insulation for thermal comfort and to avoid the transfer of heat from outer environment to inner environment and vice-versa.

11. Installation of Solar assisted Water Heating System in Buildings:

- 11.1 The capacity of the Solar hot water system is to be determined as per the requirement of particular building. The following building plans shall be submitted alongwith provision of solar water heating system :-
 - (a) Hospitals and Nursing Homes.
 - (b) Hotels, Lodges, Guest Houses, Group Housing or apartments on an area of more than 1000 Sqm.
 - (c) Hostels of Schools, Colleges, Training centres and other institutions.
 - (d) Barracks of Police.
 - (e) Functional Buildings of public institutions like airports, bus stands and railway stations.
 - (f) Community centres, Banquet Halls and buildings for similar use.

- 11.2 (a) New buildings should have open space on the rooftop which receives direct sun light. The load bearing capacity of the roof shall at least be 50 Kg. per Sqm. All new buildings of above categories must complete installation of solar water heating system before putting the same in use.
- (b) Installation of solar assisted water heating systems in the existing building as given in regulation 11.1 shall be required at the time of change of use to above said categories, provided there is a system or installation for supplying hot water.
- 11.3 Installation of solar assisted water heating systems shall conform to Bureau of Indian Standards specification. The solar collectors used in the system shall have the Bureau of Indian Standards certification mark.
- 11.4 There shall be an automatic electric backup system in all solar water heating systems so that the same may be functional during cloudy or low / non-sunshine days.
- 11.5 Provision in the building design itself shall be kept for an insulated pipeline from the rooftop in the building to various distribution points where hot water or hot air is required
- 11.6 The solar water heating system shall be integrated preferably in roof of the building, wherever possible , so that the panels become integral part of the roof. The solar air /water collectors/ Green houses/Sunspaces on the roof for receiving maximum solar radiation shall be allowed.

By Order

Addl. Chief Secretary (TCP) to the
Govt. of Himachal Pradesh

Endst. No. TCP-F(1)-1/2008 Shimla-2, Dated

Copy forwarded for information and necessary action to :-

1. The Sr. Private Secretary to Chief Secretary, H.P. Shimla-2.
2. All the Divisional Commissioners/Deputy Commissioners in the H.P.
3. All the Head of Departments.
4. The Private Secretary to the Chief Minister, H.P. Shimla-2.
5. The Private Secretary to the TCP Minister, H.P. Shimla-2.
6. The Director, Town and Country Planning Department, H.P. Shimla-9 with 10 spare copies.
7. The Controller, Printing and Stationery, H.P. Shimla-5 for the publication in extraordinary Rajpatra.
8. Under Secretary (Law) to the Govt. of H.P.
9. All the Town and Country Planners, Divisional Town Planning Office, Madi, Solan, Shimla, Kullu, Hamirpur, Dharamshala, and Nahan.
10. All the Assistant Town Planners, Sub-Divisional Town Planning Office, Chamba, Bilaspur, Una, Rampur Bushehar and Parwanoo.
11. Guard File.