

NTT GROUP

Green Design Guideline for Buildings



October 2000

Guidelines for NTT Group activities concerning environmental protection issues for the 21st century



1. Introduction

It has been becoming increasingly clear that a material-use cycle beginning at mass production, mass consumption and ending at mass disposal and the use of poisonous materials are threatening not only the environment of regional societies but also the global environment. Under such circumstances, enterprises are called for to make an assessment of their activities in terms of their impact on the environment and endeavor to reduce the environmental load in all phases of the life cycle of their buildings, i.e.; planning/designing, construction, use & management, and disposal. Especially noteworthy is the fact that the responsibility of the country, local authorities, enterprises, and individuals is clearly laid down in the Basic Environment Law enforced in November, 1993 and the Fundamental Law For Promotion of Cycling-Type Society Formation introduced in June, 2000. The both laws call for that all the parties implement countermeasures of their own.

NTT established “NTT Global Environment Charter” in 1991 wherein the basic action programs were laid down to be implemented by all the sectors in the organization including NTT group companies. In 1999, on the occasion of re-organization of NTT group companies, “NTT Group Ecology Program 21” was established as the companies’ basic guidelines for promoting global environment protection. Proclaimed in the Program are the observance of the laws and codes on environment protection; the fulfillment of the corporate responsibility from a global standpoint; and the reduction of environmental load that may be caused by the business of NTT group. NTT group promotes, as its basic policies, design of environment-symbiotic buildings (hereinafter referred to as “green design of buildings”) with every regard to the effect on the environment.

The Guideline introduced here aims to assure that an attentive consideration on the effect of buildings on the environment be maintained throughout their whole life cycle.

2. Scope of Application

The Guideline set forth herein shall apply to all the buildings owned and managed by NTT group companies, including those currently in use or those to be designed anew hereafter.

3. Definition

The use of words in the Guideline is in accordance with the definitions stipulated in JISQ14001/ISO14001.

4. Guideline

4.1 Green Design Concept for Buildings

In designing buildings, a pertinent design concept for sustainable buildings shall be worked out and established based upon the consideration items mentioned below while observing the relevant laws and codes.

4.2 Items for Consideration

In terms of the matters given below, due consideration shall be given to the environmental effect during the whole life cycle of buildings beginning at the start of their construction, through operation/management, and ending at their disposal.

Further, voluntary efforts shall be made to achieve environmental effect-minded design even regarding the matters that are not mentioned in these guidelines.

4.2.1 Prolongation of Buildings' Life Span

(1) Assurance of Flexibility

Flexibility shall be assured in design to allow for any changes in function, use, and users of buildings that may occur during the buildings' life span.

(2) Adequate Consideration to Maintainability

Due consideration shall be given so as to enable the efficient and safe maintenance & management work on buildings, their building equipment, etc., such as cleaning, inspection, and maintenance.

(3) Measures for Refurbishment Requirements

Due consideration shall be given so that the renewal work called for by the deterioration, mal-function, damage, functional incompetence, etc. that may occur during the life span can easily and adequately be done.

(4) Enhancement of Durability

Due consideration shall be given so that the deterioration that may occur during the life span can be kept to a minimum and the original function can easily be maintained.

4.2.2 Restraint Use of Halogen and Fluoro Carbon Gas

(1) Non-use of Halogen & Chloro Fluoro Carbon Dependant Systems

In principle, building equipment utilizing halogen & chloro fluoro carbon shall not be newly or additionally installed. Efforts shall be made to prevent careless discharge or leaking of the gas from the existing building equipment, and at the same time, the existing equipment depending on chloro fluoro carbon shall be replaced with alternative systems as promptly as practically possible.

(2) Replacement of Fluoro Carbon Containing Materials

The fluoro carbon containing materials used in the existing buildings shall be replaced, as long as practically possible, with non-fluoro carbon containing materials.

4.2.3 Restraint Use or Non-use of Poisonous Materials

(1) Restraint Use or Non-use of Poisonous Materials

The materials that affect the human body and the natural environment including those designated by law as Industrial Wastes Requiring Special Management and other materials that call for special disposal treatment (hereinafter referred to as poisonous materials) shall, when in use in buildings, be removed from them as promptly as possible. In principle, the poisonous materials shall never be used for buildings.

(2) Disposal of Poisonous Materials

Strict disposal management of the existing poisonous materials shall be done by means of selecting a safe and sure disposal method.

4.2.4 Resources and Energy Conservation

(1) Resources and Energy Conservation during Building Construction Process

The variety of building materials used for construction shall be limited to a minimum as long as possible.

The materials to be used shall be selected, as long as possible, from such ones having simple component composition and produced by simple manufacturing processes.

Construction methods to be adopted shall be selected with due consideration to their required energy consumption.

(2) Energy Conservation When Buildings are in Use

Consideration shall be given to the reduction of energy consumption such as reduction of energy for lighting, transportation, and power machinery; and cutting of thermal load.

Assessment of energy saving performance shall be made in principle at the time of new construction or extension of buildings.

(3) Effective Utilization of Natural Energy

The most efficient utilization of natural energy shall be studied and positively put to practical use.

(4) Enhancement of Energy Utilization

Effective utilization of drainage water and exhausted heat shall be studied whereby energy utilization can be enhanced as much as possible.

4.2.5 Reduction of Disposed Materials

Consideration shall be given so that the amount of unused or disposed materials created during the construction or utilization of buildings be reduced to a minimum, and that a thorough disposal management be maintained.

In selecting building materials, due consideration shall be given to minimizing the unfavorable load that may be applied to the environment at the time of their disposal.

4.2.6 Use Promotion of Recycled or Reprocessed Materials

(1) Active Commitment to Recycling or Reprocessing of By-product Materials

Consideration shall be given so that the amount of disposed materials produced during construction or use of buildings be kept to a minimum, and such waste materials be recycled or reprocessed as much as possible.

(2) Extended Use of Recycled or Reprocessed Materials

Materials that can be recycled or reprocessed and those produced by reprocessing waste materials shall be used as much as possible.

4.2.7 Respect to Natural Environment

(1) Grasping and Analyzing Environmental Features of Site & Surrounding Areas

Efforts shall be made so as to firmly grasp the environmental features of the site and the surrounding areas from a historical, sociological, geographical and biological point of view, and the findings thus obtained shall be reflected, as necessary, to the design of buildings.

(2) Reduction of Environmental Load to Local Environment

Adverse effects on the local environment such as air/water pollution, soil pollution, noise, and vibration that may be caused by construction or use of buildings shall be reduced as much as possible.

5. Others

The Guideline set forth herein may be modified, as required, in accordance with the changes in social conditions and based on the newly acquired information.

The Guideline shall be applied to the activities of the following NTT group companies:

NIPPON TELEGRAPH AND TELEPHON CORPORATION
NIPPON TELEGRAPH AND TELEPHON EAST CORPORATION
NIPPON TELEGRAPH AND TELEPHON WEST CORPORATION
NTT Communications Corporation
NTT DATA CORPORATION
NTT DoCoMo, Inc.
NTT FACILITIES, INC.
NTT COMWARE CORPORATION
NTT URBAN DEVELOPMENT CORPORATION
NTT BUSINESS ASSOCIE Co., Ltd.

Note:

Enactment of the Guideline set forth herein shall nullify the previous “Green Design Guideline for Buildings” prepared by ex-Environmental Problems Study Office, ex-Real Estate Planning Department of Nippon Telegraph and Telephone Corporation and issued on November, 1997.

For more information, please contact at:
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The information on the Guidelines can also be obtained on the following
URL: http://www.ntt.co.jp:8080/design/index_e.html



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