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STATUTORY INSTRUMENTS

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**1996 No. 428**

**BUILDING AND BUILDINGS**

**The Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996**

*Made* - - - - 22nd February 1996

*Coming into force* - - 1st March 1996

The Secretary of State for Transport (as respects England) and the Secretary of State for Wales (as respects Wales), in exercise of the powers conferred by section 20 of the Land Compensation Act 1973<sup>(1)</sup>, hereby make the following Regulations, a draft of which was laid before Parliament for 40 days during which period neither House of Parliament resolved that the regulations should not be made<sup>(2)</sup>:—

**Citation and commencement**

1. These Regulations may be cited as the Noise Insulation (Railways and Other Guided Transport Systems) Regulations 1996 and shall come into force on 1st March 1996.

**Interpretation**

2.—(1) In these Regulations except where the context otherwise requires—

“the Act” means the Land Compensation Act 1973;

“additional works” means works of a relevant system installed alongside, above or below existing works of the same relevant system;

“altered works” means works relocated in either the horizontal or vertical plane, or both, otherwise than as a result of reballasting, remodelling or renewal of the permanent way or, where the relevant system does not employ permanent way, any equivalent operation carried out in connection with apparatus corresponding thereto, but does not include additional works;

“building” includes part of a building;

“claimant” means a person who accepts an offer made under regulation 10;

“the commencement date” means the date of coming into force of these Regulations;

“the day-time period” means the period of 18 hours between 0600 hours and midnight;

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(1) 1973 c. 26, to which there are amendments and of which there are repeals not relevant to these Regulations.

(2) Since these Regulations were not the first to be made under section 20, a draft of them did not require to be approved by a resolution of each House of parliament pursuant to subsection (9).

“dB(A)” means a measure of sound pressure level (“A” weighted) in decibels as specified in British Standard number BS EN 60651: 1994;

“eligible building” has the meaning assigned to it in regulation 7;

“eligible room” means a living room or a bedroom having a qualifying door or a qualifying window in an eligible building;

“facade” means an outer wall of a building;

“guided transport” has the meaning assigned to it in the Transport and Works Act 1992(3);

“initial works” means works of a relevant system which are not in replacement of, additional to, or an alteration to, any existing works of that relevant system;

“insulation work” means work carried out to insulate a building against noise, including work making provision for ventilation and solar control;

“ $L_{Aeq}$ ” means the equivalent sound level, in dB(A), of a steady sound which, over a specified period and at a specified position, would deliver the same noise energy as the intermittent or time-varying sound which actually occurs;

“ $L_{Aeq}$  (day-time)” means the  $L_{Aeq}$  over the day-time period;

“ $L_{Aeq}$  (night-time)” means the  $L_{Aeq}$  over the night-time period;

“the night-time period” means the period of 6 hours between midnight and 0600 hours;

“prevailing day-time noise level” means the level of noise caused by the movement of vehicles using any relevant system, expressed as a level of the  $L_{Aeq}$  (day-time), immediately before the construction of initial works or additional works or the carrying out of altered works, as the case may be, was begun;

“prevailing night-time noise level” means the level of noise caused by the movement of vehicles using any relevant system, expressed as a level of the  $L_{Aeq}$  (night-time), immediately before the construction of initial works or additional works or the carrying out of altered works, as the case may be, was begun;

“qualifying door” has the meaning assigned to it in Schedule 1;

“qualifying window” has the meaning assigned to it in Schedule 1;

“railway” has the meaning assigned to it in the Transport and Works Act 1992;

“relevant date” means the date on which initial works, additional works or altered works, as the case may be, completed on or after the commencement date, were first used after their completion;

“relevant noise level” means the level of noise, expressed as a level of  $L_{Aeq}$  (day-time) or  $L_{Aeq}$  (night-time), as the case may be, caused or expected to be caused, by the movement of vehicles using, or expected to use, works forming part of the relevant system concerned or, if there is more than one such system, those works and the works of such other system or systems, as the case may be;

“the relevant specifications” means such of the items specified in Parts II and III of Schedule 1 as are applicable in the circumstances of the case;

“relevant system” means a transport system to which, in accordance with regulation 3, these Regulations apply;

“remodelling” means relocation of trackwork within lateral limits constituted by the outer running rails of the outermost tracks of a set of tracks or, where the relevant system concerned does not employ trackwork, track or rails, relocation within equivalent limits of apparatus corresponding thereto;

“responsible authority” means the person managing the works in question;  
“specified day-time level” means a noise level of 68 dB L<sub>Aeq</sub> (day-time);  
“specified night-time level” means a noise level of 63 dB L<sub>Aeq</sub> (night-time);  
“traffic flow” means all the planned movements of vehicles over part or the whole of a relevant system during a 24-hour period;  
“tramway” has the meaning assigned to it in the Transport and Works Act 1992;  
“vehicle” includes mobile traction unit; and  
“works” means the permanent way or corresponding apparatus used to support or guide a vehicle operating on a relevant system.

(2) For the purposes of these Regulations, where—

- (a) (i) works have ceased to be used for the movement of vehicles consequent upon the closure of the relevant system concerned, or the relevant part thereof, under an enactment (whether or not all or any part of the works remain in existence); and  
(ii) application is made for legislative authority to construct new works, which works would adopt the same relevant system and would follow the same, or substantially the same, alignment as that adopted by the works which are the subject of the closure; and  
(iii) such application is received by the body appropriate to grant such authority within 5 years of the date on which consent was given for the closure to take place,

the works which are the subject of the application shall not be regarded for the purpose of these Regulations as initial works, additional works or altered works;

- (b) (i) works have been totally removed, or removed to a substantial extent, or made incapable of use for the movement of vehicles on the relevant system, but have not been the subject of closure proceedings under any enactment; and  
(ii) application is made for legislative authority to construct new works, which would adopt the same relevant system and would follow the same, or substantially the same, alignment as that adopted by the works removed or made incapable of use; and  
(iii) such application is received by the body appropriate to grant such authority within 5 years of the date on which such removal was begun or the works were made incapable of use,

the works which are the subject of the application shall not be regarded for the purpose of these Regulations as initial works, additional works or altered works.

(3) In these Regulations, references to “movement”, when used in respect of railway or tramway vehicles, are to be construed as excluding shunting operations, being movements for the purpose of marshalling, repositioning or segregating such vehicles.

(4) In these Regulations—

- (a) any reference to a numbered regulation or Schedule is a reference to the regulation or Schedule bearing that number in these Regulations; and  
(b) any reference to a numbered or lettered paragraph or sub-paragraph is a reference to the paragraph or sub-paragraph bearing that number or letter in the regulation or paragraph of the Schedule in which the reference occurs.

### **Application of the Regulations**

3.—(1) These Regulations apply in respect of initial works, additional works or altered works forming part of a transport system of any of the following kinds—

- (a) a railway;
- (b) a tramway;
- (c) a system using a mode of guided transport described in Schedule 2;

provided or used in the exercise of statutory powers.

(2) These Regulations do not apply in respect of noise resulting from ground-borne vibration.

#### **Duty to carry out insulation work or to make grants**

4.—(1) Subject to and in accordance with the provisions of these Regulations, the responsible authority shall carry out, or make a grant in respect of the cost of carrying out, insulation work in or to any eligible building when on or after the relevant date the movement of vehicles using, or expected to use, initial works or additional works, as the case may be, causes, or is expected to cause, noise at a level not less than the level referred to in either sub-paragraph (a) or sub-paragraph (b) of paragraph (2).

(2) (a) When the movement of the vehicles takes place during the day-time period, noise is at a level for paragraph (1) to apply if—

- (i) the relevant noise level is greater by at least 1 dB(A) than the prevailing day-time noise level and is not less than the specified day-time level; and
- (ii) the noise caused, or expected to be caused, by that movement makes an effective contribution to the relevant noise level of at least 1 dB(A).

(b) When the movement of the vehicles takes place during the night-time period, noise is at a level for paragraph (1) to apply if—

- (i) the relevant noise level is greater by at least 1 dB(A) than the prevailing night-time noise level and is not less than the specified night-time level; and
- (ii) the noise caused, or expected to be caused, by that movement makes an effective contribution to the relevant noise level of at least 1 dB(A).

(3) The noise levels referred to in paragraphs (1) and (2) shall in each case be assessed at a reception point located one metre outward from the external side of the most exposed part of any door or window in a facade of an eligible building.

#### **Power to carry out insulation work or to make grants**

5.—(1) Subject to and in accordance with the provisions of these Regulations, the responsible authority may carry out, or make a grant in respect of the cost of carrying out, insulation work in or to any eligible building when on or after the relevant date the movement of vehicles using, or expected to use, altered works causes, or is expected to cause, noise at a level not less than the level referred to in either sub-paragraph (a) or sub-paragraph (b) of paragraph (2).

(2) (a) When the movement of the vehicles takes place during the day-time period, noise is at a level for paragraph (1) to apply if—

- (i) the relevant noise level is greater by at least 1 dB(A) than the prevailing day-time noise level and is not less than the specified day-time level; and
- (ii) the noise caused, or expected to be caused, by that movement makes an effective contribution to the relevant noise level of at least 1 dB(A).

(b) When the movement of the vehicles takes place during the night-time period, noise is at a level for paragraph (1) to apply if—

- (i) the relevant noise level is greater by at least 1 dB(A) than the prevailing night-time noise level and is not less than the specified night-time level; and

(ii) the noise caused, or expected to be caused, by that movement makes an effective contribution to the relevant noise level of at least 1 dB(A).

(3) The noise levels referred to in paragraphs (1) and (2) shall in each case be assessed at a reception point located one metre outward from the external side of the most exposed part of any door or window in a facade of an eligible building.

(4) The power to carry out insulation work or make grants, referred to in paragraph (1), may also be exercised by the responsible authority in respect of cases where regulation 4 is applicable but before any duty arising from an offer and acceptance in accordance with regulation 10 has arisen.

### **Further power to carry out insulation work or to make grants**

6.—(1) Where the responsible authority is required by regulation 4 or empowered by regulation 5 to carry out, or make a grant in respect of the cost of carrying out, insulation work in or to an eligible building, it may also carry out, or make a grant in respect of the cost of carrying out, insulation work in or to an eligible building in respect of which no duty under regulation 4 or power under regulation 5 has arisen, if the facades of both buildings are contiguous or form part of a series of contiguous facades.

(2) The provisions of these Regulations shall, so far as applicable, apply to the carrying out of insulation work or the making of grants under this regulation subject to any necessary adaptations or modifications, as if the responsible authority were acting in execution of a duty arising under regulation 4 save that regulation 9 shall not apply so as to require the preparation of any map or list identifying an eligible building in respect of which the power in paragraph (1) is exercisable.

### **Buildings to which the Regulations apply**

7.—(1) Subject to paragraph (2), the classes of buildings in respect of which a duty or power is to arise under these Regulations are—

- (a) dwellings; and
- (b) other buildings used for residential purposes,

which will not be more than 300 metres from the nearest point of the nearest running rail or, if the relevant system has no running rail, the nearest point of the nearest apparatus corresponding thereto, of the initial, additional or altered works, as the case may be, and the expression “eligible building” in these Regulations means a building falling within either of those classes.

(2) The following shall not be eligible buildings—

- (a) any building in respect of which a compulsory purchase order is in force, or in respect of which a compulsory purchase order has been submitted for confirmation to, or prepared in draft by, a Minister of the Crown and in respect of which a notice has been published under section 11 of the Acquisition of Land Act 1981(4) or, as the case may be, paragraph 2 of Schedule 1 to that Act or under any corresponding enactment applicable thereto, unless the order has been withdrawn or a decision has been taken not to confirm or make the order, as the case may be;
- (b) any building liable to be acquired compulsorily under any local or private Act of Parliament or under an order, rule, regulation, byelaw or scheme made under an Act of Parliament;
- (c) any building which is subject to—

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(4) 1981 c. 67.

- (i) a demolition order under Part IX of the Housing Act 1985<sup>(5)</sup>;
- (ii) a closing order under Part IX of that Act;
- (iii) a closing order under section 368(4) of that Act; or
- (iv) an undertaking accepted under section 368(2) of that Act;
- (d) any building within an area declared to be a clearance area by a resolution under section 289 of the Housing Act 1985<sup>(6)</sup>;
- (e) any building which was first occupied as a dwelling or otherwise for residential purposes after the relevant date;
- (f) any part of a building in respect of which part of a grant has been paid or is payable in respect of the carrying out of insulation work under any enactment other than the Act or any instrument made under any such enactment; and
- (g) any part of a building in respect of which part a grant has been paid or is payable in respect of the carrying out of insulation work under the Noise Insulation Regulations 1975<sup>(7)</sup> in relation to noise caused, or expected to be caused, by the movement of vehicles on a relevant system operating within the boundaries of a highway.

### **Insulation of buildings against construction noise**

8.—(1) Subject to and in accordance with the provisions of these Regulations, where the construction of initial works or additional works or the carrying out of altered works causes, or is expected to cause, noise at a level which, in the opinion of the responsible authority, seriously affects, or will seriously affect for a substantial period of time, the enjoyment of an eligible building adjacent to the site on which the works are being, or are to be, carried out but in respect of which building no duty under regulation 4 or power under regulation 5 or 6 has arisen, the responsible authority may carry out, or make a grant in respect of the cost of carrying out, insulation work in or to the building.

(2) The provisions of these Regulations shall, so far as applicable, apply to the carrying out of insulation work or the making of grants under this regulation, subject to the modifications of regulation 10 specified in paragraph (3) and to any other necessary adaptations or modifications.

(3) The modifications to regulation 10 are—

- (a) that the duty to make the offer arises when circumstances exist which make the power in paragraph (1) above exercisable in relation to an eligible building;
- (b) such an offer shall not be accepted after the expiration of 2 months after the date thereof or of such longer period as the responsible authority may by extension at any time allow; and
- (c) regulation 10(4) shall not apply so as to limit the period within which any person may accept such an offer.

### **Ascertainment of level of noise**

9.—(1) Subject to paragraph (2), for the purpose of determining whether a duty under regulation 4 or a power under regulation 5 or 6, as the case may be, has arisen with respect to an eligible building, the prevailing day-time noise level, the prevailing night-time noise level, the relevant noise level or the effective contribution to the relevant noise level made by noise caused or expected to be caused

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(5) 1985 c. 68; Part IX was amended by the Housing Act 1988 (c. 9), Schedule 17, Part I, paragraph 47, and the Local Government and Housing Act 1989 (c. 42), Schedule 9, Part II, paragraphs 14 to 24, and was amended and repealed in other respects not relevant to these Regulations.

(6) Subsections (2) and (3) of section 289 were amended by the Local Government and Housing Act 1989, Schedule 9, Part II, paragraph 25, and subsection (6) was repealed by that Act, Schedule 12, Part II.

(7) S.I.1975/1763 (1975 III, p. 6697), amended by S.I. 1988/2000 (1988 III, p. 5265).

by the movement of vehicles using, or expected to use, initial works, additional works or altered works, as the case may be, shall be ascertained by—

- (a) employing the method of calculation specified in a technical memorandum entitled *Calculation of Railway Noise (1995)*, published by Her Majesty's Stationery Office; and
- (b) basing such calculations on the traffic flows expected under normal operating conditions within a period of 15 years from the relevant date.

(2) The responsible authority shall ascertain every eligible building in respect of which a duty under regulation 4 has arisen and shall prepare a map or list, or both, identifying every such building and a schedule specifying the traffic flow used by the responsible authority as the basis for ascertaining the noise level concerned.

(3) Any such map, list or schedule shall be deposited not later than 6 months after the relevant date at the premises of the responsible authority or its agent located within the same local authority area as the buildings identified therein and shall thereafter be made available for public inspection during normal office hours.

#### **Offer and acceptance of insulation work or grant**

**10.**—(1) As soon as the responsible authority has deposited a map or list pursuant to regulation 9 the authority shall make an offer in writing in accordance with the provisions of paragraphs (2) and (3).

(2) An offer shall be made in respect of every eligible building identified on the map or in the list to either—

- (a) the person who is the occupier of, or if the building is unoccupied, is entitled to occupy, the building; or
- (b) the immediate landlord or licensor of that person, if any,

but the obligation to make such an offer shall be conditional on the responsible authority or its agent, on giving reasonable notice, being afforded such access to the building as it may reasonably require for the purpose of determining the insulation work to be carried out thereto.

(3) The offer shall—

- (a) identify the building to which it relates;
- (b) offer to carry out or make a grant in respect of the cost of carrying out, insulation work in or to every eligible room in the building;
- (c) describe the work required to be carried out for this purpose;
- (d) where the offer is made to the person mentioned in sub-paragraph (a) of paragraph (2), require that person, if he is not the owner of the building, to notify his immediate landlord or licensor of the terms of the offer;
- (e) where the offer is made to the person mentioned in paragraph (2)(b), require that person, to notify the person who is the occupier of, or if the building is unoccupied, is entitled to occupy the building of the terms of the offer;
- (f) set out the conditions in regulation 13, subject to which the offer is made;
- (g) set out the restrictions on acceptance of the offer in paragraphs (4) and (7); and
- (h) set out the requirements of paragraphs (5) and (6), together with an indication that they have to be observed in order to constitute a valid acceptance of the offer.

(4) Subject to paragraph (8), an offer may be accepted by the person to whom it was made or his successor and, if it has not been accepted by that person or his successor within 3 months after the date on which it was made, then, subject to paragraph (7), it may thereafter be accepted by the

person to whom it as made or his successor or any other person to whom it has or could have been notified pursuant to this regulation.

- (5) An acceptance of an offer under this regulation shall be in writing and may be an acceptance—
- (a) of the offer to carry out insulation work in or to one or more or all of the rooms in respect of which the offer was made; and
  - (b) of the offer of a grant in respect of the cost of carrying out such work in or to one or more of the other rooms or all of the rooms in respect of which the offer was made,

but no offer of a grant shall be accepted in respect of any room if an offer to carry out insulation work has been previously accepted in respect thereof and no offer to carry out insulation work shall be accepted in respect of any room if a grant has been previously accepted in respect thereof.

(6) An acceptance of an offer under this regulation shall claim the benefit of the offer and shall contain the following—

- (a) the name and address of the claimant;
  - (b) particulars identifying the eligible building;
  - (c) a statement of the capacity (whether as occupier, person entitled to occupy, landlord or licensor) in which the claimant accepts the offer;
  - (d) if the claimant is required to notify any person pursuant to sub-paragraph (d) or (e) of paragraph (3) of the terms of the offer, a statement that he has so notified that person, and whether or not that person consents to the carrying out of insulation work;
  - (e) particulars of the rooms (if any) in respect of which the claimant accepts the offered work; and
  - (f) particulars of the rooms (if any) in respect of which the claimant accepts the offered grant.
- (7) An offer must be accepted not later than—
- (a) 6 months after the date thereof; or
  - (b) 12 months after the relevant date:

Provided that the responsible authority may extend the time limited by this paragraph, whether before or after the expiration thereof.

(8) Where insulation work has been carried out other than by a responsible authority in or to an eligible building and completed in accordance with the relevant specifications before an offer is made, an offer under paragraph (2) shall be deemed to be an offer of a grant only, and may be accepted only by the person who incurred the cost of the work.

### **Consent to carrying out of insulation work**

**11.** Where an eligible building is subject to a tenancy and a claim to be entitled to the benefit of an offer is made by a landlord or tenant of the building, insulation work may be carried out notwithstanding that the consent of the other party to the tenancy is required and is withheld.

### **Nature and extent of work to be undertaken**

**12.—(1)** Insulation work carried out pursuant to these Regulations shall be in accordance with the relevant specifications.

(2) Notwithstanding anything in these Regulations, there shall not be carried out, nor shall a grant be made in respect of the cost of carrying out, insulation work in or to an eligible room in which there is installed any flueless combustion appliance unless there will be, after completion of the insulation work, in accordance with the relevant specifications, a door or window to the outside capable of being opened.

(3) Notwithstanding anything in these Regulations, no insulation work which requires the grant of planning permission (within the meaning of the Town and Country Planning Act 1990<sup>(8)</sup>) or listed building consent (within the meaning of the Planning (Listed Buildings and Conservation Areas) Act 1990<sup>(9)</sup>) shall be carried out without such permission or consent, as the case may be, having first been obtained.

(4) Nothing in these Regulations shall require a responsible authority to carry out work, or to make a grant in respect of the carrying out of work, required—

- (a) to remedy a defect in a building; or
- (b) to maintain or repair any equipment or apparatus installed in or on any building pursuant to these Regulations.

(5) For the purposes of this regulation, “flueless combustion appliance” means a combustion appliance which discharges combustion products into the room in which the appliance is situated.

### **Conditions for carrying out of insulation work or making of grants**

**13.** The carrying out of insulation work and the making of grants shall be dependent upon compliance with the following conditions—

- (a) the claimant shall have complied with paragraphs (4) to (7) of regulation 10;
- (b) a claimant who accepts an offer to carry out insulation work shall—
  - (i) if he is the occupier of or entitled to occupy the building, afford to the responsible authority or its agent such access to the building as it may reasonably require for the purpose of carrying out and inspecting the work to ascertain whether it complies with the relevant specifications; or
  - (ii) if he is not the occupier of nor entitled to occupy the building, procure the occupier or person entitled to occupy the building to afford the responsible authority or its agent such access;
- (c) a claimant who accepts an offer to make a grant in respect of the cost of insulation work shall carry out the work or secure that it is carried out in accordance with the relevant specifications and complete it before the expiration of 24 months from the date of acceptance and—
  - (i) if he is the occupier of or entitled to occupy the building, afford to the responsible authority or its agent such access to the building as it may reasonably require for the purpose of inspecting the work to ascertain whether it complies with the relevant specifications; or
  - (ii) if he is not the occupier of nor entitled to occupy the building, procure the occupier or person entitled to occupy the building to afford the responsible authority or its agent such access.

### **Reconsideration of buildings**

**14.—**(1) Where no offer under regulation 10(2) has been made in relation to an eligible building, any person specified in paragraph (2) who claims that a duty under regulation 4 has arisen with respect to the building may apply in writing to the responsible authority, setting out the facts on which he relies, and may request the authority to make him an offer in accordance with the provisions of regulation 10.

(2) An application under paragraph (1) may be made by—

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<sup>(8)</sup> 1990 c. 8.  
<sup>(9)</sup> 1990 c. 9.

- (a) the person who is the occupier of, or if the building is unoccupied, is entitled to occupy, the building; or
  - (b) the immediate landlord or licensor of that person, if any.
- (3) An application under paragraph (1) must be made either—
- (a) within 6 months beginning with the date of depositing for public inspection of the map or list (whichever is the earlier), prepared under regulation 9(3); or
  - (b) within 12 months of the relevant date;
- (4) Upon receipt of an application under this regulation the responsible authority shall review such calculations as have been made in relation to the building in accordance with regulation 9, or shall make such calculations, and if they find that a duty under regulation 4 has arisen with respect to the building they shall comply with the request but otherwise they shall refuse it.
- (5) If they refuse the request, the responsible authority shall furnish to the claimant a written statement of the reasons for their refusal.
- (6) On the commencement of each period within which applications under paragraph (1) may be made the responsible authority shall publish once in a local newspaper circulating in the area in which the works or proposed works are, or are proposed to be, located a notice setting out particulars of the right to make an application under the paragraph, including particulars of the time within which, and the authority to whom, such an application must be made.

**Amount of grant**

**15.** The amount of grant shall be equal to the actual cost incurred by the claimant in carrying out or securing the carrying out of in accordance with the relevant specifications the insulation work in respect of which the claimant has accepted an offered grant, or to the reasonable cost of carrying out that work in accordance with those specifications, whichever shall be the less.

Signed by authority of the Secretary of State for Transport

16th February 1996

*John Watts*  
Minister of State,  
Department of Transport

22nd February 1996

*William Hague*  
Secretary of State for Wales

SCHEDULE 1

Regulation 12(1)

SPECIFICATIONS FOR INSULATION WORK

PART I

**Interpretation**

1. In this Schedule—

“combined ventilator system” means a unit comprising an inlet fan ventilator system and a permanent vent type ‘A’;

“combustion appliance” means a combustion appliance whose purpose is to provide heating for the whole or part of a dwelling or other building used for residential purposes, or to provide heat for cooking;

“double-glazed window” means a purpose-built window which is glazed with panels comprising 2 sheets of glass which are separated by a gap permanently sealed from the air, with the edges of any opening lights of the window being well-sealed by compressible resilient strip or by other equally effective means;

“double window” means a window consisting of two independently fixed panes of glass as described in paragraph 6;

“flued-combustion appliance” means a combustion appliance, other than an open fire, designed to be connected to an open flue system, its combustion air being drawn from the room in which it is installed;

“H” means the total output rating in kilowatts of flued-combustion appliances present in the room in question;

“inlet fan ventilator” means a ventilator which has a fan to boost the air flow through it as specified in paragraph 8;

“kitchen/diner” means a room of which the floor area is greater than 9.3 square metres (or 7.4 square metres for a dwelling with a designed occupancy of 3 people or fewer) and—

- (a) there is no separately identifiable dining room; and
- (b) the main or only living room is less than 18.6 square metres (or 14.8 square metres for a dwelling with a designed occupancy of 3 people or fewer);

“open fire” means a combustion appliance, whether in use or not, with a permanent front opening which distributes its heat to the room in which it is situated, either by radiation alone or by radiation and convection, and includes both solid fuel appliances and flame-effect gas-fired appliances;

“permanent vent type ‘A’” means a permanent ventilator as described in paragraph 9;

“qualifying door” means an external door opening directly into an eligible room which—

- (a) except in relation to insulation work carried out pursuant to regulation 6(1) or 8, is in that part of the facade in respect of which the relevant noise level satisfies the requirements of regulation 4(2);
- (b) in relation to work carried out pursuant to regulation 6(1) is in a position which, in the opinion of the responsible authority, is physically comparable with that of a qualifying door or qualifying window in another eligible building;

- (c) in relation to insulation work carried out pursuant to regulation 8, is or will be, in the opinion of the responsible authority, subject to noise caused in the manner and at a level described in regulation 8(1);

“qualifying window” means a window in an eligible room which—

- (a) except in relation to insulation work carried out pursuant to regulation 6(1) or 8, is in that part of the facade in respect of which the relevant noise level satisfies the requirements of regulation 4(2);
- (b) in relation to work carried out pursuant to regulation 6(1) is in a position which, in the opinion of the responsible authority, is physically comparable with that of a qualifying door or qualifying window in another eligible building;
- (c) in relation to insulation work carried out pursuant to regulation 8, is or will be, in the opinion of the responsible authority, subject to noise caused in the manner and at a level described in regulation 8(1);

“room-sealed appliance” means a combustion appliance which, when in operation, has the combustion air inlet and the combustion products outlet isolated from the room in which the appliance is fitted.

## PART II

### Items to be included in insulation works

2. Subject to the provisions of paragraph 5, the insulation works shall include—
- (a) the conversion to double windows of all existing qualifying windows in each room in which there are to be insulation works or, if that is not practicable in the opinion of the responsible authority, the replacement by new double windows of all such existing qualifying windows, and such conversion or replacement shall be in accordance with the specifications set out in paragraph 6;
- (b) the provision and installation in each room in which there are to be insulation works, of ventilation as specified in paragraph 3; and
- (c) the provision of either—
- (i) a second door behind or in front of any external door opening directly into an eligible room—
- (A) the shortest horizontal distance between the 2 doors being not less than 150 millimetres, at least one of the doors being weather-stripped, and any glazing in the second door which reaches to less than 1,500 millimetres from the floor having glass of a thickness as set out in Table 1 below; and
- (B) the ceiling and walls between the two doors being lined with sound-absorbent material;
- or, where in the opinion of the responsible authority it is not practicable to provide a second door—
- (ii) a new door in place of the existing qualifying door, the replacement door being a new exterior quality door having a solid core and being not less than 44 millimetres thick, any glazed panel in the door having a minimum thickness as set out in Table 1 below (with the total glazed area not exceeding 50 per centum of the area of the door), the door opening being effectively sealed (including threshold seals), keyholes having covers on both sides, and any letterbox having flaps on both sides with effective seals and positive closers:

provided that a claimant for insulation work who desires to refuse an offer of a second door or a replacement door may do so without prejudicing his right to the carrying out of other insulation work or to a grant.

### **Type of ventilation to be provided and installed under paragraph 2**

3. The type of ventilation to be provided and installed pursuant to paragraph 2(b) shall be as follows—

- (a) where there is no combustion appliance in the room, or there is one or more room-sealed appliances and no other combustion appliance in the room, a permanent vent type ‘A’ communicating directly with the external air at the highest level which is reasonably practicable in an external wall of the room:

provided that this sub-paragraph shall not apply where a combined ventilator system is to be provided and installed under paragraph 4(a)(ii);

- (b) where an open fire and no other combustion appliance is in the room either—
- (i) 3 permanent vents type ‘A’ installed as referred to in sub-paragraph (a); or
- (ii) 2 permanent vents type ‘A’ installed as referred to in sub-paragraph (a), together with an inlet fan ventilator system; or
- (iii) one combined ventilator system and one permanent vent type ‘A’ installed as referred to in sub-paragraph (a);

- (c) subject to sub-paragraph (d), where one or more flued-combustion appliances, and no other combustion appliance, is in the room and—

- (i) where there is no mechanical ventilation present or to be installed, a permanent vent type ‘A’ or an appropriate number of vents type ‘A’ installed as referred to in sub-paragraph (a), to provide a total effective area of the air path which shall not be less than the effective area in square millimetres calculated on the basis of 550 times H:

provided that the total effective area in square millimetres provided by the vent or vents shall not be less than 3,250, and shall not be less than the cross-sectional area of the flue connection;

- (ii) where mechanical ventilation is to be installed, either—

(A) an inlet fan ventilator unit plus air supply duct with external cowl or grille as specified in paragraph 4(a)(i)(A) together with a permanent vent type ‘A’ or an appropriate number of permanent vents type ‘A’ installed as referred to in sub-paragraph (a) so that the total effective area provided by the permanent vent or vents shall not be less than the effective area in square millimetres calculated on the basis of 550 times H minus 3,250, so however that the total effective area in square millimetres provided by the permanent vent or vents added to 3,250 shall not be less than the cross-sectional area of the flue connection in square millimetres; or

(B) a combined ventilator system as specified in paragraph 4(a)(ii) and, where necessary to ensure that the effective area of the air path through the combined ventilator system calculated in accordance with the provisions of paragraph 10 (together with the total effective area provided by any permanent vent or vents) shall not be less than the effective area in square millimetres calculated on the basis of 550 times H, a permanent vent type ‘A’ as referred to in sub-paragraph (a), so however that the total effective area in square millimetres provided by the combined ventilator system and any permanent vent or vents shall not be less than the cross-sectional area of the flue connection in square millimetres;

- (d) where a gas fire, other than an open fire, and no other combustion appliance is in the room and such fire has an input rating of less than 7 kilowatts, a combined ventilator system or a permanent vent type 'A' or an inlet fan ventilator unit;
- (e) where 2 or more open fires and no other combustion appliances are in the room, either—
  - (i) permanent vents type 'A' installed as referred to in sub-paragraph (a) to provide a total effective area of air path of 19,500 square millimetres or 50 per centum of the combined flue areas in square millimetres, whichever is greater; or
  - (ii) an inlet fan ventilator system and sufficient permanent vents type 'A' installed as referred to in sub-paragraph (a) so that the total effective area of air path provided by the permanent vents type 'A' shall not be less than 16,250 square millimetres or 50 per centum of the combined flue areas less 3,250, whichever is the greater; or
  - (iii) a combined ventilator system, and sufficient permanent vents type 'A' installed as referred to in sub-paragraph (a), so that the effective area of air path through the combined ventilator system together with the effective air path through any permanent vents shall be 19,500 square millimetres or 50 per centum of the combined flue areas in square millimetres, whichever is greater;
- (f) where one or more open fires and one or more flued-combustion appliances are in the room and—
  - (i) where there is no mechanical ventilation present or to be installed, permanent vents type 'A' as appropriate, installed as referred to in sub-paragraph (a), to provide a total effective area of air path which shall not be less than 550 times H plus 50 per centum of the combined areas of the flues of the open fires, in square millimetres;
  - (ii) where mechanical ventilation is to be installed, either—
    - (A) an inlet fan ventilator system together with an appropriate number of permanent vents type 'A' installed as referred to in sub-paragraph (a), so that the effective area of air path through the inlet fan ventilator together with the effective area of air path through any permanent vents shall not be less than 550 times H plus 50 per centum of the combined areas of the flues of the open fires, in square millimetres; or
    - (B) a combined ventilator system and permanent vents type 'A' installed as referred to in sub-paragraph (a), so that the effective area of air path through the combined ventilator system together with the effective air path through any permanent vents shall be not less than 550 times H plus 50 per centum of the combined areas of the flues of the open fires, in square millimetres:  
provided that the appropriate number of vents for the purposes of paragraphs (i) and (ii) shall be determined by the need to ensure that sufficient combustion air ventilation is introduced into the room to secure the safe operation of any combustion appliance in the room;
- (g) where there is a gas cooking appliance and no other combustion appliance in a kitchen/diner, ventilation directly to the outside of the dwelling by either—
  - (i) a mechanical ventilator unit with a permanent vent incorporated; or
  - (ii) a permanent vent type 'A';
- (h) where there are one or more other combustion appliances in a kitchen/diner in addition to a gas cooking appliance, the ventilation requirements for those appliances shall apply.

### **Items which may be included in insulation works**

4. In addition to the items referred to in paragraph 3, and subject to the provisions of paragraph 5, the insulation works may include only the following items—

- (a) where no inlet fan ventilator system or combined ventilator system is to be provided under paragraph 3, either—
  - (i) (A) the provision and installation in each room in which there are to be insulation works of one inlet fan ventilator unit of a type conforming to the standards of ventilation and acoustic performance specified in paragraph 8, including the connection of the ventilator unit by wiring of not less than 5 amperes capacity to the nearest convenient point in the existing electric supply circuit or to the electric mains switchboard; and
  - (B) the provision of an air supply duct with external cowl or grille in accordance with the specifications in paragraph 8, in an external wall of each room in which there are to be insulation works for supplying fresh air to the ventilator unit and the blocking up of any existing air brick, provided that flues and direct inlet ducts to combustion appliances in use shall not be blocked; or
  - (ii) the provision and installation of a combined ventilator system in accordance with the specifications referred to in paragraph 10;
- (b) the blocking at fireplace level, by means of a board of a minimum weight of 10 kilogrammes per square metre adequately sealed around the edges, of chimneys into rooms which have been insulated in accordance with paragraph 3: provided that flues to existing combustion appliances shall not be blocked;
- (c) the provision of Venetian blinds between the double windows in a room in which there are to be insulation works which has an aspect falling anywhere within a 270 degrees arc between the bearings of 45 degrees and 315 degrees from true north, subject to the blinds complying with the specifications set out in paragraph 7;
- (d) the making good of the existing fabric and decoration (not including curtains) after the installation of double windows, ventilation equipment and second doors, including the adaptation of any existing pelmet and curtain track.

### **Conditions relating to insulation works**

5.—(1) Two eligible rooms, without combustion appliances, may be treated as a single room for ventilation purposes if there is an area of permanent opening between them equal to at least one-twentieth of the combined floor areas of the two rooms.

- (2) An eligible room may be ventilated though an adjoining room where—
  - (a) the adjoining room is a conservatory or similar room which has not been insulated; and
  - (b) there is an opening (which may be capable of being closed) between the eligible room and the adjoining room with an area equal to not less than one-twentieth of the combined floor areas of the two rooms; and
  - (c) for rapid ventilation there are one or more ventilation openings to the external air in the adjoining room, having a total area equal to at least one-twentieth of the combined floor areas of the two rooms, and with some part of each ventilation opening being at least 1.75 metres above floor level; and
  - (d) for background ventilation there are ventilation openings to the external air in the adjoining room, and between the two rooms, each opening having a total area of not less than 4,000 square millimetres, and being located so as to avoid undue draughts.

(3) Any combustion appliance should either be room-sealed or the room or space containing it should have a ventilation opening of a type required by paragraph 3. If this opening is to an adjoining room or space then such room or space should have an opening of the same size direct to external air. Ventilation openings should not be located in fire-resisting walls or otherwise breach the requirements of paragraph B3 of Schedule 1 to the Building Regulations 1991(10).

(4) Where a room to be insulated contains only a room-sealed appliance or no combustion appliance, the air path through the ventilator system or the vent may be made capable of being easily closed by a suitable means readily accessible within the room, if in all other respects, including standard of construction and installation, the combined ventilator system or vent when open to the maximum extent conforms to the standards of ventilation and acoustic performance specified in paragraphs 8 or 9 as appropriate and, whether opened or closed, meets the requirements for electrical and fire safety referred to in paragraph 8(e) or 9(4) as appropriate.

(5) If desired by the claimant, a double-glazed window may be installed in place of the double window required by paragraph 2(a), whether or not the standard of acoustic performance provided by such a double-glazed window is comparable to that provided by the window specified in paragraph 6, but grant shall be payable only up to a maximum of the cost of the work specified in paragraph 6.

(6) The insulation works may consist of, or include, items different from those specified in paragraph 2 where the standards of ventilation (including air admitted for the purpose of combustion) and acoustic performance provided by such items are not less than those which would have been provided by items specified in paragraph 2, except where paragraph 5(5) or 6(g) applies.

(7) Where any item or part of any item is provided otherwise than under these Regulations and complies with relevant specifications in this Schedule, it shall not be required to be duplicated as a condition for payment of a grant under these Regulations.

(8) Any installation of glazing in windows or doors shall comply with British Standard recommendations on safety published under reference numbers BS 6262:1982 and BS 6262, part 4: 1994.

(9) Where insulation works consist of or include items described in paragraph 6(g), grant only shall be payable, up to a maximum of the cost of glass specified in paragraph 6(b).

## PART III

### Specifications for windows

6. An existing window shall either be retained and converted to a double window by the installation of an additional window or, if this is not practicable in the opinion of the responsible authority, be replaced by a new double window, as follows-

- (a) any gaps in the outer window shall be effectively sealed by a compressible resilient strip or other means;
- (b) the inner window shall be framed in wood, metal or plastic, and shall be well fitted into the existing window reveal or planted on the wall around the reveal, with the junction between the wall and the window frame fully sealed by means of mastic packing, cover strips or other equally effective means, and shall be glazed with glass having a thickness of not less than 3 millimetres, except for those windows which reach to less than 800 millimetres from the floor, and those windows within 300 millimetres of a door which reach to less than 1,500 millimetres from the floor, which corresponding to the width of such windows specified in the first column of Table 1 below shall be glazed with glass of a thickness specified in the second column of that Table:

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(10) S.I. 1991/2768 (1991 III, p. 6942), amended by S.I. 1992/1180 (1992 II, p. 3354)..

**TABLE 1**

Width of window	Thickness of glass
Not more than 250 millimetres wide	6 millimetres
More than 250 millimetres, but not more than 1,100 millimetres	8 millimetres
More than 1,100 millimetres, but not more than 2,250 millimetres	10 millimetres
More than 2,250 millimetres	12 millimetres

- (c) both the outer and inner windows shall be capable of being opened sufficiently for means of escape in case of fire to the extent that the existing outer window allows for this, and for direct ventilation when required; the inner window shall be capable of being opened sufficiently for cleaning purposes but the opening lights of the inner window shall be well sealed around their edges either by compressible resilient strip or by other equally effective means;
- (d) if the window is a bay window or bow window, the inner window shall either follow the shape of the outer window or shall be taken straight across the bay or bow, and any projecting surround or window board required to close off the window cavity shall have a weight of not less than 10 kilogrammes per square metre;
- (e) the shortest horizontal distance or, in the case of a bay window or bow window where the inner window is taken straight across the bay or bow, the mean horizontal distance, between the glass of the outer window and the glass of the inner window shall be not less than the distance specified in the second column of Table 2 below in relation to the thickness of glass of the inner window specified in the first column of that Table:

**TABLE 2**

Thickness of glass of inner window	Distance between inner and outer windows
At least 3 millimetres, but less than 4 millimetres	200 millimetres
At least 4 millimetres, but less than 6 millimetres	150 millimetres
At least 6 millimetres	100 millimetres

- (f) two or more reveals of the window opening between the outer and inner windows shall be lined with sound absorbent material;
- (g) if desired by the claimant, the works specified in this paragraph in relation to an inner window may include materials other than glass, whether or not the standard of acoustic performance provided by such material is comparable to that provided by the use of glass as specified in sub-paragraph (b), but grant shall be payable only up to a maximum of the cost of the work specified in sub-paragraph (b);
- (h) balanced vertical sliders shall be provided where appropriate.

### **Specifications for Venetian blinds**

7. The specifications for Venetian blinds shall be as follows—
- (a) the surface of the slats shall be coloured white or near white;

- (b) the ratio of width to spacing of the slats shall be between 1.15:1 and 1.25:1;
- (c) the blind shall have horizontal slats, capable of being raised or lowered, and the slats shall be adjustable in angle of tilt, the control being either—
  - (i) by a single continuous cord operating both the raising and lowering and the tilting mechanisms from one end of the blind box; or
  - (ii) by controls for the raising and lowering and the tilting mechanisms at either end of the blind box;
- (d) the controls specified in sub-paragraph (c) shall, where practicable, be readily accessible within the room with the windows fully closed;
- (e) the opening for control cords shall be sealed or kept to the minimum necessary for smooth operating;
- (f) the blind box shall be fitted to the top window reveal or frame head, between the panes of the double windows; the length of the slats shall be between 10 millimetres and 30 millimetres less than the length of the recess at its narrowest point, and the blind shall be capable of extending to the lowest level of the glazing of the outer window.

#### **Specifications for inlet ventilator systems**

**8.** The inlet fan ventilator system shall consist of a sound-attenuating inlet fan ventilator unit (in this paragraph referred to as a “ventilator unit”) and an air supply duct and cowl or grille; such air supply duct and cowl or grille may be of separate construction from the ventilator unit or integral with it, but the following conditions shall be complied with—

- (a) the air supply duct and cowl or grille shall be designed so as to allow the passage of air between the ventilator unit and the external air at all times and shall be so constructed that when installed in a cavity wall exposed to the weather—
  - (i) the weather resistance of the cavity is retained; and
  - (ii) the external cowl or grille provides protection against the passage of snow, rain and vermin;
- (b) the ventilator unit shall consist of a controlled variable-speed inlet fan with sound attenuating duct and cover, shall be fitted with an easily removable and washable air filter on the inlet side of the sound attenuating duct to afford adequate protection for the acoustic lining, and shall be capable of supplying fresh air to the room directly from outside by means of the supply duct and cowl or grille;
- (c) the ventilator unit shall be securely fixed to the wall in such a position that the air filter can be easily removed, and the junction between the ventilator unit and the face of the wall shall be fully sealed by means of compressible strip or other equally effective means;
- (d) the air supply duct and cowl or grille shall be securely fixed to the wall and the junction between the air supply duct and the internal leaf shall be fully sealed by suitable means;
- (e) the ventilator unit shall be electrically safe in operation and maintenance and shall not present a fire hazard;
- (f) the ventilator unit with air filter in position, by itself or with an integral air supply duct and cowl or grille, shall be capable under continuous control of giving variable ventilation rates ranging from—
  - (i) an upper rate of not less than 37 litres per second against a back pressure of 10 pascals and not less than 31 litres per second against a back pressure of 30 pascals, to
  - (ii) a lower rate of between 10 and 17 litres per second against zero back pressure; and if there is no continuous control of the ventilation rate, the following intermediate settings shall be provided—

- (A) a ventilation rate of greater than 31 and less than 33 litres per second against a back pressure of 10 pascals; and
- (B) a ventilation rate of greater than 21 and less than 26 litres per second against a back pressure of 10 pascals;
- (g) the effective area of the air path through the inlet fan ventilator system with the fan switched off and the air filter in position shall be not less than 3,250 square millimetres and such area shall be ascertained by measuring the static pressure difference across the system for various air flow rates through the system and calculating the effective area from

$$1.273 \sqrt{\frac{Q}{\Delta p}}$$

(where Q is the measured air flow rate through the system in litres per second and  $\Delta p$  the measured static pressure difference across the system in pascals): effective areas shall be calculated for air flow through the system in both directions and the lower calculated value shall be taken for the effective area;

- (h) the ventilator unit by itself or integral with the air supply duct and cowl or grille shall be so constructed that—
  - (i) when it is in operation in any room the sound level in the room due to the operation of the unit at a ventilation rate of 31 litres per second against a back pressure of 10 pascals, measured at any point not nearer than one metre to the unit or any of the room surfaces and normalised by the subtraction of

$$10 \log_{10} \frac{(10)}{(A)}$$

(where A is the equivalent sound absorption in the room in square metres measured at each one-third frequency interval from 100 to 3,150 Hertz), does not exceed 35 of B(A) and at the maximum ventilation rate of the unit does not exceed 40dB(A) against a back pressure of 30 pascals; and

- (i) the element-normalised sound pressure level difference, measured in accordance with British Standard number BS EN 20140—10: 1992, is not less than the figure shown in Table 3 below except for total adverse deviations (at all one-third octave frequencies) not exceeding 32 decibels and an adverse deviation at any one one-third octave frequency not exceeding 8 decibels.

**TABLE 3**

One-third octave frequency band centre (Hertz)	Normalised sound pressure level difference (decibels)
100	30
125	33
160	36
200	39
250	42
315	45
400	48

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*Status: This is the original version (as it was originally made). This item of legislation is currently only available in its original format.*

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One-third octave frequency band centre (Hertz)	Normalised sound pressure level difference (decibels)
500	49
630	50
800	51
1,000	52
1,250	53
1,600	53
2,000	53
2,500	53
3,150	53

### Specifications for permanent vents

9.—(1) Every permanent vent type ‘A’ shall consist of a sound-attenuating purpose-made opening or duct which is designed to allow the passage of air between the room and the external air at all times, and shall have an external cowl or grille for protection against the passage of snow, rain and vermin. It shall be so constructed that when installed in a cavity wall exposed to the weather, the weather resistance of the cavity is retained and the acoustic performance of the vent is protected.

(2) The effective area of the air path through the permanent vent shall be ascertained by the method set forth in paragraph 8(g) above, save that for the words “inlet fan ventilator system” in that paragraph there shall be substituted the words “permanent vent”.

(3) When installed, the permanent vent shall be securely fixed to the wall and the junction between the vent and the face of the wall shall be fully sealed by means of compressible strip, mastic packing, cover strips or other equally effective means, and where the vent has an air supply duct traversing a cavity wall the junction between the supply duct and the internal leaf shall be fully sealed by suitable means to prevent the passage of air to or from the cavity.

(4) Every vent shall be so constructed and installed as not to present a fire hazard.

(5) Every permanent vent type ‘A’ shall—

- (a) have an effective area, calculated in accordance with sub-paragraph (2), of not less than 3,250 square millimetres; and
- (b) be so constructed that the sound pressure level difference ascertained by the method set forth in paragraph 8(h)(ii), complies with the requirements therein set forth.

### Specifications for combined ventilator systems

10. The combined ventilator system shall conform to the design and standards of ventilation and acoustic performance specified in paragraphs 3(a), 4(a)(i)(A), 8 and 9 except that the requirement of paragraph 3(a) that the installation be made at the highest level which is reasonably practicable shall not apply.

## SCHEDULE 2

Regulation 3(1)

### DESCRIPTIONS OF MODES OF GUIDED TRANSPORT

#### PART I

##### The modes

1. Magnetic levitation
2. Monorail
3. Road-based with cable guidance
4. Road-based with rail guidance
5. Road-based with side guidance
6. Track-based with side guidance

#### PART II

##### Interpretation

1. In this Schedule—

“magnetic levitation” means a mode in which the vehicles are supported and guided by means of magnetic force;

“monorail” means a mode in which the vehicles are supported and guided wholly or mainly by means of a single rail or beam;

“road-based with cable guidance” means a mode in which the vehicles are—

- (a) capable of operating on a road; and
- (b) guided wholly or mainly by means of a cable, wire or other device which is not in direct physical contact with the vehicles;

“road-based with rail guidance” means a mode in which the vehicles are—

- (a) capable of operating on a road; and
- (b) guided wholly or mainly by means of a single rail or slot;

“road-based with side guidance” means a mode in which the vehicles are—

- (a) capable of operating on a road; and
- (b) guided wholly or mainly by means of wheels bearing outwards against fixed apparatus; and

“track-based with side guidance” means a mode in which the vehicles are—

- (a) supported by means of a track or other structure not being a road; and
- (b) guided wholly or mainly by means of wheels bearing outwards against fixed apparatus.

2. In this Schedule, references to “mode” are to be construed as references to a mode of guided transport which employs vehicles used wholly or mainly for the carriage of passengers and “road” has the same meaning as in the Road Traffic Regulation Act 1984<sup>(11)</sup>.

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(11) 1984 c. 27.

## EXPLANATORY NOTE

*(This note is not part of the Regulations)*

These Regulations apply to railway, tramway and other guided transport systems which have been authorised by or under statute. They impose a duty on the authority responsible for constructing the transport system concerned, or for adding to an existing system, to provide certain buildings with insulation against noise or to pay grant for insulation work to be carried out to such buildings.

A discretionary power to provide such insulation or to pay such grant is given to the responsible authority where an existing system is altered, or where noise from construction work is expected to affect such buildings.

However, the Regulations do not provide entitlement to insulation or grant where a new system is opened on the alignment of a system of the same type, if less than 5 years have elapsed between consent being given to the closure of the former system or the removal of its works (or their being made incapable of use), and the seeking of powers to build the new system.

To be eligible for insulation or grant, buildings have to be residential and located within 300 metres of the works constituting the new, added to or altered system. They must also be subject to a predicted noise level increase of at least one decibel (weighted to reflect the varying emphasis given by the ear), as a result of vehicles using the system. The noise level must also be greater by the same margin than the noise level existing before the construction or carrying out of the works and be not less than a level of 68 decibels in daytime and of 63 decibels at night (weighted as before).

The noise index used,  $L_{Aeq \text{ time period}}$ , describes the level of hypothetically steady sound which, over the period of measurement, would deliver the same noise energy as the actual intermittent noise. The procedures to be used for predicting noise levels from guided transport systems are those described in a technical memorandum, *Calculation of Railway Noise 1995*. They are based on conditions which represent the noisiest traffic flows expected to occur within a period of 15 years of the date on which the works in question are first used. The memorandum also specifies procedures and requirements for the measurement of noise levels where prediction is not possible.

The Regulations also set out the procedures for offering and accepting insulation work or grant, and for appeals. Schedule 1 specifies the insulation work to be carried out; Schedule 2 lists guided transport systems, apart from railways and tramways, to which the Regulations apply.

Copies of the technical memorandum *Calculation of Railway Noise 1995* are obtainable from Her Majesty's Stationery Office [ISBN 0-11-551754-5]. Copies of the following British Standards:

BS EN 60651: 1994 [ISBN 0 580 23386 3] (referred to in regulation 2(1));

BS 6262: 1982 [ISBN 0 580 12718 4] (referred to in paragraph 5(8) of Schedule 1);

BS 6262, part 4: 1994 [ISBN 0 580 23360 X] (referred to in paragraph 5(8) of Schedule 1); and

BS EN 20140-10: 1992 [ISBN 0 580 21242 4] (referred to in paragraph 8(h) of Schedule 1),

are available from the British Standards Institution, 389 Chiswick High Road, London W4 4AL.