*International convention centre, Birmingham - building services engineering* <sup>(67)</sup>. The first part of this paper presents a case study of the ventilation system for the Symphony Hall. The second part of the paper considers the electrical installation.

## Lift installation

*Electric lift installation in steel frame buildings*<sup>(63)</sup>. Provides an overview of standard electric lift installations of the type normally used in steel framed buildings. Appraises and recommends various methods of attaching guide rails, landing doors, etc. to the building.

## Metal cladding

*The colorcoat building: design, specification and construction*<sup>(68)</sup>. Coverage includes achieving quality and performance, durability, appearance, definitions and system descriptions, structural requirements and building physics, cladding details, site practice, inspection and maintenance.

*Design guides* <sup>(69)</sup>. Six booklets published by the Metal Cladding and Roofing Manufacturers Association between 1991 and 1993, covering roofs, walls, fire guidance notes and more. Also includes a list of members of the MCRMA.

*Durability of cladding - a state of the art report* <sup>(70)</sup>. Focuses on durability of coated metal cladding on industrial buildings, but also covers aspects of manufacture, design and detailing of cladding, life span, repair methods and problems in use.

### Curtain walling

*Interfaces: curtain wall connections to steelframes* <sup>(64)</sup>. This book is intended to promote efficiency in the design and erection of curtain wall systems, and their attachment to the steel frame.

# Glazing

*Intefaces: glazing*  $^{(65)}$  . A guide dealing with connections between steel and glazing will appear as part of this series. Publication is planned for 1997.

*New Steel Construction.* This journal (for which an index is available <sup>(71)</sup>) regularly features case study buildings which are of relevance. For example: *Swiss interchange* <sup>(72)</sup>. A two page article which contains an overview of the project at Chur Station.

### Brickwork restraints

*Brick cladding to steel framed buildings* <sup>(73)</sup>. The guide comprises two parts, *commentary* and *design examples*. It provides guidance to architects, engineers and technicians, with illustrations of modern practice combining a steel frame and brick cladding in a non-domestic building.

*Design of stainless steel fixings and ancillary components*<sup>(74)</sup>. Presents guidance for the safe and efficient use of stainless steel fixings and ancillary components in general building construction. Covers mechanical and structural properties, durability, fabrication, site practice etc., including design examples.

*Stainless steel angles for masonry support* <sup>(75)</sup>. Proposes a design method for stainless steel cold formed angles, as used to support the outer leaf of masonry cladding in buildings. Includes information on good construction practice.

## **Surface protection**

*Design for manufacture guidelines*<sup>(1)</sup> Section 8 gives 14 pages of guidance concerning corrosion protection, including types of coating, environment, specification, surface preparation, application and galvanising. See also Further Reading in Section 2.4 of this document.

*The steel designers' manual* <sup>(31)</sup> See also Further Reading in Section 3.9. Chapter 34 gives 13 pages covering fire protection and fire engineering. Subjects include standards and building regulations, structural performance in fire, methods of protection, fire testing, fire engineering. Chapter 35 gives 25 pages of coverage dealing with corrosion resistance. Subjects include the corrosion process, effect of the environment, surface preparation, metallic coatings, paint coatings, application of paints, weathering steels and the protective treatment specification.

*Fire protection for structural steel in buildings.* (*Revised 2<sup>rd</sup> edition*)<sup>(76).</sup> Provides comprehensive and up-to-date information on a wide range of proprietary fire protection materials and products. Includes data sheets and design tables.

*Thefire resistance of composite floors with steel decking*  $(2nd edition)(^{49})$ . Describes two methods of verifying the fire resistance of composite steel deck floors. Examples are given of both methods.

*Fire resistant design of steel structures - a handbook to BS 5950: Part 8* <sup>(77)</sup>. Describes the background to the code and its use in practice.

*Fire and steel construction: the behaviour of steel portal frames in boundary conditions*<sup>(78)</sup> Outlines the background to the subject and describes the behaviour of portal frames in fire.

*Structuralfire design: of-site applied thinfilm intumescent coatings. Part* **1***: design guidance*<sup>(79)</sup> gives the background to the use of off-site application of intumescent coatings. *Part* **2***: model specification* has been produced to try and achieve a greater uniformity in contract specifications.

Contact The Steel Construction Institute for details of other SCI publications dealing with the subject of fire.