



Province of  
British Columbia

Ministry of  
Municipal Affairs  
ELECTRICAL SAFETY BRANCH

Safety Engineering  
Services Division  
Third Floor  
750 Pacific Boulevard South  
Vancouver, British Columbia  
V6B 5E7

Telephone: (604) 660-6262  
Fax: (604) 660-6661

November 30, 1994  
ARCS: 336-06-01

To: All Registered Electrical Contractors

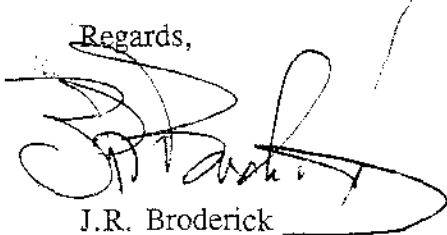
**RE: Radiant Ceiling Heating Panels Information Package**

Dear Contractor:

Please find enclosed your copy of the Electrical Safety Branch's radiant ceiling heating panels information package. In chronological order the Branch has prepared this package for all interested parties. As a registered Electrical Contractor it is very important that you review this document carefully and take the appropriate action where necessary.

Thank you for your attention to this matter.

Regards,

  
J.R. Broderick



Province of  
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Ministry of  
Municipal Affairs,  
Recreation and Housing  
ELECTRICAL SAFETY BRANCH

Safety Engineering  
Services Division  
Third Floor  
750 Pacific Boulevard South  
Vancouver, British Columbia  
V6B 5E7

November 2, 1993

Telephone: (604) 660-6262  
(604) 660-6264

**ELECTRICAL SAFETY ACT of BRITISH COLUMBIA**

OUR FILE

**EQUIPMENT DISCONNECT ORDER**

Electrical Safety Branch (All Staff Members)  
Chief Municipal Inspectors  
Electrical Safety Advisory Committee  
Electrical Wiring & Equipment Standards Committee  
Ministry of Municipal Affairs  
Fire Commissioner of B.C./Building Standards Branch  
Canadian Advisory Council of Electrical Safety

**RE: CEILING HEATING PANELS; AZTEC-FLEXEL Marked CSA LR87166-2 C300.413  
(or C500.620) 22 watt per ft<sup>2</sup>**

Subsequent to the Electrical Safety Branch "ALERT" dated August 4, 1993 a second fire has been reported. The branch have also been advised that the product is not approved and that the above referenced CSA mark is interpreted by CSA to be a misuse of their mark.

Based on information now available to this branch, be advised that the product marked:

**AZTEC-FLEXEL CSA LR87166-2 C300.413 (or C500.620) 22 watt per ft<sup>2</sup>**

(The product is sometimes referred to as "Thermafex Scotland" or "Aztec-Flexel")

where installed after November 3, 1989 in the Province of British Columbia is to be immediately **DISCONNECTED**.

Homeowners and Building owners should consult their Building Contractor and the Electrical Contractor to confirm whether the identified Aztec-Flexel product was installed in their home or building **after November 3, 1989**.

The attached information sheet is to assist in the identification of the product in order to comply with this disconnect order.

The Electrical Safety Branch is continuing to work with the investigators, CSA, and Thermafex Scotland.

J. R. Broderick, P.Eng.  
Chief Electrical Inspector  
for the Province of British Columbia

(Information Sheet on page 2)  
**PLEASE TURN OVER**

ELECTRICAL SAFETY ACT of BRITISH COLUMBIA  
DISCONNECT ORDER dated NOVEMBER 2nd, 1993

**INFORMATION SHEET**

**HOMEOWNER/BUILDING OWNER:**

To identify the manufacturer of the ceiling heating panel installed in your home/building after November 3, 1989 you should contact the Builder and the Electrical Contractor.

If the manufacturer is Thermaflex Scotland and the product is marked "CSA LR87166-2 C300.413(or C500.620) 22 watt per ft<sup>2</sup>" then the ceiling heating panel must be disconnected from the power source. The ceiling heating panels must not be re-energized.

The Builder and/or the Registered Electrical Contractor should advise you on an appropriate course of action.

Please be advised that all electric heating equipment must be certified by an Accredited Testing & Certification Agency recognized by the Province of British Columbia.

**CONTRACTOR:**

A Contractor who has installed the ceiling heating panel product Aztec-Flexel marked CSA LR87166-2 C300.413 (or C500.620) 22 watt per ft<sup>2</sup> must immediately advise the Electrical Safety Branch as to the site location.

If during the process of ascertaining a heating panel type, or during the process of a disconnection request by a client, a contractor who knows of or discovers any visual signs of abnormal heating or product breakdown they must advise the Electrical Safety Branch.

**IDENTIFICATION OF THE AZTEC-FLEXEL PRODUCT:**

**Marked "CSA LR87166-2 C300.413(or C500.620) 22 watt per ft<sup>2</sup>"**

The heater **electrode buses** which run the length of the panels are **silver coloured tinned copper**.

The heating matrix is solid black in colour with the **5/8 inch non heating spaces** approximately every 12 inches for cutting.

<b>CONTACTS:</b> Ministry of Municipal Affairs, Victoria, BC	<b>Tel: (604) 387 4314</b>
Canadian Standards Association, Richmond, BC	<b>Tel: (604) 273-4581</b>
Thermaflex, Scotland	<b>Tel: Glenrothes (0592)757313</b>



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November 2, 1993

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## ELECTRICAL SAFETY ACT of BRITISH COLUMBIA

OUR FILE

### EQUIPMENT DISCONNECT ORDER

Electrical Safety Branch (All Staff Members)  
Chief Municipal Inspectors  
Electrical Safety Advisory Committee  
Electrical Wiring & Equipment Standards Committee  
Ministry of Municipal Affairs  
Fire Commissioner of B.C./Building Standards Branch  
Canadian Advisory Council of Electrical Safety

**RE: CEILING HEATING PANELS; AZTEC-FLEXEL Marked CSA LR87166-2 C300.413  
(or C500.620) 22 watt per ft<sup>2</sup>**

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(The product is sometimes referred to as "Thermafex Scotland" or "Aztec-Flexel")

where installed after November 3, 1989 in the Province of British Columbia is to be **immediately DISCONNECTED.**

Homeowners and Building owners should consult their Building Contractor and the Electrical Contractor to confirm whether the identified Aztec-Flexel product was installed in their home or building **after November 3, 1989.**

The attached information sheet is to assist in the identification of the product in order to comply with this disconnect order.

The Electrical Safety Branch is continuing to work with the investigators, CSA, and Thermafex Scotland.

  
J. R. Broderick, P.Eng.  
Chief Electrical Inspector  
for the Province of British Columbia

(Information Sheet on page 2)  
**PLEASE TURN OVER**

ELECTRICAL SAFETY ACT of BRITISH COLUMBIA

DISCONNECT ORDER dated NOVEMBER 2nd, 1993

**INFORMATION SHEET**

**HOMEOWNER/BUILDING OWNER:**

To identify the manufacturer of the ceiling heating panel installed in your home/building after November 3, 1989 you should contact the Builder and the Electrical Contractor.

If the manufacturer is Thermaflex Scotland and the product is marked "CSA LR87166-2 C300.413(or C500.620) 22 watt per ft<sup>2</sup>" then the ceiling heating panel must be disconnected from the power source. The ceiling heating panels must not be re-energized.

The Builder and/or the Registered Electrical Contractor should advise you on an appropriate course of action.

Please be advised that all electric heating equipment must be certified by an Accredited Testing & Certification Agency recognized by the Province of British Columbia.

**CONTRACTOR:**

A Contractor who has installed the ceiling heating panel product Aztec-Flexel marked CSA LR87166-2 C300.413 (or C500.620) 22 watt per ft<sup>2</sup> must immediately advise the Electrical Safety Branch as to the site location.

If during the process of ascertaining a heating panel type, or during the process of a disconnection request by a client, a contractor who knows of or discovers any visual signs of abnormal heating or product breakdown they must advise the Electrical Safety Branch.

**IDENTIFICATION OF THE AZTEC-FLEXEL PRODUCT:**

Marked "CSA LR87166-2 C300.413(or C500.620) 22 watt per ft<sup>2</sup>"

The heater **electrode buses** which run the length of the panels are silver coloured **tinned copper**.

The heating matrix is **solid black** in colour with the **5/8 inch non heating spaces** approximately every **12 inches** for cutting.

<b>CONTACTS:</b> Ministry of Municipal Affairs, Victoria, BC	<b>Tel: (604) 387 4314</b>
Canadian Standards Association, Richmond, BC	<b>Tel: (604) 273-4581</b>
Thermaflex, Scotland	<b>Tel: Glenrothes (0592)757313</b>



Province of  
British Columbia

# NEWS RELEASE

MINISTRY OF MUNICIPAL AFFAIRS

RELEASED: NOV. 4, 1993

CONTACT: CASEY EDGE  
387-4089

FILE: MA 93-212

## PROVINCE ORDERS DISCONNECTION OF CEILING HEATING PANELS

VICTORIA -- Two residential fires have led the province's Chief Electrical Inspector, Roy Broderick to issue an order to disconnect a brand of ceiling heating panels.

The panels being disconnected are Aztec-Flexel ceiling heating panels marked CSA LR87166-2 C300.413 (or C500.620) 22 watts per ft<sup>2</sup>. The panels produce radiant ceiling heat and were manufactured after November 3, 1989 by Thermaflex of Scotland.

The disconnect order results from two residential fires that occurred this year in Fairmont and Maple Ridge. There were no injuries and property damage was light.

"Home and building owners who have this brand of panel or who are unsure of their brand of panel, should turn off the ceiling heating panels breaker at the fuse box," said Broderick. "They should also immediately consult with their building or electrical contractor to identify the panels and ensure disconnection if it is the specified Aztec-Flexel product," said Broderick.

The province's Electrical Safety Branch is working with the building and electrical industry to identify several hundred homes and buildings that may have had the panels installed. They are located primarily in the lower mainland and Vancouver Island regions.

The ceiling heating panels are marked Canadian Standards Association approved, however CSA advises the mark is a misuse of their label.

Further information may be obtained by contacting the panel distributor Adair Industries in Vancouver, Ph: 299-7988; Canadian Standards Association in Richmond, Ph: 273-4581; Ministry of Housing, Recreation and Consumer Services at 387-9112 or Ministry of Municipal Affairs at 387-4089.

# **ELECTRICAL SAFETY ALERT**

The province's Chief Electrical Inspector advises that the following electrical heating product is not approved and issues a **disconnect order** for **Aztec-Flexel ceiling heating panels** marked CSA LR87186-2 C300.413 22 watts per ft<sup>2</sup> or LR87186-2 C500.620 22 watts per ft<sup>2</sup>.

Home and building owners who have this brand of panel, or are uncertain of their brand, should turn off the ceiling heating panel breaker at the fuse box. They should immediately consult with their building or electrical contractor to ensure disconnection of the specified Aztec-Flexel product.

**For further information contact:**

- Panel distributor Adair Industries (Vancouver): 299-7888
- Canadian Standards Association (Richmond): 273-4581
- Ministry of Housing, Recreation and Consumer Services (Victoria): 387-8112
- Ministry of Municipal Affairs (Victoria): 387-4089



Province of British Columbia

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NOV 10 1993

ELECTRICAL SAFETY BRANCH



Province of  
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Ministry of  
Municipal Affairs,  
Recreation and Housing  
ELECTRICAL SAFETY BRANCH

Safety Engineering  
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Vancouver, British Columbia  
V6B 6E7

Telephone (604) 660-6262  
(604) 660-6264

25 February 1994

COPIES

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V.2

## Electrical Safety Act of British Columbia **EQUIPMENT DISCONNECT ORDER**

To: OWNER OR OCCUPANT OF PREMISES WHERE AZTEC-FLEXEL OR  
THERMAFLEX RADIANT CEILING HEATING PANELS ARE INSTALLED

RE: **ALL CSA CERTIFIED AZTEC-FLEXEL OR THERMAFLEX  
22 WATTS/FT<sup>2</sup>**

Subsequent to the Electrical Safety Branch "DISCONNECT ORDER" dated November 2, 1993, the Branch has been further advised of several concerns associated with the 22 watts/ft<sup>2</sup> Aztec-Flexel or Thermaflex radiant ceiling heating panels. The panels may pose a fire hazard.

All radiant ceiling heating panels manufactured by Thermaflex of Scotland rated 22 Watts/ft<sup>2</sup> where installed after November 3, 1989 in the Province of British Columbia are to be **immediately DISCONNECTED until further notice.**

The Canadian Standards Association (CSA), the Electrical Safety Branch, and representatives of Thermaflex-Scotland, the manufacturer, are exploring corrective action.

For further information you may wish to contact the CSA in Richmond, B.C. at (604) 273-4581, Electrical Safety Branch at (604) 660-6266 or Thermaflex in Scotland at (0592) 757313.

J.R. Broderick, P. Eng.  
Chief Electrical Inspector  
Province of British Columbia

pc: Electrical Safety Branch (All Staff Members)  
Chief Municipal Inspectors  
Electrical Safety Advisory Committee  
Electrical Wiring & Equipment Standards Committee  
Ministry of Municipal Affairs  
Fire Commissioner of B.C.  
Canadian Advisory Council on Electrical Safety  
Building Standards Branch  
Canadian Standards Association  
Thermaflex (Scotland)  
Architectural Association of B.C.

discon#1.94





Province of  
British Columbia

# NEWS RELEASE

MINISTRY OF MUNICIPAL AFFAIRS

RELEASED: FEB. 25, 1994  
CONTACT: CASEY EDGE  
387-4089  
FILE: MA 94-019

## CEILING HEATING PANELS TO BE DISCONNECTED

VICTORIA – Fire hazard concerns have led the province's Chief Electrical Inspector, Roy Broderick to issue an order to disconnect all Aztec-Flexel and Thermaflex ceiling heating panels rated 22 watts/ft<sup>2</sup>.

The Aztec-Flexel and Thermaflex panels, which produce radiant ceiling heat, carry the Canadian Standards Association mark and were manufactured by Thermaflex of Scotland.

Broderick's action follows a November 2, 1993 disconnect order which applied to a specific model of Aztec-Flexel panel rated at 22 watts/ft<sup>2</sup>. Ongoing investigations by the province indicate all Aztec-Flexel and Thermaflex panels rated 22 watts/ft<sup>2</sup> may become a fire hazard.

As a result, CSA is undertaking a study of ceiling heating panel technology which, when completed, will be submitted to the Canadian Advisory Council on Electrical Safety.

"Home and building owners who have these panels or who are unsure of their brand of panels, should turn off the ceiling heating panels breaker at the fuse box," said Broderick. "Also, they should contact CSA or Flexel International Ltd. to have their panels inspected."

The Electrical Safety Branch, working with the building and electrical industry, has identified approximately 300 homes and buildings that have had the Aztec-Flexel or Thermaflex panels installed. They are located primarily in the Lower Mainland and Vancouver Island regions.

Further information may be obtained by contacting Flexel International Ltd. in Scotland, Ph: (0592) 757313, Canadian Standards Association in Richmond, Ph: 273-4581 or Electrical Safety Branch in Vancouver, Ph: 660-6260.

March 1994

## CEILING HEATING PANELS

### INTRODUCTION

This safety advisory regarding the installation of radiant ceiling heating panels is being issued to all local building and fire authorities, designers and contractors. Strict compliance with the installation instructions for these systems is critical to the safety of the building and its occupants.

A recent fire which originated in the cellulose insulation in the attic of a house with ceiling heating panels has identified a potential problem between this type of heating system and certain types of thermal insulation.

When wood or wood based products are repeatedly heated over an extended time period they can undergo a chemical change. The degree of change increases with each heating cycle, and results in progressive lowering of the temperature at which it will ignite. This process is known as pyrolysis. In the above mentioned fire it appears that pyrolysis occurred in the combustible insulation and it eventually ignited which in turn ignited the adjoining roof framing.

### WHAT ARE CEILING HEATING PANELS?

Electric ceiling heating panels consist of thin carbon or copper heating elements encased in plastic films. The plastic film is fastened to the underside of the ceiling framing and is then covered with the vapour barrier and drywall ceiling finish. Thermal insulation is placed above the heating panels, usually in the attic. The ceiling assembly then becomes a radiant heater.

These ceiling heating panels operate at temperatures which are not hazardous provided the total installation is carried out correctly. Manufacturers provide detailed installation instructions for their products.

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Ministry of Municipal Affairs  
800 Johnson Street  
Victoria, B.C. V8V 1X4

Office of the Fire Commissioner  
Building Standards Branch  
Fax for both offices

(604)356-9000  
(604)387-4010  
(604)356-9019

**. 2 .****WHAT RESTRICTIONS APPLY?**

- **Combustible insulation is not permitted over ceiling heating panels.**

Cellulose insulation, although treated with a fire retardant, is still considered combustible. The instructions for cellulose insulation prohibit its use near heating sources such as ceiling heating panels.

- **Foil backed insulation is not permitted over ceiling heating panels.**

Ceiling heating panel installation instructions clearly state that only non-foil-backed non-combustible insulation is to be used over these panels and that the insulation should not exceed R-40.

- **There are also limitations (such as drywall thickness) on what may be installed on the underside of the heating panels and manufacturers' instructions should be checked.**

These limitations are to enable the heat from the panels to be transmitted through the ceiling without an abnormal build-up of heat in the ceiling heating panels, adjacent materials and structural members.

**WHAT SHOULD BE DONE?**

The Building Standards Branch and the Office of the Fire Commissioner are concerned that there may be more ceiling heating panels installed with combustible insulation and/or non-conforming ceiling surfaces that may pose a fire hazard over time.

Owners of buildings with ceiling heating panels are urged to inspect their attic for compatibility of materials and to remove any combustible insulation over these panels. Also, if non-combustible insulation is in place, check that the insulation value over the ceiling heating panels does not exceed R-40 and is not foil backed. Fibreglass batts 12" thick have a thermal value of about R-40.

Ceiling heating panel installation instructions must be carefully followed and it is vital that any trades whose work may impact on the safety and performance of these panels are made aware of the installation requirements.

A public advisory of this bulletin is being issued through major newspapers.



# **ELECTRICAL SAFETY ALERT**

Further to the Electrical Safety Branch "Disconnect Order" dated November 2, 1993, all **Aztec-Flexel** or **Thermallex Radiant Ceiling Heating Panels** rated **22 watts/ft<sup>2</sup>** are to be immediately disconnected until further notice.

These panels may pose a fire hazard. Home and building owners who have the panels should ensure they are disconnected.

For further information, please contact:

Canadian Standards Association (Richmond): 273-4581  
Electrical Safety Branch (Vancouver): 660-6280  
Flexel International Ltd. (Scotland): (0582) 757313



Province of British Columbia.

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MAR - 4 1994

ELECTRICAL SAFETY BRANCH



Province of  
British Columbia

Ministry of  
Municipal Affairs  
Recreation and Housing  
1000 - 1075 - 1000

Safety Engineering  
Services Division  
Third Floor  
750 Pacific Boulevard South  
Vancouver, British Columbia  
V6B 5E7

Telephone: (604) 660-6262  
(604) 660-6264

# DIRECTIVE NO: 03/94

DATE: 8 March 1994

ARCS: 195-201DCE11

To: RCHP Manufacturers  
Electrical Contractors  
Electrical Safety Inspectors

## RADIANT CEILING HEATING PANELS (RCHP)

### 1. INSTALLATION RESTRICTION

Effective immediately, the Province of British Columbia has implemented a RESTRICTION on the installation of all FLEXIBLE (THIN SHEET) RADIANT CEILING HEATING PANELS rated in excess of 18 watts/ft<sup>2</sup>.

### 2. INSTALLATION OF RCHP'S RATED AT 18 WATTS/FT<sup>2</sup> OR LESS IS PERMITTED PROVIDED THAT:

- a. Heating panels are certified and marked with a rating of 18 watts/ft<sup>2</sup> or less.
- b. The upper surface temperature of the gyproc in contact with the heating panels must not under any circumstances exceed 60 degrees Celsius.
- c. Heating panels must pass the Abnormality Test as per C22.2 No. 217-M89 and the results must not exceed a temperature of 90 degrees Celsius.
- d. Full compliance with manufacturers' installation practices, including the installation of building materials, must be verified in writing by a *Manufacturer's Representative to the Electrical Safety Branch or Municipal Inspection Authority.*

This INSTALLATION RESTRICTION will remain in effect until the applicable CSA standards and codes for RCHP's have been revised. Subsequently, all heating panels must then be tested, certified, and marked in accordance with the revised standard prior to installation.

Homeowners are not permitted to install heating panels.

Manufacturers of heating panels 18 watts/ft<sup>2</sup> or less must apply to confirm their compliance with the conditions as listed, to:

Electrical Safety Branch, Codes & Standards Engineering  
3 - 750 Pacific Boulevard South, Vancouver, B.C. V6B 5E7  
Ph # (604) 660-6266

J. R. Broderick, P. Eng.  
Chief Electrical Inspector  
Province of British Columbia



## **Flexible Radiant Ceiling Heating Panels**

Toronto, Ontario, March 9, 1994: The Canadian Standards Association (CSA) has been conducting investigations of incidents involving flexible radiant ceiling heating panels in cooperation with regulatory authorities in British Columbia, Ontario and Québec. British Columbia and Québec have ordered the disconnection of Thermaflex and Aztec-Flexel radiant ceiling heating panels rated 22 watts per sq. ft. in response to recent incidents, including some fires.

CSA recognizes that a potential problem exists with flexible radiant ceiling heating panel systems. While the product meets the existing standard, something is happening in the field to cause these fires. The direct cause in many of the incidents has not yet been determined because of the variables in the system, which include the product itself, the installation, construction practices and the proximity of radiant heating panels to other building construction materials and heat sources.

As a standards writing organization, CSA's role is to facilitate the development of standards, many of which become National Standards of Canada. Standards are developed through the voluntary consensus principle, using a committee with a balanced matrix of membership consisting of regulators, consumers, experts and manufacturers. As a certifier, CSA's role and responsibility is to ensure, through testing and evaluation, that products comply with the applicable National Standards.

Radiant ceiling heating panels have been in use in Europe for more than 30 years and in North America for more than 10 years, and as such are designed to meet the requirements of the major certification organizations in Canada, the United States and Europe.

In response to the incidents occurring in the field, CSA is working very closely with all the parties involved; the regulatory authorities, the manufacturers, the electricians and the installers. In addition, CSA has conducted and continues to conduct additional testing of the product in its labs, simulating field conditions and abnormal situations. So far, CSA has not been able to duplicate the failures.

CSA will continue its research of the whole system to determine the root cause of the problem. Towards this end, CSA will use research data from all available sources and will contract the services of an independent engineering or research firm to assist in this endeavour.

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# ***News Release***

Canada's first standard on Radiant Space Heating Systems was published in 1985, underwent a full revision in 1989 and is now a National Standard of Canada that reflects the latest technology at the time. Standards are dynamic documents that are continually reviewed and updated under the consensus process.

Accordingly, the committee for radiant ceiling panels recently held meetings to look at all the variables in the system and made a number of proposed changes to the standard that entail a systems approach to resolving the issues. The committee also made recommendations for changes to the Canadian Electrical Code and the National Building Code.

In British Columbia and Québec, homeowners having flexible radiant ceiling heating panels affected by the disconnect notices or moratoriums in their province, are urged to follow the directions given by the regulatory authorities.

For further information, media calls should be directed to:

Conrad Tucker  
Media Relations Coordinator  
Rexdale (Toronto), ON  
Tel: (416) 747-2456  
Fax: (416) 747-4292

Jean-Yves Paquin  
Audits & Investigations  
Pointe-Claire (Montréal), PQ  
Tel: (514) 428-2415  
Fax: (514) 428-2422

Bill Simpson  
Quality Assurance Manager  
Richmond (Vancouver), BC  
Tel: (604) 273-4581  
Fax: (604) 273-5815

# **SAFETY ADVISORY**

Recent fire investigations have identified a potential problem with radiant ceiling heating panels when used with cellulose insulation or other incompatible insulation and ceiling surfaces.

Owners of buildings and houses with radiant ceiling heating panels should inspect their attic for compatibility of materials and remove all combustible insulation from or near these panels. Also, regardless of the type of insulation installed, the insulation value over the radiant ceiling heating panels cannot exceed R-40. (Note that the thickness of the insulation can vary according to the type.)

For further information contact your local building inspector or:

The Building Standards Branch (Victoria): 387-4010

Office of the Fire Commissioner (Victoria): 356-9000

Canadian Standards Association (Richmond): 273-4581

Electrical Safety Branch (Vancouver): 660-6266



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MAR 11 1994

ELECTRICAL SAFETY BRANCH

**Province of British Columbia**





MINISTRY OF MUNICIPAL AFFAIRS

RELEASED: MAR. 11, 1994

CONTACT: CASEY EDGE

387-4089

FILE:

MA 94-025

## RESTRICTION ON CEILING HEATING PANELS/CSA STUDIES STANDARD

VICTORIA -- An order restricting the installation of all radiant ceiling heating panels rated over 18 watts per ft<sup>2</sup> has been issued by the province's Chief Electrical Inspector, Roy Broderick, pending the establishment of a new standard for heating panels by the Canadian Standards Association.

CSA has recently announced it will be contracting the services of an independent consultant to assist with a new study of ceiling heating panels, which is expected to contribute to the development of a new standard. The CSA study follows investigations in B.C., Ontario and Quebec which have linked ceiling heating panels, rated over 18 watts per ft<sup>2</sup>, to fires in each of the provinces.

The Electrical Safety Branch order permits only the installation of ceiling panels rated 18 watts per ft<sup>2</sup> or less and requires the manufacturer to verify that the work has been carried out to specifications. Homeowners are not permitted to install the panels.

"The restriction will be reviewed after the Canadian Standards Association completes its study on ceiling heating panels and establishes a new standard for testing and certification," said Broderick.

The November 2, 1993 and February 25, 1994 disconnect orders continue on all Aztec-Flexel and Thermaflex panels rated at 22 watts per ft<sup>2</sup>. As a result of fire investigations, these specific panels were ordered disconnected by the Electrical Safety Branch. Subsequently these panels were decertified by the Canadian Standards Association.

In addition, the Electrical Safety Branch, working with the Office of the Fire Commissioner and Building Standards Branch, is advising owners of ceiling heating panels to have their attic inspected for compatibility of materials and removal of all combustible insulation from or near the panels. Also, regardless of the type of insulation installed, the insulation value over the panels should not exceed R-40.

"All electrical installations, construction and insulation should comply with the building code and manufacturer's specifications to optimize safety and reduce fire hazards," said the province's Fire Commissioner Rick Dumala.

For additional safety information contact the Electrical Safety Branch at 660-6266 or the Fire Commissioner's Office at 356-9002.

For information on a new standard for ceiling heating panels, contact the Canadian Standards Association at 273-4581.



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Safety Engineering  
Services Division  
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750 Pacific Boulevard South  
Vancouver, British Columbia  
V6B 5E7

**ADDENDUM**

**DIRECTIVE NO: 03/94**

DATE: 28 March 1994

To: RCHP Manufacturers  
Electrical Contractors  
Electrical Safety Inspectors

CUR FILE

### INSPECTION PROCEDURES

The following procedures are required for the acceptance of radiant ceiling heating panels (RCHP).

1. Every installation of the RCHP's electrical portion must be done by a Registered Electrical Contractor. The electrical work is to be then inspected as per normal procedures.
2. A "MANUFACTURERS' CONFIRMATION LETTER" from a Factory Representative showing compliance with Items (a), (b), & (c) of Directive 03/94 is required when the regular electrical permit is obtained. This letter or package is attached to the permit file.
3. A "RCHP INSTALLATION CERTIFICATE" from the Manufacturers Representative upon completion of the installation stating the completed installation is in full compliance with the manufacturers specifications and installation instructions is to be issued to the inspector. An inspector can request information during any part of the installation.
4. Upon receipt of the "RCHP INSTALLATION CERTIFICATE" and when the electrical portion of the installation has been installed in accordance with the C.E.C., PT I, the Electrical Inspector will issue a "CERTIFICATE OF INSPECTION" (final).

#### NOTES:

The "RCHP INSTALLATION CERTIFICATE" from the Manufacturers Representative covers all aspects of each installation and satisfies Item (d) of Directive 03/94:

- a) Verification that the RCHP electrical work was done by a registered electrical contractor.
- b) Building materials such as vapour barrier, firing, insulation, gyproc, finishing materials, markings & labels, etc are installed in accordance with the manufacturers installation instructions.
- c) Manufacturers Specifications and Installation Instructions have been met.

All installations must be inspected.

If you have any further questions, please contact the CODES AND STANDARDS DEPARTMENT @ 660-6266.

J.R. Broderick, P. Eng.  
Chief Electrical Inspector  
Province of British Columbia

direct03.94a



**RECALL OF FLEXWATT RADIANT CEILING HEATING PANELS**

Toronto, Ontario, September 9, 1994: Flexwatt Corporation and the Canadian Standards Association (CSA) are advising homeowners of the recall of certain radiant ceiling heating product which may overheat and pose a potential fire hazard.

This recall involves:

Flexwatt Radiant Ceiling Heating Panels, Type R17C20H240, Rated 20 Watts Per Panel Section, 240 Volts, and Surface Printed With The Following Date Codes: '1/17/90', '1/18/90', '3/8/90' and '10/25/91'. Testing by CSA has determined that in some circumstances these panels may overheat.

While most Flexwatt installations are in the provinces of British Columbia and Québec, concerned homeowners are advised to contact their electrical contractor or installer to determine if they have the radiant ceiling heating panels listed above.

For further information please contact:

Flexwatt Corporation:

George Shad  
West Wareham, MA  
Tel: (508) 291-2000  
Fax: (508) 291-2008

All inquiries made to CSA should be directed to:

Conrad Tucker  
Public Relations Coordinator  
Rexdale (Toronto) ON  
Tel: (416) 747-2456  
Fax: (416) 747-4292

Bill Simpson  
Quality Assurance Mgr.  
Richmond  
(Vancouver), BC  
Tel: (604) 273-4581  
Fax: (604) 273-5815

Jean-Yves Paquin  
Audits & Investigations  
Pointe-Claire  
(Montréal), PQ  
Tel: (514) 428-2415  
Fax: (514) 694-5001



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**RECALL OF FLEXWATT RADIANT CEILING HEATING PANELS**

**Toronto, Ontario, September 26, 1994: Flexwatt Corporation and the Canadian Standards Association (CSA) are reissuing the recall news release, originally dated September 9, 1994, for date code clarification purposes regarding the affected products which may overheat and pose a potential fire hazard.**

This recall involves:

Flexwatt Radiant Ceiling Heating Panels, **Type R17C20H240**, Rated 20 Watts Per Panel Section, 240 Volts, and Surface Printed With Date Codes '1/17/90', '1/18/90', '10/25/91' and **Type R25C30H240**, Rated 30 Watts, 240 Volts Per Panel Section, with the Surface Printed Date Code 3/8/90. Testing by CSA has determined that in some circumstances these panels may overheat.

While most Flexwatt installations are in the provinces of British Columbia and Québec, concerned homeowners are advised to contact their electrical contractor or installer to determine if they have the radiant ceiling heating panels listed above.

For further information please contact:

Flexwatt Corporation:

George Shad  
West Wareham, MA  
Tel: (508) 291-2000  
Fax: (508) 291-2008

All inquiries made to CSA should be directed to:

Conrad Tucker  
Communications Officer  
Rexdale (Toronto) ON  
Tel: (416) 747-2456  
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Bill Simpson  
Quality Assurance Manager  
Richmond (Vancouver), BC  
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Jean-Yves Paquin  
Audits & Investigations  
Point-Claire (Montréal), PQ  
Tel: (514) 428-2415  
Fax: (514) 694-5001



September 30, 1994

**Electrical Safety Act of British Columbia**  
**EQUIPMENT DISCONNECT ORDER**

**To: OWNER OR OCCUPANT OF PREMISES WHERE FLEXWATT RADIANT CEILING HEATING PANELS (RCHP) ARE INSTALLED**

**RE: ALL CSA CERTIFIED FLEXWATT RCHP:  
TYPE R17C20H240, RATED, 240 VOLTS, 20 WATTS PER PANEL SECTION, AND SURFACE PRINTED WITH THE FOLLOWING DATE CODES: "1/17/90", "1/18/90", AND "10/25/91";**

**AND**

**TYPE R25C30H240, RATED; 240 VOLTS, 30 WATTS PER PANEL SECTION AND SURFACE PRINTED WITH THE FOLLOWING DATE CODE: "3/8/90";**

**AND**

**ALL FLEXWATT TYPES WHERE THE DATE CODE CANNOT BE IDENTIFIED.**

The Electrical Safety Branch has been advised by CSA and Flexwatt that certain date coded radiant ceiling heating panels may overheat and pose a fire hazard.

The radiant ceiling heating panels manufactured by Flexwatt and identified as indicated above which have been installed in the Province of British Columbia are to be immediately **DISCONNECTED**.

For further information or to receive a copy of the CSA Recall Notice, you may wish to contact the Canadian Standards Association (CSA) in Richmond, B.C. at (604) 273-4581, Flexwatt in West Wareham, MA at (508) 291-2000, Electrical Safety Branch at (604) 660-6266, or the Public Affairs Branch at 1-800-407-7757

J.R. Broderick, P. Eng.  
Chief Electrical Inspector  
Province of British Columbia

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|---|---|
| pc: Electrical Safety Branch (All Staff Members)    | Chief Municipal Inspectors                        |
| Electrical Safety Advisory Committee                | Electrical Wiring & Equipment Standards Committee |
| Ministry of Municipal Affairs                       | Fire Commissioner of B.C.                         |
| Canadian Advisory Council on Electrical Safety      | Building Standards Branch                         |
| Canadian Standards Association                      | Architectural Association of B.C.                 |
| Insurance Council of B.C.                           | Assn. of Professional Engineers of B.C.           |
| Applied Science Technologists & Technicians of B.C. | Real Estate Council of B.C.                       |

THE PROVINCE NEWS PAPER (OCTOBER 5, 1994)

# ELECTRICAL OCT 05 1994 SAFETY ALERT

The following **Flexwatt** radiant ceiling heating panel (RCHP) models are to be disconnected by a qualified electrician immediately:

- Type R17C20H240, Rated, 240 Volts, 20 Watts per Panel Section, and surface printed with the following date codes: 1/17/90, 1/18/90 and 10/25/91.
- Type R25C30H240, Rated, 240 Volts, 30 Watts per Panel Section, and surface printed with the following date code: 3/8/90.
- All Flexwatt panels where the date code cannot be identified.

If owners are unsure of their brand of panel they should contact the building or electrical contractor responsible for the installation of their RCHP system. Residents who do not know which contractor installed their system can contact their local municipal hall – contractors may be recorded in the building inspections department. Residents may visually inspect the panels, **only** if it is safe and reasonable to do so, checking the panel labels against the specific Flexwatt model numbers above.

Further information may be obtained by contacting:

George Shed	Bill Simpson	Information Line
Flexwatt Corporation	Canadian Standards	Victoria: 387-4313
(506) 291-2000	Association (CSA)	Province-wide:
(West Wareham, MA)	(604) 273-4581	1-800-407-7757
	(Richmond)	



Province of British Columbia



## RECALL OF FLEXWATT RADIANT CEILING HEATING PANELS

Toronto, Ontario, November 15, 1994: Further to the News Release issued September 26, 1994, Flexwatt Corporation and the Canadian Standards Association (CSA) are extending the recall of the radiant ceiling heating product.

This recall now involves all:

Flexwatt Radiant Ceiling Heating Panels, Product Nos. R13C13H120, R13C13H208, R13C13H240 rated 13 Watts per panel; R17C20H120, R17C20H208, R17C20H240 rated 20 Watts per panel; and R25C30H120, R25C30H208, R25C30H240 rated 30 Watts per panel. Additional testing by CSA has determined that in some circumstances these panels may overheat.

While most Flexwatt installations are in the provinces of British Columbia and Québec, concerned homeowners are advised to contact their electrical contractor or installer to determine if they have the radiant ceiling heating panels listed above.

For further information please contact:

Flexwatt Corporation:

George Shad  
West Wareham, MA  
Tel: (508) 291-2000  
Fax: (508) 291-2008

All inquiries made to CSA should be directed to:

Conrad Tucker Communications Officer Rexdale (Toronto), ON Tel: (416) 747-2456 Fax: (416) 747-4292	Bill Simpson Quality Assurance Mgr. Richmond (Vancouver), BC Tel: (604) 273-4581 Fax: (604) 273-5815	Jean-Yves Paquin Audits & Investigations Pointe-Claire (Montréal), PQ Tel: (514) 428-2415 Fax: (515) 694-5001
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**News Release**



British Columbia

Municipal Affairs  
ELECTRICAL SAFETY BRANCH

Services Division  
Third Floor  
750 Pacific Boulevard South  
Vancouver, British Columbia  
V6B 5E7

Telephone: (604) 660-6259  
Fax: (604) 660-6661

November 18, 1994

**Electrical Safety Act of British Columbia**  
**EQUIPMENT DISCONNECT ORDER**

**To: OWNER OR OCCUPANT OF PREMISES WHERE FLEXWATT RADIANT CEILING HEATING PANELS (RCHP) ARE INSTALLED**

**RE: ALL CSA CERTIFIED FLEXWATT RADIANT CEILING HEATING PANELS**

The Electrical Safety Branch has been advised by CSA that the radiant ceiling heating panels manufactured by Flexwatt Corporation may overheat.

All radiant ceiling heating panels manufactured by Flexwatt Corporation which have been installed in the Province of British Columbia are to be immediately **DISCONNECTED**.

For further information or to receive a copy of the CSA Recall Notice, you may wish to contact the Canadian Standards Association (CSA) in Richmond, B.C. at (604) 273-4581, Flexwatt Corporation in West Wareham, MA at (508) 291-2000, Electrical Safety Branch at (604) 660-6266, or the Public Affairs Branch at 1-800-407-7757.

J.R. Broderick, P. Eng.  
Chief Electrical Inspector  
Province of British Columbia

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|--|---|
| <p>pc: Electrical Safety Branch (All Staff Members)<br/>Electrical Safety Advisory Committee<br/>Ministry of Municipal Affairs<br/>Canadian Advisory Council on Electrical Safety<br/>Canadian Standards Association<br/>Insurance Council of B.C.<br/>Applied Science Technologists &amp; Technicians of B.C.</p> | <p>Chief Municipal Inspectors<br/>Electrical Wiring &amp; Equipment Standards Committee<br/>Fire Commissioner of B.C.<br/>Building Standards Branch<br/>Architectural Association of B.C.<br/>Assn. of Professional Engineers of B.C.<br/>Real Estate Council of B.C.</p> |
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## **ELECTRICAL SAFETY ALERT**

All **Flexwatt** radiant ceiling heating panels (RCHP) products must be disconnected by a qualified electrician immediately.

This follows a recall notice from the Canadian Standards Association (CSA) and Flexwatt Corporation stating Flexwatt ceiling heating panels may overheat and pose a fire hazard.

If you are unsure of your brand of panel, contact the building or electrical contractor who installed your RCHP system. If you do not know which contractor installed the system, contact your local municipal hall – contractors may be recorded in the building inspections department. You may visually inspect the panels, **only** if it is safe and reasonable to do so, checking the panel labels to identify whether they are made by Flexwatt.

Further information may be obtained by contacting:

George Shad  
Flexwatt Corporation  
(508) 291-2000  
(West Wareham, MA)

Bill Simpson  
Canadian Standards  
Association (CSA)  
(604) 273-4581  
(Richmond)

Information Line  
Victoria: 387-4313  
Province-wide:  
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Province of British Columbia