

[REDACTED]

27 June 2014

Coroner's Court
Civic Centre
Barras Bridge
Newcastle upon Tyne
NE1 8PS

Dear Michael Allen,

Further to your letter of 8th May, on behalf of the Company may I first of all say how truly sorry we are to hear of this tragic incident and we would like to take this opportunity to extend our deepest condolences to Mr Lapping's family and friends.

In response to your specific points regarding Hotpoint Refrigeration appliances, having reviewed the matter in some detail, we can advise as follows:

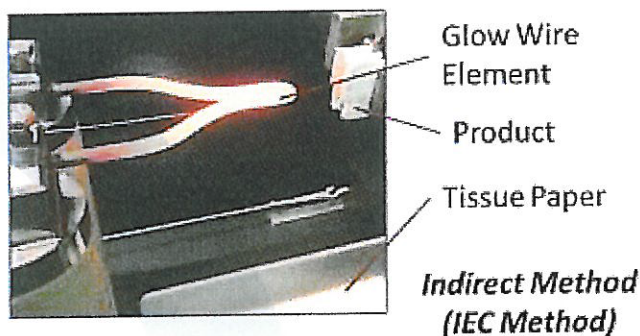
Our understanding is that the original product is no longer available for examination and so having only the information provided in your letter/report, we were unfortunately unable to identify the exact model of refrigerator owned by Mr Lapping. However, from the photograph of the compressor label, we are led to believe that the appliance was most probably manufactured at the end of 1998/beginning of 1999.

Whilst this product was produced in accordance with the regulations/Standards in force at the time, we believe that it is worth noting that the Safety Standards and component specifications have evolved significantly since 1998 and we would like to take this opportunity to outline some of the key improvements to you:

Introduction of the Glow Wire Test

The glow wire test is the fire protection requirement created to evaluate the rate of flammability of materials used within an appliance. It measures the risk of fire ignition due to the contact between live electrical parts with no insulation and plastic parts, which could arise due to a possibility of over current or short circuit failures.

The actual test is described in the picture below.



Glow wire testing is performed by heating an element to a pre-determined temperature. The heated element is referred to as the glow wire.

The sample to be tested is fixed in place and tissue paper is positioned directly below the sample. After reaching the pre-determined temperature, the element is then pressed into a sample material under a set force of 1N for 30 seconds. If ignition occurs, recordings are made to note the duration, flame height, and whether drips of the material ignite the tissue paper.

GWFI stands for Glow Wire Flammability Index (IEC 60695-2-12). This is a property associated with raw material used in the end product. This property is determined by conducting the glow wire test on a test plate of a raw material of a given thickness. The Glow Wire Flammability Index (GWFI) is the highest temperature at which the material does not ignite or self-extinguishes within 30 seconds after removal of the heated element. The limit admitted is 850°C

GWIT stands for Glow Wire Ignition Temperature (IEC 60695-2-13). This is a property associated with raw material used in the end product. This property is determined by conducting the glow wire test on a test plate of a raw material of a given thickness. The Glow Wire Ignition Temperature (GWIT) is the lowest temperature at which the material ignites and burns for longer than 5 seconds while the heated element is in contact with the test plate. The limits admitted are 750°C for the parts as compressor connection box or electronic board components ($I > 0,2A$) and 650°C for parts as light switch, light box ($I < 0,2A$)

The Glow Wire test limits above were introduced in 2002.

Run capacitor – Alternative Design

Starting from 2009, we have changed the capacitors used in the production of our refrigeration appliances from type 'P0' to type 'P2'. This change was not mandatory/driven by changes to the Standards but as we felt that an improvement in Safety Levels could be obtained, we unilaterally decided to make this change. The main differences between the 'P0' and 'P2' run capacitors are as follows:

- Both have a plastic cover
- Both include a Zn-Al film
- The Zn-Al film in the P0 run capacitor has a flat active surface. The film in the P2 capacitor is divided in zones and there are fuses between those zones. The fuses insulate the zone if there is a short circuit and as a consequence the P2 design prevents the capacitor from rupturing.

Testing of light boxes

To increase the severity of the test, from 2008 the test was changed such that the door is now in the most unfavorable condition of being closed, (previously the test had been carried out with the door open). The light remains switched on continuously and the temperature is measured until it has stabilised. At the measured temperature the plastic on the light box must not soften.

Future Developments

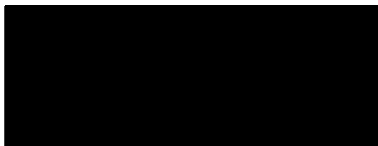
Currently, we are assessing proposals to reduce the potential flammability of cooling products even further, through the possible introduction of an aluminized cardboard covering for the key insulation areas. Unfortunately due to constraints within the design that we have in production now, particularly the fact that our insulation is quite convex, introduction of this material today is not feasible. However, we are studying methods of introducing such a material on our new 60cm product platform which is under development.

In summary, for Hotpoint, product safety is of paramount importance and every product sold under our brand is fully compliant with the Safety Standards in force at the time of manufacture, and so irrespective of the model, this was certainly the case for Mr Lapping's appliance. Additionally, since the appliance in question was manufactured in 1998/99, both the Safety Standards and where appropriate, Hotpoint's own component specifications have moved in the general direction to which you refer and hence have reduced any possible risk levels even further. Going forwards you have our absolute assurance that as we have always done, Hotpoint will continue to design our products in line with any appropriate technological/market developments that become available, or changes to the Standards that occur.

We do hope that this information will be sufficient to satisfy your requirements, but obviously given the circumstances behind these questions Hotpoint will remain at your disposal should any further clarification be required.

Finally, on behalf of all at Hotpoint we would like to emphasise again how sorry we are to hear of the tragic death of Mr Lapping as a result of this incident

Yours sincerely



Quality and Claims Manager
Indesit Company UK Ltd