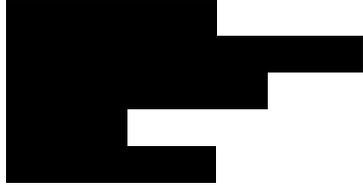


August 27, 2007



Insured: [REDACTED]
Claim #: 07-21448-2.1 EDC File #: 820-07
D.O.L. = 07/01/07 or 07/02/07 (Reported)

Final Report

This letter serves as our final report on the above referenced claim involving reported lightning damage to a rooftop Heating, Ventilating and Air-Conditioning (HVAC) unit, at a restaurant located at [REDACTED], Allentown, PA.

Introduction

Figure 1. Insured Property
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Equipment Damage Consultants has been asked to provide an on-site damage assessment, invoice/quote review and Like Kind and Quality (“LKQ”) analysis of the HVAC unit reportedly damaged at the Insured property (Figure 1) to determine the appropriate Replacement Cost Value (“RCV”).

Investigation

It was reported by the Insured that on either Wednesday August 1 or Thursday August 2 in the evening, the approximately 11-year-old rooftop HVAC unit serving one area of the restaurant malfunctioned due to a lightning striking (neighbor reported witnessing electrical sparks and smoke coming from the unit). The exact date of the event was unknown since the loss of cooling reportedly was not evident until the next day. The facility did not lose power as a result of the event.

Equipment Damage Consultants (EDC) was contacted by the Insurer initially on Thursday, August 16 and asked to conduct a lightning verification analysis on the first reported date of loss of August 1, 2007. This analysis, the report of which is provided as an enclosure to this document, revealed that no lightning strikes had occurred within the standard five-mile radius of the Insured property on August 1, 2007.

On Friday August 17, the Insurer asked us to visit the site to further assess the potential cause of the loss. A site visit was arranged for Thursday, August 23 with Mr. [REDACTED] of the Insured, who also noted during this initial call that repair components for the HVAC unit had been purchased and were due to be installed on this same date.

At the site, we met with Mr. [REDACTED], who provided us with copies of two invoices for the HVAC unit, both from [REDACTED] Plumbing, Heating & Air-Conditioning of Saylorsburg, PA (as enclosed). The first receipt was for a new 5-ton compressor at \$2,996.34 and the second for a new cooling coil at \$1,738.42 including sales tax. Mr. [REDACTED] was not on-site during our assessment since he was still waiting for delivery of a compressor hard start kit from the manufacturer. However, we were able to interview Mr. [REDACTED] via telephone while on-site.

The service provider noted that the failed unit was a Goodman 5-ton rooftop unit with a Copeland compressor. Mr. [REDACTED] stated that the compressor exhibited burnt wiring and complete oil (refrigerant lubricant) leakage. He also noted that during static pressure testing, the cooling coil was found to have a significant internal refrigerant leak, requiring replacement of the coil as well as the compressor. Although the total cost of repair has approached the material cost of a new rooftop unit, the service provider noted that the sequence of diagnostics and damage findings (compressor found damaged and ordered first before coil damage found) led to the decision to continue the repair effort. Mr. [REDACTED] stated that the Insured has fully paid for the new compressor and cooling coil, but that labor and additional parts cost were not yet known. He estimated that the labor would require 12 hours at \$65.00 per hour. He also planned on a full pressure cleaning of the unit due to the amount of oil leakage from the compressor.

Unfortunately, we were unable to interview the witness to the damage event, who is a maintenance person for [REDACTED] Professional office building across from the Insured property on [REDACTED] St. Mr. [REDACTED] noted that he personally was not on-site during the event, but that the witness described hearing a noise and then seeing sparks and smoke coming the rooftop unit during a storm. This description was provided to the Insured several days after the event.

Findings

Relative to the most probable cause of the loss, it appears that the HVAC unit failed due to normal wear and tear. The Copeland compressor (model ZR57K3-PFV-250, serial number 95K488472), as shown in Figure 2, did exhibit both the described refrigerant oil leakage as well as thermal damage to the internal AC power cable connectors (see Figure 3). However, the finding of cooling coil damage (see Figure 4) points to refrigerant leakage and subsequent loss of oil lubricant as the mechanism which caused the failure event. Loss of the lubricant would cause the compressor to overheat, leak further oil, draw continuous high current and melt the internal power cable connectors as was witnessed during our inspection of the compressor. The lack of tripped breakers on the unit and on the single phase 208V circuit adds evidence to this failure mechanism.

While a direct lightning strike to the unit could have led to the electrical damage seen on the compressor, it would not have caused the damage to the internal, well shielded cooling coil.

These factors have been confirmed by two additional HVAC system experts with over 15 years filed experience each.

Figure 2. Damaged compressor



Figure 3. Compressor AC connector



Figure 4. Damaged coil



The finding of no lightning strikes near the property on the initially reported 08/01/07 loss date combined with the uncertain actual D.O.L. led us to also exam weather databases for conditions of days prior to and after the probable event date. No precipitation or storm events occurred in the area over the period of July 31 to August 4, 2007. A direct electrical overstress (EOS) event related to the electrical power utility, Pennsylvania Power & Light (PPL), also could not be confirmed since this company had not responded to our request for outage information as of the date of this report. However, no evidence of event damage to the external electrical system (pole, transformer, site connections or meter) was seen at the site and there were no reported outages or damage to other 120V or 240V appliances at the site.

It is therefore our opinion that the HVAC system failure event occurred as a result of normal wear and tear, and is therefore not a covered cause of loss.

Conclusion

Based upon our interviews and on-site damage assessment, it is our opinion that the HVAC system failed as a result of normal wear and tear, and therefore is not a covered cause of loss.

Additional photographs of the Insured property are provided at the end of this report. We have also enclosed copies of the HVAC service provider invoices and the August 1, 2007 lightning verification report.

This concludes my report at this time.

Submitted by,

Mark E. Krzyzanowski
Equipment Damage Consultants

Figure 5. Property sign
Photo Removed

Figure 6. External compressor
connector



Figure 7. Internal compressor
connector



Figure 8. Rooftop unit



Figure 9. Electrical service pole



Figure 10. Electrical service entry
Photo Removed