

STATE OF MINNESOTA

DISTRICT COURT

COUNTY OF PINE

TENTH JUDICIAL DISTRICT

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Illinois Farmers Insurance Company,  
and subrogee of Randy and Lori Carlson,

Court File No. 58-CV-05-34

Plaintiff,

vs.

**FINDINGS OF UNDISPUTED FACT,  
CONCLUSIONS OF LAW,  
AND ORDER**

Heatco, Inc. and Crown Boiler Co.,

Defendants.

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The above-captioned matter came on for Hearing before the Honorable Krista K. Martin, Judge of District Court, at the Pine County Courthouse, Pine City, Minnesota, on the 28<sup>th</sup> day of March 2006. Attorney Michael Ortner, Minneapolis, Minnesota, appeared on behalf of the Plaintiff. Attorney George Hottinger, Minneapolis, Minnesota, appeared on behalf of Defendant Heatco, Inc. Attorney Patrick M. Biren, Minneapolis, Minnesota, appeared on behalf of Defendant Crown Boiler, Co. Defendant Heatco moved for Summary Judgment. Defendant Crown Boiler joined Defendant Heatco in its motion for Summary Judgment.

Based upon the arguments of counsel and all the files, records, and proceedings herein, the Court hereby makes the following:

**FINDINGS OF UNDISPUTED FACT**

1. In October 2000, Defendant Heatco installed a CT4 Crown Boiler 121,000 BTU oil burner in the home of Randy and Lori Carlson (hereinafter, the "Carlsons"). The boiler was assembled by Defendant Crown Boiler Company which obtains its parts from a number of manufacturers. The Plaintiff insured the Carlsons' home.
2. Oil burner boilers produce a significant amount of soot during operation. While some of the soot is vented out of the unit, soot and deposits also build up within the burner and boiler, necessitating regular maintenance to keep the system operating efficiently.

3. The Carlsons never contacted Defendant Heatco to service the boiler. Neither Heatco nor any other professional ever serviced the boiler between the time of installation and February 2003.
4. Between 2001 and 2003, the Carlsons' son found that the boiler had shut off and he temporarily disconnected the line between the fuel tank and the furnace so that he could get air out of the line and fuel into it. Neither the Carlsons nor their son notified Defendant Heatco as to any problems they may have had with the boiler. The boiler's installation instructions provide two cautions at the end: one, "Do not tamper with the unit or controls"; and two, "Never burn garbage or paper in the unit . . ."
5. On February 18, 2003, the Carlsons discovered frozen and burst pipes in their home. The burst pipes caused water damage to the home. The Plaintiff provided insurance coverage to the Carlsons for the damage to their home.
6. On February 19, 2003, the Plaintiff's investigator/adjuster was at the Carlsons' home. This investigator/adjuster took pictures of the scene. At this time, the boiler was still connected to the heating system.
7. Between February 19, 2003 and March 4, 2003, the boiler was disconnected and replaced by Mueller Plumbing and Heating and was stored in the Carlson home until March 4, 2003.
8. The Plaintiff retained OnSite Engineering to inspect the boiler. On March 4, 2003, OnSite Engineering transported the boiler to its Prior Lake facility. As the boiler had already been disconnected, OnSite Engineering never performed an inspection of the full heating system.
9. Defendant Heatco and Defendant Crown Boiler were notified of the damage to the Carlson home allegedly caused by the boiler when they were served with the Summons and Complaint in this matter on February 18, 2005, two years after the Carlsons discovered the damage.

#### **PLAINTIFF'S INVESTIGATION AND EXAMINATION**

10. Once at the facility, OnSite Engineering examined the boiler's electrical controls and believed that the controls were functional. Also, OnSite indicated that the igniter and pump motor were intact and were undamaged electrically.

11. The Plaintiff retained engineer S.N. "Sid" Bhatt to examine the boiler. The Court did not receive any report produced by Mr. Bhatt; however, Mr. Bhatt supplied the Court with an affidavit. Additionally, the Plaintiff outlined Mr. Bhatt's findings and opinions in its answers to Defendant Crown Boiler's interrogatories. On or about October 14, 2003, Mr. Bhatt performed a visual inspection of the boiler and burner at the OnSite facility. In this visual inspection, Mr. Bhatt observed signs of sooting in the boiler and at the burner; heavy sooting in the boiler; that the air shutters for the burner were practically closed; and that the air shutter openings were not in accordance with the manual instructions. Mr. Bhatt found that the boiler's combustion chamber was contaminated from being submerged in water. Mr. Bhatt's preliminary opinion was that the problem was most likely because of incomplete combustion of the fuel oil, which would cause excess sooting. Excess sooting would cause the boiler to shut itself down by obstructing the flame sensor. Mr. Bhatt opined that it is likely that the sooting was the result of insufficient make-up air for the burner. With insufficient air in the combustion process, soot or carbon is produced. On or about December 8, 2005, along with experts retained by the Defendants, Mr. Bhatt performed a second, more comprehensive inspection. Mr. Bhatt opines that the air shutters of the boiler were set in positions that allowed too little air to allow the boiler to operate properly; that the air shutter positions contradicted the manufacturer's recommendations; that operating the boiler in these positions would result in excess sooting in the combustion chamber of the boiler; and that the excess sooting in the combustion chamber would cause the boiler to shut down.

#### **DEFENDANT HEATCO'S EXAMINATION AND INVESTIGATION**

12. Defendant Heatco retained Scott Sollars of Crane Engineering to inspect the boiler. The boiler was first inspected by Defendant Heatco at the OnSite facility on December 8, 2005. Defendant Heatco provided the Court with a report prepared by Mr. Sollars. Mr. Sollars stated that for the purpose of the report, he concentrated on combustion related issues with can cause sooting and/or shutdown of the boiler. Mr. Sollars indicated that there are many steps required to ensure a boiler is firing properly after it is installed and that the installer has to follow the manufacturer's instructions to properly adjust the

burner. Mr. Sollars referenced combustion related items in the “check-out” procedures and poor combustion performance in the “trouble-shooting” portions of the installation instructions. From the Court’s review, all items relate to settings and adjustments of the boiler and burner. Mr. Sollars stated that all the items are site specific and can change after the boiler has been in service. Mr. Sollars found that once a boiler is removed, the settings and adjustments cannot be determined. However, all of these items related to installation on not on the manufacture of the boiler. Additionally, Mr. Sollars stated that there is “no way of determining to any degree of certainty how the boiler would have performed in the original installation.” Mr. Sollars does not state how any tests or inspections of the boiler while connected to the heating system after the damage would alter his findings or assist him in ascertaining whether the original installation was correct if all these items could change.

13. Mr. Sollars determined that two other factors outside of the settings and adjustments would affect proper combustion: one, the correct, uncontaminated fuel oil; and two, the cleaning of the boiler on an annual basis. For proper combustion, Mr. Sollars stated that the fuel oil must conform to ASTM D 396. However, Mr. Sollars found that no fuel samples were taken and no testing was done to check for conformance with this standard; thus, it cannot be determined if the fuel oil caused or contributed to this loss. Mr. Sollars also found that no other testing was done on the fuel oil system. Mr. Sollars does not state that the boiler needs to be connected to the original system to determine the fuel oil or to test the fuel oil system. Additionally, Mr. Sollars stated that the boiler must be cleaned on an annual basis for proper combustion of the fuel oil. Again, Mr. Sollars does not state that the boiler needs to be connected to the original system to determine whether the boiler was clean at the time of the incident or cleaned on an annual basis.
14. Mr. Sollars concluded that without the ability to inspect and test the boiler onsite, “attached to the original fuel supply, vented with the original vent, using the original barometric damper in the original exhaust pie, etc. it is not possible to determine to any reasonable degree of certainty why the subject boiler shut down.” Mr. Sollars does not provide any opinion as to how any inspection of the entire heating system would affect the original settings. Defendant Heatco does not explain how they are at an evidentiary

- disadvantage. If anything, it appears to this Court that Defendant Heatco would have an evidentiary advantage by having the ability to argue that all other installation settings and adjustments were correct. Defendant Heatco has not asserted how inspection of the boiler as connected to the heating system would prove or disprove an installation defect especially considering Plaintiff's sole allegation regarding the setting of the air shutters.
15. Defendant Heatco has asserted other equally plausible explanations to account for the boiler shut down other than an installation defect. The explanations posited include: one, improper burning of the fuel oil; two, that the homeowners had adjusted the system after it was installed, but before the incident; three, that the homeowners tampered with the boiler; and four, that the homeowners failed to professionally service the boiler as recommended by the manufacturer and installer thereby causing sooting that ultimately shut down the boiler. Defendant Heatco has not asserted how inspection of the boiler as connected to the heating system would prove or disprove any of these alternative theories.
  16. Defendant Heatco asserts that "the removal of the boiler and burner from the system makes it impossible to determine whether the shut-off valves had been properly adjusted; and also make it impossible to determine whether the barometric [sic] damper was properly set." Defendant Heatco asserts that this is something other than an installation defect, but provides no information on how this is not involved with installation. Moreover, when Mr. Sollars discusses the combustion issues determinable by the whole heating system, he specifically refers to the installation instructions.
  17. The Court has reviewed the report of Mr. Sollars as well as the installation instructions/manual. The Court could only determine that the explanations for combustion related issues with the heating system lead to Defendant Heatco for installation settings and the homeowners for possible adjustments of controls and failure to maintain the system. Thus, the Court cannot see how any inspection of the boiler attached to the heating system is helpful to the defense.
  18. Defendant Heatco has not asserted how removal of the boiler from the site prevents it from presenting or testifying about other possible combustion related issues not related to installation, settings, and adjustments or about another's ability to change or tamper with those settings and adjustments.

