Licence Appeal Tribunal

Tribunal d'appel en matière de permis

Ontario

5558-ONHWPA-CLAIM

AN APPEAL OF A DECISION OF TARION WARRANTY CORPORATION UNDER THE *ONTARIO NEW HOME WARRANTIES PLAN ACT*, R.S.O. 1990, c. O.31

TO DISALLOW A CLAIM

TRIBUNAL: KENNETH W. KOPROWSKI, Vice-Chair

APPEARANCES: THE APPLICANT, self-represented

GREGORY W. BANKS, Counsel, representing Tarion Warranty Corporation

GREG DIMITRIOU, Counsel, representing Watermark Developments Limited, the Added Party

DATES OF HEARING: November 8, 9, December 20, 22, 2010; February 14, April 4, 5, 8, May 9, 2011 Toronto

DECISION AND ORDER

This is an appeal by the Applicant to the Licence Appeal Tribunal (the "Tribunal") from a decision dated June 25, 2009, of Tarion Warranty Corporation ("Tarion") under the *Ontario New Home Warranties Plan Act* (the "Act") denying the Applicant's claim.

BACKGROUND

The decision letter of June 25, 2009, Exhibit #1, relates to several complaints of the Applicant. One of the complaints was that the furnace blower made noise when in operation and that there was a vast temperature difference between the basement and the top floor bedroom. The reason that the Tarion Field Claims Representative gave for denying that particular claim was that there was no defect in materials that amounted to a breach of the One Year Materials Warranty.

The Applicant submitted her Notice of Appeal, dated July 15, 2009. It was filed at this hearing as Exhibit #2.

Subsequently, on a re-inspection on January 12, 2010, there was a significant temperature discrepancy found between floors. Temperatures of 17 degrees Celsius and 31 degrees Celsius were recorded on the lower and upper floors respectively. Tarion determined that this problem was a warranted claim, despite the original denial of the temperature differential in the letter of June 25, 2009. The same Field Claims Representative suggested that the remedy for the problem would be for the builder to install the baseboard heater that he had neglected to install when building the house. The Applicant suggested the installation of radiant floor heating, but the Field Claims Representative considered that solution to be a much more costly repair and one which would not function any differently than baseboard heating.

On January 17, 2010, the Applicant complained that the air handler had become a problem again. Tarion denied the claim on the ground that the furnace, including the air handler, was a rental unit. Therefore, a further decision letter of March 4, 2010, Exhibit #7, stated, among other things, that items that were not sold to the Applicant as part of the property purchase, "and which are not owned by" the Applicant are not covered by Tarion's warranty.

The Applicant filed no further Notice of Appeal in response to Tarion's subsequent decision letter of March 4, 2010, nor was there any evidence that Tarion or the Added Party at any time required her to do so.

At the commencement of this hearing, the parties filed, as Exhibit #3, an unsigned document entitled "AGREED STATEMENT OF FACTS." The title was somewhat of a misnomer, in that, at the commencement of this hearing, the Added Party wished to have an additional fact added and to have certain facts removed entirely. As amended, the document read as follows:

1. An Agreement of Purchase and Sale ("APS") was signed on April 17, 2006 for the purchase of a new home (the "Home") by the Applicant from the Added Party.

2. The Home is a four-storey townhome, with the first floor being "slab on grade".

3. A Certificate of Completion and Possession was signed on December 4, 2007.

4. The APS provides that the hot water tank, furnaces, and air conditioning units installed in dwelling (*sic*) will be leased from a third party and shall not become the property of the purchaser on closing.

5. Schedule A of APS (*sic*) outlines that HVAC (*sic*) will include leased hot water tank and High Velocity forced-air gas heating system and central air conditioning.

6. The APS and the drawings in the attached schedules do not reference baseboard heating.

The Added Party informed the Tribunal that the above paragraph should reference paragraph 1 of Schedule "X" of the APS.

7. A Consumer Rental Agreement between Morenergy and the Applicant was signed on December 7, 2007.

8. Historic problems with lockout of the air-handler commenced in December 2007.

9. The Applicant has experienced problems with heating system from December 2007 to date with lack of heat to lower two floors and excessive heat on upper floors.

10. The Applicant filed a 1 year form, dated December 1, 2008, which included a claim regarding the air handler not coming on and poor heat distribution.

11. At a Tarion conciliation inspection on January 12, 2010, it was determined that there was a significant temperature discrepancy between floors. Temperatures of 17 degrees Celsius and 31 degrees Celsius were recorded on the lower and upper floors respectively. This was determined to be a warranted claim by Tarion.

12. Tarion issued a decision letter, dated March 4, 2010, in which it indicated that the Added Party's original HVAC design called for baseboard heating on the main floor of the Home, but had not been installed during construction of the Home. Therefore, based on the Added Party's original design, it decided that the installation of baseboard heating should resolve the heating issue. It is now recognized by Tarion that baseboard heating on the main floor will not completely resolve the heating issue be (*sic*) experienced by the Applicant.

13. The Applicant's expert prepared a Scope of Work dated August 3, 2010. It adopted certain comments by the Added Party's expert.

Paragraphs 14 and 15 were struck from the Agreed Statement of Facts at the request of the Added Party.

The purchase price of the Applicant's premises was stated in the APS to be $387,900.00.

The hearing required nine days to complete, commencing on November 8, 2010, and ending on May 9, 2011. At the conclusion of the hearing, the Tribunal ordered the parties to serve and file written submissions in accordance with a schedule set by the Tribunal. The Tribunal received the last submission on August 12, 2011.

In her written submissions, the Applicant requested that this Tribunal order costs against the Added Party in the amount of $800.00 per day for each day of the hearing for the reasons set out in her submissions. The Added Party denied that costs should be ordered. Tarion made no submissions as to costs.

ISSUES

1. Whether, in this case, the Applicant's components that are subject to the rental agreement are excluded from warranty coverage under the Act?

2. Whether only the heating component of the Applicant's heating and cooling system, and not the air conditioner, can be the subject of the appeal before this Tribunal?

3. If the Applicant's claim is warranted, whether the remedy to correct the Applicant's temperature differential problems should be the remedy recommended by the Applicant's expert or the remedy recommended by the Added Party's expert?

4. Whether the Applicant should be awarded compensation on the basis of breach of warranty and proven damages, or should Tarion and the Added Party be ordered to undertake further investigation and perform any work necessary to provide an HVAC system that fulfills the requirements of all the warranties under the Act?

5. If compensation should be awarded to the Applicant, how much should the compensation be?

6. Whether the Applicant should be awarded costs against the Added Party in the amount of $800.00 per day of hearing as she has requested?

FINDINGS

On the evidence presented to this Tribunal and for the reasons that follow, the Tribunal finds as follows:

1. The Applicant's components are not excluded from warranty coverage under the Act.

2. The heating component and the air conditioner can be the subjects of the appeal before this Tribunal.

3. The remedy to correct the Applicant's temperature differential problems should be the remedy recommended by the Applicant's expert.

4. The Applicant should be awarded compensation.

5. The compensation should be in the amount of $40,000.00.

6. The Applicant should not be awarded costs.

EVIDENCE

Evidence on behalf of the Applicant

Evidence of the Applicant

The Applicant stated that, on signing the APS, she understood that she would have to sign a lease for her heating equipment, hot water tank, air conditioner and air handler. She signed an interim occupancy agreement on December 7, 2007, and received a ten-year rental contract with a company named Morenergy. She said that she signed the contract because, if she did not, she could not close the transaction. She moved into the premises on December 10 and immediately experienced problems with having no hot water at all. She then had hot water in her sinks, but, for a period of three months, did not have hot water in her shower or bathtub. She complained to both Tarion and to the builder. Eventually, by about February, 2008, the hot water tank issue was resolved. It was at that time that Morenergy added a storage tank to repair the problem, but the rental cost to the Applicant was $20.00 more each month. She said that she had no choice but to sign the additional rental contract.

On the first weekend after signing the occupancy agreement, she noticed that she had no heat. A repair was done the following week, but the entrance way of her four-storey house was quite cold and the powder room was, in her words, “unusable.” The air handler that was to distribute the water-boiled heat throughout the house would shut down. Sometimes, she could re-set the air handler by turning the power switch off and on. She reported this problem frequently to the builder’s representative.

Then, many repair persons came through her house. She stated that the circuit boards inside the air handler were replaced four to six times. As well, numerous other parts were replaced, also four to six times. In December, 2008, the air handler began to vibrate, so that she could not sleep. She also had no heat for two weeks, until a fan motor was replaced.

In about April or May of 2009, a representative from the distributor of the air handler came to her house. The Applicant was told that the fan setting was set too high. As a result, the fan setting was turned down, but this step did not correct the problem, because the boiler or the air conditioner would come on, but the air handler would not. On one occasion, the air handler came on, but the air conditioner did not. On yet another, the air handler came on, but the boiler did not.

She stated that the most recent replacement of the circuit board before this hearing commenced on November 8, 2010, was in September, 2010. She stated that the “lock-outs” of the air handler, to use her words, tended to occur when it ran constantly, either when it was very hot or very cold outside.

She stated that she still had issues with her hot water, but those issues were not subjects of this appeal.

She described her house as having four levels. In the winter, the entrance way is “freezing,” to quote her testimony. As well, the dining room, living room and kitchen were all difficult to heat to 22 degrees Celsius as required by the Ontario Building Code. It was often hotter in her upper levels than in her lower levels. She stated that, at one point in time, Tarion measured a 14 degree differential between her upper and lower levels, although she did not state when the measurements were taken.

She stated that the problem of a temperature differential in her premises has existed since she has moved in. She also still has the problem of the air handler locking out.

She also stated that, if she complained to the Added Party about the problems, sometimes he would call a repairer and sometimes she would have to call. Between 2007 and 2009, she stated that the Added Party never told her that the Added Party was not responsible for the equipment and that she should call Morenergy about the problems. The first time the Added Party told her to call Morenergy was in March, 2010. She also stated that the Added Party never told her that Tarion did not consider the problems to be the Added Party’s responsibility.

On cross-examination by Counsel for Tarion, the Applicant acknowledged that she did not specify a problem with the air conditioner in her year-end form found at Tab 3 of Exhibit #5. In response, the Applicant stated that, in that form, she referred to “Wide discrepancy in temperatures between floors.” She stated that the air conditioner was part of this problem, although the problem was worse with regard to the heating of the premises in the winter.

On cross-examination by Counsel for the Added Party, the Applicant acknowledged that, when she signed the APS, she knew that she would be renting the hot water tank, the air conditioner and the furnace. She took no steps to identify the owner of that equipment at the time of signing the APS nor did she do so at the time of the interim closing in December, 2007. She stated that she understood that the lessor, although not referred to by name in paragraph 12 of the APS, was Morenergy. She closed the transaction on the understanding that, when she moved in, the equipment would function properly on a consistent basis. In this respect, she was disappointed.

The Applicant did not ascertain the name of the manufacturer of that equipment. There was a telephone number on the boiler for a business, but, when she called that number, she was told that the business was responsible only for the air handler. Consequently, she spoke to the Added Party’s site supervisor about the problem that there was no heat in her unit. She dealt with the Added Party at this stage because the equipment was new and she expected the builder to provide her with properly operating equipment. She also found that her move to the premises was stressful, so that, whenever she experienced a problem, she approached the party that built her premises. The problems at that time, shortly after she moved in, involved the air handler, the hot water, and the temperature discrepancy. Since then, the problem with the hot water had been resolved in about March, 2008, when she rented a hot water storage tank at an additional rental of $20.00 per month. The storage tank was not part of this appeal.

The Applicant further confirmed that this was the first time she purchased a newly built house. Also, it was the first time that she owned a house that had a high velocity heating, ventilation and air conditioning ("HVAC") system. She did not know what that system was nor did she enquire how it worked before she signed the APS.

The Applicant also confirmed with Counsel for the Added Party that one of the heating issues she had was in the entranceway to her house. The Added Party neglected to install a baseboard heater at that location which should have been installed as part of the system. However, the Applicant resisted the installation of a baseboard heater on the first floor after she took possession of the premises because both Tarion and the Added Party suggested that its installation would be a complete remedy and final solution for her heating problem, but she disagreed. She referred to the second decision letter of March 4, 2010, from Tarion, filed as Exhibit #7. On page two, in the last paragraph, Tarion's Field Claims Representative states, among other things:

> The builder is/has offered to installed (*sic*) the baseboard heating as specified in the original design. Allowing the builder to rectify this oversight should address the heat distribution problem you are experiencing.

The Applicant did not accept this proposed remedy as a complete solution to the problem of the temperature differential. To her, it did not make sense that the installation of the baseboard heater on the first floor would solve the temperature differential that she experienced in the upper floors of the house. Her further concern was that the installation of the baseboard heater would carry with it a warranty for only one year and that warranty would relate only to the baseboard heater and not to the entire heating problem.

In the circumstances of this case, the Tribunal considers those concerns to be reasonable.

The above paragraph of the letter of March 4, 2010, also refers to the fact that the Applicant wanted radiant heating installed in the flooring, but this was not provided for in the original APS.

The Applicant had stated that she did not receive co-operation from the Added Party in dealing with the problem, yet, on further questioning, the Applicant acknowledged that other contractors had attended her house on numerous occasions in an attempt to correct the problem, as arranged by the Added Party, and at no cost to her. She added that, even when the air handler was working properly, but she was still not getting adequate heat in the house, she felt that her complaint was being ignored.

She stated that she herself contacted Morenergy in March or April of 2009 and again in August of 2010. A contractor was sent out in response, but the problems persisted.

She also installed an air humidifier, but that had no impact on the system as far as she could tell.

She confirmed that she had reviewed the reports of her expert witness, Mr. Bowser, and that of the Added Party's expert, Mr. Cooke. She stated that she preferred the opinion of Mr. Bowser because of his excellent qualifications and because she believed that his opinion was based on extensive investigations and testing. She questioned Mr. Cooke's qualifications and the process he used in arriving at his conclusions. She felt that Mr. Bowser's recommendations were based on actual data that would result in her having a system that works. On the other hand, she did not agree with the recommendations of Mr. Cooke found in his report of October 20, 2010, found at Tab 8 of Exhibit #3.

She also confirmed that she did not want the Added Party to undertake to repair the problem at her premises because, over the course of this dispute, there had developed a lack of trust between her and the Added Party. She stated that she wanted Tarion to take ownership of the problem and have the repairs done, based on Mr. Bowser's scope of work.

She further stated on cross-examination that she had contacted Morenergy to say that she should not have to pay her rental fee because of the problems she had been having, but was told that that Morenergy was not responsible. She has not asked Morenergy to replace the air handler and the air conditioner condenser.

Evidence of Dara Bowser

Mr. Bowser is an accredited building technologist. He was qualified at this hearing as an expert to give an opinion on the design, investigation of problems and remedial steps relating to HVAC systems and building envelope. In accordance with Rule 6.4.2 of the Rules of Practice of this Tribunal, the Applicant provided a two-page curriculum vitae, found at Tab 4 of Exhibit #3, of Mr. Bowser's extensive experience and expertise. It is obvious that Mr. Bowser has an extensive background in HVAC design, installation and repair for both conventional and, relevant to this case, high velocity systems, and in the assessment of building envelopes. He has conducted in the range of 50 to 100 inspections per year of HVAC systems. He has investigated 15 to 20 high velocity systems resulting in remedial work and in the determination of which aspects of remediation are successful and which are not.

He has testified previously at hearings before this Tribunal as an expert for either the homeowner or for Tarion. He is not a professional engineer, but, as he testified, the Ontario Building Code does not require HVAC drawings to be stamped by a professional engineer.

He testified that the system installed in the Applicant's premises was designed by one M.O. At page 10 of Mr. Bowser's report of March 19, 2010 ("report" or "first report"), found at Tab 6 of Exhibit #3, Mr. Bowser states that M.O. was qualified to design systems for buildings of no more than three storeys in height, whereas the Applicant's premises are five storeys high. The fifth storey is the location of the HVAC system. On the other hand, Mr. Bowser's evidence was that he himself is qualified to design systems for buildings higher than three storeys.

The Applicant contacted Mr. Bowser in January, 2010, and he came to the house in March. On page 3 of his report, he set out the problems that the Applicant related to him. These problems, without reciting the entire list, included the air handler locking out during both heating and air conditioning operations, vibrations in the air handling systems, the powder room at the entry level being unusable in the winter because of the low temperature in it, and the wide temperature differential in the winter between, on the one hand, the lower floor and, on the other hand, the master bedroom and uppermost floor. The Tribunal notes that these concerns are consistent with the complaints that the Applicant has been making to the builder and to Tarion since she took possession of the premises in December, 2007.

Mr. Bowser conducted several tests of the heating and cooling system and of the building envelope. These tests included tests of the duct system and an infrared survey of the building to determine where the outside air entered the house and where inside air leaked out. He also reviewed the workmanship of the installation of the system components. Determining the amount of air leakage was important because the amount of air leakage had an impact on the heating and cooling requirements of a house. He found, as recited on page 6 of his report, that the house was less airtight than a new house should be.

His observations are found at pages 5 and 6 of his report. Those that he recited in his testimony were as follows:

- In the fifth level mechanical room, the boiler and hot water recirculation pump received power from a junction box that received its power via electrical cable and plug. But, a plug is not sufficient. There should be a hot-wired shut-off switch to turn the boiler and pump on and off. The arrangement in the Applicant's house did not conform to good workmanship or to the Canadian Electrical Code.

- There was no insulation on the piping even though the design drawings approved by the city where the house was located required insulation.

- Piping was minimal and was installed backwards. There was only one shut-off valve, even though the manufacturer required several shut-off valves.

- Main supply ducts were not well sealed. With an infrared camera, Mr. Bowser noted that many spots in the walls were warmer than they should be. He, therefore, concluded that there were leaks in the ductwork.

- Some supply duct joints in the mechanical room were not sealed with foil tape, so that air leaked out during operating conditions.

- Somewhere between the air handler and the air outlets, the Applicant was losing 40 per cent of the air flow, as outlined in paragraphs 4.2(a) and 4.3(a) on pages 7 and 8, respectively, of his report.

From all his observations, Mr. Bowser concluded that, because the heating system was located on the top floor, the upper part of the house overheats, whereas the lower parts do not receive enough heat. This is not normally the case when the furnace and air conditioner systems are in the basement of a house, because, if the system is at the top of a house, and the ducts leak, the air (warm air if the heating function is running) leaks out at the top, whereas cold air enters at the bottom of the house through the building envelope and insufficient heat reaches the bottom floors.

He also stated that there are no standards in the Ontario Building Code relating to the amount of permissible duct leakage. He stated that 20 per cent duct leakage is normal. But, for a system such as the Applicant had, expected duct leakage should be 10 per cent or less. In the Applicant's house, the main duct leakage appeared to be along the main trunk ducts in the ceiling bulkheads, as noted on page 8 in paragraph 4.3(f) of his report. Leakage in airflow of 40 per cent that Mr. Bowser found in the Applicant's house was a result of poor workmanship in not following duct sealing protocol.

He also found that the air handler that was installed was an HE-71. The design documents called for an HV-71 air handler but the one actually installed was comparable, and actually had a greater variety of air speed settings. Nevertheless, Mr. Bowser has found, in the past, that these air handlers perform less than the manufacturer's specifications, by as much as 40 per cent.

His observations about the air conditioner included the observation that the air conditioner condensing unit was not mounted in accordance with good practice. It was placed on a concrete patio stone, which, in turn, was mounted on polystyrene insulation blocks, but this material does not prevent vibration and has poor resistance to sunlight.

Also of significance relating to the air conditioner was that the 2.5-ton unit that was installed requires a minimum airflow of 900 cubic feet of air per minute ("CFM"). But, in the Applicant's house, even with all dampers open in the house, airflow was only 433 CFM, as noted in paragraph 4.2(b) of page 7 of Mr. Bowser's report. Mr. Bowser measured the duct pressure to allow airflow of 433 CFM to be 1.168" water gauge ("w.g."). However, the HVAC design approved by the city was based on an airflow of 740 CFM at 1.5" w.g. external static pressure. But, in the Applicant's existing ductwork, to produce 740 CFM would require 3.4" w.g. external static pressure. That figure is not reasonable to have in a residential ductwork system. It would be noisy and might cause the ductwork to burst.

Also, the air handler blower horsepower was noted to be 0.75. To produce an airflow of 740 CFM in the existing ductwork, the horsepower would have to be 3.74. This size motor is an industrial size, not residential. As well, such a large motor would consume a great deal of energy.

Mr. Bowser recommended that a 1.5-ton air conditioner would be sufficient for the Applicant's house. The smaller unit requires an airflow of 540 CFM and could still adequately cool the premises and would require a smaller scope of duct repairs.

On the other hand, if the 2.5-ton air conditioning unit were kept, then, to provide enough airflow for it, the renovations to the ductwork would be more extensive than even he is recommending.

Mr. Bowser then gave evidence about his heat loss and gain calculations.

He performed heat loss calculations for each room in the house (Exhibit #14). He found the following results for the lower level:

Entry level laundry room		1335 btu/hr
Entry foyer		2638 btu/hr
Powder room		927 btu/hr
	Total	4900 btu/hr

The electrical value of the above is 1440 watts (1 watt equals 3.412 btu/hr). Therefore, if only a 500-watt baseboard heater were installed, as Tarion had suggested in its second decision letter of March 4, 2010, the heat loss would be greater than the heat that would be supplied by the baseboard heater. The baseboard heater could not heat the space by itself. There should be warm air supply outlets at the floor level in this area, and not in the ceiling, as in the Applicant's house. Furthermore, the baseboard heater would do nothing to improve the temperature discrepancy between the lower floors and the upper floors.

In his report, at page 14, Mr. Bowser also states that the duct sizing in the Applicant's house does not comply with sentence 6.2.1.1 of the Ontario Building Code. The duct sizing in the Applicant's house is the sizing required by the HVAC manufacturer, but it does not conform to the Code.

Furthermore, sentence 6.2.1.2 of the Ontario Building Code requires that the Applicant's house be insulated and equipped with heating facilities capable of maintaining an indoor air temperature of 22 degrees Celsius at an outside January temperature of minus 18 degrees Celsius. But, the Applicant's system is not capable of meeting this requirement because the heating output in her house is 30,421 btu/hr whereas the requirement is 34,034 btu/hr. Therefore, the Applicant's heating output is 11 per cent less than is required. This is noted at page 15 of his report.

Furthermore, the Applicant's house also does not comply with sentence 6.2.4.4 of the Ontario Building Code because not all the rooms are supplied with enough heat to offset the heat loss in that room. In the Applicant's house, 8 out of 11 rooms did not comply, as noted on page 15 of his report.

Mr. Bowser further testified that he received Mr. Cooke's report of June 28, 2010. That was a report of Mr. Cooke's findings and recommendations on how to resolve the HVAC problems at the Applicant's house. Mr. Cooke was the expert retained by the Added Party. Mr. Bowser and Mr. Cooke then went to the Applicant's house to do further testing. Mr. Bowser then prepared a draft scope of work and gave a copy to the Added Party and to Mr. Cooke.

He later made some changes at Mr. Cooke's suggestions. Mr. Bowser's scope of work dated August 3, 2010, is found at Tab 12 of Exhibit #3. Mr. Bowser received no further information, correspondence or test results from Mr. Cooke after August 3, 2010, until he received Mr. Cooke's report of October 20, 2010, found at Tab 8 of Exhibit #3.

Mr. Bowser's scope of work is found at Tab 12 of Exhibit #3. In his remediation plan, he proposes that he act as the consultant throughout the entire remediation process.

The scope of work includes the following repairs and other remediations, as numbered in that document:

2. Repair garage ceiling, made necessary because of the installation of new ducts.

3. Air-seal under-side of stairs, to correct the air leakage path.

4. Modify existing air conditioner. Mr. Bowser agreed to Mr. Cooke's suggestion to modify the existing air conditioner to produce 1.5 tons of output at an airflow of 540 CFM, instead of replacing the air conditioner as Mr. Bowser originally suggested.

5. Replace the air conditioner if modifying it, as in step 4, above, is not successful.

6. Renovate existing boiler piping. This includes the installation of a new independent electrical circuit.

7. Renovate existing supply trunk ducts.

8. Replace existing 2" supply branches with new 3" supply branches. This includes steps to prevent air leakage.

9. Provide new 3" diameter supply branches where designated by the drawings that Mr. Bowser prepared (Tab 9, Exhibit #3).

10. Provide new 2" diameter supply branches where designated in the drawings in Tab 9, Exhibit #3.

11. Provide exterior door weather stripping.

12. Provide air sealing of ground floor baseboards.

13. Provide air sealing of exterior wall penetration to provide a seal around any opening on the exterior of the building such as the dryer duct.

14. Provide air sealing and insulation at exterior wall and ceiling assemblies when exposed due to the work of renovating ductwork.

15. Provide vapour barrier on fourth floor ceiling (under-side of roof deck).

16. Provide baseboard heater in foyer.

17. Provide final repair and paint to an “as new” condition or, if existing colours cannot be matched, paint the entire room.

18. Materials and Equipment.

19. Protection and Coordination and safekeeping of owner’s possessions during work.

20. Testing by the consultant of air tightness, airflow, air handler heating and cooling output.

In his letter of September 20, 2010 (Tab 13, Exhibit #3), Mr. Bowser later recommended that the air handler be replaced. He testified that he had performed a test by increasing the airflow of the air handler. However, when he did that, it locked out, again, thereby proving it to be unreliable.

On cross-examination by Counsel for Tarion, Counsel asked for Mr. Bowser’s response to Mr. Cooke’s proposal to remedy the Applicant’s HVAC problems. Mr. Cooke proposed an incremental approach; that is, not all the work would be done at once, but, instead, Mr. Cooke proposed that he would carry out a remedy, determine if it helped, and perform the next step if it did not. Mr. Bowser stated that he would be amenable to that if the Applicant did not have to bear any of the costs associated with that process.

On the other hand, using Mr. Bowser’s method, he explained that, in conjunction with the homeowner’s wishes, work would be done in one area of the house at a time. Then, that area would be returned to its previous state as soon as the work was completed before proceeding to work in another area of the house. In this way, the homeowner would not necessarily have to leave home. His proposal was quicker and more efficient.

Mr. Bowser estimated that his method would take about four to six weeks.

He stated that he had attempted using the incremental approach on another occasion, at another house. That method took two years to complete the work. In such a scheme, there are long periods of time between times of remedial work. Each time that work then renewed, new contractors had to be hired, prices had to be discussed (and prices inevitably increased) and new terms had to be arranged. All this work added to the length of time needed to complete the remediation.

Counsel for Tarion questioned the need for the work outlined in paragraph 4.3 on page 3 of Mr. Bowser’s scope of work (Tab 12, Exhibit #3) to reduce the vibration from the air conditioner.

Mr. Bowser acknowledged that the air conditioner sitting on a piece of plastic insulation and not on concrete patio pavers should not affect the actual cooling of the system.

Similarly with item 6, Counsel questioned Mr. Bowser about the lack of a strainer in the drain system. Mr. Bowser acknowledged that this lack was a future, not immediate concern, for it might reduce the capacity to produce hot water. However, the inference that this Tribunal draws from that testimony is that there is no present difficulty. As for the installation of a new independent electrical circuit, Mr. Bowser stated that this should be installed for safety reasons, even though the lack of one has no impact on the system at the present time.

Counsel also questioned Mr. Bowser about the need for testing in item 20 of the scope of work. Mr. Bowser stated that his fees for testing would be $6,000.00 to $10,000.00, depending on the work required. He also stated that some of the proposed testing was at the request of Mr. Cooke.

Counsel then asked Mr. Bowser to comment on the two alternative courses of action suggested by Mr. Cooke for providing additional, separate heating and cooling capacity in the Applicant's premises. His suggestions are contained in his report dated October 20, 2010, found at Tab 8 of Exhibit #3, beginning at page 2.

Mr. Cooke's First Suggestion

Mr. Cooke's first suggestion involved installing a small heating and cooling air handler dedicated to the first and second floors using heat from the existing boiler and a separate small air conditioning condenser on the roof. The unit could be mounted in the corner ceiling of the garage or in the ceiling of the laundry room.

In response, Mr. Bowser stated that he was not aware of an air handler that was small enough for the area suggested, inasmuch as the Applicant does not have that much room. Regardless, that suggestion still involves cutting into the ceiling, as Mr. Bowser had suggested in his own scope of work. But, Mr. Cooke's suggestion does not resolve the duct leakage problem of the main system in the upper two floors. As well, the current airflow for the existing air conditioner upstairs is not sufficient, and Mr. Cooke's suggestion does not deal with that problem, either.

Mr. Cooke's Second Suggestion

The second suggestion is a ductless wall mounted mini-split heat/cool unit serving the second floor with two 500-watt baseboard heaters on the first floor to match the 2600 btu/hr heat loss of this floor.

In response, Mr. Bowser stated that the heat loss figure that Mr. Cooke uses (2600 btu/hr) is incorrect. The correct figure for the first floor is 4900 btu/hr as Mr. Bowser had measured (Exhibit #14). Therefore, the two 500-watt baseboard heaters will not make up the heat loss for the first floor.

The suggestion also won't affect the heat loss in the kitchen, which is on the second storey, the heat loss for which is 3,356 btu/hr (Exhibit #14). In addition, the cost for the electric heat for the baseboard heaters is high, being twice as much as the cost for natural gas.

Furthermore, if electric heat were used to compensate for the heat loss on the first floor, then the heat produced (4900 btu/hr) would be more than 10 per cent of the calculated heat loss for the entire house (34,041 btu/hr). The Ontario Building Code has different requirements for a house heated by electricity that the Applicant's house does not have, such as wall insulation, ceiling insulation and heat recovery ventilation.

Mr. Bowser confirmed that, in his design, duct air leakage should be a maximum of 20 per cent.

Mr. Bowser then provided a detailed explanation of the extent and nature of the remedial work that he proposed to have done at the Applicant's house to correct her heating and cooling problems. These are shown in several diagrams found at Tab 9 of Exhibit #3. The diagrams are numbered 1009-1A to 1009-1K. It is not the intention of this Tribunal to explain the work illustrated in each diagram. Suffice to say that the remedial work that Mr. Bowser proposes involves cutting into various areas of the ceiling in each level to access the ductwork and to repair or replace the ductwork and other items as the diagrams dictate.

Only the supply ducts need to be worked on, not the return air ducts.

As for the fourth floor, where the master bedroom is located, Mr. Bowser recommended installing a vapour barrier on the ceiling because there is an exposed deck above that room. He had seen no sign of a vapour barrier having already been installed. His estimated cost for this remediation work is based on the vapour barrier being installed over the entire ceiling, a matter that he termed a fundamental component of building assembly.

Counsel for the Added Party then conducted a lengthy cross-examination of Mr. Bowser for one and a half days.

On the question of whether the air conditioner should even be an issue before this Tribunal, Mr. Bowser stated that there was no specific retainer agreement between him and the Applicant that included that item. There was correspondence confirming the terms of his retainer, but he did not have it with him at this hearing. He stated that he was to investigate the problems that the Applicant was having, do a report to be submitted to this Tribunal and attend as an expert witness before this Tribunal.

Before preparing his report, he had not seen the Applicant's First Year Form, her Second Year Form or her Notice of Appeal. During his contractual negotiations with the Applicant, it was Mr. Bowser who set the parameters of his investigation. He knew the Applicant's complaint related to the performance of her heating system and he assumed

that Tarion denied warranty coverage on it. He stated that his task was to point out any violations of the Ontario Building Code and any workmanship issues.

He stated that his report also dealt with the air conditioner because the air conditioner is an integral part of the system and cannot be ignored. The heat and cooling systems are together and cannot be separated. He included both the heating and air conditioning system in his report in order to have a complete technical report. He did not do so to benefit specifically the Applicant or this Tribunal.

Counsel pointed out that the question of air tightness was not even referred to in the First Year Form or in the Notice of Appeal, yet Mr. Bowser dealt with that subject in his report, at pages 16 and 17. To this, Mr. Bowser responded that there is a direct relationship between air infiltration into the building and faults in the HVAC system, resulting in the temperature differential about which the Applicant complained. That is why, in his report, Mr. Bowser recommended changes to the building envelope as well as to the HVAC system itself. Even though Mr. Bowser did not take any temperature readings for the preparation of his report, he included the reference to the temperature differential in paragraph 2(a) on page 3 of his report to confirm that that matter was one of the complaints that the Applicant had made to him at the time that they first spoke.

Mr. Bowser stated that, if no changes were made to the building envelope of the Applicant's premises, then corrections to the HVAC system itself might not result in maintaining the temperature at the first floor level at 22 degrees Celsius, as the Ontario Building Code requires. But, he also stated that, if the air sealing measures are also done, then the main floor will be more comfortable, although he did not think that anyone could accurately predict that.

Nevertheless, he was adamant in saying that, if changes were made to the HVAC system but not to the building envelope, then it might not be possible to keep the temperature on the main floor at the required winter temperature of 22 degrees Celsius.

Counsel also questioned Mr. Bowser as to why, if he was to remain neutral as an expert witness, he informed the Applicant of persons who had problems similar to those that the Applicant was having. Also, he questioned why Mr. Bowser produced to the Applicant previously decided cases involving high velocity systems. Mr. Bowser responded that he had done so because he believed such information would be relevant to the Applicant and provided it without giving advice. He also believed that she should have access to that information as a member of the public, although he stated that the Applicant did her own legal research.

The Tribunal sees nothing sinister in the above actions of Mr. Bowser, and considers that such questions might have been more appropriately addressed at the time of determining whether Mr. Bowser should have been qualified as an expert witness in the first place.

On the issue of suggested remedies for the Applicant's problems, Mr. Bowser estimated that six to eight weeks would be needed to implement the corrections to the HVAC system and building envelope if the contractor in charge of the work were well organized. He had already spoken to a contractor, one W.B., and with whom Mr. Bowser was familiar, who indicated that a period of six to eight weeks was reasonable.

Mr. Bowser stated that the cost of testing during the remedial work would be $10,000.00 to $12,000.00, including a final test on completion and a certification that the remedial work complied with the Ontario Building Code. Mr. Bowser sometimes tests as work progresses and before he approves the re-covering of the repaired areas.

However, the Tribunal notes that, in Mr. Bowser's budget estimate for remedial work, Exhibit #10, the budget amount for testing is shown to be the figure of $6,000.00.

Mr. Bowser further stated that, in other cases where similar repairs were done, the homeowner was able to remain living in the house during renovations. His budget for furniture protection, either on site or off site, was $1,000.00.

The major work would involve the removal and replacement of drywall and the correction of the ductwork. He could not say how long that work would take. It would depend on how many workers the contractor brought in to do the work. Nor could he say how long the air sealing would take. The dry walling contractor would most likely do that work.

In addition to all that work, there would also be the replacement of the air handler, the air conditioner, piping and electrical system. Also, if the work were done during the winter, heat would have to be provided. In answer to Counsel's question, Mr. Bowser stated that, to do the work in less than one week would be "the outer limits of possibility," to quote his testimony, and would have to be with the acquiescence of the homeowner.

Concerning Mr. Bowser's budgeted amount of $60,000.00 to effect the repairs that he suggested, he stated that he did not contact any contractors to come up with that figure. He based that figure on his experience with costs on approximately fourteen other similar projects. He stated that the drywall square footage, the building envelope and the ductwork were similar in those projects to the Applicant's premises, but noted the Added Party was not the builder of those other premises.

Only one contractor has seen the Applicant's house, and that contractor submitted a written cost estimate for the renovations in the amount of $60,500.00, dated November 5, 2010, and filed as Exhibit #9. But, as Counsel for the Added Party pointed out, that contractor had Mr. Bowser's budget in front of him when he prepared his letter of November 5.

As well, Counsel established that Mr. Bowser had not obtained any competitive estimates from other contractors. He would not be the one to hire or supervise the contractors or sub-contractors. As well, it would be the general contractor who would organize the sub-contractors and possibly shorten the work schedule.

Furthermore, Mr. Bowser confirmed that, of the fourteen homeowners whose premises were repaired, he did not see their invoices to know the total amounts that they actually spent on their repairs.

Counsel for the Added Party also pointed out that Mr. Bowser referred in his budget to the replacement of the air handler at a cost of $7,000.00. The other contractor's estimate, in his letter of November 5, 2010, estimated the cost at $7,500.00. However, the APS specifically provided that the air handler was leased, yet neither Mr. Bowser nor the contractor provided for that in their estimates. Mr. Bowser did not contact the lessor or the manufacturer of the air handler. As well, he did not obtain the system design drawings from the city where the premises were located, nor did he talk to the city's building inspector and never obtained a copy of the occupancy permit.

Regarding the building envelope, Mr. Bowser acknowledged that he did not know if the city's representative carried out an inspection. Mr. Bowser could say nothing about the requirements of the city relating to the building envelope. Regardless, Mr. Bowser agreed that the Applicant is not entitled to anything greater in her premises than is required by the Ontario Building Code if the city's inspector approved her premises.

Regarding the design specifications of the air handler, Mr. Bowser confirmed that a model HE-71 air handler was actually installed in the Applicant's premises instead of a model HV-71 that was originally called for in the design specifications. He also acknowledged that the HE-71 unit had sixteen fan settings, far more than the three fan settings that the HV-71 had. He stated that he and Mr. Cooke conducted eight different tests in July, 2010 at different fan settings to explore the upper and lower range of airflow produced by the HE-71.

As a result of those tests, Counsel pointed out that Mr. Cooke stated in his report of October 20, 2010 (Tab 8, Exhibit #3), concerning the HE-71:

> ...a much wider range of air speed and corresponding pressure capabilities are available than originally thought.

Counsel then pointed out that that statement was to be contrasted with Mr. Bowser's statement in his first report, on page 18, in paragraph 7.2(a), where he states, about the HE-71:

> The air-handler installed does not match the air-handler called for in the approved HVAC design documents...Performance deficits in the order of 40% have been measured for other models of air handlers produced by this manufacturer...

In July, 2010, after further testing with Mr. Cooke and one J.S., Mr. Bowser prepared a further report dated July 23, 2010, found at Tab 10, Exhibit #3. At paragraph 4.2 of that report, he recorded that, after using a booster panel, the heating output of the air handler was 525 CFM and heating output was 41,000 btu/hr at 72 degrees Fahrenheit. Therefore, Mr. Bowser acknowledged that, by using the booster panel, the air handler has more than sufficient airflow and heating capacity to heat the Applicant's unit. This information was a change from the contents of paragraph 4.2(b) of page 7 of Mr. Bowser's first report where he said that the airflow was 433 CFM and the heating output was 30,421 btu/hr.

Furthermore, the air handler was capable of producing that airflow and heating output using its .75 horsepower motor, contrary to Mr. Bowser's conclusion in paragraph 4.2(d) on page 7 of his first report. In that paragraph, he stated that the motor would have to be 3.74 horsepower to provide 740 CFM, even though he stated, in his subsequent July report, that 525 CFM would be sufficient to heat the premises.

Mr. Bowser then acknowledged to Counsel for the Added Party that the higher airflow was a result of adjusting the fan speeds. He further acknowledged that, in July, 2010, he was "not aware of the ultimate capabilities of the unit," to quote his testimony.

Nevertheless, despite the fact the 525 CFM increased the heating output, Mr. Bowser stated that the leakage in the ductwork still reduces the amount of heat provided to the lower rooms. The heating capability (30,421 btu/hr) is 11 per cent less than the heating needs (34,034 btu/hr). A 500-watt baseboard heater on the first floor would produce about 1,700 btu/hr. Counsel for the Added Party suggested that a baseboard heater of 750 watts could make up the difference, producing about 2600 btu/hr. But, according to Mr. Bowser, the combination of those two heaters would produce more than ten per cent of the heat requirements. Supplementary electrical heat, however, in the form of baseboard heaters, is not to make up more than ten per cent of the heating requirements in a house such as the Applicant's house. That situation would not comply with section 6.2.1.1 of the Ontario Building Code, set out on page 14 of Mr. Bowser's report.

Mr. Bowser also testified that, by using CSA-F280 standards to determine the required capacity of residential space heating and cooling appliances, the heating needs of the Applicant's premises, as already referred to, are 34,034 btu/hr. The cooling needs are 20,543 btu/hr. As he already testified, the heating deficiency on the first floor is 4,900 btu/hr. According to section 6.2.4.4 of the Ontario Building Code (page 15 of his report) that amount of heat has to come out of the outlets in that area of the house. To allow baseboard heaters to make up that deficiency would violate the actual requirements of section 6.2.4.4. of the Ontario Building Code. The heater is to be in addition to the calculated heating requirements.

Despite that testimony of Mr. Bowser, Counsel for the Added Party pointed out to him that Mr. Bowser, in his scope of work, also called for the installation of a 500-watt baseboard heater on the first floor of the Applicant's premises (paragraph 16, Tab 12, Exhibit #3). Mr. Bowser explained that the Ontario Building Code requires heating vents and cold air returns to be placed low in the room areas. In the Applicant's house, the vents and returns were placed high in the wall. Therefore, a baseboard heater can be installed at the base of the wall. To do that would be less costly than to change the location of the vents.

In effect, Mr. Bowser's plan is to perform two remedies; namely, proper sealing to his satisfaction and then increasing the capabilities of the heating system. Although he stated that nothing should be left out of his recommendations, he is, nevertheless, open to modifying his remedial plan.

As between his first report and his scope of work dated August 3, 2010, Mr. Bowser states that there are differences. In the scope of work, some latitude is given to retain the existing air handler whereas the first report recommends replacing it. Counsel for the Added Party pointed out that Mr. Bowser's letter of September 20, 2010 (Tab 13, Exhibit #3) recommends the replacement of the air handler, but Mr. Bowser stated, without further explanation, that he wrote that letter as a result of an issue that arose after his report of August 3, 2010.

Of interest to this Tribunal, Mr. Bowser stated that, because of air infiltration, he admitted that he could not say what the heating needs of the first floor were. The reason he gave was that because the building envelope is at fault, the heating requirements are more than the actual design calls for.

On the issue of air leakage, using the CSA-F280 standard, he used a software programme that incorporates air tightness calculations to determine the heating needs of a building. However, he did not know the percentage that was used to allow for air leakage. The software assumes that air infiltration occurs throughout the building. He also did not know the percentage of air leakage for each room in the house, and he could not say what the assumed air leakage percentage was that was imbedded in the 4,900 btu/hr heat loss calculation. Counsel then asked, if that figure has an unknown percentage, then how does one know how much work has to be done to the building envelope? Mr. Bowser responded that, in his opinion, the air leakage on the first floor exceeded the normal standard, based on his 30 years of experience, and on some speculation on air sealing measures. If he were to obtain new information, he would be prepared to change his recommendations.

Mr. Bowser further stated that there are no Ontario Building Code standards for air leakage in ductwork. In his scope of work, he recommended that duct leakage measured between air handler flow and flow at the outlets be less than or equal to 20 per cent. That figure conforms to a research article on the use of small circular ducts, filed as Exhibit #11. Mr. Bowser was the lead technical consultant for that research article.

His first report, at paragraph 4.3(b), recorded a leakage of 18 per cent, when the ducts were in an “all open” position, so that the leakage was within his recommended rate. However, Mr. Bowser cautioned that, in paragraph 4.3(a) he found a 40 per cent leakage rate. Also, the location of the leakage was a problem. Finally, the 18 per cent leakage was based on an airflow of 354 CFM. If the airflow were 700 CFM, the pressure in the ducts would be greater and so would the leakage (the design documents for the Applicant’s house were based on an airflow of 740 CFM).

As for paragraph 7.1(a) of his first report, although Mr. Bowser reported finding that the joints in the ductwork were not sealed, he acknowledged in cross-examination that he performed a visual test for only two or three feet beyond the mechanical room, involving only three or four joints.

As for paragraph 7.1(b), where Mr. Bowser concluded that the ductwork was poorly installed, he also admitted that he did not remove any bulkhead to examine the seal on any other ductwork.

As well, Mr. Bowser stated that the Ontario Building Code has no specific requirements for measuring air tightness, although section 9.25.3 does require a physically continuous air barrier. In his first report, at page 17, Mr. Bowser states that the Applicant’s premises do not comply, yet disagreed with Counsel for the Added Party that, if the building inspector approved the air barrier system, then that would reduce the impact of his conclusion.

Counsel also questioned why, on page 12 of his first report, Mr. Bowser commented on the noise of the high velocity system when the research article, Exhibit #11, stated that the use of small circular ducts in higher velocities produces increased noise. Mr. Bowser responded that the system in the Applicant’s unit was noisier than others.

Counsel then reviewed certain infrared photos filed as Exhibit #12. Mr. Bowser took those photos at the Applicant’s premises on March 2, 2010, over a period of 45 minutes between 12:37 p.m. and 1:11 p.m. The photos are of the walls and floors of all five levels of the premises. The red areas shown in the photos are areas of the bulkheads that are warmer than surrounding areas of the bulkhead and floor. Mr. Bowser concluded that the red areas indicated areas of duct leakage, but admitted that his conclusions were subjective. Areas in blue were areas of lower temperatures of what Mr. Bowser concluded were areas of air infiltration. Areas in yellow and orange were areas of in-between temperatures. Mr. Bowser acknowledged that there might be other explanations for the difference in the colours, but the explanations that he offered were the most likely, even though Counsel suggested that one would expect bulkheads to be warmer just because there are ducts behind them and there is heat in the ducts.

Counsel then questioned Mr. Bowser about a letter dated August 25, 2010, that Mr. Bowser wrote to the Ministry of Consumer Services of Ontario (Exhibit #13). In the letter, Mr. Bowser complained about a high velocity HVAC system made by the same manufacturer that made the Applicant’s system. Mr. Bowser, in the letter, outlined the

problems and then listed five conclusions, one of which was that the system and equipment were improperly designed or manufactured. He also accused Tarion of turning a blind eye to the problem and not advising builders and consumers of the problems with the system.

Mr. Bowser stated that he wrote the letter after he completed his reports that he filed at this hearing. He did not send a copy of the letter to his governing professional body. Nor did he first obtain approval from it before he sent the letter. The letter expressed his personal views and not those of his Association.

Counsel suggested that the letter showed that Mr. Bowser has a bias against Tarion and the manufacturer of the system that was installed in the Applicant's house. Mr. Bowser denied that, saying that he wrote the letter as a matter of public interest, to bring the Minister's attention to it, basing on fact all the observations that he made in the letter.

The Tribunal notes that, even during Mr. Cooke's testimony, he stated that the equipment in the Applicant's house fell short of the manufacturer's representations.

Mr. Bowser admitted that, when he made his recommendations to correct the Applicant's problems, he contacted another manufacturer of air handlers and suggested using that manufacturer's air handler at Mr. Bowser's budgeted cost of $7,000.00.

Finally, in reviewing his scope of work, Mr. Bowser stated that items 2 to 6 and 11 to 15 all were necessary remedial steps because one cannot deal with the HVAC system yet ignore the building envelope.

He recommended that seven new supply vents be installed, as follows: 2 on each of the lower, second and third floors and one on the fourth floor.

Evidence on behalf of the Added Party

Evidence of Gordon Cooke

Mr. Cooke testified as an expert witness, and the only witness, on behalf of the Added Party. He was qualified as an expert in the fields of movement of air, design of HVAC systems, investigation and remediation of HVAC systems and design of building envelopes.

In response to questioning about his qualifications, he stated that he had been, as at the time of this hearing, a professional engineer for 30 years. His qualifications and training and experience are listed at the end of his report found at Tab 7 of Exhibit #3. Of relevance to this case, Mr. Cooke oversees the design of high velocity HVAC systems, inspects their installation and remediates performance issues relating to both heating issues and building envelopes.

About 25 to 30 per cent of his time has been spent in investigating and repairing systems. He has investigated two high velocity HVAC systems. He does not normally do heat loss/gain calculations.

He has dealt with Dara Bowser, the Applicant's expert witness, for 30 years, but not on opposite sides of issues. He had read all of Mr. Bowser's reports that Mr. Bowser had prepared for this case, and had prepared two of his own. One is dated June 28, 2010, found at Tab 7 of Exhibit #3, and the other is dated October 20, 2010, found at Tab 8 of Exhibit #3. Mr. Cooke has attended at the Applicant's premises and has met with her and has discussed the issues with Mr. Bowser.

Referring to Mr. Bowser's report of March 19, 2010, and particularly page 14 of the report, Mr. Cooke stated that, in the reference on that page to section 6.2.1.1 of the Ontario Building Code, only paragraphs (a), (b), (e) and (j) were relevant to the Applicant's case.

Mr. Cooke then explained the information contained in the material found at Tab 3 of Exhibit #6. Those pages contained the Building Permit notes of the Building Department of the city where the Applicant's premises are located. The notes set out the heating system design for those premises.

On page 2 of the notes are found the heat loss calculations for the rooms in the Applicant's premises, as calculated by the designer of the system (the designer who Mr. Bowser testified was not qualified to design the system). The heat loss calculations enable the builder to choose the correct furnace, air handler and air conditioner for the unit. The calculations, according to Mr. Cooke, are done to CSA-F280 standards.

Looking at the figures for the laundry room on page 2, the heat loss is shown to be 798 btu/hr, which Mr. Cooke described as "skin loss" or "envelope loss." Mr. Cooke explained that heat is lost through floors, doors and windows exposed to the elements. Air leakage is a separate figure arrived at by multiplying the heat loss figure by a factor of .46 to arrive at a figure, in the case of the laundry room, of 367 btu/hr. Air leakage heat loss, he explained, is heat loss through walls multiplied by certain assumed heat loss calculations.

Therefore, total heat loss for the laundry room was 1165 btu/hr (798 + 367). Mr. Cooke stated that, therefore, heat loss through air leakage (367) is about one-third of the total heat loss (1165).

The total heat loss calculations in the design document for the three rooms on the main floor of the Applicant's premises are set out as follows:

Laundry room	1165 btu/hr
Washroom	990 btu/hr
Foyer	278 btu/hr
Total	2433 btu/hr

Mr. Cooke acknowledged that this calculation is theoretical, but is based on accepted heat loss methodology in accordance with CSA-F280 standards. He noted that, unlike Mr. Bowser's calculations, the designer's calculations were not made on site.

This figure differs from Mr. Bowser's calculation of heat loss for the same area of the premises of 4900 btu/hr. However, subsequently, on cross-examination, he reversed his testimony and stated that Mr. Bowser's calculations were correct.

The total heat loss for the entire premises that the Applicant occupies is shown to be 31,299 btu/hr. That figure is found in the bottom right corner of page two of the design document. However, a ten per cent allowance is usually added to such a figure, as shown on page five of the design document. Mr. Cooke explained that designers should oversize the heating capability usually by 10 per cent, but not more than 25 per cent, to determine the size of the equipment to be installed. The "Intergrated Combo Heating System" found on page five shows that, for a total heating loss of 31,299 btu/hr, a total design load system (heat loss plus 10 per cent) should be 34,429 btu/hr. Mr. Cooke called this the "fudge factor." He also stated that there is nothing that requires that the equipment that is installed should be greater than ten per cent over what is needed. In fact, wanton over sizing is discouraged.

The diagrams on the last five pages of the design documents at Tab 3, showing all the floors of the premises, are all stamped by the city's building department. The stamp states that the design plans shown in each diagram comply with the Ontario Building Code. The diagram for the first floor shows that a 500-watt baseboard heater was to be installed. This is the heater that the Added Party neglected to install. Its capacity is 1706 btu/hr (1 kw = 3.412 btu/hr).

The diagram for the first floor also shows that there are four supply vents on that floor. The number of vents complies with the number of vents required on page four of the design document.

Mr. Cooke further explained that the heating and cooling system installed in the Applicant's premises is located on the top floor of the unit, and not in the basement. The system is a forced air system and, being high velocity, it has a higher force than a traditional system located in a basement.

Mr. Cooke then referred to Mr. Bowser's first report (Tab 6, Exhibit #3), and specifically paragraph 4.3(e) on page eight. In that paragraph, Mr. Bowser calculated a heating deficiency of 2684 btu/hr on the first floor in the absence of the baseboard heater. A 500-watt baseboard heater would provide 1706 btu/hr of heat, leaving a further deficiency of 978. Mr. Cooke stated that a 750-watt baseboard heater could produce 2559 btu/hr, which would come close to making up the deficiency of 2684 btu/hr. A 1000-watt baseboard heater could produce 3412 btu/hr, which would make up the deficiency. Mr. Bowser had expressed the concern that supplemental electric heat could not make up more than ten per cent of the heating needs. But, Mr. Cooke stated that, if

the only additional heat is a baseboard heater, then the baseboard heater can be 1000-watts.

Referring again to the design documents (Tab 3, Exhibit #6), the total heat loss on the first floor is 2433 btu/hr. If a margin of ten per cent is added to be safe, Mr. Cooke stated that the heat capability for that floor should be 2800 btu/hr. Therefore, a 1000-watt baseboard heater should be sufficient, and no supply vents would have to be added. This suggestion was in contrast to Mr. Bowser's suggestion that two additional supply vents be added to the first floor.

Mr. Cooke was then asked to comment on the statements that Mr. Bowser made in his first report on page 15. Mr. Bowser stated that the measured heating output of the system was 30,421 btu/hr, which is 11 per cent less than the calculated heating requirement of 34,034 btu/hr. Mr. Cooke stated that, if a 1000-watt baseboard heater were installed on the first floor, producing 3412 btu/hr of heat, thereby increasing the measured heating output of the system to 33,833 btu/hr, then the output would be only less than one per cent less than the required heating capacity.

Costs would be nominal. Mr. Cooke stated that the cost of a 1000-watt baseboard heater is about $200.00. Labour for about one-half day by an electrician to install it and hard-wire it to an electrical panel would be about $200.00.

Mr. Cooke did agree with Mr. Bowser, however, that the heat distribution is not in balance. Mr. Cooke acknowledges Mr. Bowser's comments on page 15 of his first report that 8 out of 11 rooms do not comply with the heating delivery requirements of the Ontario Building Code. Although Mr. Cooke stated that all manufacturers believe that all vents move the same amount of air, that does not happen. Each vent has a damper. With an airflow device, airflow at each vent can be measured and the vents can be adjusted. The process is repeated at each vent.

Only in about May, 2010, did Mr. Cooke discover that the air handler that was installed was not an HV-71, as called for in the specifications, but, rather, an HE-71 that had five or six speed ranges, each with three or four speed settings. When airflow could be increased, heat capacity could be increased, as well. He and Mr. Bowser did more testing in July, 2010. Testing has not yet been done at all speed settings of the air handler, but such testing can still be done at the premises.

Counsel for the Added Party asked Mr. Cooke whether, if airflow were increased, the flow could be adjusted in individual vents to provide more heat elsewhere. Mr. Cooke replied that it could be done, but care would have to be taken in how it would be done.

Mr. Cooke stated that he also agreed with Mr. Bowser's comments in paragraph 5.6(c) on page 11 of his first report. There, he states that the design of the system does not comply with the Ontario Building Code. Mr. Cooke explained that there is nothing in the Ontario Building Code about high velocity systems. Nor are there any widespread

independent design manuals for high velocity systems. Each manufacturer has its own design systems.

Mr. Cooke then referred to his report of June 28, 2010, found at Tab 7 of Exhibit #3. In it, he refers to Mr. Bowser's first report. He also refers to what he calls the "Anderson" report that had been sought by and sent to Tarion, but this latter report was never submitted to this Tribunal. Mr. Cooke attended at the Applicant's premises on May 18, 2010. Although he had Mr. Bowser's first report in hand, he did not talk to Mr. Bowser before this visit. Mr. Cooke candidly acknowledged that he accepted Mr. Bowser's test results.

In his report of June 28, 2010, Mr. Cooke disagreed with Mr. Bowser on the question of air barriers. Mr. Cooke stated that there was no Ontario Building Code requirement for objective measurement or performance criteria for air barriers. They were subject to visual inspection by building officials.

Mr. Cooke did find similar results as Mr. Bowser did on testing for both air tightness and air leakage between the house and the garage.

Similarly, Mr. Cooke found that the total system flow was 460 CFM at 1.2" of external static pressure, which was below the manufacturer's specifications of 750 CFM. He also found, as did Mr. Bowser, that the total system flow was not adequate to meet the heating needs of the house and that the top two floors received too much heat, while the bottom two floors could not maintain a suitable temperature. However, at this hearing, Mr. Cooke altered that opinion by saying that his opinion in that report was made when he still believed that the air handler was the model HV-71, with only three fan settings, and not the HE-71, with multiple fan settings.

The Tribunal notes that, in his subsequent report of October 20, 2010, Mr. Cooke states that the air handler installed was the model HE-71 having at least 16 different fan settings. He also states in his report that he was able to discover "in just the last week" that a much wider range and corresponding pressure capabilities were available than originally thought. But, he does not state in his report that, despite the increased number of fan settings, the Applicant's heating problems will necessarily be solved without doing anything more. Also, the Tribunal notes that his report states that he discovered the different model in "just the last week" (the report was dated October 20, 2010), whereas his testimony was that he had discovered that fact in July of 2010. That apparent disparity in timing was never explained to the satisfaction of this Tribunal.

Mr. Cooke's recommendations in his report of June 28, 2010, included:

- That general air sealing be done, especially between garage and house and any penetrations between the house and garage. The garage ceiling should be taken down and the assembly should be air sealed.

However, during his testimony at this hearing, he changed his opinion and stated that there was now no need to take down the garage ceiling. The Tribunal notes that this latter opinion corresponds to Mr. Bowser's similar opinion in paragraph 3.1 on page one of his report of July 25, 2010, found at Tab 11, Exhibit #3.

- Either:

  (a) provide separate heating and cooling capacity for the first and second floors. He suggested this to avoid tearing apart the house. Also, he stated that having separate or zoned heating systems in a tall building like the Applicant's house is not unusual; or,

  (b) modify, add and/or make adjustments to the existing air handler and duct system to ensure it has a capacity and distribution capability to meet the original design requirements.

  To accomplish (a), above, a small air handler, dedicated to the first and second floors, using heat from the existing boiler and a separate small air conditioning condenser on the roof. The unit could be mounted in the corner of the garage or of the laundry room.

  In the alternative, install a ductless wall-mounted mini-split heat/cool unit servicing the second floor with two 500-watt baseboard heaters on the first floor.

In either case, Mr. Cooke's report stated that the system would need to be re-balanced and flows adjusted to each room. The existing air conditioner condenser would need to be replaced with a 1.5-ton unit.

His report stated that the other alternative to improve the heating capacity to the first and second floor would be to install the 500-watt heater on the first floor.

Also, his report recommended replacing the air handler if it is not capable of delivering the required 750 CFM and the required BTU's of heating and cooling capacity under any circumstances.

Also, his report suggested determining the static pressure limits on the system to allow the air handler to deliver 750 CFM of required flow. That limit would then be used to recalculate duct sizes and the number of supply outlets required. Then, based on the measurements obtained, replace and/or modify the supply air main ducts and supply branch lines to reduce static pressure losses and increase airflow capacity in the system. This would require opening up most of the boxed-in duct areas to get at the ductwork. To afford the least disruption of walls and ceilings, do basic measurements of airflow capacity of the existing air handler and static pressures of the duct system before making any final judgment of duct changes needed. In this way, there would be less disruption to the homeowner and then testing could be done before it is determined whether further work need be done.

In his report, Mr. Cooke estimates that the cost to modify the existing system so that airflow performance matches the original HVAC design would be $10,000.00, in addition to costs for the following: drywall removal, modifications to bulkheads and duct chases and final finishing of drywall. However, Mr. Cooke failed to give any estimate in his report for that additional work.

After having prepared his report of June 28, 2010, Mr. Cooke agreed with Mr. Bowser to do more testing at the Applicant's premises. This resulted in Mr. Cooke's preparing his second report of October 20, 2010, found at Tab 8, Exhibit #3, and in Mr. Bowser preparing his scope of work dated August 3, 2010, found at Tab 12, Exhibit #3. Mr. Cooke read Mr. Bowser's scope of work, but Mr. Cooke did not send his report to Mr. Bowser.

Mr. Cooke and Mr. Bowser met with the Applicant, as well. Mr. Cooke suggested that an iterative, or repetitive, approach be used; that is, some work would be done. Then, measurements would be taken. Then, if more work were needed, it would be done, and then more measurements would be taken to determine if more work were needed, and so on, until a solution was reached.

By July, 2010, he and Mr. Bowser knew of the increased airflow capacity of the HE-71 air handler. Before preparing his report of October 20, 2010, Mr. Cooke spoke to the manufacturer of the air handler. The manufacturer said that the problem must have been an installation problem.

Mr. Cooke made two alternative recommendations on page two of his report of October 20, 2010. They are a repeat of two of his recommendations in his report of June 28, 2010, outlined earlier in this decision. They are:

> A small air handler, dedicated to the first and second floors, using heat from the existing boiler and a separate small air conditioning condenser on the roof. The unit could be mounted in the corner of the garage or of the laundry room.
>
> In the alternative, install a ductless wall-mounted mini-split heat/cool unit servicing the second floor with two 500-watt baseboard heaters on the first floor.

Compared to Mr. Bowser's recommendations in his scope of work, Mr. Cooke considered his recommendations to be a less disruptive approach.

However, he agreed with Mr. Bowser about adding another plenum to the system. Then, if the airflow is still not sufficient, the ducts can be added. The bottleneck, he stated, was the 8" duct from the air handler that is not feeding the vents very well. Mr. Cooke stated that his opinion is consistent with Mr. Bowser's opinion. To accomplish the addition of a plenum, one would have to cut open the drywall to the main plenum and on the ceiling on the third floor. A heating contractor would then add the plenum.

Mr. Cooke estimated that the cost for ducting material, labour to cut the drywall and to repair it and to install the plenum would be $4,300.00. His cost estimate in his report of October 20, 2010, is “less than $10,000.00.” However, that is vague. He does not say how much less than $10,000.00.

In Mr. Cooke’s report of October 20, 2010, the Tribunal notes that Mr. Cooke also comments on Mr. Bowser’s scope of work dated August 3, 2010. Mr. Cooke agrees with many of Mr. Bowser’s suggestions.

Mr. Cooke agrees with section 2 of the scope of work dealing with Mr. Bowser’s recommendations on the garage ceiling repairs. He also agrees with Mr. Bowser’s suggestion to air seal the under-side of the stairway.

In his report of October 20, 2010, Mr. Cooke recommends that the air conditioner be tested to ensure that it delivers 1.5 tons of cooling capacity at 540 CFM of air handler flow. Otherwise, the air conditioner should be replaced. The Tribunal notes that these recommendations are in line with recommendations four and five of Mr. Bowser’s scope of work.

Mr. Cooke agrees that the door weather stripping be replaced, as Mr. Bowser recommends in item 11 of his scope of work.

Mr. Cooke also agrees with items 12, 13 and 14 in Mr. Bowser’s scope of work to air seal baseboards and other connections in the lower level area.

Mr. Cooke does not agree with having to install a vapour barrier as Mr. Bowser recommends in item 15 of his scope of work, but agrees with having to install a 500-watt baseboard heater, as Mr. Bowser suggests in item 16.

Finally, Mr. Cooke agrees, with item 20, testing for airflow from supply grilles, but not for duct leakage or air tightness, since there are no Ontario Building Code requirements for those items.

The Tribunal notes that the items with which Mr. Cooke agrees in Mr. Bowser’s scope of work are far more than the items with which he disagrees.

Referencing Mr. Bowser’s duct blaster report of July 15, 2010, found at Tab 10, Exhibit #3, Mr. Cooke stated that, at the time he and Mr. Bowser did the test, he, Mr. Cooke, did not know that the air handler model had more than three fan settings. To test its other air handling capacities, more incremental tests would have to be done. Mr. Cooke stated that the unit can exceed more than the 42,000 btu/hr output that Mr. Bowser refers to in paragraph 4.1 of the report. Mr. Cooke was satisfied, from this test, that this air handler was adequate, being able to produce a heating output of 525 CFM.

Furthermore, Mr. Cooke agreed with Mr. Bowser’s test results about the air conditioner condensing unit in paragraph 4.4 of Mr. Bowser’s report of July 15, 2010.

The report states, in that paragraph, that, if the air conditioner is replaced with a 1.5-ton unit, the system airflow may be reduced to 525 CFM. Sufficient heat can be proved using the 525 CFM design airflow value. Mr. Cooke commented that Mr. Bowser was very thorough in his testing.

Counsel for the Added Party then presented Exhibit #14 to Mr. Cooke. That document was a room-by-room heat adequacy summary that Mr. Bowser had completed. The numbers showing the calculated heat loss were the numbers that Mr. Bowser had testified to when he gave the heat loss calculations for the first floor foyer, laundry room and washroom, for a total of 4,900 btu/hr. However, those figures contrasted with the figures for those same rooms in the design documents found at Tab 3 of Exhibit #6, where the total heat loss was 2433 btu/hr. Mr. Cooke explained the difference by stating that the air leakage heat loss in the design documents was apportioned in the same amount to each room according to industry practice and to CSA-F280 standards. On the other hand, Mr. Bowser assigned air leakage differently and more to the bottom rooms. This method is not accepted practice. However, Mr. Cooke reversed himself on cross-examination and approved of Mr. Bowser's calculations.

In addition, to correct the heat loss problem, Mr. Bowser combined reducing air leakage with adding heat to the bottom level. But, Mr. Cooke would focus on air sealing and, therefore, would recommend that weather stripping be replaced on all doors and that air sealing be done in the basement, and that baseboards be sealed. Doing this would make the main floor more comfortable. He suggested carrying out air sealing, installing supplementary heat on the first floor and carrying out modest duct changes. He did not give details of what the "modest" changes would involve.

Concerning Mr. Bowser's renovation diagrams at Tab 9 of Exhibit #3, Mr. Cooke stated that the suggested remediation is more than is needed considering that the air handler can deliver 525 CFM. He would not change the ductwork from 2" to 3", but agrees that a second plenum be added and considered that step to be reasonable and the most important thing to do. The existing plenum would service the third and fourth floors. The new one would service the first and second floors. No new vents would have to be added to the first floor once a 750-watt or a 1000-watt baseboard heater was also installed in the first floor.

As for testing the remediation work, Mr. Cooke's method is different from that of Mr. Browser's. Under Mr. Bowser's recommendations, he would do the testing after all the ductwork was done. Mr. Cooke, on the other hand, would do his testing after each step were taken, starting with the addition of the second plenum.

When asked about the effect on energy efficiency of Mr. Bowser's sealing of air leakage and air tightness, Mr. Cooke commented that anything done to seal leakage would be beneficial. However, the effect of correcting duct leakage is less significant, inasmuch as most duct leakage is into the house itself. Air sealing of ductwork will not improve the energy efficiency in a home.

When shown the infrared photos in Exhibit #12, Mr. Cooke commented that, with infrared photos, one sees only surface temperatures, so that it is “a bit of a leap,” to use his words, to say that temperature increase means that there is duct leakage.

As for the proposed costs set out in Exhibit #9, Mr. Cooke stated that the air handler replacement cost of $7,500.00 was unnecessary. The garage area remediation amount of $10,000.00 was high, inasmuch as he had increased the insulation in a larger garage than the Applicant had to an R30 value and drywalled it for only $2,500.00. The weather stripping claim of $2,000.00 seemed high, since weather stripping kits were available for $50.00 each.

The ductwork claim of $12,000.00 was high, considering that only about 300 feet of ductwork was needed, at a cost of about $3.00 per foot.

He could not see the drywall, insulation, redecorating and storage costs estimated to be $22,500.00. If only a second plenum were installed, his estimate would be $300.00 to $400.00 for ductwork and possibly $2,000.00 for drywalling.

Mr. Cooke stated that his remediation plan would cost about $5,000.00 to $6,000.00, including labour. The work would include air sealing, adding two vents, checking the air handler and balancing the system. If a vent were to be added, it should be a 3” vent. The Tribunal notes that this estimate is far less than the estimate that Mr. Cooke provided in his report of June 28, 2010. His report of October 20, 2010, estimated the cost to be less than $10,000.00, but he did not state by how much less. No satisfactory explanation was given to this Tribunal for the significant difference between the estimate in his report of June 28 and the estimate in his report of October 20 and that given during his testimony at this hearing.

Concerning Mr. Bowser’s suggested remedies, Mr. Cooke suggested that the work would require two to three weeks to complete. However, the Applicant would end up with what Mr. Cooke called a “deluxe house,” beyond the house that she agreed to buy. He did not explain how he arrived at that assessment. Certainly, his qualifications did not include any expertise to give opinion evidence on property evaluation, so that the Tribunal places no weight on that statement. He stated that adding a second plenum would keep the costs down. It seems improbable to have to double the duct system as Mr. Bowser suggested, according to Mr. Cooke.

In the end, Mr. Cooke stated that, although he had faith in Mr. Bowser’s testing and in the numbers he obtained in those tests, he disagreed with Mr. Bowser’s recommendations. He did, however, agree that the weather stripping should be improved at the doors.

On cross-examination by Counsel for Tarion, Mr. Cooke summarized his recommendations as follows: (1) carry our air sealing measures on the first floor and on the door on the second floor; (2) install a secondary heating system on the first floor; (3) install a second plenum; (4) if necessary, add three to four new vents.

The builder had not suggested these remedies to him. He just wanted a cost and time effective way to help the Applicant. A second plenum was the most important thing to do, in his opinion. A second plenum would change the airflow characteristics significantly in that it would reduce static pressure and thereby lose less airflow.

Mr. Cooke estimated that this work would take three to four weeks and that the Applicant could probably stay in the house, depending on her reaction to drywall dust.

On cross-examination by the Applicant, Mr. Cooke reversed himself and stated that, after examining the design document heat loss calculations in Exhibit #6, Tab 3 and Mr. Bowser's heat loss calculations in Exhibit #14, he stated that Mr. Bowser did calculate heat loss calculations correctly.

He also acknowledged that forty per cent of his work involves training others about high velocity equipment. His company sells equipment that is used to test duct leakage. His company is primarily a sales agency for the manufacturers of five or six different products. He also provides technical training to builders and provides consulting services for certain products. He spends about ten per cent of his time on commission sales, although he stated that none of the products he sold were in conflict with any of the equipment involved in this case.

He again stated that there are no guidelines or standards for duct leakage in high velocity systems. In the Applicant's premises, however, he would advocate for a better distribution of the heat, not necessarily increased airflow as a remedy for the Applicant's problems. Nevertheless, in Mr. Bowser's design, Mr. Cooke acknowledged that Mr. Bowser allowed a conservative amount for duct leakage, but, Mr. Cooke stated that it is not necessary to tear apart drywall to repair duct leakage.

He could not explain why there were lockouts of the Applicant's air handler. Mr. Cooke had previously read the letter of September 20, 2010 written by Mr. Bowser (Tab 13, Exhibit #3), in which Mr. Bowser commented on the lockouts. Mr. Cooke had not been asked to investigate the reason for the lockouts. However, the Applicant referred Mr. Cooke to page 8 of Tab 3 of Exhibit #6. That page was a diagram of the first floor of the premises. Paragraph iv of the notes to the diagram stated that the pipes in the mechanical room, which was the top floor of the premises, and where the air handler was also located, were to be insulated. When asked, Mr. Cooke stated that he did not know if the pipes were insulated, but, if Mr. Bowser's observations were that they were not, then he would accept Mr. Bowser's observations.

Mr. Cooke repeated that the air handler did not produce the heating output that the manufacturer required. The manufacturer misrepresented the capabilities of the equipment, for their duct sizing and their capabilities were "not in sync," to use his words.

Despite his references in his earlier testimony to 750-watt and 1000-watt baseboard heaters, Mr. Cooke stated on cross-examination that he was not advocating a 1-kilowatt (1000-watt) baseboard heater, but just a 500-watt heater. The Applicant pointed out to Mr. Cooke that, in his report of June 28, 2010, he recommended two 500-watt baseboard heaters on the first floor. Mr. Cooke explained that, clearly the Applicant's system did not heat her premises to 22 degrees Celsius in accordance with the Ontario Building Code requirements. His recommendation for the two baseboard heaters was but one of the alternatives to solve the Applicant's problem at a price that was less expensive than the suggestions made by Mr. Bowser. Yet, when asked whether Mr. Bowser's work would make the Applicant's premises comfortable, Mr. Cooke stated that it would, and that he was confident in Mr. Bowser's solution to achieve that goal.

On re-examination, Mr. Cooke stated that, after the testing that he and Mr. Bowser did in July, 2010, neither suggested that the air handler had to be replaced. Although Mr. Cooke believed that Mr. Bowser's recommendations would work, they would be too disruptive and would end up giving the Applicant a better system than provided for in the housing development in which her premises were located.

Evidence on Behalf of Tarion

Evidence of Tiffany Hallatt

Ms. Hallatt had been, as at the time of this hearing, the Field Claims Representative for Tarion for almost three years. Aside from her time with Tarion, she had no other experience in construction matters.

Counsel for Tarion initially questioned Ms. Hallatt on the issue as to whether the question of the air conditioning should be an issue in this warranty claim. The Applicant's Year-End Form is found at Tab 3, Exhibit #3 and is dated December 1, 2008. The complaint in item 1 states as follows:

> Blower motor vibrating (system has not worked properly since day 1 with furnace blower not coming on for no reason, periodically. Wide discrepancy in temperatures between floors (see report).

Ms. Hallatt wrote her Warranty Assessment Report, found at Tab 6 of Exhibit #5. She made no mention of the air conditioning.

The Applicant then sent an e-mail to Ms. Hallatt (Tab 7, Exhibit #5) dated June 22, 2009, objecting to the contents of the Warranty Assessment Report. Ms. Hallatt stated that the Applicant did not specifically mention the air conditioning in that e-mail. The first decision letter of June 25, 2009, does not mention the air conditioning.

The Applicant then retained Mr. Bowser who then presented his first report dated March 19, 2010. Ms. Hallatt stated that his report was the first time that the question of the air conditioning was raised.

Ms. Hallatt then stated that, because the Applicant's system was rented, Tarion does not warrant leased equipment. The warranty is held by the supplier. Therefore, she stated that Tarion has no choice in the matter but to deny warranty coverage on the Applicant's system. She referred to section 13(1) of the Act, without specifying the wording she was relying on, to justify her position that leased equipment is not sold to the homeowner so that the builder does not hold the warranty.

Nevertheless, despite her denial of the warranty, Ms. Hallatt stated that Tarion would definitely agree with Mr. Cooke's proposal to solve the Applicant's problem. She felt that Mr. Cooke's solution was less intrusive, more cost efficient, would take less time to do and would look after both the Applicant and the builder. On the other hand, Mr. Bowser's suggested remedy was excessive, more intrusive (although the Tribunal notes that the Applicant herself made no objection whatsoever to any suggested intrusive nature of his recommendations), would cost more, and would end up giving the Applicant more than what Tarion thought she should get.

On cross-examination by Counsel for the Added Party, Ms. Hallatt acknowledged that a home inspection report was attached to the Year End Form (Exhibit #5, Tab 3). Page 10 of the inspection report says nothing about the air conditioner or about the heating differential between floors.

Furthermore, it was only during this hearing that Ms. Hallatt heard evidence about air tightness and about the building envelope. All along, Tarion's position was that all that was needed was for a baseboard heater to be installed on the first floor.

Subsequent evidence at this hearing permitted this Tribunal to conclude that such a proposed solution was overly simplistic and would have been totally inadequate.

Ms. Hallatt also informed this Tribunal that efforts had been made by contractors to address the lack of heat concerns. Tarion had hired a contractor but was not satisfied with his results. She stated that the system had been balanced more than once. She referred to an invoice dated March 31, 2009, from an engineering company, found at Tab 5 of Exhibit #6. The invoice had been sent to Tarion and not to the Applicant and was charged to the builder. The charge was for services to resolve the fan motor lock out problem. Despite these efforts, the problem continued.

To the Applicant, Ms. Hallatt acknowledged that it was after she performed her inspection of the premises in June, 2009, that she attended on two courses related to the Ontario Building Code. However, she had not received any training on HVAC systems.

She agreed with Mr. Cooke that sealing of air leaks or adding extra heat might be needed, but not both.

She repeated her belief that the Bowser recommendations were excessive. She stated that she came to this conclusion after discussing the matter with others at the Tarion office. However, she did not say who they were, what their qualifications were or what they told her. The Tribunal cannot place a great deal of weight on conclusions reached after such discussions with unknown persons with unknown qualifications.

THE LAW

The sections of the Act relevant to this decision are set out below.

The Act states:

13. (1) Every vendor of a home warrants to the owner,

(a) that the home,

(i) is constructed in a workmanlike manner and is free from defects in material,

(ii) is fit for habitation, and

(iii) is constructed in accordance with the Ontario Building Code;

(b) that the home is free of major structural defects as defined by the regulations; and

(c) such other warranties as are prescribed by the regulations.

Exclusions

(2) A warranty under subsection (1) does not apply in respect of,

(a) defects in materials, design and work supplied by the owner;

(b) secondary damage caused by defects, such as property damage and personal injury;

(c) normal wear and tear;

(d) normal shrinkage of materials caused by drying after construction;

(e) damage caused by dampness or condensation due to failure by the owner to maintain adequate ventilation;

(f) damage resulting from improper maintenance;

(g) alterations, deletions or additions made by the owner;

(h) subsidence of the land around the building or along utility lines, other than subsidence beneath the footings of the building;

(i) damage resulting from an act of God;

(j) damage caused by insects and rodents, except where construction is in contravention of the Ontario Building Code;

(k) damage caused by municipal services or other utilities;

(l) surface defects in work and materials specified and accepted in writing by the owner at the date of possession.

14. (3) Subject to the regulations, an owner of a home is entitled to receive payment out of the guarantee fund for damages resulting from a breach of warranty if,

(a) the person became the owner of the home through receiving a transfer of title to it or through the substantial performance by a builder of a contract to construct the home on land owned by the person; and

(b) the person has a cause of action against the vendor or the builder, as the case may be, for damages resulting from the breach of warranty.

14. (6) In assessing the amount for which a person is entitled to receive payment out of the guarantee fund under this section, the Corporation shall take into consideration any benefit, compensation, indemnity payable, or the value of work and materials furnished to the person from any source.

14. (7) The Corporation may perform or arrange for the performance of any work in lieu of or in mitigation of damages claimed under this section.

16. (3) Where a person or owner gives notice in accordance with subsection (2), the Tribunal shall appoint a time for and hold the hearing and may by order direct the Corporation to take such action as the Tribunal considers the Corporation ought to take in accordance with this Act and the regulations, and for such purposes the Tribunal may substitute its opinion for that of the Corporation.

The Tribunal's remedial powers are set out in the Act and include the power to direct a payment out of the compensation fund or to order Tarion to perform work or arrange to perform work.

Part VI of R.R.O. 1990, Regulation 892, section 15(2) provides for the warranties pursuant to section 13(1)(c) as follows:

(2) Every vendor of a new home warrants to the owner,

(a) ...

(b) that the electrical, plumbing and heating delivery and distribution systems are free from defects in material and work; ...

(d) that the home is free from violations of the Ontario Building Code regulations under which the Building Permit was issued, affecting health and safety, including but not limited to fire safety, insulation, air and vapour barriers, ventilation, heating and structural adequacy; ...

APPLICATION OF LAW TO THE FACTS

Issue #1

1. Whether, in this case, the Applicant's components that are subject to the rental agreement are excluded from warranty coverage under the Act?

Section 13(1) of the Act, above, sets out the warranties that an owner can expect from a vendor.

Section 13(2) lists those items that are excluded from the warranties in section 13(1). The relevant exclusion in the case now before this Tribunal relates to defects in materials supplied by an owner. That exclusion is found in section 13(2)(a), which states:

> (2) A warranty under subsection (1) does not apply in respect of,
>
> (a) defects in materials, design and work supplied by the owner;

The definitions of "owner" and "vendor" are found in section 1 of the Act:

> 1. In this Act,
> …
>
> "owner" means a person who first acquires a home from its vendor for occupancy, and the person's successors in title;
> …
>
> "vendor" means a person who sells on his, her or its own behalf a home not previously occupied to an owner and includes a builder who constructs a home under a contract with the owner;

In this case, there is no question but that the Added Party is the vendor and the Applicant is the owner.

From the above provisions, it is clear that, if a person who first acquires a home from its vendor for occupancy supplies materials that are defective, such materials are excluded from warranty coverage under the Act.

In the second decision letter of March 4, 2010, the Tarion Field Claims Representative stated that items that are not "owned" by the Applicant are not covered by Tarion's warranty. But, that is not the wording in the exclusion clause in section 13(2)(a). That exclusion relates to items that are "supplied" by the owner. In considering the exclusion in section 13(2)(a), the issue is who supplied the material? To find the answer to that question, one has to consider paragraph 12 of the APS, found at Tab 1 of Exhibit #5. The heading of that paragraph reads: "Rental/Lease of Certain Equipment". That paragraph states that the equipment referred to in that paragraph:

> ...shall be leased from a third party lessor and shall not be or become the property of the Purchaser on Closing. The Purchaser shall make monthly lease payments payable to such lessor as identified by the Vendor and shall execute the lease agreements pertaining to the hot water tanks, furnace and air conditioning units as required by said lessor(s).

The equipment came from the builder by way of a lessor. That lessor does not come within the definition of "owner." The Applicant does. But, clearly, it was not the Applicant who supplied the equipment. The evidence disclosed that she had no choice in the matter. The Added Party was solely responsible for that. There is no evidence that the Applicant dealt with any other party throughout the purchase of these premises. As well, paragraph 12 clearly states that the equipment shall not become the property of the Purchaser. In other words, the Applicant Purchaser will not own the property. The actual rental agreement for the boiler, air handler, air conditioner condensing unit, and storage tank is found at Tab 4 of Exhibit #6. The evidence clearly shows that the Applicant had no choice in deciding with whom the rental agreement had to be signed.

For Tarion to deny the warranty based on the 13(2)(a) exclusion on the ground that the items are not owned by the owner is a misreading of section 13(2)(a). The exclusion in that section is based on defects in materials, design and work supplied by the owner. In this case, the owner did not supply the items. The vendor supplied it, as rental equipment. The Applicant had no say in the matter. The exclusion in section 13(2)(a), therefore, should not apply in this case.

As well, the obligations of the Added Party to construct a home in a workmanlike manner and free from defects in material and in accordance with the Ontario Building Code pursuant to section 13(1) still apply. That section does not say that those obligations do not apply if the builder installs rental equipment. The builder still has to install such equipment in a workmanlike manner, as the Act provides. Otherwise, builders could escape liability under the Act by installing rental equipment in a manner that is not workmanlike and do so with impunity. That would be totally contrary to the purposes, principles and provisions of the Act and its Regulations.

Consider Part VI of R.R.O. 1990, Regulation 892, section 15(2). Although that section has been quoted above, it is worth repeating here. That section states:

> (2) **Every vendor** of a new home **warrants** to the owner,
>
> (a) ...
>
> (b) **that the** electrical, plumbing and **heating delivery and distribution systems are free from defects in material and work**;...
>
> (d) **that the home is free from violations of the Ontario Building Code regulations** under which the Building Permit was issued, **affecting health and safety**, **including** but not limited to fire safety, insulation, air and vapour barriers, ventilation, **heating** and structural **adequacy**;...
>
> [Emphasis added]

In this case, the builder still must comply with the above provisions by installing rental equipment in a workmanlike manner.

The evidence in the case now before this Tribunal discloses that there are defects in the heating delivery and distribution system and that there are Ontario Building Code violations. The Applicant's expert acknowledges that. Tarion acknowledges that. The Added Party's own expert acknowledges that.

In addition, paragraph 1 of the General Terms and Conditions of the Rental Agreement (Tab 2, Exhibit #3) between the Applicant, as lessee, and Morenergy as lessor, excludes liability on the part of the lessor for the very problems with which the Applicant has had to contend since purchasing the premises. That paragraph states as follows:

> 1. Condition of the Equipment – The lessor has not made any warranty or guarantee or agreed to any undertaking or condition with respect to the Equipment, the supplier or the manufacturer, including whether the Equipment is suitable to the Lessee. **The Lessor shall not be responsible if the Equipment is defective or unacceptable for any reason, including a failure in its performance, capacity or operations**. Any warranties or guarantees provided under Sales of Goods legislation are hereby excluded. **You acknowledge that the Equipment was supplied by the Dealer and that you have separately received information regarding warranties and service.**
>
> (Emphasis is in the original agreement)

The result is that the Applicant cannot turn to Morenergy for assistance. If, then, Tarion should succeed in denying the warranty of this equipment, the Applicant is left without any recourse whatsoever. Considering the purpose of the Act, such a result is untenable for the Applicant as a consumer.

It is now well settled that the Act is remedial consumer protection legislation and should be given a fair, broad and liberal interpretation. The Ontario Court of Appeal in *Mandos v. Ontario New Home Warranty Program* [1995] O.J. No. 3647, in its oral endorsement, states:

> The *Ontario New Home Warranties Plan Act*, R.S.O. 1990, c. O-31 is remedial legislation and should be given a fair and liberal interpretation.

Further, in *Markey v. Tarion Warranty Corporation* [2006] O.J. No. 2929 (Ontario Superior Court of Justice, Divisional Court) it is stated, in paragraph 5 of the decision:

> The *New Home Warranties Plan Act*, R.S.O. 1990, c. O.31 is consumer protection legislation and should be given a broad and liberal interpretation.

Also, in *Cecilio v. Tarion Warranty Corp.* [2007] O.J. No. 1692, (Ontario Superior Court of Justice, Divisional Court) the Court states, at paragraph 28 of the decision, referring to the *Ontario New Home Warranties Plan Act* as "the ONWHP Act":

> The third factor is the purpose of the ONHWP Act. It is clearly remedial consumer protection legislation and should be liberally construed and this court has so held...

The case to which the Court in *Cecilio* refers in making that pronouncement is the case *Grudzinski v. Ontario New Home Warranty Program* [1997] O.J. No. 291; 32 O.R. (3d) 376, a decision of the Divisional Court of the Ontario Court (General Division) as it was then known.

Therefore, considering the above legal principles, and for the reasons given, this Tribunal concludes that the equipment in question on appeal in this matter is equipment to which the above statutory and regulatory provisions apply and is not excluded from warranty as Tarion has decided in its decision letter of March 4, 2010.

Issue # 2

2. Whether only the heating component of the Applicant's heating and cooling system, and not the air conditioner, can be the subject of the appeal before this Tribunal?

There is no dispute that there is a heat distribution problem in the Applicant's home. It is Tarion's position, in its written submissions, that the repair that addresses the problem is the one suggested by Mr. Cooke. However, it is also Tarion's position that only the heating issues can be addressed by this Tribunal on this appeal because the Applicant raised only the heating issues in her Year-End Form. The air conditioning, electrical, plumbing and vapour barrier issues were not mentioned.

Tarion submitted that, on June 15, 2009, when the Tarion Field Claims Representative attended the Applicant's house to perform a conciliation inspection, the Applicant raised no complaints about the air conditioning. The subsequent Warranty Assessment Report says nothing about an air conditioning complaint and contains no assessment of the air conditioning. The first decision letter of June 25, 2009, makes no mention of the air conditioning system. The second decision letter of March 4, 2010, makes no mention of the air conditioning system, either.

Only when Mr. Bowser submitted his report of March 19, 2010, was Tarion made aware of the air conditioning complaint.

The Added Party, as well, argued, in its written submissions, that the Applicant complained in the Statutory Warranty Form (the Year-End Form) about the discrepancy in temperature between floors. Consequently, the Applicant's appeal should be limited to the issues that she addressed in the Statutory Warranty Form and the report that she obtained, both of which are found at Tab 3 of Exhibit #5. However, the report was done by an individual who did not testify at this hearing. As well, in section 800 of the report, under the heading, "Major Systems", the Added Party submitted that nothing under that section or under section 800b pertains to discrepancy in temperature between floors. Section 804, under the heading, "Ducting", indicates that leaking was noted on the main supply in the furnace room due to poor seal around the connection on the supply ducting and that the air flow throughout the house was unbalanced. Nor is there anything mentioned about the garage ceiling, any building envelope issues, air conditioning issues, lack of piping insulation or electrical issues.

For her part, the Applicant submitted that the issues identified in the Statutory Warranty Form pertain to the entire HVAC system and include both inadequate distribution of heat and malfunctions in the equipment which was also improperly and poorly installed and includes the air handler, air conditioner and boiler. Section 804 refers to unbalanced airflow throughout the house and recommended that ducts and return air be adjusted or installed "for even heating and/or cooling distribution throughout the property". As such, problems in the ductwork for heating purposes, in a system such as the one installed in the Applicant's house, amount to problems in the ductwork for cooling purposes, as well, as the report indicates. The system that distributes heating is the same system that distributes cooling. It would be difficult to find problems in the ductwork for one process (heating) without also finding similar problems in the other process (cooling) that uses the same ductwork system. In this regard, the Applicant's complete complaint in the Year-End Form states as follows:

> Blower motor vibrating (system has not worked properly since day 1 with furnace blower not coming on for no reason, periodically. Wide discrepancy in temperatures between floors (see report).

The Tribunal notes that the Applicant refers to the "system" not having worked properly since day 1. The Tribunal considers that the HVAC "system" in this case, as the name suggests, includes both heating and cooling capabilities. The Tribunal notes that the evidence was that the Tarion Field Claims Representative had not received any HVAC training before she performed her inspection in June, 2009, so that she would not have been familiar with such a system at that time. There is some question, therefore, whether she would even have considered the relevant issues at the time of her inspection.

The report attached to the Year-End Form adds further details, as outlined earlier. The Tribunal accepts the Applicant's assertion that the phrase, "wide discrepancy in temperature" also referred to the temperature of the air conditioning as well as that of the heating.

The Applicant admitted that the house in question in this appeal was the first new house that she had purchased. Only once in the past did she buy another house, and that was a previously owned house. Accordingly, the Tribunal does not consider the Applicant to be sophisticated as a new homebuyer. The Tribunal accepts her testimony that both heating and cooling were a problem and that the system that malfunctioned for heating also malfunctioned for cooling. The Tribunal accepts her evidence that her complaint in the Year-End Form intended to incorporate both heating and cooling problems. The Tribunal accepts the evidence of Mr. Bowser that the HVAC system with which this appeal is concerned is both a heating and cooling system and that they are both integrated and interrelated parts of the system so that any remediation done to the system will necessarily affect both heating and cooling.

The Tribunal also notes that, on July 29, 2010, when the hearing of this matter was to commence, Counsel for Tarion requested an adjournment. The reason given for the request was to permit the expert witnesses of the Applicant and of the Added Party to meet in order to work towards a settlement of the outstanding issue in this matter involving the heating and air conditioning system (the HVAC) in the Applicant's house. It is obvious to this Tribunal that both systems were at issue throughout this matter.

Considering all the above, and for the above reasons, and in keeping with the consumer protection character of the legislation, the Tribunal concludes that the air conditioner is to be included in the consideration of the Applicant's appeal.

Issue # 3

3. If the Applicant's claim is warranted, whether the remedy to correct the Applicant's temperature differential problems should be the remedy recommended by the Applicant's expert or the remedy recommended by the Added Party's expert?

There is no doubt that there is a significant problem with the Applicant's HVAC system. Tarion admits that. The Added Party's expert witness admits that. The evidence makes that clear. It does not comply with the Ontario Building Code because the system does not heat the premises to 22 degrees Celsius in the winter because the heating output is insufficient. The Applicant has had to endure that problem for four winters. Both the expert for the Applicant and for the Added Party agree. That is intolerable. Also, there is not enough heat from the heating supply vents on the lower floor.

There are workmanship problems, as well. The wiring to the recirculation pump is not hot-wired. There is no insulation on the piping even though it is required by the design documents. There is only one shut-off valve, although the manufacturer required several. The main supply ducts are not sealed. The air conditioner condenser is not mounted in accordance with good practice. The visible ductwork is not sealed properly. The unseen ductwork is suspect, in the absence of testimony from the Added Party.

As for which remedy this Tribunal prefers to resolve the Applicant's problems with the HVAC system, after a consideration of the qualifications, background and experience of the two men that were called as expert witnesses, this Tribunal has concluded that it prefers the remedy of Mr. Bowser over that of Mr. Cooke.

Mr. Bowser has had a greater background in HVAC design, installation and, particularly of significance in this case, repair for both conventional and high velocity systems and building envelopes. He has been involved in remedial work in 15 to 20 high velocity systems and, in the process, has been able to determine which aspects of remediation are successful and which are not. He has been involved in the remediation work in 14 other similar projects. It was on his experiences with those projects that he based his recommendations and costs in this case.

He has been recognized by Tarion as an expert in his field.

He testified that he was qualified to design systems for structures higher than three storeys and there was no evidence to seriously challenge that assertion.

He conducted extensive testing of the Applicant's premises and of the workmanship.

Mr. Bowser found that, on another occasion, using an incremental approach to resolve a problem similar to that of the Applicant's, as Mr. Cooke suggested, it took two years to complete the work. Such a period of time would be unreasonable in this case, given that the Applicant has had to tolerate her situation since December, 2007.

On the other hand, the Tribunal finds that Mr. Cooke was more involved in sales and training of different types of equipment, including HVAC equipment. His "in the field" experience was less extensive than that of Mr. Bowser's. Mr. Cooke investigated two high velocity HVAC systems, and did not normally do heat loss/gain calculations, as Mr. Bowser did. Such calculations played a significant role in this case. In fact, Mr. Cooke reversed his testimony in cross-examination after he first stated that Mr. Bowser's heat loss calculations for the lower level were done improperly. He then changed his testimony to say that Mr. Bowser had done them correctly.

Mr. Cooke stated that, by adding a 1000-watt baseboard heater, the heating output would be less than one per cent short of the heating capacity required in the Applicant's first floor. The Tribunal does not consider that to be an adequate solution to the Applicant's problems with her system, including the imbalance in distribution of the heating and cooling. This solution, in effect, would require the Applicant to put up with something less than what she is entitled to. That is still an unsatisfactory result for her.

In addition, the Tribunal notes that Mr. Cooke agreed with many of Mr. Bowser's test findings, calculations and some, but not all, of his conclusions.

He agreed with Mr. Bowser that the heat distribution was not in balance. He also agreed, as Mr. Bowser found, that 8 out of 11 rooms in the Applicant's premises did not comply with the heating requirements of the Ontario Building Code.

When Mr. Cooke attended at the Applicant's premises on May 18, 2010 with Mr. Bowser's first report in hand, Mr. Cooke did not bother talking to Mr. Bowser beforehand because he accepted Mr. Bowser's test results. Mr. Cooke found similar test results as Mr. Bowser did on testing for both air tightness and air leakage between the house and the garage. He and Mr. Bowser both found that the system's total airflow was not sufficient to meet the heating needs of the premises. The two top floors received too much heat. The bottom two floors did not receive enough heat.

Mr. Cooke stated that the HE-71 unit had a wider range and pressure capabilities, but did not state that, because of that, the Applicant's heating problems would be solved without doing anything more.

He also agreed, in his report of June 28, 2010, that the air conditioner condenser should be replaced with a 1.5-ton unit, although he subsequently changed his opinion.

He and Mr. Bowser agreed about the need to add another plenum. Mr. Cooke also agreed with many of the recommendations in Mr. Bowser's scope of work, outlined earlier.

Mr. Cooke acknowledged that Mr. Bowser was very thorough in his testing. When Mr. Cooke suggested making changes to the ducting, he referred to making "modest" changes, yet he did not describe those changes adequately to this Tribunal, whereas Mr. Bowser gave quite specific details about the changes that he recommended.

In cross-examination, Mr. Cooke stated that he was confident in Mr. Bowser's solution to make the Applicant's premises comfortable.

In giving his cost estimates, Mr. Cooke presented this Tribunal with three different figures, as set out earlier in these reasons. In his report of June 28, 2010, his estimate was $10,000.00 plus additional costs that he did not specify. This left the Tribunal questioning what the final figure would be. In his report of October 20, 2010, he gave an estimate of "less than $10,000.00." Again, however, he did not say how much less, again leaving this Tribunal questioning the final figure. Finally, in his testimony at this hearing, he gave an estimate of $5,000.00 to $6,000.00; however, he gave no written breakdown of his estimate. The scope of work in his two reports was slightly different from each other as was his testimony at this hearing. With such variation between his two reports and then with his testimony, the Tribunal finds it difficult to place as much confidence in Mr. Cooke's evidence as it does on Mr. Bowser's evidence.

On the other hand, Mr. Bowser presented a written estimate of $60,000.00 which, for the most part, remained firm throughout this hearing. Mr. Bowser also presented very specific recommendations to resolve the Applicant's difficulties with her HVAC system, based on his wide and varied experience in remediating such systems.

Therefore, where Mr. Cooke's testimony was vague and inconsistent, Mr. Bowser's was definite and firm and constant. Because Mr. Cooke, throughout his testimony, showed such deference to Mr. Bowser's testing, observations and findings and with many of his recommendations, this Tribunal sees no reason to show any less deference to Mr. Bowser and to many of his recommendations. For the above reasons, the Tribunal concludes that the remedy to resolve the Applicant's HVAC problems should be taken from Mr. Bowser's recommendations.

Both Mr. Cooke and Ms. Hallatt submitted that Mr. Cooke's plan was less intrusive to the Applicant than Mr. Bowser's plan. But, at no time during the hearing did anyone ask the Applicant what she thought about the alleged intrusive nature of Mr. Bowser's plan.

On the contrary, because the Applicant advocated the adoption of his plan, she appeared not to be bothered at all by his recommended remediation or the possible intrusive nature of his proposed work. The Tribunal, therefore, is not persuaded by the "less intrusive" argument of Mr. Cooke and Ms. Hallatt in promoting Mr. Cooke's plan.

Issue # 4

4. Whether the Applicant should be awarded compensation on the basis of breach of warranty and proven damages, or should Tarion and the Added Party be ordered to undertake further investigation and perform any work necessary to provide an HVAC system that fulfills the requirements of all the warranties under the Act?

The Applicant stated in her testimony that she did not want the Added Party to undertake to repair the problem at her premises because there had developed a lack of trust between her and the Added Party over the course of this dispute.

She stated that she wanted Tarion to take ownership of the problem and to have the repairs done, based on Mr. Bowser's scope of work. However, it was apparent during these proceedings that Tarion was not convinced that everything contained in the scope of work was necessary. Furthermore, Tarion, in its written submissions, suggested that, if this Tribunal found Mr. Bowser's plan preferable, compensation should be awarded in the amount of $20,000.00, much less than Mr. Bowser's estimate of $60,000.00. However, in making that suggestion, Tarion made no offer to be further involved in this matter.

In addition, the Tribunal is very much aware that the Applicant's problem has persisted for a very long time. Many repair efforts have already been made. The matter has reached the appeal stage. It will not be practical for the Tribunal to adjourn and remain seized of the matter in order to see if a proposed remedy will be successful. The Tribunal's order should bring a final resolution to a warranty issue, in order to bring a finality of proceedings to the parties rather than to prolong a matter that has already spanned almost four years without a resolution. With the matter having already progressed this far, the Tribunal does not consider it reasonable to extend it further with a "let's try and see" approach, as suggested by Mr. Cooke. Mr. Bowser's recommendations provide a final solution, compliant with the Ontario Building Code.

Considering the above matters, and considering the entirety of the evidence before it, the Tribunal finds that it has sufficient evidence to support a reasonable estimate of the cost of remedying the defects in the HVAC system and to award compensation to the Applicant. In this way, the Applicant will be free to rectify the problems through her own consultants and contractors, to her own satisfaction and in her own time. She will, in this way, be free to repair the high velocity system and to seek other advice and other solutions if she wishes and to use the funds from the warranty towards the costs involved.

Issue # 5

5. If compensation should be awarded to the Applicant, how much should the compensation be?

The Tribunal was presented with a variety of estimates for the cost to remedy the Applicant's HVAC problems. The costs range from a low of $5,000.00 in the testimony of Mr. Cooke, to a high of $60,000.00 in Mr. Bowser's estimate, Exhibit #10.

In between those amounts were the two different written estimates from Mr. Cooke. His estimate in his report of June 28, 2010, was in the amount of $10,000.00 plus additional costs that he did not itemize, thereby leaving the final cost in doubt. His estimate in his report of October 20, 2010, was in the amount of "less than $10,000.00," again leaving the final figure in doubt.

In its written submissions, Tarion submitted that the Applicant should receive compensation in accordance with the estimates of Mr. Cooke. However, instead of choosing any of Mr. Cooke's varying estimates, Tarion came up with its own figure of $20,000.00. Tarion, however, did not present any written estimates or any explanation as to how it arrived at that figure.

The Tribunal notes that only Mr. Bowser gave a detailed breakdown of his cost estimate. Counsel for the Added Party, during his cross-examination of Mr. Bowser, made the point that Mr. Bowser had not obtained competing estimates from other contractors. The Tribunal notes, however, that there was no evidence that Mr. Cooke, the Added Party's expert witness, obtained competing estimates, either.

The Tribunal places little confidence in the estimates given by Mr. Cooke inasmuch as he continued to change them in his reports and in his testimony. He provided no written summary to substantiate the cost estimate that he gave during the hearing.

Tarion's suggestion of $20,000.00 was presented to this Tribunal only in its written submissions. It was not suggested during the hearing. It was given without explanation or without corroborating cost figures. Tarion knew of Mr. Bowser's figures in December, 2010, and had opportunity to present contrary figures before this hearing ended on May 9, 2011, and before its witness was called to testify on that day, but chose not to do so.

The Tribunal recognizes that the evidence on the cost of repairs to rectify the HVAC problems is not perfect. In assessing damages, an adjudicator must draw on the evidence before him in arriving at the estimated cost of future work and do the best he can, given the limitations. This matter has been outstanding for a very long time and the parties are entitled to some finality from this Tribunal.

Based on all the evidence, the Tribunal finds that an award of $40,000.00 is an appropriate amount to permit the necessary design, testing, demolition, repair and installation of a properly functioning HVAC system compliant with the Ontario Building Code. This amount is sufficient to provide the following:

- Replacement of the air handler - The air handler has given problems from the moment that the Applicant moved into the premises. It has been unreliable from the beginning. It has locked out frequently. Circuit boards have had to be replaced several times. Other parts have had to be replaced. The Applicant, at one point, had no heat for two weeks until a fan motor was replaced. The "lock-outs" tended to occur when the air handler ran constantly, either when it was very hot or very cold outside. It had stopped as recently as September, 2010, in the month before this hearing commenced, when the control board had to be replaced. The problem still continues. When the air handler fails, the result is that the premises are not heated or cooled as they should be.

  In his letter of September 20, 2010, Mr. Bowser stated that, when the blower speed is increased, the air handler would lock out.

  Clearly, the air handler should be replaced with a more reliable unit. That is what Mr. Bowser recommended in his letter and this Tribunal agrees. The Applicant should not have to tolerate such a fickle unit any longer.

  Before arriving at a figure of $7,000.00 to replace the air handler, Mr. Bowser testified that he had spoken to another manufacturer of air handlers about prices. The Tribunal accepts that figure. There was no cogent evidence presented to this Tribunal to challenge that figure. Only Mr. Cooke stated, in his testimony, that an air handler would cost approximately $1,600.00.

  The Tribunal allows the amount of $7,000.00.

- Design fee - The evidence was that Mr. Bowser has already done the extensive design. There was no evidence presented to this Tribunal to indicate that this fee was excessively high.

  The Tribunal allows the amount of $6,000.00.

- Inspection, testing - It was obvious from the evidence presented to this Tribunal that Mr. Bowser is very thorough and detailed in his testing. Mr. Cooke even stated as much. To enable Mr. Bowser to provide a final solution, once and for all, to the Applicant, and to put an end to her frustrations, complete testing should be carried out as or after the work is done.

  The Tribunal allows the amount of $6,000.00.

- Modify the existing air conditioner unit to provide 1.5 tons output at a system airflow of 540 CFM - The evidence discloses that the air conditioner, when so modified, would not have to be replaced. Mr. Bowser estimated the sum of $3,000.00 to replace the air conditioner.

  The Tribunal allows the amount of $1,000.00 to modify the air conditioner.

- Ductwork repairs - The evidence discloses that a second plenum will be added. Additional supply vents will be added. Joints will be examined and sealed. The evidence is unclear whether existing supply ductwork will have to be replaced if the replacement air handler is operating properly. Mr. Bowser estimated the cost to be $7,000.00.

  The Tribunal allows the amount of $5,000.00.

- Piping repair and insulation - The evidence revealed that the manufacturer's specifications were not followed, so that this work should be performed. The evidence did not indicate that this work would be extensive.

  The Tribunal allows the amount of $1,000.00.

- Drywall access and repair - This work will be necessary in the addition of the second plenum and checking for and sealing of any duct leakage and the addition of vents. Mr. Bowser estimated the sum of $8,000.00, although this figure also took into consideration the replacement of many of the existing ducts.

  The Tribunal allows the sum of $7,000.00.

- Air sealing and insulation - The evidence related this item mainly to the first and second floors and to any exterior projections from the building. Mr. Bowser estimated the sum of $5,000.00.

  The Tribunal allows the amount of $2,000.00.

- Painting and decorating - This item included re-painting an entire room if the paint did not match a repaired area, raising the issue of betterment. Mr. Bowser estimated the sum of $1,000.00.

  The Tribunal allows the sum of $500.00.

- Cleaning and protection - Considering the amount of drywall cutting and repair to be done, this is not an unreasonable item. Mr. Bowser estimated $1,000.00.

  The Tribunal allows the amount of $750.00.

- Difficult site and location - The Applicant's equipment is on the top storey. Access may be difficult or at least challenging, but there was no evidence led on the matter. No details were given as to what activities, equipment or labour would give rise to this cost, but the Tribunal recognizes, as a matter of common sense, that some extra costs may be incurred in accessing the top storey to remove and replace equipment there. Mr. Bowser estimated $5,000.00.

  The Tribunal allows the amount of $2,000.00.

- Contingency - Mr. Bowser estimates the amount of $5,000.00 for this item. He did not explain how he arrived at this figure or what contingencies he had in mind. However, the Tribunal recognizes that there are unexpected costs in many repair undertakings.

  The Tribunal allows the amount of $1,750.00.

Issue # 6

6. Whether the Applicant should be awarded costs against the Added Party in the amount of $800.00 per day of hearing as she has requested?

Rule 14 of the Rules of Practice of this Tribunal sets out the criteria for ordering costs. That Rule states as follows:

> 14. COSTS
>
> 14.1 Where a party believes that another party in the proceeding before the Tribunal has acted unreasonably, frivolously, vexatiously, or in bad faith, that party may make a request to the Tribunal for costs, which request shall be made with notice to all other parties to the proceedings and prior to the release by the Tribunal of its final order in the proceedings.
>
> 14.2 The Tribunal in determining whether a party has acted unreasonably, frivolously, vexatiously, or in bad faith shall consider all of the circumstances, including, without limiting the generality of the foregoing, circumstances such as a party:
>
> (a) failing to attend a hearing before the Tribunal or to send a representative when properly given notice, without contacting the Tribunal and other parties to the hearing;
>
> (b) failing to comply in a timely manner with a procedural order or direction of the Tribunal where the result therefrom is undue prejudice or delay to another party or parties in the proceedings before the Tribunal;
>
> (c) failing to comply in a timely manner with the disclosure requirements set out in the Tribunal's Rules of Practice, including, without limiting the generality of the foregoing, the disclosure requirements respecting documents, particulars, or constitutional issues; or
>
> (d) knowingly presenting false or misleading evidence.

14.3 Where the Tribunal finds that a party has acted unreasonably, frivolously, vexatiously, or in bad faith, the Tribunal may order that party to pay the costs of another party or parties to the proceedings subject to Rule 14.4 respecting the amount of costs that may be ordered by the Tribunal panel.

14.4 Where the Tribunal determines that an order for costs may be made under Rule 14,

(1) the Tribunal when determining the appropriate award of costs shall consider all the circumstances, including without limiting the generality of the foregoing, factors such as the seriousness of the misconduct, the amount of costs incurred by the party requesting costs, and the conduct of the party requesting costs; and

(2) the amount of costs shall not exceed,

(a) where the Tribunal has not commenced a hearing, the sum of $400.00; or

(b) where the Tribunal has commenced a hearing, the sum of $800.00 multiplied by the number of days that the Tribunal conducts a hearing of the matter, with any part day being considered a full day for the purpose of this calculation of costs.

In her written submissions, the Applicant sought an order for costs against the Added Party. In her detailed summary of the sequence of events, she suggests that the Added Party sought and received an adjournment of the proceedings of June 16, 2010 under false pretences. As well, the Applicant argues that the Added Party did not comply with the rules of disclosure of this Tribunal, by not providing a copy of Mr. Cooke's report at least 30 days before the commencement of the hearing on November 8, 2010. The Applicant submitted that she suffered prejudice and delay as a result of the actions of the Added Party and needlessly took time away from her employment.

The Applicant requested that the Tribunal find that the Added Party acted unreasonably and that costs be awarded against the Added Party in the amount of $800.00 per day for each day of hearing.

Before this Tribunal can make an order for costs against a party, it must first make a finding that the party acted unreasonably, frivolously, vexatiously or in bad faith. The Tribunal acknowledges that the disclosure of the report of October 20, 2010, of the Added Party's expert, Mr. Cooke, was made less than 20 days before the commencement of the hearing. As well, the Tribunal can understand the Applicant's frustration in having to tolerate a delay of almost three years after she moved into her premises before this matter came on for hearing, especially since her Notice of Appeal was signed on July 15, 2009. However, the Tribunal does not have sufficient evidence before it, other than speculation and conjecture, that the Added Party acted unreasonably, frivolously, vexatiously or in bad faith. In the absence of such evidence, and on the facts of this case, the Tribunal concludes that there are no grounds on which to base an order for costs against the Added Party.

ORDER

For the reasons stated above, and pursuant to the authority vested in it by section 16(3) of the *Ontario New Home Warranties Plan Act*, the appeal is allowed. The Tribunal substitutes its opinion for that of Tarion and directs that the Applicant's claim is warranted and that Tarion pay to the Applicant the sum of $40,000.00.

LICENCE APPEAL TRIBUNAL

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Kenneth W. Koprowski, Vice-Chair

RELEASED: October 20, 2011

This decision may also be available on Quicklaw.