CITATION: Hariri v Ace Heating, 2021 ONSC 8460 COURT FILE NO.: CV-15-122403 DATE: 20220228

#### **ONTARIO**

## SUPERIOR COURT OF JUSTICE

BETWEEN:		)
Mohammad Hariri	Plaintiff	J. Singer and A. Singer, for the Plaintiff
– and –		)
Ace Heating & Cooling		<ul> <li>G. Walsh and N. Elankeeran, for the</li> <li>Defendant</li> </ul>
	Defendant	)

### COURT FILE NO.: CV-16-125541 DATE: 20220228

### **ONTARIO**

## SUPERIOR COURT OF JUSTICE

Iaroslav Starostin	)	A. Arago, for the Plaintiff
Plai	) .ntiff )	
– and –	)	
Iohammad Hariri and Iehrdad Tavakkoli c.o.b. as Ace Heating & Cooling Defendants	)	<ul><li>J. Singer and A. Singer, for the Defendant, Mohammad Hariri</li><li>G. Walsh and N. Elankeeran, for the Defendants, Mehrdad Tavakkoli c.o.b. Ace Heating &amp; Cooling</li></ul>

Heard: May 17, 18, 19, 20, 21 and 25, 2021

# <u>S. LAVINE J.</u>

## The Nature of the Trial

[1] The plaintiff's detached home at 145 English Oak in Richmond Hill was destroyed in a fire on March 4, 2014.

[2] The defendant, Mehrdad Tavakkoli, is the owner of the sole proprietorship, Ace Heating & Cooling. He installed a new furnace in Mr. Hariri's home on January 18, 2014.

[3] It is undisputed that the fire originated in the utility room in the basement where the furnace was located.

[4] The plaintiff alleges that the fire was caused by an explosion of built-up natural gas which had leaked from the fitting connecting the gas line to the pipe into the furnace as a result of negligence by the defendant in failing to properly tighten the fitting when the furnace was installed.

[5] Mr. Tavakkoli states that he properly tightened and tested the fitting when he installed the furnace. His position is that the cause of the fire is undetermined.

[6] Damages have been agreed upon by counsel. Only liability is in issue.

[7] The Plaintiff, Iaroslav Starostin, was a tenant in the plaintiff's home. He has discontinued his action against Mohammad Hariri. It was agreed by the parties that the decision in Mr. Hariri's action would apply to Mr. Starostin's companion action. Counsel for Mr. Starostin participated only as an observer.

[8] I have reviewed a transcript of the evidence and submissions of counsel.

### <u>Overview</u>

[9] The plaintiff lived in the basement apartment of the house with his wife, Roxana Arfa, and their three-year old son. The tenant, Mr. Starostin, lived on the main and second floors with his girlfriend.

[10] The plaintiff had immigrated to Canada from Iran in 1999, and was 59 years old at the time of the trial. He had qualified in Iran as a medical doctor with specialties in dermatology and plastic surgery. In 2014, the plaintiff was studying, and working in cosmetic and holistic healthcare.

[11] In January 2014, the plaintiff experienced difficulties with the furnace shutting off. He contacted a client, the defendant, Mehrdad Tavakkoli, who he knew to be in the business of heating and cooling systems. Mr. Tavakkoli had provided his business card to the plaintiff, promoting his business.

[12] Mr. Tavakkoli came to Mr. Hariri's house, looked at the furnace, and recommended installation of a new furnace. Mr. Hariri agreed, and on January 18, 2014, Mr. Tavakkoli installed a new furnace in the utility room in the basement.

[13] On March 14, 2014, the house was destroyed by a fire. It is undisputed that the fire originated in the utility room.

[14] Following the fire on March 4, 2014, the City of Richmond Hill secured the house, bracing one side with beams and boarding up the windows. The property was fenced in with a "No Trespassing" sign and a city order warning of the potential for imminent collapse. The plaintiff was directed by the City not to enter the house, and then, to demolish the house.

[15] Other than the night of the fire, there was no further investigation of origin and cause of the fire by the Fire Department, the Fire Marshal or the regulatory body, the Technical Safety Standards Association. The plaintiff was told to contact his insurer. The plaintiff did not have insurance.

[16] The plaintiff contacted an insurance adjuster, Mr. Sobel, who referred him to a company, Origin and Cause, who directed him to Robert G. McEwen and Associates. The plaintiff retained Mr. McEwen, a professional engineer and forensic fire investigator. Mr. McEwen went to the house on March 28, 2104 and took photographs. Mr. McEwen could not find an electrical cause. Mr. McEwen spoke further with Mr. Hariri and his wife. As they described the sound of an explosion, and Ms. Arfa spoke of having smelled a rotten odour, Mr. McEwen arranged to have Jim Roberts, a certified fire and explosion investigator, accompany him when he returned to the house on March 31, 2014 to continue the investigation.

[17] During the continued investigation on March 31, Mr. Roberts found that the flare fitting which connected the gas line to the pipe into the furnace was loose and leaked until fully tightened. Mr. Roberts removed the flare fitting and pipes for preservation, given the imminent demolition order.

[18] Mr. McEwen notified the defendant, Ace Heating & Cooling, of his findings. An independent insurance adjuster on behalf of the defendant's insurer retained Jason D'Ornellas of Rochon Engineering, a fire and explosion investigator. Mr. D'Ornellas is an electrical engineer. Mr. D'Ornellas is also highly experienced. Since 2001, Mr. D'Ornellas has been employed as a forensic engineer specializing in fire and explosion investigation, electrical failure analysis and electric gas appliance failures.

[19] Mr. D'Ornellas attended the house on April 7, 2014. Mr. D'Ornellas, and a colleague Eduardo Mari, a materials engineer dealing with these types of fittings, examined the flare fitting at Mr. McEwen's office and conducted their own testing. Mr. Mari's observation was that when the flare fitting was in the described 'as found' position, it had considerable leak.

[20] Mr. McEwen, Mr. Roberts, Mr. D'Ornellas and Mr. Mari all testified at the trial, and on consent, provided expert opinion evidence. There was no issue that all are highly qualified and impartial. Mr. McEwen and Mr. D'Ornellas provided their opinions as to the cause of the fire.

[21] It is common ground that failure or malfunction of any of the appliances in the furnace room was ruled out as a cause of the fire, and that no electrical fault was found, indicating an electrical cause of the fire.

[22] Mr. McEwen's opinion was that the cause of the fire was an explosion of gas leaking into the room from the flare fitting on the line that fed the gas into the furnace being ignited, most probably by the furnace itself.

[23] Mr. D'Ornellas ruled out a gas leak, primarily on the basis that he observed differences in the photographs of the flared fitting and the furnace taken by Mr. McEwen on March 28 and March 31. This raised concern for Mr. D'Ornellas that there had been tampering in the intervening three days. At trial Mr. Roberts testified that he had moved the flare fitting on March 31, which explained the different position, and that the photographs show that he had tightened the flare fitting.

[24] It was Mr. D'Ornellas' opinion that, based on burn patterns, that the fire originated in the southeast corner of the furnace room. Mr. D'Ornellas posited theories or hypotheses with respect to items found in the southeast corner: an aerosol container which had the bottom blown off it and an extension cord that had a plug blade and broken cords attached. Mr. D'Ornellas maintained that the cause of the fire should be classified as indeterminate as he could not affirmatively rule out these items as possible causes of the fire.

[25] The plaintiff testified and denied tampering with the flare fitting. The defendant testified that he tightened the flare fitting as the last step in his installation of the furnace.

### <u>Issues</u>

[26] To prove causation, the plaintiffs bear the onus to show, on a balance of probabilities, that "but for" the defendant's negligence, the damage would not have occurred. The test must be applied in a robust, common-sense fashion. Causation need not be determined with scientific precision: see *Clements v Clements*, 2012 SCC 32, at paras. 8, 9, 38 and 49.

[27] It is common ground that the failure to properly tighten the gas fitting would be a breach of the standard of care in the installation of a furnace.

[28] Accordingly, the issue to be determined is whether the plaintiff has proven, on a balance of probabilities, that the cause of the fire was a gas leak, and that the gas leak was a result of the defendant's failure to properly tighten the fitting.

[29] Central to the issue of causation is whether the plaintiff has proven that the flare fitting connecting the gas pipe to the pipe leading into the furnace was leaking gas at the time of the fire; that the fitting was loose because the defendant failed to tighten it; and, that the gas leak caused the fire.

## The Loose Flare Nut

[30] As already set out, it is common ground that the fire originated in the utility room.

[31] Mr. Roberts testified clearly and unequivocally that the flare fitting was loose when he examined it on March 31, and that it leaked when tested on site.

[32] The defendant contends that the evidence of Mr. Roberts and Mr. McEwen about the 'as found' condition of the fitting should be rejected. The defendant argues, based on differences in the photographs taken on March 28 and March 31, that there was tampering with the scene.

[33] The defendant contends that the plaintiff was motivated to place blame for the fire on him. He alleges that Mr. Hariri offered to pay him a kick-back to accept responsibility. Further, that when refused, Mr. Hariri was motivated to set the defendant up. The defendant suggests that Mr. Hariri did so, by tampering with the gas line and the furnace.

[34] The defendant argues further that even if it is accepted that the flare fitting was loose on March 28, the plaintiff has not established that the defendant failed to properly tighten it when he installed the furnace, as he states he did; or that, even if the flare fitting was not properly tightened, that the flare fitting was leaking gas on the day of the fire.

# The Expert Evidence

[35] Mr. McEwen is a professional engineer who, over 43 years, has conducted well over 4,000 forensic investigations, approximately 2,000 of which were fire investigations, almost exclusively for insurance companies. He has investigated gas leak explosions.

[36] As already stated, Mr. McEwen went to the house on Friday, March 28, 2014 to have to look at the scene. He took a series of photographs in the dark using his flashlight. Mr. McEwen identified the copper gas line which runs from the ceiling down to the side of the furnace with a fitting connecting to the pipe that runs horizontally through a grommet into the furnace, feeding the gas into the furnace: Ex 1, Joint Brief, p. 207.

[37] Mr. McEwen testified that he saw no evidence that anyone had been in the house or the utility room. Mr. McEwen described the utility room as a "raw sight". He pointed out that, as seen in his photograph of the utility room before he entered, there was insulation from the ceiling and debris on the furnace, and of particular note, debris lodged against the fitting connecting the copper gas pipe to the pipe leading into the furnace. See Ex. 1, Joint Brief, p. 207.

[38] Mr. McEwen explained that, about five or ten minutes after he took photograph 14, he removed the insulation from the iron pipe to take a photograph of the flare fitting. (Photograph 31).

[39] Mr. McEwen testified that these photographs clearly show the position of the flare fitting, as found. Mr. McEwen explained that, as seen in these photographs, the flare fitting and nut on the gas line are screwed down onto a unit in the iron pipe leading into the furnace. Mr. McEwen stated that three threads are visible on the unit in the iron pipe. Mr. McEwen stated that it was unusual for three threads to be visible.

[40] Mr. Roberts was qualified as an expert on the investigation and inspection of natural gas systems. Over his career, he was certified as a Special Fitter and worked for Consumers Gas, he worked for the Ontario Ministry of Consumer and Commercial Relations (later known as the

Technical Standards and Safety Authority) in the Fuel Safety Branch assisting in investigations by the Fire Marshall's Office, and started his firm, as a consultant in the fuel industry. He has been a Certified Fire and Explosion Investigator for 17 years. He estimated that he had conducted some 400 to 500 fire and explosion investigations over about 32 years. He had done work with the defendant's expert's firm.

[41] Mr. Roberts tested the gas lines. He found no leak in the gas lines to the tankless hot water heater, located in the utility room, and to the fireplace on the main floor. He found two leaks in the gas line to the furnace. The first leak was at the top of the line, where the copper line was bent by pipe and duct work that had collapsed from the utility ceiling during the fire. When this leak was taped, there was remained a leak at the flare fitting connecting the gas line to line leading into the furnace.

[42] Mr. Roberts used the soap test in which he applied a soap solution to the area under examination. Air pressure equal to that of natural gas supplied which causes the soap to bubble at a leak. Mr. Roberts testified that, in order to further test the flare fitting, he snipped a zip tie that was holding electrical wiring for the furnace onto the pipe. He did this so that he could put more soap solution directly onto the fitting and retest.

[43] He testified that, as he moved the wiring aside, he put his fingers on the fitting out of habit. The fitting moved in his hand, and he was quite surprised. It was unusual for a fitting to be loose in his fingers. As he had turned it in a tightening direction, he turned it back to the spot from which he believed it had moved.

[44] Mr. Roberts testified that he had not marked the flare fitting before he moved it because he had not expected it to move. It caught him off guard. The soap test confirmed that the upper flare nut was loose and not secured to the male unit in the pipe leading to the furnace. Mr. McEwen took a photograph. When snugged with a wrench, and tested again, there was no further leak.

[45] As, by order of the City, the house was to be demolished within days, Mr. McEwen and Mr. Roberts removed the flare fitting to preserve it for examination by the insurer of the furnace installer. When the fitting was removed, Mr. McEwen and Mr. Roberts found ice up to precisely the level of the lower fitting, and not above. This indicated to Mr. McEwen that the fitting must have been loose. If there was insufficient water to fill the pipe to the level of the bottom nut, the ice would have been lower. If the fitting was secure, the ice would have gone higher up into the copper pipe. That the ice was at precisely the level of the top of the lower fitting was consistent with a leak in the fitting: Photograph 286, the ice. see photographs 41 and 42.

[46] Mr. McEwen acknowledged that, with hindsight, it would have been preferable to take a photograph of the flare fitting and mark the location of the nut before Mr. Roberts applied the soap solution. Mr. McEwen was concerned when Mr. D'Ornellas pointed out the difference in the position of the flare fitting in photographs taken by Mr. McEwen on March 28 and 31. Mr. McEwen was satisfied, on hearing from Mr. Roberts that he had moved the flare nut when he applied the soap, that there was no tampering.

[47] Mr. McEwen is a very experienced investigator. I was impressed by his impartiality, and his willingness to acknowledge the shortcomings in his investigation and the discrepancies pointed

out by Mr. D'Ornellas. Mr. McEwen was willing to change his opinion. All of this enhanced his credibility as an expert witness, and the value to be placed on his opinion. I also found Mr. Roberts to be a similarly impressive witness. Both were open to critique of their investigation or consideration of other possible causes.

[48] While it is regrettable that Mr. McEwen did not take a further photograph on March 31 before Mr. Roberts commenced his investigation or that Mr. Roberts did not mark the spot before touching the fitting, I accept Mr. Robert's testimony and find that it was Mr. Roberts who moved the nut and did not move it back to its original location. Significantly, as stated by Mr. Roberts, the flare nut is tighter in the photograph taken on March 31.

[49] There is no evidence of tampering with the scene prior to March 28. I am satisfied that the photographs of the "raw scene" and the visible debris on the fitting itself, amply support Mr. McEwen's testimony that he was satisfied with the integrity of the scene, as found by him on March 28, 2014, despite the passage of time since the fire.

[50] Mr. D'Ornellas also pointed to differences in the photographs of the side of the furnace taken by Mr. McEwen on March 28 and 31 as part of the suggestion of tampering between those dates; specifically, the burn pattern on the side of the furnace and the appearance of the grommet. When shown to Mr. McEwen, he identified the differences as the result of wiping down the side of the furnace, soaping the area and fire debris moving down. It was also noted that there are different camera angles and lighting, and an evolving scene as the soaping and testing was done. I accept these explanations plausibly account for the differences. Even if not fully explained, I am satisfied that these differences do not affect the finding that the flare fitting was loose. (Ex. 5).

[51] Mr. McEwen and Mr. Roberts made the following observations, which I accept: (i) the flare fitting connecting the gas line to the male unit in the pipe leading into the furnace was loose; (ii) the loose connection at the flare fitting leaked; and, (iii) the ice at precisely the level of the top of the lower fitting was consistent with the fitting having been in that position since the fire.

## The Testimony of Mr. Hariri, Ms. Arfa and Mr. Tavakkoli

[52] As I will now explain, I find there to be issues with the reliability and testimonial trustworthiness of the evidence given by both Mr. Hariri and Mr. Tavakkoli. This is in contrast to my assessment of the reliability of Mr. McEwen and Mr. Roberts such that the evidence of Mr. Tavakkoli does not detract from my acceptance of the observations made by Mr. McEwen and Mr. Roberts, and their opinions.

[53] Mr. Hariri and Ms. Arfa's testimony that, on March 4, 2014, at about 8:30 p.m., while watching television in their basement living room, they heard a "poof" like an explosion is not challenged. Nor was it challenged that, as Mr. Hariri and Ms. Arfa testified, they ran upstairs, saw smoke coming out of the vent from the utility room, told Mr. Starostin to leave and as they ran back downstairs, the power went out. When Mr. Hariri looked in the utility room with a flashlight, he saw a lot of white smoke in the middle of the room above the furnace and fire on the ceiling above the furnace. He saw the plastic vapour barrier melting and dripping down. I accept the evidence of Mr. McEwen that these observations are consistent with an explosion of natural gas; specifically: (i) the "poof" sound is consistent with an explosion; and, (ii) the delay between

the sound and the power going out is consistent with a gas explosion and not an electrical or slow growing fire.

[54] Mr. Hariri testified that he never smelled anything after the furnace was installed. Ms. Arfa testified that between when the furnace was installed and the fire, on at least three or four occasions, she smelled an odour that was "very weird", "like a rotten egg or something like gas". She testified that she told her husband it was suspicious as they had never previously had a smell like that. She stated that Mr. Hariri dismissed it, saying maybe it comes from their son's diaper. She thought he was making fun of her. In cross-examination, she explained that she was thinking at the time it might be gas, but didn't say that. Mr. Hariri was at work and not home at the times that she smelled the odour. Ms. Arfa's testimony, if accepted, is consistent with intermittent leaking of gas. While I do not reject Ms. Arfa's testimony, I am cautious about placing much weight on it, as I do have some concern that her recollection has been enhanced with hindsight.

[55] The defendant contends that Mr. Hariri is not trustworthy on the basis that, as alleged by the defendant, Mr. Hariri offered him a 'kickback' of cash and payment of insurance premiums, of he admitted the fire was his fault. Mr. Tavakkoli testified that on the day that he installed the furnace, the plaintiff paid him \$2,200 in cash. He stated that they agreed on a cash deal, to avoid payment of HST. Mr. Tavakkoli testified that, around March 12 or 14, 2014, the plaintiff contacted him and told him that he did no longer wanted a cash deal and wanted a receipt for the installation of the furnace for tax purposes.

[56] Mr. Tavakkoli stated that Mr. Hariri came to his house in the evening and gave him \$286 in cash for HST. Mr. Tavakkoli provided Mr. Hariri with an invoice backdated to January 18, 2014, stating paid in full. Mr. Tavakkoli testified that, after receiving the invoice, Mr. Hariri then asked Mr. Tavakkoli to go for a drive. Mr. Tavakkoli got into Mr. Hariri's car. Mr. Hariri drove to 145 English Oak. It was night-time and it was dark.

[57] Mr. Tavakkoli testified that Mr. Hariri then shone a flashlight on the house, showing him that the house had been destroyed in a fire. Mr. Tavakkoli testified that Mr. Hariri then told him that his wife had not paid the house insurance. Mr. Hariri asked him to use his company insurance and admit it was his fault. He stated that Mr. Hariri said he would pay five years of his premium and give him \$50,000 to 60,000 in cash. Mr. Tavakkoli testified that he told Mr. Hariri he could not do that, as after a claim like that, he would never be able to get insurance, and would never be able to work. He stated that Mr. Hariri was emotional, but calm and did not get upset. Mr. Tavakkoli testified that they did not get out of the car and did not enter 145 English Oak, that nothing further was said, and they drove back to his house.

[58] Mr. Hariri denied that he offered payment to Mr. Tavakkoli for acceptance of responsibility. Mr. Hariri testified that while he paid cash in two installments, part on the day of installation and the remainder a few days later. Mr. Hariri testified that he received the invoice, backdated to January 18, 2014, when he made the second payment a few days after the installation.

[59] Mr. Hariri testified that when he learned from Mr. McEwen that the fire was probably caused by a gas leak from the furnace, he called Mr. Tavakkoli and told him. Mr. Tavakkoli did not believe it. Mr. Hariri said he could come and see for himself. He picked Mr. Tavakkoli up and drove him to his home, so that he could see for himself, from outside, that the house was

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completely destroyed. He said that Mr. Tavakkoli said that he was "very sorry, that's all." Mr. Hariri denied that he ever offered money to Mr. Tavakkoli to take responsibility for the fire. Mr. Hariri said that his financial situation was bad. A friend helped him retain Mr. McEwen.

[60] The plaintiff points to acknowledged violations of legal requirements by Mr. Tavakkoli as significant factors undermining his credibility. One example is Mr. Tavakkoli's willingness to do a cash deal and acknowledgement that he did not plan to report the sale or pay the required tax.

[61] The plaintiff sought the admission of a further example. During cross-examination, a *voir dire* was held during which Mr. Tavakkoli acknowledged that in 2014 he was charged under s. 3.1(3)(a) of the *Ontario College of Trades and Apprenticeship Act* with performing work of a refrigeration and air conditioning systems mechanic while not having a certificate or qualification or being a member of the College of Trades. He pled guilty and received a fine of about \$150. The defendant objected to the admissibility of this evidence. Submissions were made as part of closing submissions.

[62] The plaintiff submits that an offence under s. 3.1(3)(a) is a crime within the meaning of s. 22 of the *Evidence Act*, R.S.O. 1990, c. E.23; that Mr. Tavakkoli may be asked about his conviction; and that, as an offence of dishonesty, the conviction is probative with respect to the assessment of Mr. Tavakkoli's credibility.

[63] In *Andreadis v Pinto* (2009), 98 O.R. (3d) 701, Brown J. (as he then was), described the "ongoing debate over what sort of offences fall within s. 22 of the *Evidence Act*, which permits asking a witness whether she has been convicted of any crime.", stating further:

In *Street v. Guelph (City)*, [1964] 2 O.R. 421, [1964] O.J. No. 781 (H.C.J.), the court limited the reference to "crimes" to offences under the Criminal Code. The correctness of that conclusion subsequently was questioned by the Court of Appeal: *Deep v. Wood*, [1983] O.J. No. 23, 143 D.L.R. (3d) 246 (C.A.). Since the purpose of the admission of evidence of prior convictions under s. 22 of the Evidence Act is to test the credibility of the witness, commentators have observed that convictions for provincial offences may reflect upon the dishonesty or lack of truthfulness of a witness: J. Sopinka, S.N. Lederman and A.W. Bryant, The Law of Evidence in Canada, 2nd ed. (Toronto: Butterworths, 1999), at 16.140.

[64] Assuming, without deciding, that Mr. Tavakkoli's conviction under s. 3.1(3)(a) is a crime, I am not persuaded that the nature of the offence, conducting work without a licence, is inherently dishonest or shows a lack of truthfulness of a nature which might bear on his credibility. I am not satisfied that either his expressed intention to knowingly fail to remit GST or to perform work without a licence assists in assessing the truthfulness of his testimony.

[65] That said, I have concerns about the logic of both parties' testimony about the drive to the house. Mr. Hariri offered no explanation why he contacted Mr. Tavakkoli directly to confront him and take him to the house, when he knew that Mr. McEwen would contact Mr. Tavakkoli and his insurer. Mr. Tavakkoli, having provided the invoice to Mr. Hariri, provides no explanation for why Mr. Hariri wanted him to go to see the house, or why he agreed to go for a drive with Mr. Hariri.

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[66] Mr. Tavakkoli agreed, in cross-examination, that Mr. Hariri had no money. Mr. Tavakkoli stated that he believed what had been offered would have been, in effect, an offer of a kickback from insurance proceeds. I have concerns about Mr. Tavakkoli's testimony in that he alleges that Mr. Hariri drove him to the house, without explanation, and made an offer of kickback, apparently in desperation, and yet, Mr. Tavakkoli did nothing, thereafter, either to report to his insurer to protect his position or, take any steps to preserve evidence that he had done his job properly.

[67] I am not satisfied that either Mr. Hariri or Mr. Tavakkoli's account of what occurred that evening is sufficiently reliable or trustworthy to be relied upon.

[68] Mr. Tavakkoli took a two-year heating and refrigeration course at Humber College in 2005. He started Ace Heating and Cooling in 2012. He had received his certification as a licenced gas technician on February 1, 2013.

[69] Mr. Tavakkoli testified that he installed the furnace on January 18, 2014, with a helper, Brandon. Brandon was not certified. He was friend who came to help Mr. Tavakkoli by drilling and cutting sheet metal. Mr. Tavakkoli testified that the sequence of installation step is different in each installation, but he recalled that, in this job, tightening the gas fitting was his last step. He stated that he used two adjustable wrenches to tighten the fitting. He stated that he did both the soap test and the dial test, started the furnace, checked the gas valve pressures and then left. He stated that gas is most important thing in the job, "100 percent".

[70] When it was put to Mr. Tavakkoli in cross-examination that he had not taken any notes or photographs, he asserted that he, in fact, had taken photographs but when the case came up, he no longer had the photographs. When it was put to him that, by March 14 he knew there was an issue, he disagreed. He maintained that even after Mr. Hariri took him to the house, he had no reason to believe the fire had anything to do with him. Mr. Tavakkoli then conceded that, at least by April, 2014, he was aware of the plaintiff's expert and the claim to be made against him.

[71] Later in cross-examination, Mr. Tavakkoli elaborated, stating that he took a photograph before and after the installation of Mr. Hariri's new furnace for use on his Facebook and Instagram pages. He maintained that by the time he found out about the case, his phone was damaged and had been replaced. He didn't have any backup. Mr. Tavakkoli agreed that he had a notebook which he had not produced.

[72] Mr. Tavakkoli was in his first year of installing furnaces, and had only a helper with him. The photographs were his only record of the installation. I find logic and common sense would have led him to preserve the photographs, particularly after Mr. Hariri took him to the house and suggested that he take the blame, as Mr. Tavakkoli alleges. Yet, he replaced his phone, he says, because it was damaged, but did not back up the contents of the phone, or downloaded the contents of the old phone to the new phone, or keep the phone itself, even for a few weeks.

[73] Even accepting that, unfortunately, his phone was damaged and replaced in those six weeks, I find the failure to retain his only record of the installation when confronted with a fire shortly after he had installed the furnace, to be cavalier and troubling. In the circumstances, I have concerns about the reliability of his recollection that he tightened the fitting. These concerns

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are sufficient that I do not find his evidence, when considered together with the expert evidence, to diminish my acceptance of the observations made and documented by Mr. Roberts and Mr. McEwen.

#### **Cause of the Fire**

[74] Mr. D'Ornellas' opinion as to the place of origin in the south-east corner and his hypothesis were put to Mr. McEwen. There was more significant burning at a lower level and greater debris and burn in the southeast corner. Mr. D'Ornellas theorized that an aerosol can in this corner, with the bottom blown off, and an extension cord with a part of a plug and two wires, without an item attached, were potential sources of fire.

[75] Mr. McEwen did not agree that the aerosol can and the electrical extension cords were possible causes of the fire. Mr. McEwen explained that the aerosol can had to heat up before it would explode. A scenario of that nature was not consistent with what Mr. Hariri and his wife heard - a whoosh or explosion sound and then an advanced fire; nor was it consistent with what was observed in the area of the aerosol can. With respect to the electrical extension cord, Mr. McEwen opined that, even if one assumed it could possibly have been involved, any electrical at fault could have set off the gas explosion.

[76] Mr. McEwen agreed that the fitting could be loose, but not leaking gas at all times. He agreed that the gas leak could have been intermittent. For example, if Ms. Afra bumped into the pipe while doing laundry, or as a result of temperature changes, the loose flare fitting could start leaking gas. If the flare fitting was properly tightened, even with events such as bumping into it or temperature changes, it could not result in a gas leak.

[77] Mr. McEwen's opinion was that the cause of the fire was an explosion of gas leaking out of the loose connection into the room being ignited by a source, in all probability, the furnace, but could have been anything energizing in the room that would generate a spark. As he put it, "None of the other possibilities can be proved up. The gas line leak can be proved up".

[78] I am satisfied, based on the finding that fitting was loose on March 28, 2014, it can be inferred that the fitting was loose on March 4, 2014. It is illogical and contrary to common sense that Mr. Hariri or Ms. Arfa, or anyone else, would have loosened the nut between the installation of the furnace and the day of the fire. There is no evidence to support, nor any viable theory, that an unknown person would have entered the furnace room and deliberately loosened the fitting prior to the fire, nor that the fitting, if properly tightened, could have loosened on its own.

[79] Accordingly, I find that the gas fitting was loose at the time of the fire on March 4, 2014, and that it was loose because Mr. Tavakkoli failed to properly tighten it when he installed the furnace. Even accepting that that the loose gas fitting leaked on an intermittent basis, I am satisfied that the evidence establishes, on a balance of probabilities, that the gas leak caused the fire. The plaintiff and his wife heard an explosion. Testing of the loosed fitting confirmed that it leaked. The burn pattern is consistent with a fire burning down from the ceiling level. While there was greater fire debris and burn in the southeast corner, there were also items that were not burned. Mr. D'Ornellas acknowledged that this area appeared to contain items that could be more combustible and could have been burned by drop-down burning.

[80] All observations made by the expert opinion evidence of both the plaintiff and the defendant are consistent with a gas explosion. All other appliances or gas lines were eliminated. There is no evidence of an electrical fault. There is no other probable or even possible cause of the fire, only theories that can not be eliminated.

### **Conclusion**

[81] On the totality of the evidence, for the reasons given, I am satisfied that the plaintiff has established, on balance of probabilities, that the cause of the fire was the ignition of a build up of gas from the gas fitting which was not properly tightened by the defendant when the furnace was installed

[82] There being no issue that the failure to tighten the fitting fell below the standard of care in the installation of the furnace, I am satisfied that the defendant's negligence was the cause of the fire.

The Honourable Madam Justice S. Lavine