

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

WASHINGTON, SC

Filed 2/28/07

SUPERIOR COURT

LIZANN GIBSON, IAN MEARS, :
RUSSELL OSBORNE, PAMELA :
DUMAS, in their individual capacities :
on behalf of CEDARHURST ON :
WICKFORD HARBOR ASSOCIATION :

V. :

C.A. NO. WC 04-0473

TOWN OF NORTH KINGSTOWN :

DECISION

RUBINE, J. This matter was tried without a jury. The Plaintiffs have filed an amended complaint that sets forth three claims: Count I, nuisance; Count II, negligent harm to property; and Count III, res ipsa loquitur.

The issues involve damage to copper water lines installed in the various units at the Cedarhurst project. The damage claimed is in the form of what was described as “pin-hole” leaks in copper service lines running from the water main at the street level, to the meters at each individual unit at Cedarhurst. It is alleged that these leaks formed by way of corrosion beginning on the inside surface of the water pipes, and ultimately led to the failure, or leaking, of the copper piping. It is further alleged that the Town of North Kingstown, the owner of the public water supply system that delivers water to the Cedarhurst subdivision, is liable for the property damage caused by such corrosion in that the corrosion resulted from the chemical composition of the water supply.

At the conclusion of Plaintiffs’ case, the Town moved in accordance with Super. R. Civ. P. 52(c) for judgment as a matter of law as to all counts. The Court reserved

judgment at that time, choosing instead to hear all of the evidence. This Court now revisits the Defendant's motion and herein renders its findings of fact and conclusions of law pursuant to Super. R. Civ. P. 52(a).

I

FINDINGS OF FACT

1. Cedarhurst on Wickford Harbor Association (hereafter "Plaintiff" or "the Association") is an unincorporated association created in 1974 by Declaration of Covenants and Restrictions recorded in the land evidence records of the Town. The Association manages the common areas of a planned unit development in the Village of Wickford (hereafter "Cedarhurst"). The individual plaintiffs are owners of individual units in the project, and are presently, or were at pertinent times, members of the Executive Committee of the Association. They are joined in their representative capacities.
2. The Association has standing to bring this action since the maintenance of the pipes in question is the responsibility of the Association in accordance with the Declaration of Covenants.
3. The Town of North Kingstown ("the Town" or "Defendant") was at all times pertinent to the Complaint the exclusive supplier of water to Cedarhurst, and operates a public water supply system as defined by G.L. 1956 § 46-13-2 (3). The source of water supplied by the Town to Cedarhurst is a number of wells in the system identified as wells 1, 2, 6, 9, and 10.¹ The well water is delivered by the

¹ Testimony establishes that these wells—at different times and in random, unidentifiable patterns—collectively supply water to Cedarhurst. It is impossible to identify a single well

Town through 6 inch water mains running under or adjacent to the roads in the Cedarhurst development. Water supply to each individual unit is thereafter accomplished through ½ inch to ¾ inch copper service pipes running off the main to a juncture with a meter at the individual units.

4. The entire North Kingstown water service area includes approximately 10,000 water service connections. The Cedarhurst development is comprised of two “phases”: Phase 1 is comprised of 52 units, and dates back to 1973 or 1974; Phase 2 is comprised of 50 units. Each unit is a townhouse sitting on a lot owned by the unit owners, and the unit owners own in common certain open space associated with the development.
5. Beginning in 1998, pin-hole leaks developed in a small quantity of the copper service line serving Phase 1 units. These leaks were repaired by removing the leaky portion of pipe and replacing it. Thereafter, in 2002 and 2003, these leaks proliferated, and the Association began to replace the copper service line with plastic pipe from the junction with the main to the meter at the unit. While each unit experiencing such leaks was different, many of the replacement projects required excavation of lawns, demolition of patios, decks, or courtyards. As of the date of the trial, the Association repaired or replaced the copper service line in 35 units where leaks had occurred. Sixty-seven units continue to receive water service through the original copper service lines. It has been the policy of the Association not to replace the copper service line until there has been evidence of a leak.

as the source of supply from the wells that service Cedarhurst (the “low service area”) since the supply becomes commingled in the system.

6. The Association has expended \$60,000 in costs associated with the repair and/or replacement of leaky copper service line. Of that amount, a portion is attributed to cost associated with the 400 hours of time of Mr. David Bashaw, the Association's full time property manager. His annual salary is approximately \$62,000. Mr. Bashaw estimates that it will cost the Association an additional \$150,518 to replace the remaining copper service line in the sixty-seven units that continue to have copper service line in use.
7. In May 2002, in an effort to determine the cause of the leaks, Mr. Bashaw collected a sample of water from the office area at Cedarhurst and brought it to a laboratory for testing. The results were reported in June 2002. Tests on samples of water pipe were also performed by a laboratory in New Jersey.
8. As Mr. Bashaw replaced copper service pipes in units at Cedarhurst, he retained samples of the pipe which contained the pin-hole leaks. Ultimately, some of those samples were delivered to Dr. Marc Richman, a forensic metallurgist, for further testing.
9. Beginning in 2002, the Town also had received complaints of similar pin-hole leaks in other areas served by Town water. These leaks were not system wide, and appeared to be clustered in eight to ten discrete groups throughout the Town. The leaks have affected approximately 200 individual services out of the 10,000 in service units.
10. Thereafter, with the assistance of Thomas Nicholson, a consulting engineer with much experience in municipal water systems, the Town undertook an investigation into the potential causes of the pin-hole leaks. The investigation

determined that the leaks were somewhat isolated and random, occurring in clusters in areas of the “low service area,” with no leaks found in the other two service areas of the Town. A “copper coupon study” was also performed. That study, described by Mr. Nicholson as an accepted technique for studying corrosion in a water system, entails placing small pieces of copper (known as “coupons”) in water service lines,² and allowing system water to run through the lines. The “coupons” are then examined under an electron microscope every three months over the period of one year, and the water chemistry is checked. Four of the eight coupons in each line tested were the “soft” copper used in the service lines, and four coupons were “hard” copper used in household installations after the meter.³ The investigation revealed that the system was determined to be of good corrosion resistance.

11. The 2004 study was conducted after the Town had changed its system. In 1988, a study determined that the acidity of the water delivered in the Town system was high, and that without alkaline treatment there would be a potential impact of damage to household pipes. Therefore, to raise the pH of the water, dry soda ash was added through a mechanical delivery system. Although that system raised the pH, it was unreliable, prone to failure, and not uniformly mixed. Therefore, in 1996, the Town installed a liquid feed system to inject liquid sodium hydroxide

² The wells which were subjected to this test were number 5, serving the “high service area,” and number 6, serving the “low service area.”

³ It is agreed that the pin-hole leaks only occurred in the “soft” copper service lines running from the main to the meter, not in the “hard” copper pipes used on the other side of the meter.

(to control pH at acceptable levels of 6.5 to 8.5) and polyphosphate (a corrosion inhibitor).

12. In 1992, EPA promulgated “lead and copper” rules designed to raise the pH of drinking water to a point that lead and copper from pipes and fittings would not leach into the water at unacceptable levels. At around the same time, several fecal coliform bacteria “events” occurred within the Town, requiring residents to boil water for periods of time. These bacterial “events” occurred in 1992, 2001, 2002, 2004, and 2005. Isolated chlorination occurred prior to 2005. In July 2005, a chlorination feed system was added.
13. A study was done by the Copper Development Association, Inc. in September 2002, at the Town’s request. That study concluded that the waterside pitting of the samples examined was chloride/chlorine induced. However, the study also stated that “[S]ince the required data was apparently not readily available, the role of water chemistry in the pitting attack could not be evaluated.”
14. Dr. Marc Richman analyzed various documents, including the various studies performed at the request of the Town. He also examined, with the aid of an electron microscope, the corrosion on the inside wall of certain samples of copper service pipe removed from the Cedarhurst units. His opinion is that the corrosion resulting in the pin-hole leaks was caused by a combination of high pH (resulting from the alkaline treatments used to raise the system pH), combined with the chlorine added to the system to control the bacterial events. Notwithstanding that opinion, Dr. Richman was unable to quantify the amounts of chlorine, or the level of pH that would combine to cause pitting erosion in the copper pipes, or the

period of exposure necessary to cause such corrosion. There was no evidence produced by any party as to a published or recognized ratio or standard of chlorine to pH level. Mr. Nicholson testified that no such standards exist.

15. The Town does not accept Dr. Richman's testimony as to the cause of the leaks and believes other potential causes may be responsible.

II
ANALYSIS
A
Negligence

In order to state a viable claim for negligence, the plaintiff must establish the existence of a legal duty of care owed by the defendant to the plaintiff. Volpe v. Fleet National Bank, 710 A.2d 661, 663 (R.I. 1998); Ferreira v. Strack, 636 A.2d 682, 685 (R.I. 1994). Whether a duty is owed is a legal determination that is for the Court to decide. Id.

In this case, the Plaintiffs allege that the Town has a duty to supply water that will not cause corrosion or leaks in the copper pipes that are used in the Cedarhurst subdivision. In order for the Plaintiffs to establish such a duty, there must be some statute or regulation that sets forth a standard for operators of a public water supply to follow. In the absence of a statutory or regulatory source of such duty, the standard of care that a municipal water source must follow must be established by competent expert testimony. Duty in a negligence case, such as this, is synonymous with a standard of care. It is incumbent on the Plaintiff "to establish a standard of care as well as a deviation from that standard." See Sousa v. Chaset, 519 A.2d 1132, 1135 (R.I. 1987) (quoting Marshall v. Tomaselli, 118 R.I. 190, 196, 372 A.2d 1280, 1283

(1977)). Unless the subject of the standard of care is of such common knowledge and understanding as to be within the lay knowledge of the finder of fact, the standard of care must be proven by competent expert testimony. Morales v. Town of Johnston, 895 A.2d 721, 732-33 (R.I. 2006).

In this case, the Plaintiffs have not identified any statutory or regulatory source for the Town's duty to supply water having a chemical composition that will not cause the type of pin-hole leaks which occurred at Cedarhurst. The applicable statutes provide that an operator of a public drinking water supply has a statutory duty to provide safe and potable drinking water, meaning that the water is safe for human consumption. Section 46-13-2 (4). The director of health is authorized to test such a water supply to determine if it is safe and potable for human consumption. Section 46-13-3 (a). Any violation of the provisions of the drinking water chapter is deemed to constitute a public nuisance, and is subject to a claim in equity for abatement, as well as fines. Sections 46-13-15 to -16. Nowhere in the compendium of laws designed to regulate the supply of drinking water is there any duty imposed relative to whether the water is corrosive to the pipes that deliver the supply. Nor has any state or federal regulation been shown to the Court to establish such a standard.⁴ The only duty imposed on the Town relative to drinking water is that the supply be safe for human consumption.

⁴ The so-called "lead and copper rule" that was the subject of testimony at trial was imposed by the U.S. Environmental Protection Agency ("EPA") to regulate the level of lead and copper in drinking water. Chemical composition of the water supply must necessarily be adjusted to make sure that it does not result in the leaching of such minerals in unsafe quantities into the drinking water. These regulations were not imposed for the protection of the copper pipe, but rather to regulate the safety of drinking water for human consumption. At any rate, North Kingstown's water supply has never exceeded the copper level requirements of the EPA rules.

In a case from Florida, strikingly similar to the facts of this case, a condominium association sued the municipal supplier of drinking water, alleging that the chemical composition of the water caused property damage by way of corrosion to copper plumbing pipes. The Court, after reviewing the statutory requirements in Florida for providing safe drinking water, found that the only duty of the municipality was to assure that the water supply was fit for human consumption. In ruling that the municipality cannot be held liable in negligence, and was not the insurer or guarantor of the quality of the water it furnishes, the Court stated:

The parties have not cited, nor have we found, any cases where a municipality has been required to add chemicals to otherwise safe drinking water to prevent corrosion of a property owner's pipes. . . . [W]e think it would be unreasonable to require [the municipality] to infuse the water with elements to lessen the damage to the pipes which the developer installed. Brynnwood Condo., v. City of Clearwater, 474 So.2d 317, 318-319 (Fla. App. 2 Dist.1985) (citation omitted).

This Court agrees with the conclusion of the Florida court, and finds that neither the statutes nor regulations of Rhode Island or the United States impose such a duty on the Town under these circumstances.

Furthermore, the Plaintiffs presented no expert witness to establish such a duty upon a reasonable supplier of public water. Although Dr. Richman testified extensively as to what he believed was the most likely cause of the pin-hole leaks, it is clear that causation alone is insufficient to establish a case of negligence in the absence of duty.⁵ See Selwyn v. Ward, 879 A.2d 882, 886 (R.I. 2005). Dr. Richman, a metallurgist by

⁵ It is clear that the Town takes issue, as well, with Dr. Richman's theory of causation. However, in light of this Court's conclusion relative to duty, the Court need not resolve the issue of how the leaks may have occurred.

training, was unable to testify as to how a municipal water supplier should conduct itself in order to be considered reasonable in the field of water delivery. He concluded that a combination of pH that was “too high,”⁶ combined with chlorine introduced into the water supply to address certain bacteriological contaminants, resulted in a water condition that was causative of the pin-hole corrosion leaks. However, he was not unable to testify as to any accepted standard that would control the pH level in combination with chlorine, nor was he knowledgeable about the actual pH and chlorine levels in the Town’s water supply that would have reached the problem-causing level. He frankly admitted that even if pH and chlorine were each within an acceptable range for drinking water, the combination may nonetheless be the cause of the damage to the copper pipes. In other words, Dr. Richman was unable to provide any assistance to the Court in reaching a determination as to the standard of care which the Plaintiffs claim was owed by the Town. Without such testimony, the Plaintiffs have failed to meet their burden in establishing a claim of negligence against the Town, and the claim must fail as a matter of law.

B
Nuisance

Plaintiffs have also joined a claim that the Town’s supply of water in a manner resulting in corrosion of the Plaintiff’s copper water pipes constitutes actionable nuisance. Although the Amended Complaint fails to identify whether the claim

⁶ There was testimony that a “recommended guideline” for pH in drinking water is 6.5 to 8.5 as set by the EPA, but that this standard has been “waived” in Rhode Island because the largest public water source, the Providence Water Supply Board, routinely provides water at a pH range of 9.5 to 10.0.

asserted in Count I is one for public or private nuisance, counsel for the Plaintiff has conceded both on the record at trial, and in its post-trial brief, that the claim asserted is one for private nuisance.⁷ Historically, private nuisance has been applied to conflicts between neighboring land uses. Hydro-Manufacturing, Inc. v. Kayser-Roth Corp., 640 A.2d 950, 957 (R.I. 1994). Under Rhode Island law, it is well-settled that a cause of action for private nuisance “arises from the unreasonable use of one’s property that materially interferes with a neighbor’s physical comfort or the neighbor’s use of his real estate.” Id. (emphasis omitted) (quoting Weida v. Ferry, 493 A.2d 824, 826 (R.I. 1985)). Although the Plaintiff need not establish the elements of a negligence claim to establish the existence of a private nuisance, see Wood v. Picillo, 443 A.2d 1244, 1248 (R.I. 1982), there must exist sufficient evidence for the finder of fact to determine that the defendant allowed to exist on its property an unreasonable condition that interferes with the plaintiff’s reasonable use and enjoyment of its property. Citizens for Preservation of Waterman Lake v. Davis, 420 A.2d at 59.

Based upon the Plaintiff’s evidence in this case, there has been no showing that the Town has allowed its water supply to remain in an unreasonable condition so as to cause harm to the Plaintiff’s property. The Town has complied with all applicable state and federal drinking water standards, and acted appropriately in adding chlorine to abate problems of bacteriological contamination. The pH of the water has been adjusted with a feeder system to control the inappropriate leaching of metals into the

⁷ All parties concede that in Rhode Island, actionable nuisances fall into two categories: private and public. See Citizens for Preservation of Waterman Lake v. Davis, 420 A.2d 53, 59 (R.I. 1980).

water supply. The Plaintiffs have not produced any evidence to establish what an acceptable ratio of chlorine to pH is in order to determine the outer limits of a reasonable water supply system. Under these circumstances, the Court determines, as a matter of law, that the Plaintiff has failed to establish a viable claim for private nuisance. Under the circumstances of this case, it would be somewhat anomalous to find that the Town fostered an unreasonable intrusion by way of nuisance when the Court has determined, as a matter of law, that there is no evidence that the Town's present balance of chlorine to pH, resulting in compliant drinking water, constitutes an unreasonable chemical composition level injurious to the Plaintiff's property. Accordingly, the Court finds no legal or factual basis to support Plaintiff's claim for private nuisance.

C

Res Ipsa Loquitur

Rhode Island has adopted the definition of res ipsa loquitur as contained in the Restatement (Second) Torts § 328D (1965). See Konicki v. Lawrence, 475 A.2d 208, 210 (R.I. 1984) (quoting Restatement (Second) Torts § 328D at 156-57). Although the doctrine does not give rise to an independent cause of action, it may be utilized to create an inference of negligence when it is established that 1) the event is of a kind which ordinarily does not occur in the absence of negligence; 2) other responsible causes, including the conduct of the plaintiff and third persons, are sufficiently eliminated by the evidence, and; 3) the indicated negligence is within the scope of defendant's duty to the plaintiff. *Id.* The doctrine of res ipsa loquitur does not relieve the Plaintiffs of their obligation to prove that the Defendant owed a duty under the

facts and circumstances of the case. For the reasons previously stated, the Court finds no such duty to exist, and the evidentiary doctrine of *res ipsa loquitur* cannot supply that missing element of a negligence claim. Accordingly, the Plaintiffs' claim as set forth in Count III of the amended complaint must be denied.

CONCLUSION

For the foregoing reasons, the Court grants the Defendant's motion for judgment as a matter of law in accordance with the provisions of Super R. Civ. P. 52(c).⁸ Judgment for the Defendant shall be entered by the Court.

⁸ Because of the disposition of Plaintiffs' claims, it is unnecessary to discuss the additional defense of the "public duty doctrine," raised by the Town.