gained an addiction to morphine there, which had been used to treat his cocaine addiction (93).

Today, the use of powerful stimulants to allow personnel to remain awake during extended duration work shifts is restricted to certain branches of the military, such as the United States Air Force, which still distributes methamphetamine routinely to pilots required to fly lengthy missions and to other critical military personnel. Of course, neither medical school faculty nor their hospital trainees are allowed to use cocaine or methamphetamine to stay awake for long hours, nor should they be allowed to do so. Yet, based on a 19th century tradition dated to the time of Halsted, academic medical centers continue to single out physicians-in-training as the only group of hospital employees who are required to work for 30 consecutive hours and to work more than double the standard work week. Using a validated survey instrument, we found that in 2002–2003, half of the interns we studied worked more than 80 hours per week, with 11% working more than 100 hours per week (Figure 5). Some were required to work more than 120 hours per week (85), which is remarkable given that there are only 168 hours in a week. During that year, we estimate that physicians-in-training worked 20,000 shifts in the United States that exceeded 40 consecutive hours, with about 2,000 shifts exceeding 64 consecutive

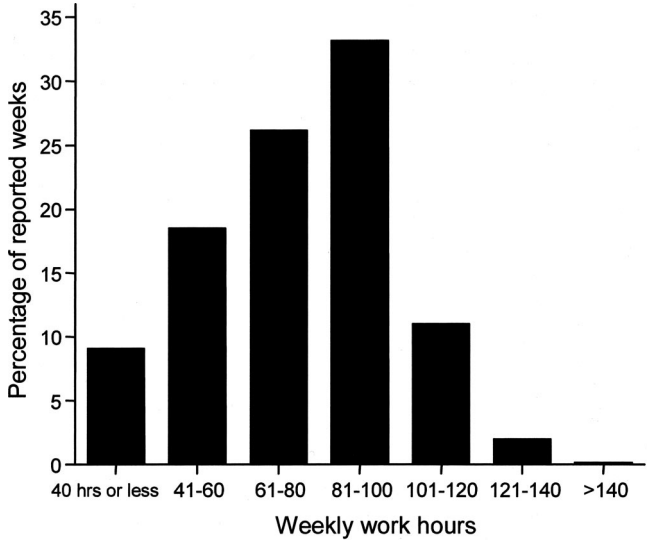


FIG. 5. A total of 17,003 person-months of data were collected from a nationwide sample during 2002–2003. The distribution of the percentages of reported weeks with a given range of work hours is shown in this chart. Reprinted with permission from Barger et al (85). Copyright 2005 Massachusetts Medical Society.

hours (85) (Figure 6). Theoretically, the work-hour reforms instituted by the Accreditation Council of Graduate Medical Education (ACGME) in 2003 should have reduced the duration of the longest of these shifts to 30 consecutive hours, although there has been no independent

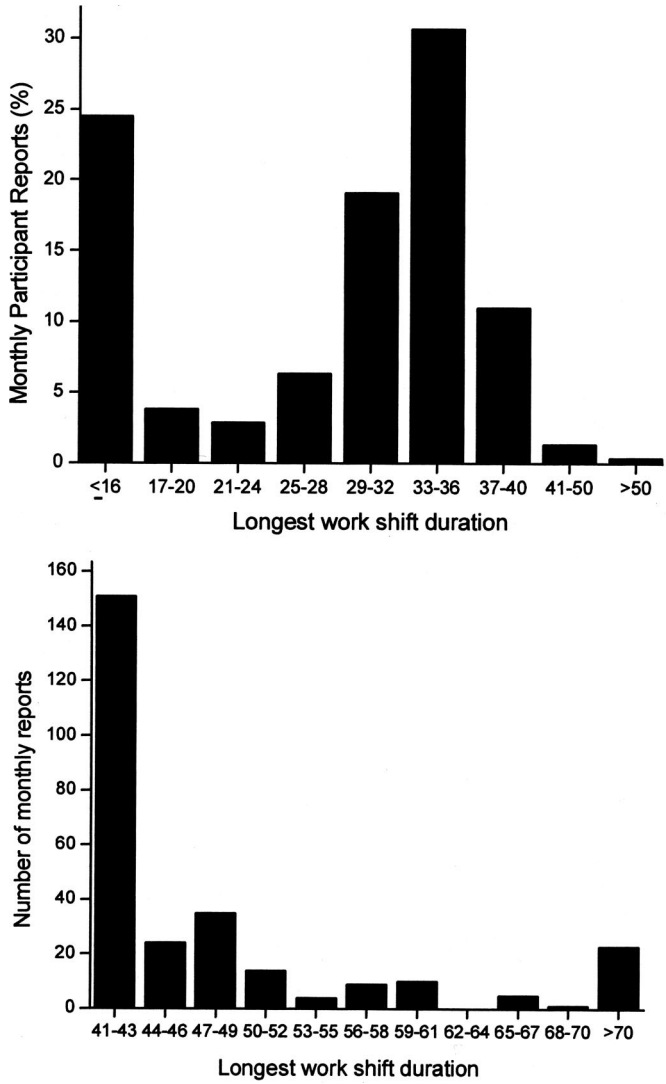


FIG. 6. The longest shifts reported by participants are shown in the chart at the top. The chart at the bottom shows the number of surveys in which participants reported shifts that exceeded 40 hours. Reprinted with permission from Barger et al (85). Copyright 2005 Massachusetts Medical Society.

verification that these voluntary guidelines are being consistently enforced. Moreover, the new ACGME guidelines largely sanctioned what was already the *status quo* in most hospitals, since interns averaged 70.7 ± 26.0 work hours per week (85) before the ACGME instituted an 80- to 88-hour limit (averaged over four weeks) and the average duration of the extended duration "on-call" shifts was 32.0 ± 3.7 hours before the ACGME instituted their limit of 30 consecutive work hours per shift. On many of these marathon ~30-hour shifts, we found that trainees obtained little or no sleep (85) (Figure 7). Even among interns who spent the greatest amount of time in the hospital per week, less than 5% of that time was spent sleeping (85) (Figure 8). In fact, we found that interns averaged only 2.6 ± 1.7h of sleep on extended duration (>24-hour) work shifts, and that those who were covered by night floats only obtained an additional half hour of sleep (85).

The recent discovery that memory consolidation and learning depends on the sleep obtained after training on a task has called into question the wisdom of keeping residents awake all night as part of their education (94–98). In order to address the impact of such schedules on patient care, the Harvard Work Hours, Health and Safety Group (HWHHSG) conducted a clinical trial for the Medical Intensive Care (MICU) and the Coronary Care (CCU) Units at the Brigham and Women's Hospital in Boston (1, 99). Interns were randomly assigned to work a three week rotation in the CCU or the MICU either on the traditional "q3" schedule, in which they worked an extended duration (~30 hour) work shift every other shift, or an intervention schedule in which the 30-hour extended duration work shift was split in half such that no scheduled work shift exceeded 16 consecutive hours. Dr. Steven Lockley, Dr. Daniel Aeschbach and our colleagues in the HWHHSG examined the relationship between work hours, sleep and the ability to sustain attention in these trainees. We found that on the traditional schedule, 85% of all work hours occurred on extended duration (>24h) work shifts, whereas none of their work time was spent on extended duration shifts on the intervention schedule (1) (Figure 9). Moreover, on the traditional schedule, interns were twice as likely to have slept less than 2 hours in the 24 hours prior to each hour worked, whereas on the intervention schedule, they were twice as likely to have obtained at least 8 hours of sleep in the prior 24 hours (1). We found that the interns worked fewer hours and slept more hours per week on the interventional schedule, and that there was a negative correlation between hours worked and hours slept (1) (Figure 10). We found that interns working extended duration shifts were twice as likely to expe-

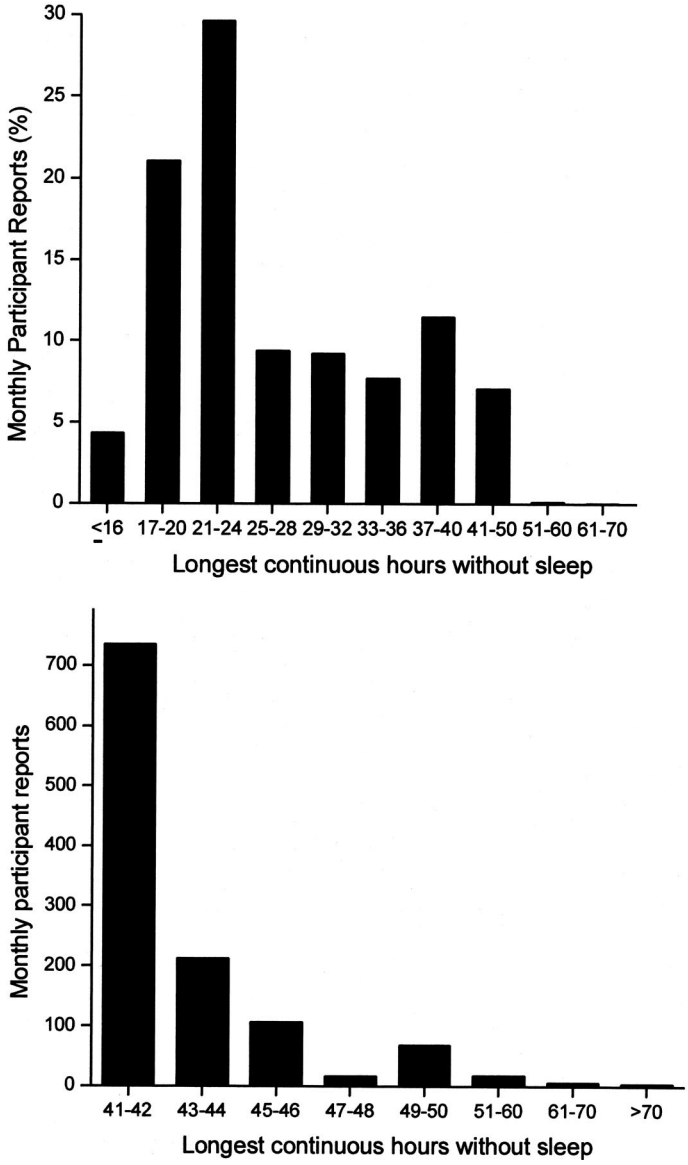


FIG. 7. The greatest number of hours without sleep as a percentage of monthly reports is shown in the chart at the top. The chart at the bottom shows the number of surveys in which participants reported more than 40 continuous hours without sleep. Reprinted with permission from Barger et al (85). Copyright 2005 Massachusetts Medical Society.

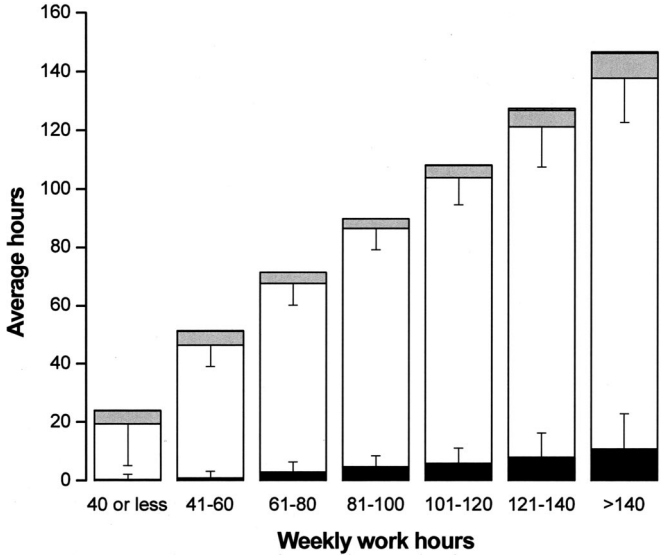


FIG. 8. This chart shows the average number of hours that interns spent asleep in the hospital, awake in the hospital, studying or working in relation to their program but outside the hospital, and working outside of the program. T bars indicate standard deviations. Interns reported spending an average of 193.4 ± 88.8 of their waking hours in the hospital each month participating in direct patient care (e.g., examining patients; writing progress notes; interpreting diagnostic tests, radiographic studies, and pathological specimens; and consulting with other physicians), 43.3 ± 47.0 hours in duties not directly related to patient care (e.g., completing other paperwork and scheduling tests), 23.5 ± 20.1 hours in structured learning sessions (including classes, laboratories, and grand rounds), and 7.3 ± 16.4 hours teaching students or house staff. Reprinted with permission from Barger et al (85). Copyright 2005 Massachusetts Medical Society.

rience attentional failures while working at night than were interns scheduled to work no more than 16 consecutive hours (1) (Figure 11).

But what about patient care? Prior research at the Brigham and Women's Hospital had found that discontinuity in patient care (patient handoffs) increased the risk of preventable adverse events (100), although this increase could be eliminated by use of a computerized sign out system (101). Reduction in the duration of extended work shifts by half would necessarily double the number of required handoffs of care. Thus, we wondered which was safer for the patient, a tired intern who remained with the patient throughout the night after admission, or a better-rested intern to whom care of the patient was transferred. In order to answer that question, we teamed up with the Patient Safety Center for Excellence led by Dr. David Bates at the Brigham and Women's Hospital and obtained research support for a study from the Agency for Healthcare Research and Quality and the National Insti-

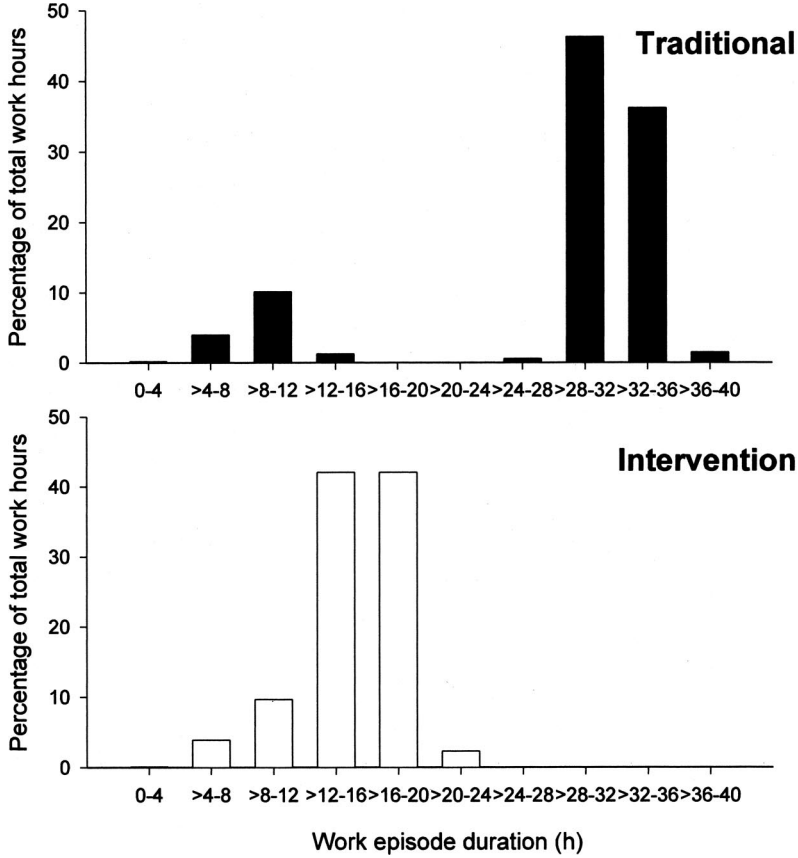


FIG. 9. Proportion of total work hours plotted against the duration of the shift during the Traditional Schedule (top chart) and the Intervention Schedule (bottom chart). Reprinted with permission from Lockley et al (1). Copyright 2004 Massachusetts Medical Society.

tute for Occupational Safety and Health. Dr. Christopher Landrigan, Dr. Jeffrey Rothschild and our colleagues in the HWHHSG then hired a team of physicians to monitor these interns around the clock while they worked in the MICU and CCU (99). In addition, we hired research nurses to review the medical records of their patients and search for medical errors. Finally, we presented all events noted by these observers to a panel of reviewers who were blind to condition and rated each event. Only serious medical errors were analyzed.

Interns working extended duration "on call" shifts made 35.9% more serious medical errors, including more than 5 times as many serious diagnostic mistakes, as interns scheduled to work no more than 16

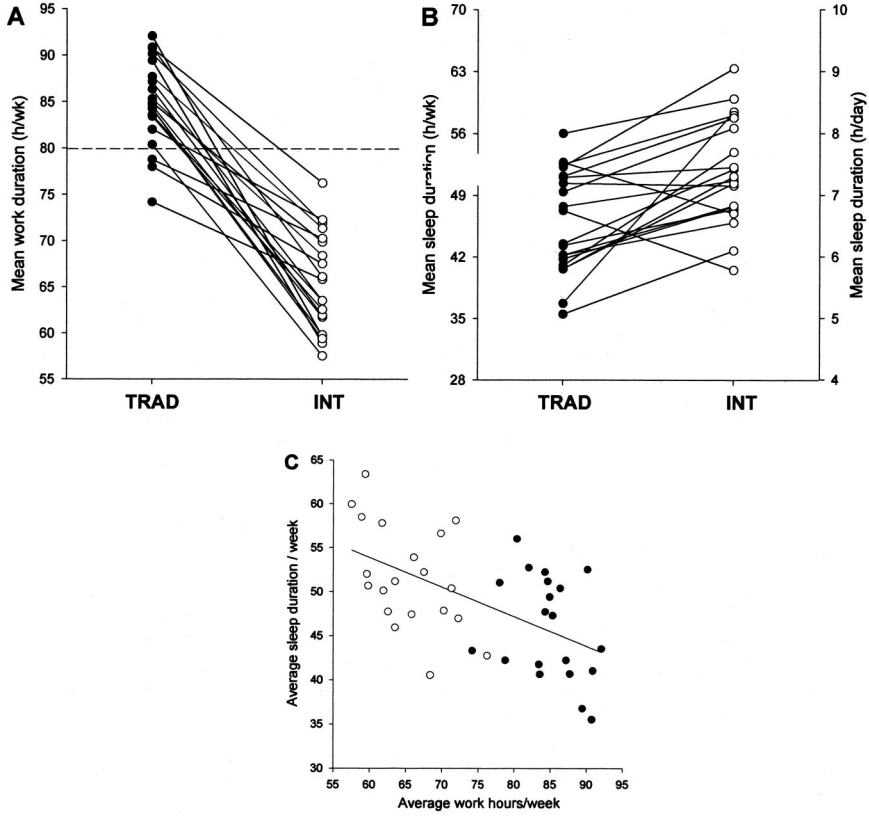
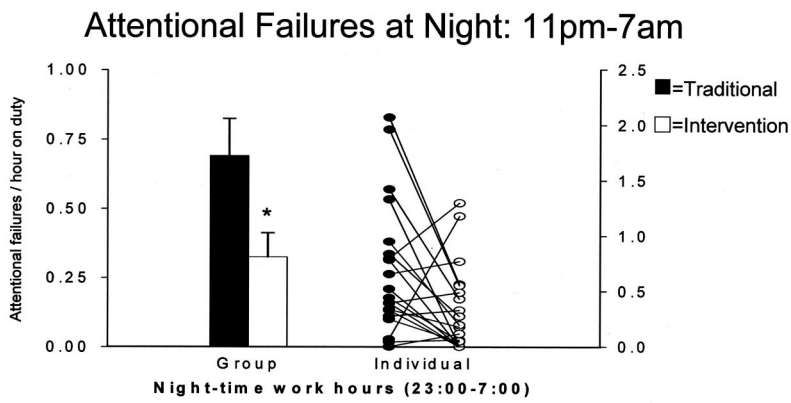


FIG. 10. Subjective mean hours of work per week (top left), duration of sleep (top right), and the relationship between the duration of work and the duration of sleep (bottom chart) for 20 interns during the Traditional schedule and the Intervention schedule (open symbols). Reprinted with permission from Lockley et al (1). Copyright 2004 Massachusetts Medical Society.

consecutive hours (99). We found that interns working extended duration shifts made more serious mistakes that reached the patients than those who worked shorter shifts, notwithstanding the fact that there were twice as many handoffs of patient care with the intervention schedule (99). We found that most of the serious medical errors were due to slips and lapses, i.e., failures to carry out intended plans of action, rather than knowledge-based mistakes (105).

In a companion nationwide survey study supported by the National Institute of Occupational Safety and Health, Dr. Laura Barger, Dr. Najib Ayas and our colleagues in the Harvard Work Hours, Sleep and Safety Group evaluated the impact of extended duration work shifts on



•0.69 (traditional) vs. 0.33 (intervention) attentional failures per hour, p=0.02

•Non-significant trend toward decreased day / evening attentional failures as well

FIG. 11. Mean (+SE) number of attentional failures among the 20 interns as a group and individually while working overnight (11 pm to 7 am) during the Traditional schedule (filled bar) and the Intervention schedule (open bar). Reprinted with permission from Lockley et al (1). Copyright 2004 Massachusetts Medical Society.

the risk of motor vehicle crashes among interns. We gathered 1,417 person-years of monthly survey data from 2,737 interns nationwide in 2002–2003. During that time, interns reported 320 motor vehicle crashes. Eighty-two percent of those crashes were documented by a police report, insurance claim, automobile repair record, medical record, photograph of the damaged vehicle or a written description of the motor vehicle crash. More than forty percent of the motor vehicle crashes were judged to be consequential, i.e., leading to treatment in an emergency department, more than one thousand dollars property damage or filing of a police report. No additional motor vehicle crashes were identified by a search of the Social Security Death Index or through participant's emergency contacts.

In a prospective analysis of scheduled shifts (across individuals), we found that for *each* extended duration work shift scheduled per month, interns had an 8.8 percent (CI: 3.2%–14.4%) increased monthly risk of any reported motor vehicle crash, and a 16% (95% CI: 7.6% to 24.4%) increased monthly risk of a reported motor vehicle crash on the commute from work. Trainees who work 10 extended duration shifts per month on a "q3" schedule would thus have a 160% increased monthly risk of a reported motor vehicle crash on the commute from work. In a separate case-controlled analysis of the same data set, we found that the odds ratio for reporting a motor vehicle crash during the commute

from the hospital was 2.3 times (95% CI: 1.6 to 3.3) greater after an extended duration (>24h) work shift than after a non-extended work shift (85). The odds ratio for reporting a near miss crash was 5.9 (95% CI: 5.4 to 6.3) during the commute from work after an extended duration work shift as compared to the commute from a non-extended duration work shift (85).

Overall, based on this work, we found that the traditional practice of scheduling interns very long work weeks and extended duration work shifts was hazardous both to the intern themselves as well as to their patients (106). For this reason, the Sleep Research Society (SRS) which represents more than a thousand sleep scientists in the United States, together with the National Sleep Foundation (NSF) in Washington have endorsed legislation in Massachusetts that would limit resident work hours. This legislation is sponsored by Massachusetts State Senator Richard Moore, who requested guidance from the SRS regarding establishment of safer work hours for medical and surgical trainees. Table 1 illustrates the features of the pending legislation. Of note, the SRS and NSF recommend that all physicians be required to notify their patients and receive permission from the patients before caring for them if the physician has slept less than 2 hours in the prior 24 hours. In fact, a nationwide NSF poll found that 86 percent of people would feel anxious about their safety if they learned that their sur-

TABLE 1
Pending Massachusetts Legislation endorsed by Sleep Research Society and National Sleep Foundation

Schedule Feature	Proposed Directive
Weekly Work Hours	Optimal maximum: 60 hours per week Fixed limit: 80 hours in any week
Consecutive Work Hours	Optimal maximum of 10 consecutive hours Fixed maximum of 18 consecutive hours
Maximal frequency of 18-hour night shifts	No more than one 18-hour overnight shift every 3 days
Minimum Hours Off per Day - after 10-hour shift - after ≥18-hour shift	Minimum Hours Off - Optimum ≥12 consecutive hours off/day; minimum of 10 hours off per day - Minimum of 16 consecutive hours off/day
High-intensity settings	Optimal limits required
Patient notification	Caring physician awake 22 of prior 24 hours
Consecutive Hours Off Duty per Week	Optimum ≥48 consecutive hours off/week Minimum 36 consecutive hours off/week, including two consecutive nights weekly. Minimum of 60 consecutive hours off duty each month.

geons had been on duty more than 24 hours, and 70% would likely ask for a different doctor (102). Given the findings that I have reported to you today, the SRS and NSF have concluded that a patient has the right to know if his/her physician were sleep deprived, so that the patient can decide whether or not be treated by that physician.

Probable Cause of Sleep-related Crash in Case A.F.

As shown in the initial case I presented today, there are many pathways that can lead physicians to become sleep deprived. The practice of scheduling physicians to be on call for weeks at a time covering busy services from home may seem innocuous compared to the practice of requiring physicians-in-training to work 30 consecutive hours. However, both sleep curtailment and frequent interruptions of sleep, alone or in combination as in this case, can lead to chronic cumulative sleep deprivation that can severely degrade performance and increase the risk of harm or injury. Case A.F. fell asleep at the wheel and crashed into a car with a 5-year old passenger after having been awake for only 10 hours, but he had been averaging only 5.8 hours per night of interrupted on-call sleep, and had worked seven consecutive days without a day off. The crash occurred in the mid-afternoon nap zone, which made him more vulnerable to the impact of sleep deprivation. In addition to behaviorally induced insufficient sleep syndrome, the trainee suffered from positional sleep-related breathing disorder. Taken together, this crash was certainly not an accident. A comprehensive fatigue management program that includes education regarding the principles of sleep and circadian physiology, implementation of safer policies regarding work hours (such as the limits endorsed by the SRS and NSF), and a comprehensive program to screen for sleep disorders would greatly reduce the risk of sleep-related errors and accidents like this one. Like alcohol-related crashes, sleep-related motor vehicle crashes are a preventable cause of injury. The National Highway Transportation Safety Administration estimates that there are more than 250,000 drowsy driver crashes annually; the Institute of Medicine estimates that drowsy driver crashes account for 20 percent of all injuries in motor vehicle crashes (107). With approximately 100,000 residents in training nationwide, steps should be taken to eliminate this preventable cause of injury.

Legal, Moral and Ethical Considerations

Given that drivers in the United States (Colorado, Massachusetts, Michigan and Florida) and Britain have been convicted of driving when impaired by sleepiness, and that the State of New Jersey has recently

amended its vehicular homicide statute to add driving after 24 hours without sleep to the definition of "reckless," the legal and ethical question is raised as to who should be held responsible for the next motor vehicle crash in which a sleep-deprived resident kills or maims another motorist or pedestrian. No one falls asleep at the wheel without having struggled to stay awake beforehand, so the driver certainly bears legal and moral responsibility just as a drunk driver would. However, institutions that have put their trainees in harm's way by requiring them to work for so many consecutive hours that they are virtually incapacitated by sleep deprivation cannot reasonably walk away from their responsibility to care for those who have been injured by sleep-deprived trainees. Take for example the case of Dr. Sook Im Hong. Dr. Hong was in the second week of her internship at Rush-Presbyterian-St. Luke's Medical Center in Chicago when she fell asleep at the wheel after a 36-hour hospital shift and rear-ended another car, causing massive brain injuries to Heather Brewster (103). It is shocking to me that Rush Medical Center Attorney George F. Galland, Jr. succeeded in arguing that under Illinois law, the institution that required Dr. Hong to work for 36 consecutive hours does not bear any responsibility for the lifelong care of Ms. Brewster, a former college volleyball star who was a graduate student in physical therapy at the time of the crash. By arguing, on one hand, that the intern alone bears responsibility for sleep-related errors and accidents, and by requiring, on the other hand, that interns work 30-hour shifts as a condition of their employment, interns are being put in a "Catch 22" bind while they are at work. Moreover, given that appeals courts in two states (Oregon and West Virginia) have ruled that an employer's responsibility for fatigue-related crashes can continue even after they have left work—similar in concept to the dramshop tort liability incurred by establishments serving alcohol to drivers subsequently involved in alcohol-related motor vehicle crashes—it is likely that courts will eventually hold hospitals that require trainees to work extended duration work shifts, notwithstanding evidence of the hazards of this practice, similarly liable. What about the trainees' physicians? In California, physicians have an obligation to report to the Department of Motor Vehicles patients with conditions characterized by lapses of consciousness. Given that the interns working traditional 30-hour shifts in our study averaged more than five lapses of attention per night (99), do California physicians therefore have an obligation to report all house staff with behaviorally induced insufficient sleep syndrome under their care to the California Department of Motor Vehicles? All these questions will be left for the courts to decide.

But let us move beyond the legal questions. What moral or ethical responsibility should be borne by the program director who required a

trainee to work an extended duration shift that resulted in such an accident? What about the department chair or hospital president who requires or allows the program director to do so, knowing that such schedules increase the risk of motor vehicle crashes by more than 160%? Does the ACGME bear responsibility for continuing to sanction extended duration work shifts in the face of evidence that has revealed the hazards of such shifts? In my view, too many trainees on the thresholds of a medical career have already been killed or seriously injured in sleep-related crashes—or have killed or seriously injured others in sleep-related crashes—while attempting to commute home after working extended duration shifts. Even Professor Halsted never envisioned one of his charges getting behind the wheel of a car and attempting to drive at a speed of 60 miles per hour after working for 30 consecutive hours. These marathon work shifts are a vestige of a bygone era in which the pace of the hospital was much slower at night. There were no intensive care units in 19th century hospitals. There were no all night hospital laboratories. Resident physicians were not routinely expected to stay up all night admitting patients who had been kept in a holding area of the Emergency Department until the late evening. Hospitals today are round-the-clock operations focused on reducing patient length of stay by admitting patients only during the most acute phase of their illnesses. The work schedules to which our trainees are scheduled must now be changed to recognize that trainees can no longer sleep in the hospital. Moreover, resident physicians are now allowed to leave the hospital, live in the community and raise families. Our institutional training practices must therefore allow our trainees to take on these additional responsibilities during their training without endangering themselves, their families or others. Given the dictum "Physician, do no harm," I would urge you as the leaders of American medicine to implement policies that eliminate the practice of scheduling trainees to work extended duration shifts. In the meantime, until this practice has been eliminated, our data indicate that institutions have an obligation—at the very least—to provide round trip transportation to trainees who are required to work extended duration shifts, as it is unsafe to expect or even allow them to drive with inadequate sleep. For this reason, the SRS, NSF and American Academy of Sleep Medicine have recently endorsed model drowsy driver legislation in Massachusetts. Of course, provision of transportation for trainees after extended duration work shifts begs the question as to whether it is appropriate for physicians who are too tired to drive home from work to be caring for patients (104).

Summary

The work schedules of physicians in training require them to work extraordinarily long work shifts and long work weeks. These schedules, which are based on a tradition that dates back to the 19th century, result in acute and chronic sleep deprivation. Sleep deprivation, misalignment of circadian phase and sleep inertia adversely impact cognitive performance and increase the risk of error and accident. Interns working extended duration shifts make significantly more serious medical errors while caring for patients in intensive care units, and make five times as many serious diagnostic mistakes. In addition to the deleterious effects of extended duration work shifts on patient safety, we also found that the risk of motor vehicle crashes is more than doubled driving home from work after such shifts. We conclude that the practice of working extended duration work shifts, which continues to be allowed by new ACGME regulations, are hazardous to both interns and their patients. Academic medical centers are urged to eliminate this now-dangerous tradition.

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RESTAURANTS OF OREGON, INC., an Oregon corporation, Appellant.

CA A70327

COURT OF APPEALS OF OREGON

133 Ore. App. 514; 892 P.2d 703; 1995 Ore. App. LEXIS 510

November 19, 1993, Argued and submitted. Resubmitted in banc December 15, 1994.
March 22, 1995, FILED

SUBSEQUENT HISTORY: Review granted by *Faverty v. McDonald's Rests. of Or., Inc., 312 Or. 512, 321 Or. 512, 900 P.2d 509, 1995 Ore. LEXIS 506 (1995)*

PRIOR HISTORY: [***1]

9001-00394. Appeal from Circuit Court, Multnomah County. Harl H. Haas, Judge.

DISPOSITION:

Affirmed.

CASE SUMMARY:

PROCEDURAL POSTURE: Defendant corporation challenged the decision of the Circuit Court of Multnomah County (Oregon) which awarded damages to plaintiff tort victim in a cause of action concerning injuries suffered by the tort victim during an accident.

OVERVIEW: Defendant corporation appealed from a jury verdict which awarded plaintiff tort victim damages for injuries he suffered when his van was struck by a car driven by the corporation's off-duty employee. The tort victim's theory was that the corporation was negligent in working the employee unreasonably long hours, knowing that he would be a hazard to himself and others when he drove himself home from the workplace. The corporation assigned error to several motions and to the trial court's refusal to allow the jury to compute the percentage of fault attributable to the employee. The court stated that the employee was a high school student and that most high school students who worked at the corporation drove their own cars. On the basis of that evidence, a reasonable jury could have concluded that the corporation knew or should have known that working the employee so many hours would have impaired his ability to drive home safely. The court also held that the information on which the corporation a motion for a new trial was not sufficient to impeach the jury's verdict.

OUTCOME: The court affirmed the ruling of the circuit court which awarded damages to plaintiff tort victim for injuries. The court held that the defendant corporation knew or should have know that its employee was a hazard to himself and others when he drove home from the work place after working numerous hours.

LexisNexis(R) Headnotes

Civil Procedure > Trials > Judgment as Matter of Law > Directed Verdicts
Evidence > Inferences & Presumptions > General Overview
[HN1] In reviewing the denial of a motion for a directed verdict, the court views the evidence in the light most favorable to the non-moving party, extending to that party the benefit of every reasonable inference that may be drawn from the evidence. In reviewing the denial of a motion to dismiss following trial on the merits, the court applies the same standard of review.

Torts > Negligence > Duty > General Overview
[HN2] Unless the parties invoke a status, a relationship, or a particular standard of conduct that creates, defines, or limits the defendant's duty, the issue of liability for harm actually resulting from defendant's conduct properly depends on whether that conduct unreasonably created a foreseeable risk to a protected interest of the kind of harm that befell the plaintiff. The role of the court is what it ordinarily is in cases involving the evaluation of particular situations under broad and imprecise standards: to determine whether upon the facts alleged or the evidence presented no reasonable factfinder could decide one or more elements of liability for one or the other party.

Torts > Negligence > Duty > Affirmative Duty to Act > Special Relationships > General Overview

[HN3] There is no duty so to control the conduct of a third person as to prevent him from causing physical harm to another unless (a) a special relation exists between the actor and the third person which imposes a duty upon the actor to control the third person's conduct, or (b) a special relation exists between the actor and the other which gives to the other a right to protection.

Business & Corporate Law > Agency Relationships > Duties & Liabilities > Authorized Acts of Agents > Unauthorized Acts
Business & Corporate Law > Agency Relationships > Duties & Liabilities > Unlawful Acts of Agents > Intentional & Willful Injuries
Civil Procedure > Judicial Officers > General Overview
[HN4] A special relationship gives rise to an exception to the control of a third person rule: A master is under a duty to exercise reasonable care so to control his servant while acting outside the scope of his employment as to prevent him from intentionally harming others or from so conducting himself as to create an unreasonable risk of bodily harm to them, if the servant (i) is upon the premises in possession of the master or upon which the servant is privileged to enter only as his servant, or is using the chattel of the master, and the master knows or has reason to know that he has the ability to control his servant, and (ii) knows or should know of the necessity and opportunity for exercising such control.

Labor & Employment Law > Wage & Hour Laws > Coverage & Definitions > Overtime & Work Period
[HN5] *Or. Rev. Stat. § 652.010* does not prescribe any particular number of hours that an employer may require its employees to work. It merely states: It is the public policy of this state that no person shall be hired, nor permitted to work for wages, under any conditions or terms, for longer hours or days of service than is consistent with the person's health and physical well-being.

Labor & Employment Law > Wage & Hour Laws > Coverage & Definitions > Overtime & Work Period
[HN6] *Or. Rev. Stat. 652.010(2)* does not apply to the operation of restaurants. By its terms, it applies only to the operation of any mill, factory, or manufacturing establishment.

Civil Procedure > Judicial Officers > Judges > Discretion
Civil Procedure > Trials > Jury Trials > Jurors > Misconduct
Civil Procedure > Judgments > Relief From Judgment > Motions for New Trials
[HN7] In reviewing the denial of a motion for a new trial based on juror misconduct, the court generally defer to the discretion of the trial court because the trial judge is usually in a better position to evaluate the circumstances of each case and the prejudicial effect, if any, of any claimed irregularity.

Civil Procedure > Trials > Jury Trials > Jury Deliberations
Criminal Law & Procedure > Discovery & Inspection > Discovery Misconduct
Criminal Law & Procedure > Verdicts > Impeachment of Verdicts
[HN8] While jurors' affidavits are receivable in evidence in the sense that the trial court should permit them to be filed, affidavits which disclose nothing more than oral misconduct during the jury's deliberations cannot impeach a verdict. In order to make plain the meaning of the rule, the court will restate it: the affidavit of a juror concerning utterances of other jurors during the deliberations or at any other material time cannot warrant the impeachment of a verdict. The kind of misconduct of a juror that will be considered in an attack upon a verdict by a juror's affidavit is misconduct that amounts to fraud, bribery, forcible coercion or any other obstruction of justice that would subject the offender to a criminal prosecution therefor.

Civil Procedure > Trials > Jury Trials > Jurors > General Overview
Civil Procedure > Trials > Jury Trials > Jury Deliberations
[HN9] A quotient verdict is one that is arrived at by having each juror write down an award to which he or she believes the prevailing party is entitled, and then dividing the sum of all the jurors' awards by the number of jurors. Quotient verdicts are invalid and constitute grounds for a mistrial.

Torts > Negligence > Defenses > Comparative Negligence > General Overview
[HN10] See *Or. Rev. Stat. § 18.485(3)*.

Torts > Negligence > Defenses > Comparative Negligence > General Overview
[HN11] See *Or. Rev. Stat. § 18.470*.

Torts > Negligence > Defenses > Comparative Negligence > General Overview
[HN12] *Or. Rev. Stat. § 18.480* provides that, when comparative fault is at issue, a party may request the jury to answer special questions about that issue, specifically: (a) the amount of damages to which a party seeking recovery would be entitled, assuming that party not to be at fault; (b) the degree of each party's fault expressed as a percentage of the total fault attributable to all parties represented in the action.

Family Law > Marital Duties & Rights > Causes of Action > Loss of Consortium
Torts > Damages > Consortium Damages > General Overview
Torts > Procedure > Multiple Defendants > Joint & Several Liability
[HN13] See *Or. Rev. Stat. § 18.485(2)*.

Governments > Legislation > Interpretation
Torts > Negligence > Defenses > Comparative Negligence > General Overview
[HN14] *Or. Rev. Stat. § 18.470* addresses itself only to those persons against whom recovery is sought when the case is submitted to the trier of fact for comparison of fault. The statutory scheme of comparative fault restricts the jury or judge, as the fact-finder, to consideration only of the fault of the parties before the court at the time the case is submitted to the fact-finder for a verdict or decision.

COUNSEL:

I. Franklin Hunsaker argued the cause for appellant. With him on the briefs were Donald C. McClain, McClain & Rayburn, Douglas G. Houser and Bullivant, Houser, Bailey, Pendergrass & Hoffman.

Robert J. Neuberger argued the cause for respondent. With him on the brief were Robert K. Udziela and Pozzi, Wilson, Atchison, O'Leary & Conboy.

Jeffrey V. Hill, Bradford H. Lamb, Zarosinski & Hill, James M. Coleman and Power & Coleman filed a brief amicus curiae for National Council of Chain Restaurants.

Joseph S. Ruggie, Jr., Keith P. Spiller, Michael N. Chesney, Thompson, Hine and Flory, M. Elizabeth Duncan and Foley & Duncan, P.C. filed a brief amicus curiae for Defense Research Institute, Inc.

Kathryn H. Clarke and Alfredo Wheelock, III, filed a brief amicus curiae for Oregon Trial Lawyers Association.

JUDGES: LANDAU, J., Edmonds, J., dissenting. Richardson, Deits and De Muniz, JJ, join in this dissent.

OPINIONBY: LANDAU

OPINION:

[*517] [**704] In Banc *

* Warren, J., not participating.

[***2]

LANDAU, J.

Defendant appeals from a judgment on a jury verdict awarding damages to plaintiff for injuries he suffered when his van was [**705] struck by a car driven by defendant's off-duty employee, Matt Theurer. Plaintiff's theory is that defendant was negligent in working Theurer unreasonably long hours, knowing that he would then be a hazard to himself and others when he drove himself home from the work place. Defendant assigns error to the trial court's denial of several motions, to its overruling of an exception to one of Plaintiff's jury instructions and to its refusal to allow the jury to compute the percentage of fault attributable to Theurer. We affirm.

We state the facts in the light most favorable to plaintiff, who prevailed at trial. *Dikeman v. Carla Properties, Ltd., 127 Ore. App. 53, 62, 871 P.2d 474 (1994).* Theurer was an 18-year-old high school senior. He participated in numerous extra-curricular activities, and he was a member of the National Guard. He also worked part time at one of defendant's fast food restaurants. He was known to be an enthusiastic worker, but his family and friends believed that he was trying to do too [***3] much and was not getting enough sleep.

At the time of the accident, defendant had many employees who attended high school during the day and worked part time in the evenings. Defendant's restaurant closed at 11 p.m., and cleanup and closing procedures sometimes continued past midnight. Defendant's managers generally tried to accommodate employee scheduling requests, but that was not always possible. However, defendant had a policy of not scheduling high school students to work later than midnight more than once per week. The employee manual said that employees also were not to be scheduled for split shifts. According to one of defendant's managers, that was because employees did not like having to commute for split shifts, and they were to be avoided "so people can get their rest." Notwithstanding defendant's efforts, employees still sometimes complained about being tired

after closing, and defendant was aware that at least two of its employees had automobile accidents as a result of falling asleep while driving home after working late shifts.

[*518] A few times each year, defendant would schedule special cleanup projects to be performed after midnight, while the restaurant was closed. Employees [***4] other than high school students usually would be scheduled to perform that work. One of defendant's managers testified that, if student workers were needed, such projects could be scheduled for weekends or during spring break. However, due to the untimely dismissal of another employee, one of defendant's managers asked for a volunteer to fill in for the cleanup shift that was scheduled from midnight to 5 a.m. on a Tuesday. Theurer offered to work the extra shift. The manager knew that Theurer drove approximately 20 miles to and from work.

During the week before the special cleanup project, Theurer worked five nights. One of those nights, he worked past midnight, one--the night before the cleanup project--until 11:30 p.m., one until 11 p.m. and two until approximately 9 p.m.

On Monday, April 4, 1988, Theurer worked his regular shift from 3:30 p.m. to 7:30 p.m., followed by the cleanup shift beginning at midnight and ending on Tuesday, April 5, at about 5:00 a.m. After the cleanup project was completed, Theurer worked yet another shift from 5:00 a.m. to 8:21 a.m. During that shift, Theurer told the manager that he was tired and asked to be excused from his next regularly scheduled shift [***5] so that he could rest. The manager agreed.

Theurer then began the trip home. A short time later, he became drowsy or fell asleep while driving his car approximately 45 miles per hour on a two-lane highway. At a bend in the road, his car crossed the dividing line into the lane of oncoming traffic and crashed into plaintiff's van. Theurer died, and plaintiff was severely injured.

Plaintiff settled his potential claims against Theurer's representatives. Plaintiff then filed this action, alleging that defendant was negligent in requiring Theurer to work too many hours without adequate rest, and in permitting Theurer to drive a car when defendant should have known that Theurer could not drive safely. Defendant moved to dismiss the complaint, on the ground that the allegations do not support the conclusion that plaintiff's injuries were a reasonably foreseeable [**706] consequence of defendant's conduct, [*519] as a matter of law. The trial court denied the motion. Defendant then answered, denying any negligence. Defendant asserted two affirmative defenses. In the first, defendant alleged that plaintiff's injuries were caused by his own negligence. In the second affirmative defense, defendant alleged [***6] that plaintiff's injuries were caused by the negligence of Theurer and, accordingly, any negligence of defendant must be determined in comparison with that of both plaintiff and Theurer. Plaintiff moved to dismiss the second affirmative defense on the ground that the jury is not entitled to consider the relative fault of parties who have settled and are not before the court. The trial court granted the motion.

The case was then tried to a jury. During the trial, plaintiff amended his complaint, so that the sole allegation of negligence is that

> "defendant was negligent in working Theurer more hours than was reasonable under the circumstances when defendant knew, or in the exercise of reasonable care should have known, that Theurer would operate a motor vehicle and be a hazard to himself and to others."

Defendant moved for a directed verdict, arguing that the evidence could not support a verdict that plaintiff's injuries were a reasonably foreseeable consequence of defendant's decision to allow Theurer to work the hours that he did. Defendant also asserted that plaintiff's claim fails as a matter of law, because state labor laws have preempted any common law liability concerning [***7] the scheduling of workers, and there is no evidence of violations of those statutes. The trial court denied the motion. The jury was instructed, in relevant part:

> "Now, ladies and gentlemen, in general it is the duty of every person in our society to use reasonable care to avoid damage that would be reasonably anticipated. Reasonable care is that care which persons of ordinary prudence exercise in the management of their own affairs to avoid injury to themselves or to others.
>
> "Common law negligence, therefore, is the doing of some act that a reasonably careful person would not do or it's the failure to do something that a reasonably careful person would do under the same or similar circumstances. The care exercised should be in keeping with dangers apparent or reasonably foreseeable at the time and place in question and not in the light of resulting sequence of events or hindsight.

> [*520] "A person is liable only for the reasonably foreseeable consequences of his, her, or its actions. There are two things that must be foreseeable. First, the plaintiff must be within the general class of persons that one reasonably would anticipate might be threatened by the defendant's conduct; second, [***8] the harm suffered must be within the general class of harms that one reasonably would anticipate might result in the defendant's conduct. It is not necessary that a party foresee either the precise injury or the exact manner of its occurrence."

The jury then returned a verdict in favor of plaintiff, finding that plaintiff was not negligent at all.

Defendant appealed. Approximately three months after the filing of the notice of appeal, a magazine article reported that at least one of the jurors in this case said that the jury increased its award by $ 100,000 after someone speculated that plaintiff would have to pay a lawyer one-third of his damages for a contingent fee. Defendant moved for a new trial, arguing that the article constituted evidence of jury misconduct. The trial court denied the motion.

In its first assignment of error, defendant contends that the trial court should have granted defendant's motion to dismiss plaintiff's complaint. In its second assignment of error, defendant contends that the trial court should have granted defendant's motion for a direct verdict. In support of both assignments, defendant argues that it cannot be held liable to plaintiff as a matter [***9] of law, because it had no duty to prevent Theurer from working as many hours as he did. According to defendant, as Theurer's employer, it had no duty to limit Theurer's work schedule, both because employers have no such duty at common law and because state labor statutes have preempted the field. Plaintiff [**707] argues that, under *Fazzolari v. Portland School Dist. No. 1J, 303 Ore. 1, 17, 734 P.2d 1326 (1987),* the defendant's liability in negligence generally depends on whether the defendant's conduct unreasonably created a foreseeable risk of harm to the plaintiff. That, plaintiff contends, is a question of fact for the jury to decide. According to plaintiff, defendant's status as an employer does not entitle it to any limitations on that general duty, and the state's labor statutes do not impose any limitations on that duty either.

[*521] [HN1] In reviewing the denial of a motion for a directed verdict, we view the evidence in the light most favorable to the non-moving party, extending to that party the benefit of every reasonable inference that may be drawn from the evidence. *Shockey v. City of Portland, 313 Ore. 414, 422-23, 837 P.2d 505 (1992),* [***10] cert den *123 L. Ed. 2d 444, U.S. , 113 S. Ct. 1813 (1993).* In reviewing the denial of a motion to dismiss following trial on the merits, we apply the same standard of review. See *Scholes v. Sipco Services & Marine, Inc., 103 Ore. App. 503, 506, 798 P.2d 694 (1990).* Therefore, we consider together defendant's first two assignments of error.

The necessary starting point for any discussion of the sufficiency of the evidence in a negligence case is the Supreme Court's decision in Fazzolari. In that case, the court held that

> "[HN2] unless the parties invoke a status, a relationship, or a particular standard of conduct that creates, defines, or limits the defendant's duty, the issue of liability for harm actually resulting from defendant's conduct properly depends on whether that conduct unreasonably created a foreseeable risk to a protected interest of the kind of harm that befell the plaintiff. The role of the court is what it ordinarily is in cases involving the evaluation of particular situations under broad and imprecise standards: to determine whether upon the facts alleged or [***11] the evidence presented no reasonable factfinder could decide one or more elements of liability for one or the other party." *303 Ore. at 17.*

Defendant and the dissent argue that the foregoing test was recently overruled in *Buchler v. Oregon Corrections Div., 316 Ore. 499, 853 P.2d 798 (1993).* We find no such holding in Buchler. To the contrary, the court quoted from and applied the two-step analysis just quoted. n1 Three members of [*522] the court suggested that Fazzolari simply ought to be overruled. However, the majority of the court expressly declined to do that. Accordingly, at least until one more vote emerges on the Supreme Court to overrule Fazzolari, we are constrained to apply it. That is, in fact, the manner in which this court has routinely and consistently analyzed negligence cases, even since the Supreme Court's decision in Buchler. See, e.g., *Slogowski v. Lyness, 131 Ore. App. 213, 217, 884 P.2d 566 (1994); McAlpine v. Multnomah County, 131 Ore. App. 136, 141, 883 P.2d 869 (1994),* [***12] rev den *320 Ore. 507, 888 P.2d 568 (1995); Zavalas v. Dept. of Corrections, 124 Ore. App. 166, 171, 861 P.2d 1026 (1993),* rev den *319 Ore. 150, 877 P.2d 86 (1994).* We proceed, therefore, with our

application of the principles of law articulated in Fazzolari.

n1 The dissent argues that

> "The holding of Buchler is that the 'facilitation' of the risk of harm in terms of foreseeability is not enough by itself to get a common law negilgence case to the jury." Ore. App. at . (Dissenting slip opinion at 10.)

There is, however, no such language in Buchler. What Buchler does say is that

> "mere 'facilitation' of an unintended adverse result, where intervening intentional criminality of another person is the harm-producing force, does not cause the harm so as to support liability for it." *316 Ore. at 511-12.* (Emphasis supplied.)

We note that there is neither allegation nor evidence of any "intervening intentional criminality of another person" in this case. The dissent's analysis of the sufficiency of the evidence, therefore, proceeds from a false premise, and we need proceed no further in our discussion of it.

[***13]

Defendant argues that it was Theurer's employer and, because of that relationship, it was subject to a limited duty to both Theurer and plaintiff, as a matter of law. Defendant relies on *Restatement (Second) of Torts § § 315* and 317 (1965). Section 315 provides that:

> [HN3]
> "There is no duty so to control the conduct of a third person as to prevent him from causing physical harm to another unless
>
> [**708] "(a) a special relation exists between the actor and the third person which imposes a duty upon the actor to control the third person's conduct, or
>
> "(b) a special relation exists between the actor and the other which gives to the other a right to protection."

Section 317 states [HN4] one special relationship that gives rise to an exception to that general rule:

> "A master is under a duty to exercise reasonable care so to control his servant while acting outside the scope of his employment as to prevent him from intentionally harming others or from so conducting himself as to create an unreasonable risk of bodily harm to them, if
>
> "(a) the servant
>
> "(i) is upon the premises in possession of the master or upon which the servant is privileged to enter only as his servant, or
>
> [*523] "(ii) is using [***14] the chattel of the master, and
>
> "(b) the master
>
> "(i) knows or has reason to know that he has the ability to control his servant, and
>
> "(ii) knows or should know of the necessity and opportunity for exercising such control."

Defendant argues that, because the evidence shows that the accident that caused plaintiff's injuries occurred off defendant's premises and did not involve the use of its chattels, the exception to the general rule that is described in section 317 does not apply and, therefore, it is entitled to rely on the general rule of nonliability for the conduct of others that is stated in *section 315 of the Restatement (Second) of Torts*.

The linchpin of defendant's argument is section 315, which states a general rule of nonliability for failing to control the conduct of third persons. It applies to all persons, unless a special relation gives rise to a duty to control the conduct of the third person. By demonstrating that the special relation exception does not apply in this case, defendant asserts that it is entitled to rely on the

general rule of nonliability stated in section 315. The linchpin, however, will not support the weight of defendant's argument.

Accepting, [***15] for the sake of argument, that section 317 does not apply, n2 defendant is not entitled to limit its duty to plaintiff by invoking section 315. The limitation of section 315 does not arise out of any particular status, relationship or statutory standard of conduct. It is a standard that, according to the Restatement (Second) of Torts, applies to all persons. However, under Fazzolari, unless a defendant invokes a special status or relationship, or is subject to a particular statutory standard of conduct, it is subject to the general duty to avoid conduct that unreasonably creates a foreseeable risk of harm to a plaintiff. *Fazzolari, 303 Ore. at 17;* see also *Fuhrer v. Gearhart By The Sea, Inc., 306 Ore. 434, 438, 760 P.2d 874 (1988).*

n2 In fact, it does not apply, although for reasons different than the ones defendant asserts. Section 317 concerns the duty of an employer to control an employee's conduct "while acting outside the scope of his employment." In this case, plaintiff alleges that defendant was negligent in scheduling him to work too many hours on the job.

[***16]

[*524] Defendant argues that, if *section 315 of the Restatement (Second) of Torts* does not limit its duties to plaintiff, the state's labor statutes clearly do. According to defendant, *ORS 652.010* "has declared the public policy of this state as to the number of hours that an employee shall be permitted to work," and plaintiff has not pleaded a violation of that statute. Similarly, defendant asserts that *ORS 653.261* authorizes the Commissioner of the Bureau of Labor and Industries to prescribe maximum hours of employment, and that plaintiff again has failed to plead a violation of that statute or any regulations promulgated thereunder. We disagree.

To begin with, [HN5] *ORS 652.010* does not prescribe any particular number of hours that an employer may require its employees to work. It merely states:

> "It is the public policy of this state that no person shall be hired, nor permitted to work for wages, under any conditions or terms, for longer hours or days of service than is consistent with the person's health and physical well-being * * *." *ORS 652.010(1).*

[**709] Moreover, [HN6] the statute does not apply to the operation of restaurants. By its terms, it applies only to the operation of "any mill, [***17] factory or manufacturing establishment." *ORS 652.010(2).* n3

n3 Defendant's argument is especially difficult to understand in the light of the fact that it took precisely the opposite position at trial. Plaintiff's complaint originally alleged a violation of *ORS 652.010*. Defendant moved to dismiss that claim, arguing that the statute "does not apply to the operation of a restaurant."

Defendant's reliance on *ORS 653.261* is equally unavailing. That section does not establish any maximum number of hours of work. It merely authorizes the Commissioner of the Bureau of Labor and Industries to do so. In addition, *ORS 653.261* and the regulations promulgated thereunder relate to the protection of workers, not to the protection of the general public from the consequences of a worker's conduct. See *Zavalas, 124 Ore. App. at 171.* n4

N4 Once again, defendant's argument that plaintiff should have alleged and proven a violation of the statute is at odds with the position it took at trial, where it moved to dismiss plaintiff's allegation that it had violated *ORS 653.261*, because chapter 653 "relates to the protection of workers and not the possible effects of workers on third parties outside the course and scope of an employee's work relation."

[***18]

[*525] Defendant argues that, even if it is subject to the general standard of Fazzolari, the evidence in this case was insufficient to allow the court to send it to the jury. According to defendant, there is no evidence that it knew or should have known that Theurer was so exhausted or fatigued that it should have foreseen that working him three shifts in one 24-hour period would create a foreseeable risk of harm to motorists such as plaintiff. Plaintiff argues that defendant failed to preserve that argument and that, in any event, the evidence is sufficient to support the trial court's ruling.

We do not agree with plaintiff that defendant failed to preserve the argument. Defendant argued below that

> "there has been no * * * evidence of [defendant's] having any knowledge of impairment on the part of Matt Theurer, nor has there been proof that [defendant] should have known that Theurer had an impairment based upon the facts that have been introduced."

The argument was preserved.

We do agree, however, that the evidence was sufficient to support the trial court's ruling. In *Donaca v. Curry Co., 303 Ore. 30, 38, 734 P.2d 1339 (1987),* [***19] decided the same day as Fazzolari, the Supreme Court said that "in an extreme case a court can decide that no reasonable fact finder could find the risk foreseeable * * *." This is not such an extreme case. There is evidence that defendant controlled all work assignments. Therefore, defendant knew or had reason to know of the number of hours Theurer had been working. There also is evidence that defendant ordinarily did not use high school students to work after midnight, and when it did, it tried to limit that late shift to once a week. Defendant also had a policy of not working its employees two shifts in one day. According to at least one of defendant's managers, those policies were adopted and enforced out of concern that employees not become overly tired on the job. In fact, defendant was aware that at least two of its employees had recently had automobile accidents as a result of falling asleep while driving home after working late shifts. n5 There is [**710] evidence [*526] that, during and after his late-night shift, Theurer was visibly fatigued, and that defendant's managers were on site and saw Theurer throughout that shift. It is undisputed that defendant knew that Theurer was a high [***20] school student, and that most of the high school students who worked there drove to work in their own cars. On the basis of that evidence, a reasonable jury could conclude that defendant knew or should have known that working Theurer so many hours would impair his ability to drive home safely.

> n5 In that regard, the facts of this case recall those in Fazzolari itself. In Fazzolari, the plaintiff sued the defendant school district for injuries resulting from her assault and rape on school grounds. The plaintiff alleged that the defendant was negligent in, among other things, failing to provide proper security on school grounds and failing to warn students of the possibility of such attacks on school grounds. In support of that allegation, the plaintiff introduced evidence that a woman had been sexually assaulted on the school grounds only 15 days before the attack on the plaintiff, and that other kinds of attacks had previously occurred on the school grounds as well. The trial court directed a verdict in favor of the defendant, but the Supreme Court reversed, holding that "it would not be wholly unreasonable for a factfinder to conclude" that the evidence of those prior assaults was sufficient to support a verdict of negligence. *303 Ore. at 22.* Similarly, in this case it was not wholly unreasonable for the jury to conclude that, because of the evidence of prior accidents resulting from working employees too many late-night hours, defendant should not have worked Theurer so many hours that he became an addition to the list of accidents.

[***21]

Defendant and the dissent insist that, because Theurer "volunteered" to work so many hours, the evidence simply is insufficient to establish defendant's negligence, as a matter of law. First of all, in so characterizing the facts, defendant and the dissent put a "spin" on the evidence to which they are not entitled. *Shockey, 313 Ore. at 422-23.* The evidence, taken in the light most favorable to plaintiff, shows that Theurer did not, out of the blue, volunteer to take three shifts in one 24-hour period. Defendant affirmatively asked him to work those hours. Moreover, the evidence shows that defendant--not its employees--generally controlled all work assignments and that defendant penalized its employees for not working as assigned.

Second, even indulging the assumption that Theurer volunteered for his all-night shift, the evidence still is sufficient to support the jury's verdict. Defendant's managers knew that Theurer already had been scheduled to work more than its own policies permitted. Moreover, they saw him in a visibly fatigued state and continued to work him as scheduled. In that regard, defendant was much like a bartender who [***22] served alcoholic beverages to a visibly intoxicated person who then caused an automobile accident that harmed [*527] another. No one required the intoxicated person to have the extra drink. He or she asked for the drink and "volunteered" to pay for it. Nevertheless, the courts have held that, because the bartender saw the driver in a visibly intoxicated state, and it is reasonably foreseeable that the customer will drive when he or she leaves, the bartender is liable for the consequences of the automobile accident. *Campbell v. Carpenter, 279 Ore. 237, 243-44, 566 P.2d 893 (1977).*

Finally, defendant itself conceded at trial that, if it had allowed Theurer to "volunteer" to work around the clock three full days, the

> "court can almost say as a matter of law, allowing someone to work that long without any rest or sleep might very well constitute affirmative misconduct by an employer, but [it] may be a matter of degrees * * *."

Thus, whether Theurer volunteered or not simply is not the point.

The point is whether, as plaintiff alleged in his complaint, defendant "was negligent in working Theurer more hours than was reasonable." That is, as [***23] defendant said at trial, "a matter of degrees." In other words, it is a matter for the jury to decide, not for the court to resolve as a matter of law.

Defendant, the dissent and amici curiae the National Council of Chain Restaurants and the Defense Research Institute, Inc., implore us to reverse the trial court's judgment on the public policy ground that the result is "patently unreasonable," "shocking," "farfetched" and "goes beyond the common-sense application of tort law." However, that argument was not made to the trial court, and we will not consider it for the first time on appeal. n6 Our function is to [*528] determine [**711] whether the trial court made an error of law about issues actually raised below and properly assigned as error on appeal. *Ailes v. Portland Meadows, Inc., 118 Ore. App. 517, 848 P.2d 138,* rev den *318 Ore. 24, 862 P.2d 1304 (1993).*

n6 Defendant's counsel stated these grounds for defendant's motion for a directed verdict:

> "[Counsel]: Your Honor, at this time the defendant, McDonald's of Oregon, Inc., moves for the dismissal of this case and directed verdict and also for a judgment on the pleadings on these grounds: The first ground is that the complaint as amended fails to state a claim. One basis for that is there are not facts alleged in the present complaint that support the contention that this accident and result was reasonably foreseeable. We contend that the pleading is a conclusion and that the plaintiff has the obligation to allege facts which support foreseeability.
>
> "Secondly, we move on the basis of failure to state a claim on the grounds that he has not alleged facts which support that McDonald's took some affirmative action which led to Mr. Theurer driving his vehicle on that morning. We contend that the bare allegation of foreseeability is not the law in Oregon, that the law in Oregon--that restatement 317 through 319 requires that the employer or the party defendant make some affirmative act so that its conduct--that affirmative act will lead to the act or to the loss that they're seeking compensation for.
>
> "Thirdly, we contend that there's been a failure of proof, and move to dismiss or for a directed verdict. There has been no evidence of work within the course and scope of employment nor has there been any proof of--no proof of evidence of McDonald's having any knowledge of impairment on the part of Matt Theurer, nor has there been proof that McDonald's should have known that Matt had an impairment based upon facts that have been introduced.
>
> "Lastly, we move to dismiss and a directed verdict on the basis that the hours of work in this state are controlled by statute and administrative rule and that these statutes and administrative rules have preempted the common law in this area, and that there is in this case no proof of any violation of the statute."

Nowhere did counsel assert that a verdict in plaintiff's favor would violate public policy.

The dissent relies on a statement by defendant's counsel that the public policy of this state is that defendant "didn't have any duty to watch out for [Theurer] after he left work." However, the dissent fails to note that counsel's remark was made in response to questions by the court concerning defendant's argument that the

> state's labor laws provide the exclusive and preemptive statement of public policy concerning hours of work. The discussion had nothing to do with the arguments the dissent now asserts.

[***24]

In its third assignment of error, defendant argues that the trial court incorrectly instructed the jury on the elements of plaintiff's negligence claim. According to defendant, the instruction was faulty in that it was based on the general duty to avoid conduct that unreasonably creates a foreseeable risk of harm, instead of the more limited duties that it contends apply under the Restatement (Second) of Torts and the state's labor statutes. We will reverse the trial court only if we conclude that the jury instruction it delivered probably created an erroneous impression of the law in the minds of the jurors, which affected the outcome of the case. *Waterway Terminals v. P.S Lord, 256 Ore. 361, 370, 474 P.2d 309 (1970).* Defendant's arguments in support of its third assignment are essentially the same as those asserted in support of the previous two. For the reasons already stated, we again reject those arguments. The trial court did not err.

[*529] In its fourth assignment of error, defendant contends that the trial court should have granted defendant's motion for a new trial. Defendant argues that the magazine article that reported the possibility [***25] that the jury increased its award to cover plaintiff's attorney fees was "clear evidence of actual jury misconduct * * *." [HN7] In reviewing the denial of a motion for a new trial based on juror misconduct,

> "we generally defer to the discretion of the trial court[,] * * * because the trial judge is usually in a better position to evaluate the circumstances of each case and the prejudicial effect, if any, of any claimed irregularity." *Moore v. Adams, 273 Ore. 576, 579, 542 P.2d 490 (1975).* (Citations omitted.)

The Supreme Court elaborated on that standard of review in *Blanton v. Union Pacific Railroad Co., 289 Ore. 617, 616 P.2d 477 (1980).* In that case, one of the jurors wrote a letter to the trial judge, suggesting that the jury may have reached a quotient verdict. n7 The trial judge declined to grant a motion for a new trial on the basis of the juror's letter. The Supreme Court affirmed, and explained its decision as follows:

> "[HN8] While jurors' affidavits are receivable in evidence in the sense that the trial court should permit them to be filed, affidavits which disclose nothing more than [***26] oral misconduct during the jury's deliberations cannot impeach a verdict. In order to make plain the meaning of the rule, we will restate it: The affidavit of a juror concerning utterances of other jurors during the [**712] deliberations or at any other material time cannot warrant the impeachment of a verdict. The kind of misconduct of a juror that will be considered in an attack upon a verdict by a juror's affidavit * * * is misconduct that amounts to fraud, bribery, forcible coercion or any other obstruction of justice that would subject the offender to a criminal prosecution therefor." *289 Ore. at 630-31.* See also *Ertsgaard v. Beard, 310 Ore. 486, 497, 800 P.2d 759 (1990).*

> n7 [HN9] A "quotient verdict" is one that is arrived at by having each juror write down an award to which he or she believes the prevailing party is entitled, and then dividing the sum of all the jurors' awards by the number of jurors. See Black's Law Dictionary, 1130 (5th ed 1979). Quotient verdicts are invalid and constitute grounds for a mistrial. *Hendricks v. P.E.P. Co., 134 Ore. 366, 371-72, 289 P. 369 (1930).*

[***27]

In this case, the information on which defendant based its motion was insufficient to impeach the jury's verdict. As in Blanton, the magazine article suggests that one or more jurors may have engaged in "oral misconduct." There is [*530] no evidence of fraud, bribery, forcible coercion or any other criminal obstruction of justice. Thus, the trial court did not err in denying defendant's motion for a new trial.

Finally, defendant assigns error to the trial court's dismissal of defendant's second affirmative defense, which alleged that defendant's fault, if any, should have been "compared to that of plaintiff and Matthew Theurer * * *." Defendant argues that, under *ORS 18.485(3)*, if it is found to be less than 15 percent at fault for economic damages, its liability for economic damages is several only. It argues that, because the purpose of that provision is to prevent tortfeasors who are minimally at fault from being held liable for more than their fair "portion of the

wrong committed," failing to allow comparison with all tortfeasors is contrary to that statute. Plaintiff argues that the language of the statute and its context clearly demonstrate that the comparison of fault involves [***28] only parties to the action, and not to other tortfeasors, such as Theurer, whose liability was not at issue at trial.

We begin with an examination of the text and context of the statute. *PGE v. Bureau of Labor and Industries, 317 Ore. 606, 610, 859 P.2d 1143 (1993).* In examining the text and context, we apply relevant rules of construction, such as the rule that words of common meaning are generally assumed to have that common meaning. *317 Ore. at 611.* We also consider, as part of the statute's context, other provisions of the same statute and other statutes relating to the same subject. *317 Ore. at 611-12.* In addition, we consider prior judicial construction of relevant statutory provisions. *Mathel v. Josephine County, 319 Ore. 235, 239-40, 875 P.2d 455 (1994).*

[HN10] *ORS 18.485(3)* provides:

> "The liability of a defendant who is found to be less than 15 percent at fault for the economic damages awarded the plaintiff shall be several only."

That provision is part of a series of statutory provisions relating [***29] to comparative negligence. Beginning with *ORS 18.470*, the comparative negligence statute provides that contributory negligence does not bar a plaintiff's recovery

> [HN11]
> "if the fault attributable to the person seeking recovery was not greater than the combined fault of the person or persons against whom recovery is sought * * *." *ORS 18.470*.

[*531] [HN12] The statute then provides that, when comparative fault is at issue, a party may request the jury to answer special questions about that issue, specifically:

> "(a) The amount of damages to which a party seeking recovery would be entitled, assuming that party not to be at fault;
>
> "(b) The degree of each party's fault expressed as a percentage of the total fault attributable to all parties represented in the action." *ORS 18.480*.

Finally, the statute establishes specific rules concerning the liability of joint tortfeasors. It provides first that, with respect to noneconomic damages,

> [HN13] "in any civil action arising out of bodily injury, death or property damage, including claims for emotional injury or distress, loss of care, comfort, companionship and society, and loss of consortium, the liability of each defendant for noneconomic damages awarded [***30] to plaintiff shall be several only and shall not be joint." *ORS 18.485(2)*.

In each of those provisions, the legislature referred to the comparative fault of parties to a lawsuit, not to "potential parties" or to [**713] "potentially liable persons." That language lends substantial support for plaintiff's argument that the fault of nonparties is not to be considered under *ORS 18.485(3)*.

In fact, that is precisely the construction that the Supreme Court has given the parallel language of *ORS 18.470* and *ORS 18.480*. In *Mills v. Brown, 303 Ore. 223, 735 P.2d 603 (1987),* the plaintiff was injured in a three-vehicle automobile accident. He settled with one of the other two drivers and sued the other. When the case was submitted to the jury, it was not permitted to consider the fault of the tortfeasor with whom the plaintiff had settled. Judgment ultimately was entered in favor of the defendant, because of the jury's verdict concerning the proportion of the plaintiff's comparative fault. The plaintiff appealed, arguing that, under *ORS 18.470*, his fault should have been compared to that of both of the other drivers. The Supreme Court disagreed, [***31] holding that *ORS 18.470* refers only to actual parties to the lawsuit:

> "We interpret [HN14] that statute as addressing itself only to those persons against whom recovery is sought when the case is submitted to the trier of fact for comparison of fault. The [*532] statutory scheme of comparative fault restricts the jury or judge, as the fact-finder, to consideration only of the fault of the parties before the court at the time the case is submitted to the fact-finder for a verdict or decision." *303 Ore. at 226.* (Emphasis supplied.)

In reaching that conclusion, the court looked to the text of *ORS 18.470*, which refers to "person or persons against whom recovery is sought," as well as the related reference to the comparative fault of "parties" and "all parties represented in the action" in *ORS 18.480*. In the light of Mills, we are hard pressed to find support for defendant's argument that the trial court erred in failing to require the jury to compare the fault of Theurer and defendant.

Defendant insists that the language of *ORS 18.470* and *ORS 18.480* is irrelevant, because those provisions do not concern joint and several liability among defendants. [***32] For that reason, they also argue that Mills is inapposite. We are unpersuaded.

Defendant's argument is contrary to the method of statutory analysis required by *PGE v. Bureau of Labor and Industries, 317 Ore. at 611-12,* which includes an examination of surrounding and related statutes. Moreover, adopting defendant's reasoning leads to the anomalous result of requiring juries to consider the fault of nonparty tortfeasors when determining a plaintiff's comparative fault, but not a defendant's comparative fault. Nothing in the language of *ORS 18.485(3)* or any other statute suggests that the legislature intended that result when it enacted the comparative fault statute.

Defendant contends that the legislature's purpose in enacting *ORS 18.485(3)* was, in fact, to cause "a fundamental change in the law of Oregon," designed to give potential "deep pocket" defendants special protection from being targeted by plaintiffs who settle with all other tortfeasors. In support of that argument, defendant refers to portions of the legislative history of *ORS 18.485(3)*.

First, resort to legislative history is not necessary in this case, where the text and [***33] the context are dispositive. *PGE v. Bureau of Labor and Industries, 317 Ore. at 611-12.* Second, even assuming the text and context are not dispositive, we [*533] find nothing in the legislative history that demonstrates that the legislature intended even to address the comparative fault of nonparties, much less establish a rule that the fault of such persons must be taken into account. n8 [**714] In that regard, it is noteworthy that, although the Mills decision was issued during the legislative session in which *ORS 18.485* was enacted, there is no mention in any of the legislative hearings or debates concerning the court's decision or the issue it decided. n9 Third, even if there were evidence in those hearings or debates that the legislature intended to address that issue, the fact remains that, in enacting *ORS 18.485(3)*, it did not address that issue. Inchoate intentions are not law, only those intentions that are manifested in language that is enacted. If the legislature did not address a matter in such enacted language, we are not free to insert it. *ORS 174.010*; *PGE v. Bureau of Labor and Industries, 317 Ore. at 611-12.* [***34] The trial court did not err in dismissing defendant's second affirmative defense.

n8 The legislative history reveals that the principal focus of the debate on what became *ORS 18.485(3)* was the possible elimination of joint and several liability. The debate produced a compromise, which eliminated joint and several liability when a defendant is found to be less than 15 percent at fault. See Minutes, Senate Judiciary Committee, March 3, 1987, pp. 6-7. The subject of nonparty liability was not discussed. The legislative history does contain repeated references to the allocation of fault between "defendants" and "parties," which, if anything, suggests that the legislature did not intend to require that the fault of nonparties be included under *ORS 18.485(3)*. See Minutes, Joint Interim Task Force on Liability Insurance, September 16, 1986, p. 5; Minutes, Senate Judiciary Committee, February 5, 1987, pp. 4-5; Minutes, Senate Judiciary Committee, March 3, 1987, pp. 5-7; Minutes, House Judiciary Committee, May 20, 1987, pp. 8-11.

n9 The Mills case had been argued and submitted March 4, 1987. The Supreme Court issued its decision April 14, 1987.

[***35]

Affirmed.

Edmonds, J., dissenting.

DISSENTBY: EDMONDS

DISSENT:

EDMONDS J., dissenting,

The majority holds that a restaurant can be held liable for common law negligence because its adult employee fell asleep while driving home from work, crossed the center line into the oncoming lane of traffic and collided with plaintiff's vehicle. The reason for the restaurant's liability: It accepted the employee's offer to work overtime, and, according to the majority, thereby became responsible for the risk of injury caused by the employee's state of fatigue. That holding is without precedent in the State of Oregon. It makes all [*534] employers potentially liable for their employees' off-premises negligence when an employee becomes tired as

a result of working. That has never been the law in Oregon nor should it be now.

The majority need have gone no further than defendant's motion for a directed verdict in deciding this case. Defendant is entitled to a directed verdict as a matter of law because of certain uncontroverted facts. n1 First, Theurer was not a minor, but an adult at the time of the accident. He was 18 years old and serving in the National Guard. Defendant did not owe any special responsibility to him because [***36] he also attended high school. See *ORS 109.510*. The fact that he was a student working part time and had over-extended himself physically is of no import to defendant's liability. No rule of negligence requires an employer to inquire into the private lives of its adult employees to determine if, on a given occasion, the employee is not getting enough sleep.

n1 The majority says that I have put a "spin" on the evidence to which defendant is not entitled because plaintiff is entitled to every reasonable inference that may be drawn from the evidence. (Slip opinion at 13.) I don't quarrel with the proposition of law that it relies on, and I have diligently endeavored to apply it to this case. The facts recited in this opinion are uncontroverted unless specifically qualified in the opinion. Simply because there are other facts from which liability could arise under different circumstances, does not mean that the trial court or we are to abrogate our responsibility to determine whether, when the evidence is considered as a whole in the light most favorable to the plaintiff, defendant is entitled to a directed verdict on these facts. Specifically, we must decide whether as a matter of law defendant's conduct was unreasonable in the light of the kind of harm that befell plaintiff.

[***37]

Second, Theurer volunteered to work the clean-up shift. He was not sought out by defendant and "required" to work on April 5, 1988. Several days before April 5, defendant's manager encountered a problem. He had a special shift scheduled to work on the early morning hours of April 5. One of the persons who had been scheduled for the shift had been suspended for disciplinary reasons. Originally, Theurer was not scheduled to work on that shift. A member of the management team talked to 10 or 11 employees, including Theurer, and asked if there was a "volunteer" who could fill the vacancy on the shift caused by the suspension. His inquiry was not directed to any particular person. There is no evidence that any employee, including Theurer, was pressured in any way to work the shift. Theurer volunteered to work the shift. The manager in charge of scheduling noticed that [*535] Theurer was scheduled to work for four hours on April 4. He asked Theurer if Theurer would be able [**715] to "handle the two shifts," and, according to the manager, Theurer responded, "Yes, it wouldn't be a problem." The manager testified that he also discussed with Theurer about getting some rest between shifts, and Theurer [***38] said "something about catching a nap in between." Once Theurer volunteered, he was scheduled for that shift. n2

n2 The majority says:

> "The evidence, taken in the light most favorable to plaintiff, shows that Theurer did not, out of the blue, volunteer to take three shifts in one 24-hour period. Defendant affirmatively asked him to work those hours. Moreover, the evidence shows that defendant--not its employees--generally controlled all work assignments and that defendant penalized its employees for not working as assigned." (Slip opinion at 13-14.)

I do not understand what the majority means when it says that Theurer did not volunteer "out of the blue." The facts are as described. Theurer was among the group of employees of whom defendant asked if there was a "volunteer." There is no evidence that any employee had ever been penalized by defendant for not volunteering. The only evidence of "penalties" is that, if an employee desired not to work a particular shift for a "month or two," it could be difficult to obtain more hours at a later time. Also, if an employee once scheduled on a shift requested a change, it could be difficult to regain the lost hours on a different shift.

[***39]

Third, Theurer never asked to be relieved from working the shift either before the shift started or during it; nor is there any evidence that defendant refused such a request. On Sunday, April 3, 1988, Theurer worked five and one-half hours for defendant, from 6 p.m. to 11:30 p.m. On April 4, he got up at 6:30 a.m. and left for school at about 7:15 a.m. However, when he got to school, he, his brother and a friend skipped the first four class periods of school. Theurer returned to class for the rest of the afternoon, arriving at defendant's to begin work at 3:30 p.m. He worked until 7:30 p.m. At that time, he told a friend that he was going on a date. Neither Theurer's supervisor nor anyone at the restaurant knew whether Theurer had rested before he arrived to begin the midnight shift. Theurer and his fellow employees finished the clean-up project at approximately 5 a.m. However, Theurer did not go home after the shift. Instead, he again remained voluntarily at the restaurant until 8 a.m. to open the grill. Sometime that morning, he requested, for the first time, to be relieved from a shift; the one that he was scheduled to work later that day. Defendant granted his request, and Theurer [***40] left the restaurant to go home.

[*536] Fourth, Theurer was not on defendant's business premises and was on his own time when he drove home from work that morning. Theurer was not acting on defendant's behalf, nor did defendant have actual control of or the right to control Theurer's driving conduct or where he went after he got off work. Moreover, no omission or affirmative act by defendant prevented Theurer from choosing to have someone pick him up after work, or to take a nap in his car before driving home, or some other preventive measure. The accident occurred about 20 minutes after Theurer left work, at a location miles from where defendant conducted business. There is no evidence that plaintiff's presence on the road had any connection with the business of the restaurant. Fate would have it that he was one of many motorists traveling the highway that morning, and it was his vehicle that was in the way when Theurer fell asleep and his car crossed over the center line.

It is in this factual context that plaintiff brought his claim of negligence against defendant. Initially, plaintiff alleged two specifications of negligence:

> "Defendant was negligent in one or more of the following [***41] particulars which was a cause of damage to plaintiff:
>
> "a. requiring Theurer to work too many hours without adequate rest; and
>
> "b. permitting Theurer to drive a car when defendant knew or should have known that Theurer could not safely drive a car."

After plaintiff put on his case in chief, defendant moved for a directed verdict on the basis that plaintiff had failed to prove a cognizable claim of negligence.

Apparently, plaintiff knew he was in trouble. He had not proven that defendant "required" Theurer to work on the clean-up shift. Moreover, he was probably aware that there is no traditional concept of negligence liability which imposes the responsibility on [**716] an employer to prevent an employee from operating his own car once the employee's work shift is completed. (A theory that the majority's holding necessarily endorses if an employer is to avoid responsibility for its employee's negligence under circumstances like these.) [*537] Instead, to counter the motion for the directed verdict, plaintiff moved to delete the above specifications of negligence and in lieu thereof, asked leave to allege:

> "Defendant was negligent in working Theurer more hours than was reasonable under the circumstances [***42] when defendant knew or in the exercise of reasonable care should have know that Theurer would operate a motor vehicle and be a hazard to himself and to others."

After hearing argument from the parties, the trial court granted plaintiff's motion to amend the complaint and, thereafter, denied defendant's motion for a directed verdict.

It is not clear from the parties' arguments or from the majority opinion what traditional concept of common law negligence is implicated by the allegation that defendant "worked" Theurer "more hours than was reasonable under the circumstances" or how proof of that allegation renders an employer liable for the employee's off-premises, non-work-related negligence. If the allegation is meant to imply that Theurer had no choice but to work the shift, of course, that is not the fact of the matter. Beyond that, there are only two potential points in time when defendant could be deemed to have exposed plaintiff to a risk of harm for having "worked" Theurer too many hours. The first point in time is when Theurer volunteered to work several days before April 5. The second point in time is on April 5.

With those points of time in mind, I turn to plaintiff's [***43] theory of the case. He argues that he

> "proved that McDonald's was actively at fault by its scheduling practices in overworking Theurer, and then permitting him to drive when it knew or should have known of his exhaustion-induced impairment. Thus, the proper focus of the case, and the one presented below is on McDonald's managers, who scheduled Matthew Theurer beyond that which was reasonable. These managers were on [sic] premises when they committed their negligent acts, and they did so within the course and scope of their employment. Thus, the scope of McDonald's liability for injuries caused by them must be analyzed under *[Fazzolari v. Portland School Dist. No. 1J, 303 Ore. 1, 734 P.2d 1326 (1987)]* just as it would be if they had negligently disposed of grease on [sic] premises, the grease found its way by the force of gravity off [sic] premises to a roadway, and the plaintiff was injured when his car skidded in the grease." (Emphasis in original.)

[*538] As I have pointed out, plaintiff's argument that defendant was negligent in permitting Theurer to drive on April 5 is not supported by any specification of negligence [***44] left in the case. That allegation was deleted in response to the motion for a directed verdict. That leaves plaintiff's argument about defendant's "scheduling practices." The only time defendant did any scheduling germane to this case was several days before April 5. Plaintiff invokes the rule of Fazzolari concerning defendant's conduct on that day.

In Fazzolari, the court said that the law does not provide a remedy in common law negligence for an injured plaintiff unless the kind of harm that the plaintiff suffered arises from "unreasonable" conduct that creates a foreseeable risk of harm to the particular plaintiff in the case. *303 Ore. at 17.* Prior to Fazzolari, negligence had always been expressed in Oregon in terms of a breach of "duty of care" that was owed under the existing circumstances. The court explained in *Buchler v. Oregon Corrections Div., 316 Ore. 499, 853 P.2d 798 (1993),* that there is no substantive difference between the two tests; rather it is a semantical one:

> "The message of part of the discussion in Fazzolari is quite simple. 'Duty' and 'foreseeability' [***45] are each but verbal tools used in explanatory reasoning to answer the legal question, 'Should defendant pay for plaintiff's harm?' In either formulation, the use to which courts and litigants put the question remains the same. * * * Either formulation --duty or foreseeability--is [**717] a method of describing how the law limits the circumstances or conditions under which one member of society may expect another to pay for a harm suffered." *316 Ore. at 509.*

The issue then is: Should defendant pay for plaintiff's harm because defendant scheduled Theurer to work on the clean-up shift? The majority bases its analysis on the facts that defendant endeavored to avoid scheduling double shifts for its employees, scheduled high school students to avoid working late hours, and knew that its employees previously were involved in automobile accidents as a result of falling asleep while driving home after working late shifts. Based on these facts, the majority concludes that, because the risk of harm to plaintiff resulting from defendant's conduct was "foreseeable," the issue of defendant's liability was a matter [*539] for the jury. Thus, it was proper for the trial [***46] court to deny the motion for a directed verdict.

The majority's analysis is wrong because the facts relied on by it are not controlling unless defendant's conduct created an "unreasonable" risk of harm to plaintiff. In the context of this case, the question is whether defendant created an unreasonable risk of harm to every person on the highway that morning when it scheduled Theurer to work. That question must be answered in the light of the uncontroverted facts that Theurer was an adult employee, that defendant did not require him to work the shift, that Theurer assured defendant's manager that he would rest between shifts and that he would be able to handle the shift physically, that Theurer never asked to be relieved from the shift, and that the harm to plaintiff occurred off defendant's work premises as a result of an activity over which defendant had no right of control. By holding defendant responsible for the safety of all persons on the roadway, the majority makes "general foreseeability" the test for determining whether defendant's conduct is deemed "negligent."

The majority says that I read Buchler as having overruled Fazzolari. It is mistaken. What Buchler did [***47] was to explain that Fazzolari was not intended to mean that every common law negligence case goes to the jury simply because, in the chain of causation, certain conduct facilitated the harm that befell the plaintiff. Thus, "general foreseeability" is not the proper focus under the Fazzolari standard. That proposition is made clear by the supreme court's overruling of its holding in *Kimbler v. Stillwell, 303 Ore. 23, 734 P.2d 1344 (1987).* In Kimbler, the defendant owned a store in which it kept guns and ammunition for sale in public view. A thief

broke into the store, stole a gun, transported the gun off the store premises, and used it to kill the plaintiff's decedent. The court held that the complaint stated a claim in negligence because it alleged that it was foreseeable that when a store kept firearms in public view, a thief could steal one and use it to injure others. Therefore, the failure to employ more effective methods of preventing theft could constitute negligence because the defendant "facilitated" a foreseeable harm.

In Buchler, the court held that Kimbler was wrongly decided because its facts did not bring [***48] it within traditional common law negligence liability concepts.

> [*540] "Because the store is * * * being charged with responsibility for all intervening intentional criminal conduct that might conceivably occur, we think the breadth of Kimbler's holding cannot be supported by a foreseeability analysis that requires that a defendant, to be liable, must have unreasonably created the risk of the sort of harm to plaintiff that befell him." *316 Ore. at 511.* (Emphasis in original).

The court also noted,

> "Some have read a message in the Fazzolari trilogy that others do not find there. The assumed message was that all negligence claims based on general foreseeability of a plaintiff's harm would reach the jury. We do not think that the trilogy of decisions supports that reading of them. Our treatment of Kimbler leg of the trilogy in this case should dispel any lingering doubts on that score." *316 Ore. at 511 n 8.*

The holding of Buchler is that the "facilitation" of the risk of harm in terms of foreseeability is not enough by itself to get a common law negligence case to a jury. *316 Ore.* [**718] *at 511.* [***49] The majority says, "There is, however, no such language in Buchler." See slip opinion at 8, n 1. It would confine the rule of Buchler to cases involving an intervening criminal act. Although Theurer was never charged with a crime because he died as a result of the accident, conceivably he could have been charged with criminal assault under *ORS 163.160* or a traffic offense on these facts. Regardless, the point is that, here as in Buchler and Kimbler, there must be evidence that the defendant's conduct also unreasonably created a risk of the type of harm that befell the plaintiff. That pre-requisite necessarily requires the application of recognized community standards of care to the defendant's conduct, a function reserved for the court and to be decided as a matter of law. See *316 Ore. at 509.*

That inquiry involves considerations of public policy n3 which may or may not lead to the conclusion that a [*541] particular defendant is liable for the plaintiff's harm. For instance, in *Wiener v. Gamma Phi, ATO Frat., 258 Ore. 632, 485 P.2d 18 (1971),* the plaintiff was injured while riding [***50] in a vehicle being driven, on behalf of a fraternity, by an intoxicated minor after a fraternity party. Defendant Kienow, a member of the fraternity, knew of the party and that minors would be attending. Nonetheless, he purchased alcoholic beverages for the purpose of making them available to the party and had them delivered to the location where the party was to be held. The court declined to impose liability as to him, pointing out:

> "Considering then, the allegations of the complaint as they apply to defendant Kienow, it is our opinion that they are not sufficient to express a breach of duty to plaintiff in this case. 'Duty' in the sense we use it here is, as Prosser has described it, 'an expression of the sum total of those considerations of policy which lead the law to say that the particular plaintiff is entitled to protection.' Prosser, The Law of Torts 333 (3rd 1964). We are faced with such a problem of policy formulation in this case.
>
> "As we have already indicated, there may be circumstances under which a person could be held liable for allowing another to become dangerously intoxicated. However, we feel that liability should not be extended to one who acts only as a conduit [***51] in providing alcohol to those who directly serve it to others. A host has a choice of serving alcohol to whomsoever he pleases. In making that choice, he may decide to serve the alcohol illegally or under circumstances which create an unreasonable risk of harm to others. We do not think that the harmful consequence of that choice should be visited upon another who has no part in making it. And we take this view even where the one supplying the alcohol might have reason to believe that the host is likely to make an unwise choice in [*542] dispensing it to others. The complaint does not allege that Kienow had any control over the direct dispensation of the alcohol at the

party. We hold, therefore, that the demurrer to the complaint insofar as it relates to defendant Kienow was properly sustained." *258 Ore. 640.*

n3 The majority suggests that the argument that defendant's conduct did not constitute cognizable negligence as a matter of law was not raised below. (See Slip opinion at 15.) Defendant's counsel told the court,

> "Employment is a matter of contract between two parties. If there are not statutes that apply, I can contract the work for somebody for 36 hours straight. I'm not violating any law. I'm not being mistreated by the other party; I'm voluntarily doing it. If the two parties want to contract that way, and many times they do, that doesn't create fault on the part of one party for an accident that occurs after the employment ceases.
>
> "* * * *
>
> "What I'm really getting at is there's no breach of duty because Matt Theurer was controlling his own destiny. We didn't have any duty to watch out for him after he left work.
>
> "* * * * "There are some cases where you might have some affirmative act where we take a step to do something that's clearly wrong, and I think that creates liability. Under the common law, I don't think if he agrees to work 36 hours straight and we say, okay, he can do it, I don't think there's liability." (Emphasis supplied.)

Clearly, defendant was making a policy argument under common law theory that employers should not be considered negligent under these circumstances.

----------End Footnotes---------- [***52]

[**719] Thus, the task of this court is to evaluate the policy considerations that underlie the imposition of liability for defendant's conduct. In my assessment, those considerations dictate a holding as a matter of law that defendant's conduct at the time that it accepted Theurer's offer to work was not unreasonable. It was Theurer's choice to volunteer to work on April 5. Defendant had no part in that choice other than to extend the opportunity to him to work. Moreover, to reject Theurer's offer would have required the manager to predict several days in advance what Theurer's physical state would be on April 5 disregarding Theurer's promise that he would rest between shifts. Neither the majority nor plaintiff can point to any precedent that establishes a cognizable community standard of care which requires an employer to not take its adult employees at their word under such circumstances. The majority says, "defendant was much like a bartender who served alcoholic beverages to a visibly intoxicated person who then caused an automobile accident that harmed another." (Slip opinion at 14.) That is an inapt comparison. The proprietors of fast food restaurants in Oregon will be surprised to [***53] learn that scheduling an employee to work an extra shift after he volunteers carries with it the same legal consequences as the inherent hazard of serving alcoholic beverages to an intoxicated patron. The legal responsibility to determine the future physical condition of an employee to perform a volunteered task in the future necessarily lies with the employee since he, and only he, can control his activities to avoid excessive fatigue at that time. Additionally, the majority's holding makes employers, in their scheduling decisions, responsible for anticipating what their employees' off-premises activities will be after work; a responsibility of enormous implications and proportions. An example to consider: Every employee in every employment at some time experiences fatigue while working, including the members of this court. Inasmuch as our work schedule is determined approximately 30 days in advance, how would the docket [*543] coordinator reasonably anticipate our ability to drive home safely after a day of argument next month?

Common law negligence has as its source traditional, well established community standards of care. As I have pointed out, plaintiff's theory is not based on the [***54] violation of such a standard. Moreover, apart from standards of common law negligence, if the majority opinion arises from a value judgment about when and to whom employers should be responsible for their employees' off-work negligence, then it has no authority to make that kind of social policy decision. The task of determining that kind of tort responsibility for allowing employees to work overtime is properly left to the legislature.

In summary, the majority opinion's adherence to a "general foreseeability" test results in grave consequences to the employers of this state. It

improperly articulates a common law negligence standard that causes employers to be exposed to previously hereto unrecognized liability for the negligence of their employees off the work premises and requires them to protect those who lack any involvement with defendant's work activity miles away from the work premises. In effect, the opinion says to Oregon employers, "Do not schedule your employees in a manner that will cause fatigue, because if you do, you risk liability for negligence in the event that your employee acts in a negligent manner off-premises and after work." That is not the law of this state [***55] and it cannot be unreasonable conduct for an employer to accept an offer from an adult employee, made days in advance of the shift, to work overtime, insofar as the safety of motorists is concerned after the employee gets off work. Because the majority opinion extends the duty of care owed to the general public by employers in the scheduling of their employees' work shifts to beyond any reasonable boundary, I dissent.

Richardson, Deits and De Muniz, JJ, join in this dissent.

Appendix 7.17

35 of 39 DOCUMENTS

Curtis ROBERTSON, et al. v. Tony K. LeMASTER, et al., and N & W Railway Co.

No. 15543

Supreme Court of Appeals of West Virginia

171 W. Va. 607; 301 S.E.2d 563; 1983 W. Va. LEXIS 474

March 24, 1983, Filed

PRIOR HISTORY: [***1]

Appeal. Wayne County.

DISPOSITION:

Reversed and remanded.

CASE SUMMARY:

PROCEDURAL POSTURE: Appellants, automobile passengers, challenged a decision by a Wayne County trial court (West Virginia), in a personal injury suit. The trial court granted appellee employer's motion for a directed verdict and dismissed the action, finding that the employer, as the employer of the individual that caused the accident, could not be found liable because the accident was not caused within the scope of his employment.

OVERVIEW: Certain automobile passengers brought a personal injury suit against an employer as the employer of the individual who caused the automobile accident at issue. The passengers contended that the employer was responsible for allowing its employee to drive home after working several hours without rest. The trial court disagreed and dismissed the action, finding that the accident was not caused within the scope of the employee's employment. The court reversed and remanded the decision. The court found that the issue presented by the facts was not the employer's failure to control its employee while driving after work; rather it was whether the employer's conduct prior to the accident created a foreseeable risk of harm. The court ruled that the question was for a jury to decide. Accordingly, the court concluded that the trial court erred in ruling that the employer owed no duty to the passengers. The court also rejected the employer's assertion that the negligence of the employee constituted an independent intervening cause of the accident that broke the chain of causation.

OUTCOME: The court reversed and remanded the decision that dismissed the automobile passengers' personal injury action. The court found that it was up to a jury to decide whether the employer's conduct prior to the accident created a foreseeable risk of harm. The court further found that the trial court erred in ruling that the employer owed no duty to the passengers and that the employee's action was an independent intervening cause.

LexisNexis(R) Headnotes

Torts > Negligence > Duty

[HN1] In order to establish a prima facie case of negligence in West Virginia, it must be shown that the defendant has been guilty of some act or omission in violation of a duty owed to the plaintiff. No action for negligence will lie without a duty broken.

Torts > Negligence > Duty

[HN2] The liability to make reparation for an injury, by negligence, is founded upon an original moral duty, enjoined upon every person, so to conduct himself, or exercise his own rights, as not to injure another. This basic expression of policy is a restatement of the general duty that all actors in an organized society owe to their fellow persons. However, in order to form the basis for a valid cause of action, this duty must be brought home to the particular plaintiff, for a duty owing to everybody can never become the foundation of an action until some individual is placed in position which gives him particular occasion to insist upon its performance.

Business & Corporate Law > Agency Relationships > Duties & Liabilities > Authorized Acts of Agents > Unauthorized Acts

Torts > Vicarious Liability > Employers > General Overview
[HN3] Under traditional principles of master-servant law an employer is normally under no duty to control the conduct of an employee acting outside the scope of his employment.

Torts > Negligence > Duty > Affirmative Duty to Act > Creators of Foreseeable Peril
Torts > Negligence > Standards of Care > Reasonable Care > General Overview
[HN4] One who engages in affirmative conduct, and thereafter realizes or should realize that such conduct has created an unreasonable risk of harm to another, is under a duty to exercise reasonable care to prevent the threatened harm. Duty is a question of whether the defendant is under any obligation for the benefit of the particular plaintiff; and in negligence cases, the duty is always the same, the conform to the legal standard of reasonable conduct in light of the apparent risk.

Torts > Negligence > Duty > General Overview
[HN5] In determining the scope of the duty that an actor owes to another, the focus is on the foreseeability of injury. Foreseeability that harm might result has become a primary factor in determining whether a duty exists. The obligation to refrain from particular conduct is owed only to those who are foreseeably endangered by the conduct and only with respect to those risks or hazards whose likelihood made the conduct unreasonably dangerous. Duty, in other words, is measured by the scope of the risk, which negligent conduct foreseeably entails.

Torts > Negligence > Duty > General Overview
[HN6] The risk reasonably to be perceived defines the duty to be obeyed.

Torts > Negligence > Duty > General Overview
[HN7] Beyond the question of foreseeability, the existence of duty also involves policy considerations underlying the core issue of the scope of the legal system's protection. Such considerations include the likelihood of injury, the magnitude of the burden of guarding against it, and the consequences of placing that burden on the defendant.

Torts > Negligence > Duty > General Overview
Torts > Negligence > Standards of Care > Reasonable Care > General Overview
[HN8] Actionable negligence necessarily includes the element of reasonable anticipation that some injury might result from the act of which complaint is made. Due care is a relative term and depends on time, place, and other circumstances. It should be in proportion to the danger apparent and within reasonable anticipation. Negligence is the violation of the duty of taking care under the given circumstances. It is not absolute, but is always relative to some circumstances of time, place, manner, or person. These past decisions implicitly support the proposition that the foreseeability of risk is a primary consideration in establishing the element of duty in tort cases.

Civil Procedure > Trials > Judgment as Matter of Law > General Overview
[HN9] Upon a motion for a directed verdict, all reasonable doubts and inferences should be resolved in favor of the party against whom the verdict is asked to be directed.

Torts > Vicarious Liability > General Overview
[HN10] When an affirmative action is present, liability may be imposed regardless of the existence of a relationship between the defendant and the party injured by the incapacitated individual.

Civil Procedure > Judgments > Relief From Judgment > General Overview
Torts > Negligence > Causation > Proximate Cause > Intervening Causation
[HN11] An intervening cause, in order to relieve a person charged with negligence in connection with an injury, must be a negligent act, or omission, which constitutes a new effective cause and operates independently of any other act, making it and it only, the proximate cause of the injury.

Torts > Negligence > Causation > Proximate Cause > Intervening Causation
[HN12] If the intervening cause is one that is to be reasonably anticipated, the defendant may be liable, for the risk created by the defendant may include the intervention of the foreseeable negligence of others.

Civil Procedure > Trials > Jury Trials > Province of Court & Jury
Torts > Negligence > Defenses > Contributory Negligence > Procedure > Province of Court & Jury

Torts > Negligence > Proof > Evidence > Province of Court & Jury

[HN13] The questions of negligence and contributory negligence are for the jury when the evidence is conflicting or when the facts, though undisputed, are such that reasonable men may draw difficult conclusions from them.

SYLLABUS: 1. "The liability to make reparation for an injury, by negligence, is founded upon an original moral duty, enjoined upon every person, so to conduct himself, or exercise his own rights, as not to injure another." *Syllabus Point 8, Blaine v. Chesapeake & O.R.R. Co., 9 W.Va. 252 (1876).*

2. One who engages in affirmative conduct, and thereafter realizes or should realize that such conduct has created an unreasonable risk of harm to another, is under a duty to exercise reasonable care to prevent the threatened harm.

3. "Upon a motion for a directed verdict, all reasonable doubts and inferences should be resolved in favor of the party against whom the verdict is asked to be directed." *Syllabus Point 5, Wager v. Sine, 157 W.Va. 391, 201 S.E.2d 260 (1973).*

4. "An intervening cause, in order to relieve a person charged with negligence in connection with an injury, must be a negligent act, or omission, which constitutes a new effective cause and operates independently of any other act, making it and it only, the proximate cause of the injury." *Syllabus Point 16, Lester v. Rose, 147 W.Va. 575, 130 S.E.2d 80 (1963).*

5. "The questions [***2] of negligence and contributory negligence are for the jury when the evidence is conflicting or when the facts, though undisputed, are such that reasonable men may draw different conclusions from them." *Syllabus Point 3, Davis v. Sargent, 138 W.Va. 861, 78 S.E.2d 217 (1953).*

COUNSEL:

Kenneth H. Fisher, Huntington, West Virginia for Appellants.

James D. McQueen, Jr., Campbell, Woods, Bagley, Emerson, McNeer & Herndon, Huntington, West Virginia for Appellees.

JUDGES:

McGraw, Chief Justice.

OPINIONBY:

McGRAW

OPINION:

[**564] [*608] This is an appeal by Curtis and Karen Lee Robertson from an order entered by the Circuit Court of Wayne County granting the motion of Norfolk & Western Railway Company for a directed verdict, and dismissing the appellants' action on the merits. The appellants' civil action sought to hold liable Tony K. LeMaster, his mother, Arthonia, and the Norfolk & Western Railway Company for damages resulting from an automobile accident that occurred on October 12, 1978. The appellants' claim against Tony and Arthonia LeMaster was compromised and settled prior to trial. Consequently, the action proceeded solely against the appellee, Norfolk & Western Railway Company.

The [***3] evidence adduced by the appellants at trial showed that on October 11, 1978, Tony K. LeMaster, then nineteen years old, was employed by the appellee as a section laborer. LeMaster reported for work at 7:00 a.m. at the appellee's Nolan section office, approximately 50 miles from his home in Fort Gay. After working three hours in the Nolan area, LeMaster's section was called in to work at a derailment that had occurred near Kermit, approximately half-way between the appellee's section office in Nolan and LeMaster's home in Fort Gay. LeMaster and his fellow workers were transported to the derailment site in a truck owned by the appellee.

Upon arriving at the derailment site, the section foreman, Ruben VanHoose, instructed his men to eat lunch. When they finished eating, the section crew began the work of removing debris and repairing the track that was damaged by the derailment. The derailment had completely blocked the appellee's single railway track between Fort Gay and Nolan, and thus was deemed an emergency under the railroad's contract with its union employees. Much of the work of removing the derailed train and the damaged track was performed by heavy equipment furnished [***4] by the appellee. However, the work performed by LeMaster and his co-workers was heavy manual labor which included lifting railroad ties and shoveling coal. The work was continuous, except for intermittent periods when the workers were required to step back out of the way of the heavy equipment. The work continued long past LeMaster's normal 3:30 p.m. quitting time.

At approximately 10:00 p.m. that night, LeMaster told his foreman, VanHoose, that he was tired and wanted to go home. VanHoose [**565] told LeMaster that he could not go home, but told him to speak with Bill Rowe, [*609] the road master in charge. LeMaster did not speak with Rowe at this time, but continued working.

At approximately 1:00 a.m. on the morning of October 12, 1978, LeMaster was given his first chance to eat since lunch the previous day. LeMaster ate in a dining car provided by the appellee. When he was finished eating, LeMaster left the dining car and sat down outside to rest. LeMaster testified that this was his first opportunity to rest since beginning work on the derailment. After sitting down, LeMaster was approached by Rowe and told to return to work.

LeMaster resumed working. Several [***5] times during the night he told his foreman that he was tired and wanted to go home. Each time the foreman told LeMaster that he should ask Rowe. LeMaster testified that he did not speak with Rowe for fear of being fired. Apparently, LeMaster and Rowe were involved in a work related dispute several months before, which resulted in LeMaster being laid off for a week. At 5:00 a.m. LeMaster ate breakfast in the dining car. After breakfast he again resumed work.

At 9:00 a.m. or 9:30 a.m. LeMaster talked with Les Conn, the assistant foreman, about going home. Shortly thereafter, LeMaster told VanHoose that he was too tired to work, and VanHoose then told him to talk with Rowe. LeMaster finally spoke with Rowe, telling him that he was too tired to continue working. Rowe told LeMaster that if he wouldn't work, he should get his bucket and go home. LeMaster asked for a ride to his car in Nolan.

An employee of the appellee drove LeMaster to his car. During the drive from the derailment site to Nolan, LeMaster fell asleep with a lighted cigarette in his hand. Upon arriving at Nolan, LeMaster got into his car and began the 50 mile trip to his house in Fort Gay. He decided to stop [***6] en route at the derailment site at Kermit to speak with Rowe and determine if he had been fired. When he arrived at the derailment site, LeMaster threw his hard hat at Rowe, told him to find some other person to work, and then asked if he was fired. Rowe told LeMaster that he was not fired and to "just go on home." They then shook hands, and LeMaster left in his car.

On the way home LeMaster claims that he fell asleep at the wheel and the accident with the Robertsons resulted. LeMaster has no memory of the details of the accident. Benjamin Jude, a witness to the accident, testified that he was travelling from Kermit to Louisa at approximately 10:45 a.m. when LeMaster passed his car. Jude was travelling 65 to 70 miles per hour at the time. He estimated that LeMaster was travelling about 75 miles per hour. Jude testified that LeMaster turned his head and looked at him when he passed, and that LeMaster appeared normal and his eyes were open.

After passing Jude's vehicle, LeMaster came upon the appellants' vehicle travelling in the same direction as LeMaster, but at a much slower speed. Jude testified that it appeared that LeMaster was attempting to pass the appellants' vehicle [***7] when the right front end of LeMaster's car struck the left rear end of the appellants' car, causing the accident. After the accident, Jude approached LeMaster's car to see if he was injured. Jude testified that it took approximately a minute for LeMaster to regain consciousness. LeMaster told Jude that he was "all right except I must have fallen asleep."

The section crew of which LeMaster was a member had worked throughout the night without rest breaks. Some of the men did slip away and go to sleep. One member of the section crew blacked out, fell over an embankment and slept for approximately an hour. LeMaster worked approximately 27 hours before Rowe gave him permission to quit work. The section crew, other than LeMaster, worked for 37 hours on the derailment. The appellee railroad company offered to drive all members of the crew, other than LeMaster, to their homes, rather than taking them back to Nolan to their vehicles.

[**566] The appellants' cause of action sounds in tort. They allege in their complaint that the appellee, Norfolk & Western Railway Company, "illegally, willfully, wantonly, [*610] negligently, and with a conscious disregard for the rights and [***8] safety of others, ordered, forced and required . . . . LeMaster, its employee, to work for . . . . 32 hours straight without rest, and then to leave the . . . . place of employment without providing either rest or transportation home when it knew or should have known that its employee constituted a menace to the health and safety of the public." The appellants further allege that these acts of the appellee were the proximate cause of the automobile accident in which they were injured.

At the close of the plaintiff's case, the appellee moved for a directed verdict on the issue of liability. As grounds for the motion the appellee asserted that the appellants had made no factual showing to demonstrate that a duty of care existed on the part of the appellee towards the appellants, or to demonstrate that the conduct of the appellee was the proximate cause of the accident. The trial court agreed that the elements of duty and proximate cause had not been established, and granted the appellee's motion. We reverse.

I.

[HN1] "In order to establish a *prima facie* case of negligence in West Virginia, it must be shown that the defendant has been guilty of some act or omission in violation of [***9] a duty owed to the plaintiff. No action for negligence will lie without a duty broken." Syllabus Point 1, *Parsley v. General Motors Acceptance Corporation, 167 W.Va. 866, 280 S.E.2d 703 (1981). See*

Hinkle v. Martin, 163 W.Va. 482, 256 S.E.2d 768 (1979); Morrison v. Roush, 110 W.Va. 398, 158 S.E. 514 (1931); Uthermohlen v. Bogg's Run Min. & Mfg. Co., 50 W.Va. 457, 40 S.E. 410 (1901). The appellee contends that it owed no duty of care to the appellants, and therefore the trial court correctly directed a verdict against the appellants. We disagree.

Throughout the history of Anglo-American jurisprudence the concept of duty in tort law has evolved in response to the social aims of civilized society. When tort law first emerged as a separate legal entity from criminal law, the duty existed to act with care towards all others. *See* W. Prosser, *The Law of Torts supra* § § 4, 53 (4th ed. 1971); Note, *The Death of Palsgraf: A Comment on the Current Status of the Duty Concept in California, 16 San Diego L. Rev. 793, 794 (1979).* During the industrial revolution of the nineteenth century, this broad concept of duty was transformed by courts into a device by which the [***10] liability of defendants could be limited. *See* W. Prosser, *supra* § 53; Note, *The Origin of the Modern Standard of Due Care in Negligence, 1976 Wash. U.L.Q. 447;* Sulnick, *A Political Perspective of Tort Law, 7 Loy. L.A.L. Rev. 410 (1974);* Green, *The Thrust of Tort Law Part I The Influence of environment, 64 W. Va. L. Rev. 1 (1961).* With the advent of the twentieth century, however, this pro-defendant bias has steadily eroded, and the emphasis on duty has been shifted towards the goal of compensating victims of tortious conduct. *See* Hodel, *The Modern Concept of Duty: Hoyem v. Manhattan Beach City School District and School District Liability for Injuries to Truants, 30 Hastings L.J. 1893, 1906 (1979);* Fleming, The *Role of Negligence in Modern Tort Law, 53 Va. L. Rev. 815 (1967).*

The California Supreme Court has been the vanguard of the modern trend to expand the concept of duty in tort cases. In two landmark cases, *Dillon v. Legg, 68 Cal. 2d 728, 69 Cal. Rptr. 72, 441 P.2d 912 (1968),* and *Rowland v. Christian, 69 Cal. 2d 108, 443 P. 2d 561, 70 Cal. Rptr. 97 (1968),* the California Court retreated from the concept of duty as a means of limiting [***11] the defendant's liability and returned to the fundamental tort law principle, stated in *Heavener v. Pender, [1883] 11 Q.B.D. 503,* that all persons are required to use reasonable care to prevent others from being injured as a result of their conduct. *See* Murphy, *Evolution of the Duty of Care: Some Thoughts, 30 DePaul L. Rev. 147, 164-168 (1980);* Note, *The Death of Palsgraf: A Comment on the Current Status of the Duty Concept in California, supra.*

[**567] In West Virginia, our counterpart to this principle is stated in syllabus point eight of *Blaine v. Chesapeake & O.R.R.Co., 9 W. Va. 252 (1876):* [HN2] "The liability to [*611] make reparation for an injury, by negligence, is founded upon an original moral duty, enjoined upon every person, so to conduct himself, or exercise his own rights, as not to injure another." This basic expression of policy is a restatement of the general duty which all actors in an organized society owe to their fellow persons. However, in order to form the basis for a valid cause of action, this duty must be brought home to the particular plaintiff, for "a duty owing to everybody can never become the foundation of an action until some [***12] individual is placed in position which gives him particular occasion to insist upon its performance . . . ." T. Cooley, *Law of Torts* § 478 (4th ed. 1932). n1

n1 *But see* Justice Andrew's dissent in *Palsgraf v. Long Island R.R. Co., 248 N.Y. 339, 349, 162 N.E. 99, 102 (1928)* ("Due care is a duty imposed on each one of us to protect society from unreasonable danger, not to protect A, B, or C alone.").

The appellee argues that as a matter of law it owed no duty to control an employee acting outside the scope of employment. We recognize that [HN3] under traditional principles of master-servant law an employer is normally under no duty to control the conduct of an employee acting outside the scope of his employment. *See Restatement (Second) of Torts § 317* (1965); *Annot., 52 A.L.R. 2d 287 (1957).* The issue presented by the facts of this case, however, is not the appellee's failure to control LeMaster while driving on the highway; rather it is whether the appellee's conduct prior to the accident created [***13] a foreseeable risk of harm.

It is well established that [HN4] one who engages in affirmative conduct, and thereafter realizes or should realize that such conduct has created an unreasonable risk of harm to another, is under a duty to exercise reasonable care to prevent the threatened harm. *See Restatement (Second) Torts § 321* (1965). As Professor Prosser succinctly states: "'[Duty]' is a question of whether the defendant is under any obligation for the benefit of the particular plaintiff; and in negligence cases, the duty is always the same, "the conform to the legal standard of reasonable conduct in light of the apparent risk." W. Prosser, *supra* § 53. The issue raised by the appellants is whether the appellee's conduct in requiring LeMaster to work over 27 hours and then setting him loose upon the highway without providing alternate transportation or rest facilities to its exhausted employee created an unreasonable risk of harm to others that was foreseeable. The appellants contend that the appellee's conduct amounts to primary negligence; they do not rely on the doctrine of respondeat superior.

[HN5] In determining the scope of the duty which an actor owes to another, the [***14] court in *Dillon v. Legg, supra,* focused on the foreseeability of injury. A significant number of courts have since followed this approach. *See Keck v. Jackson, 122 Ariz. 117, 593 P. 2d 671 (1978); D'Amicol v. Alvarez Shipping Co., Inc., 31 Conn. Sup. 164, 326 A.2d 129 (1973); Kelley v. Kokua Sales and Supply Ltd., 56 Haw. 204, 532 P. 2d 673 (Haw. 1975); Rickey v. Chicago Transit Authority, 101 Ill. App. 3d 439, 57 Ill. Dec. 46, 428 N.E.2d 596 (1981); Barnhill v. Davis, 300 N.W.2d 104 (Iowa 1981); Culbert v. Sampson's Supermarkets, Inc., Me. , 444 A.2d 433 (1982); Dziokonski v. Babineau, 375 Mass. 555, 380 N.E.2d 1295 (Mass. 1978); Okrina v. Mideastern Corp., 282 Minn. 400, 165 N.W.2d 259 (Minn. 1969); Corso v. Merrill, 119 N.H. 647, 406 A.2d 300 (N.H. 1979); Norwest v. Presbyterian Intercommunity Hospital, 293 Ore. 543, 652 P.2d 318 (Ore. 1982); Sinn v. Burd, 486 Pa. 146, 404 A.2d 672 (1975); Shelton v. Russell Pipe & Foundry Co., 570 S.W.2d 861 (Tenn. 1978); Landreth v. Reed, 570 S.W.2d 486* (Tex. Ct. of Civ. App. 1978). In these jurisdictions foreseeability that harm might result has become a primary factor [***15] in determining whether a duty exists. n2 As Harper and James state:

> [**568] The obligation to refrain from particular conduct is owed only to those who are [*612] foreseeably endangered by the conduct and only with respect to those risks or hazards whose likelihood made the conduct unreasonably dangerous. Duty, in other words, is measured by the scope of the risk which negligent conduct foreseeably entails.

2 F. Harper & F. James, *The Law of Torts* § 18.2 (1956) (footnote omitted).

> n2 The genesis of this approach can be found in Justice Cardozo's classic opinion in *Palsgraf v. Long Island R.R. Co., supra,* note 1, where he states: [HN6] "The risk reasonably to be perceived defines the duty to be obeyed." *248 N.Y. at 344, 162 N.E. at 100.*

[HN7] Beyond the question of foreseeability, the existence of duty also involves policy considerations underlying the core issue of the scope of the legal system's protection. *See D'Ambria v. United States, 114 R.I. 643, 338 A.2d 524 (R.I. 1975);* Thode, [***16] *Tort Analysis: Duty-Risk v. Proximate Cause and the Rational Allocation of Functions Between Judge and Jury, 1977 Utah L. Rev. 1, 27.* Such considerations include the likelihood of injury, the magnitude of the burden of guarding against it, and the consequences of placing that burden on the defendant. *See, e.g., Lance v. Senior, 36 Ill.2d 516, 224 N.E.2d 231 (1967); see also Rowland v. Christion, 69 Cal. 2d at 113, 70 Cal. Rptr. at 100, 443 P.2d at 564; Donohue v. Copiague Union Free School District, 64 App. Div. 2d 29, 33, 407 N.Y.S.2d 874, 877 (1978).* Other broader policy considerations also enter the equation, but they are not so readily articulated. *See, e.g., Green, Duties, Risks, Causation Doctrines, 41 Tex. L. Rev. 42, 45 (1962);* W. Prosser, *supra* at § 53.

Although we have never explicitly addressed the question of the existence of duty as a product of foreseeability of injury, we have held in the past that [HN8] "actionable negligence necessarily includes the element of reasonable anticipation that some injury might result from the act of which complaint is made." *Matthews v. Cumberland & Allegheny Gas Co., 138 W.Va. 639, 653, 77 S.E.2d 180, 188 (1953).* [***17] In a similar vein, we have held that "due care is a relative term and depends on time, place, and other circumstances. It should be in proportion to the danger apparent and within reasonable anticipation." Syllabus Point 2, *Johnson v. United Fuel Gas Co., 112 W.Va. 578, 166 S.E. 118 (1932); see also State ex rel. Cox v. Sims, 138 W.Va. 482, 77 S.E.2d 151 (1953).* And in syllabus point one of *Dicken v. Liverpool Salt & Coal Co., 41 W.Va. 511, 23 S.E. 582 (1895),* we held that "negligence is the violation of the duty of taking care under the given circumstances. It is not absolute, but is always relative to some circumstances of time, place, manner, or person." These past decisions implicitly support the proposition that the foreseeability of risk is a primary consideration in establishing the element of duty in tort cases.

[HN9] "Upon a motion for a directed verdict, all reasonable doubts and inferences should be resolved in favor of the party against whom the verdict is asked to be directed." Syllabus Point 5, *Wager v. Sine, 157 W.Va. 391, 201 S.E.2d 260 (1973); See also Ashland Oil, Inc. v. Donahue, 164 W.Va. 409, 264 S.E.2d 466 (1980); Lambert v. Goodman, 147 W.Va.* [***18] *513, 129 S.E.2d 138 (1963).* In this case the appellee required its employee LeMaster to work for over 27 hours at hard labor without rest, despite repeated requests that he be permitted to go home. When the appellee finally permitted LeMaster to cease work, it did not provide him sleeping quarters to rest before driving. Neither did the appellee offer to provide LeMaster transportation home, as it later did all its other employees who worked on the derailment. Rather, the appellee provided LeMaster transportation to his car at Nolan, approximately twenty-five miles farther from his home than the derailment site.

On the way to Nolan, the obviously exhausted LeMaster fell asleep with a lighted cigarette in his hand in the presence of another of the appellee's employees.

Viewing these facts in the light most favorable to the appellants, we believe that the appellee could have reasonably foreseen that its exhausted employee, who had been required to work over 27 hours without rest, would pose a risk of harm to other motorists while driving the 50 miles from the appellee's office to his home. Indeed, it could be said that the appellee's negligent [**569] conduct under these facts [***19] was not merely a failure to exercise appropriate precautionary measures, but includes an element of affirmative conduct in requiring [*613] LeMaster to work unreasonably long hours and then driving him to his vehicle and sending him out on the highway in such an exhausted condition as to pose a danger to himself or others. [HN10] When such affirmative action is present, liability may be imposed regardless of the existence of a relationship between the defendant and the party injured by the incapacitated individual. *See Restatement (Second) of Torts § 321*, Comment a (1965); *Leppke v. Segura, 632 P.2d 1057 (Colo. App. 1981). See also Clark v. Otis Engineering Corp., 633 S.W.2d 538* (Ct. of App. Tex. 1982).

The appellee's reliance on *Pilgrim v. Fortune Drilling Co., Inc., 653 F.2d 982 (5th Cir. 1981),* is misplaced. In *Pilgrim,* where the plaintiff's claim was based on the employer's negligence in failing to prevent an employee from driving 117 miles to his home after completing a 12 hour shift, there was no evidence that the employee was incapacitated, or that the conduct of the employer involved an affirmative act which increased the risk of harm. Indeed, it appears [***20] that the issue raised by the appellants in this proceeding was specifically not addressed in *Pilgrim.* n3

> n3 The court in *Pilgrim* framed the issue in this manner:
>
> > In their brief plaintiffs argue that "it is negligent to allow a fatigued employee to drive on the public highways." They then suggested that "the duty is to furnish transportation to exhausted employees, furnish sleeping quarters near the work site, reduce working hours, or otherwise supply alternatives to exhausted employees driving on public roads." We are not concerned here whether it is negligent for an employer to fail to furnish transportation to exhausted employees, to fail to provide sleeping quarters near the work site so exhausted employees can rest before driving, to fail to reduce working hours, or to otherwise fail to supply alternatives to exhausted employees driving on public roads. We are only concerned with whether it was negligent for this employer to *permit* its employee to drive home in an exhausted condition. That is the legal theory involved in the special issue submitted to the jury. We express no opinion on whether an employer could be negligent by failing to provide transportation to exhausted employees, to furnish sleeping quarters to them, etc. since we do not have the question before us.
>
> *653 F.2d at 982, fn. 8* (emphasis in original).
>
> The appellants' complaint, on the other hand, alleges that the appellee was negligent in requiring LeMaster "to work for . . . . approximately thirty-two (32) hours straight without rest, and then to leave the . . . . place of employment without providing either rest or transportation home when it knew or should have known that its employee constituted a menace to the health and safety of the public." Thus, the issue raised by the appellants is precisely that unaddressed by the Fifth Circuit in *Pilgrim v. Fortune Drilling Co., Inc., supra.*

[***21]

Accordingly, we conclude that the trial court erred in ruling that the appellee owed no duty to the appellants. We are unable to say as a matter of law that the appellee's conduct in requiring its employee to work such long hours and then setting him loose upon the highway in an obviously exhausted condition did not create a foreseeable risk of harm to others which the appellee had a duty to guard against.

II.

The appellant next contends that any negligence on the part of the railway company was not the proximate cause of the appellants' injuries, and therefore the trial court correctly directed a verdict against the appellants.

The thrust of the appellee's argument, and the basis upon which the court below posited its ruling, is that the negligence of LeMaster constituted an independent intervening cause of the accident which broke the chain of causation to the appellee.

We recently discussed the nature of an intervening cause which relieves a negligent defendant of liability in *Perry v. Melton, 171 W.Va. 397, 299 S.E.2d 8 (1982).* We held in syllabus point one of *Perry:* [HN11] "An intervening cause, in order to relieve a person charged with negligence in connection with an [***22] injury, must be a negligent act, or omission, which constitutes a new effective cause and operates independently of any other act, making it and it only, the proximate cause of the injury." *Quoting* Syllabus Point 16, *Lester v. Rose, 147 W.Va. 575,* [**570] *130 S.E.2d 80 (1963); see also Evans v. Farmer, 148 W.Va. 142, 133 S.E.2d 710 (1963); Smith v. Penn Line Service, Inc., 145 W.Va. 1, 113 S.E.2d 505 (1960); Hartley v. Crede, 140 W.Va. 133,* [*614] *82 S.E.2d 672 (1954); Wilson v. Edwards, 138 W.Va. 613, 77 S.E.2d 164 (1953).*

The theory advanced by the appellants at trial was that LeMaster's negligent conduct was a direct result of the mental fatigue and physical exhaustion attributable to the appellee's negligence in requiring him to work over 27 hours straight and then failing to provide rest or transportation home. In essence the appellants claim that "the Defendant Railway's negligence reduced the capability of its employee to think and act as a reasonable person." If this is a reasonable conclusion to be drawn from the evidence presented, LeMaster's conduct would not constitute an intervening cause so as to relieve the railway company of liability. [***23] *See Perry v. Melton, supra.* Moreover, [HN12] if the intervening cause is one which is to be reasonably anticipated, the defendant may be liable, for "the risk created by the defendant may include the intervention of the foreseeable negligence of others." W. Prosser, *supra* at § 44.

These issues are questions for the jury. We have consistently held that [HN13] "the questions of negligence and contributory negligence are for the jury when the evidence is conflicting or when the facts, though undisputed, are such that reasonable men may draw difficult conclusions from them." Syllabus Point 3, *Davis v. Sargent, 138 W.Va. 861, 78 S.E.2d 217 (1953). See Donta v. Harper, 168 W.Va. 237, 283 S.E.2d 921 (1981); Brown v. Bluefield Municipal Building Commission, 167 W.Va. 318, 280 S.E.2d 101 (1981); Board of Ed. of Ohio County v. Van Buren and Firestone Architects, Inc., 165 W.Va. 140, 267 S.E.2d 440 (1980); Wise v. Crown Construction Co., Inc., 164 W.Va. 393, 264 S.E.2d 463 (1980); Bradley v. Sugarwood, Inc., 164 W.Va. 151, 260 S.E.2d 839 (1979); Sullivan v. Billey, 163 W.Va. 445, 256 S.E.2d 591 (1979); Bourne v. Mooney, 163 W.Va. 144, 254 S.E.2d 819 (1979); Burgess* [***24] *v. Jefferson, 162 W.Va. 1, 245 S.E.2d 626 (1978); Utter v. United Hospital Center, 160 W.Va. 703, 236 S.E.2d 213 (1977); Wager v. Sine, supra. See also Restatement (Second) of Torts § 434* (1965). We believe that on the evidence, reasonable persons could draw differing conclusions regarding the appellee's responsibility for the appellants' injuries. Accordingly, the trial court erred in directing a verdict for the appellee.

For the foregoing reasons, the order of the Circuit Court of Wayne County which grants the motion of Norfolk & Western Railway Company for a directed verdict is reversed, and the case is remanded for proceedings consistent with this opinion.

Reversed and remanded.

Case Name:

R. v. Hart

REGINA v. GARY NEIL HART

[2003] E.W.J. No. 2246
[2003] EWCA Crim 1268
2002/0123/Y4

England and Wales
Court of Appeal (Criminal Division)
Royal Courts of Justice, London
Vice-President (Lord Justice Rose), Mr Justice Mitchell and Mr Justice Eady

Monday, 14 April 2003
(35 paras.)

Counsel:

MR E LAWSON QC appeared on behalf of the Applicant.

JUDGMENT

(As approved by the Court)

¶ 1 THE VICE PRESIDENT:-- On 13th December 2001 at Leeds Crown Court, following a two week trial before Mackay J, the applicant was convicted by a majority of 10:2 by the jury on 10 counts of causing death by dangerous driving. He was subsequently sentenced to 5 years' imprisonment concurrently on each count and disqualified from driving until he passed an extended driving test after the expiry of a disqualification period of 5 years.

¶ 2 He renews his application for leave to appeal against conviction following refusal by the Single Judge. There were grounds in relation to sentence which at one stage were going to be pursued but Mr Lawson QC, appearing for the applicant before us, as he did at the trial, indicated, prior to today, that the application in relation to sentence would not be pursued, and it has not been.

¶ 3 The applicant was convicted of causing the 10 deaths, which resulted from the Selby train crash on Wednesday 28th February 2001, by his dangerous driving.

¶ 4 He was a construction contractor, living apart from his wife in Scruby, Lincolnshire, and working at the time on a site in Wigan in Lancashire about 140 miles, mostly motorway, from his home. He was under no particular pressure to finish the project. He was an experienced driver having driven, since 1983, something of the order of 40,000 to 50,000 miles a year, sometimes with and sometimes without a trailer on his vehicle. He had three previous convictions for speeding and he had some years ago convictions for dishonesty. But he was treated in the summing-up as being a man of good character and the judge directed the jury appropriately accordingly.

¶ 5 The applicant claimed that he needed no more than four-and-a-half hours sleep a night. On the night before this crash he had not been to bed. From 10.00 pm on the 27th to 3.00 a.m. on the 28th, he had spent most of the time on the telephone in contact with a woman whom he had met through the Internet. He set off on the 28th at about 4.30 a.m., from Lincolnshire, heading for Wigan, driving his Land Rover with a trailer in tow on which there was a Renault Savannah. The trailer and its contents weighed something of the order of 2 tons.

¶ 6 At about 6.10 on the M62 near Selby, in East Yorkshire, he approached the Great Heck bridge over the main east coat railway line. It was snowing and dark. Sunrise was due at 6.55. Four-fifths of a mile before the bridge, he noticed a motorway sign saying that there were services in 7 miles. As he approached the start of the bridge's crash barrier, his Land Rover and trailer left the slow lane of the motorway, crossed the hard shoulder, went down the steep grass embankment, remaining upright, and ended on the railway line. Very shortly after, at 6.12, the vehicle was struck by a GNER Newcastle to London express travelling in excess of 100 miles an hour, and the front bogey of the train was derailed towards its off side. About 500 yards further on, the train met points and was diverted further to its off-side, unhappily into the path of a goods train carrying coal in the opposite direction at a speed of a little over 50 miles per hour. The trains collided.

¶ 7 In the collision 10 men died. They were the driver of the goods train, the driver, senior conductor and chef of the express train and six passengers on the express. There were 94 other casualties.

¶ 8 The prosecution case was that the applicant fell asleep at the wheel, when he knew or could be expected to know that this would happen to him before it happened. There was evidence from police officers, who had undertaken two specimen journeys, which indicated that the applicant's journey was being made at his best speed and that, if he were to beat the Manchester rush hour, as he said in interview he wanted to, he would not have been able to take a break if he started feeling sleepy.

¶ 9 A petrol tanker driver who was driving on the motorway in the same direction at what he described was between 6.05 and 6.20 a.m., saw, in the snow, two wheel tracks leaving the motorway across the hard shoulder, at a shallow angle which he described as 10 or 11 o'clock. That was consistent with police evidence of the Land Rover's wheel marks on the grass embankment, showing that the Land Rover had left the motorway at a shallow angle of four or four-and-a-half degrees, with no evidence of braking or steering. The prosecution relied on the shallow angle of leaving the motorway to show that the applicant had drifted off as though he had fallen asleep.

¶ 10 There was evidence from two vehicle examiners that they could find nothing in the condition of the Land Rover, or the trailer, to explain why the vehicles had left the carriageway.

¶ 11 There was nothing found by police officers who searched the carriageway, a little after 8.15 a. m., to account for the accident. Nothing was found in the carriageway.

¶ 12 There was expert evidence from Professor Horne who was an expert on sleep. He said that there were seven criteria for SRVA (that is a sleep related vehicle accident) as opposed to an accident induced by something else. Those seven criteria were good weather, no alcohol, no mechanical defect, no speeding, no medical disorder, prolonged inattention and no evidence of emergency action. The tell-tale sign of an SRVA was the vehicle running off course with no avoiding action being taken by the driver for seven to 10 seconds before impact. Professor Horne also said that the body is more alert and more sleepy at different times of the day and the period between 2.00 and 6.00 in the morning is the period of greater sleepiness. An important factor is the amount of sleep that the driver has had and people fall asleep through progressive periods of increasing sleepiness, which he referred to as micro sleeps, interspersed by periods of comparative alertness. The length of the period of sleepiness would depend on the degree of sleep deprivation but is at least 5 minutes and is typified by lane drifting. Someone might well not remember micro sleeps having occurred.

¶ 13 When he was cross-examined he said that, on suddenly awakening, a sleepy driver might well panic and brake. So, if a driver ought not to brake, and did not brake, this was a contraindication to his having been asleep. But, unconnected occasions of observed ordinary driving were not enough to contraindicate sleep; for, in the intervals between micro sleeps, driving can be normal, so continuous observation is important. He accepted that the applicant saw the "services 7 miles" sign but he did not accept that that was relevant because, he said, a sleepy driver craves novelty to defeat sleep. He also added that the human body needs seven or seven-and-a-half hours of sleep per day, and few people with permanently less than 4 hours can function properly.

¶ 14 There was evidence from an expert on behalf of the prosecution that the derailment of the passenger train was due to nothing other than the presence on the line of the Land Rover.

¶ 15 The applicant was interviewed a number of times. First, in hospital on the morning of the 28th, the day of the collision, he said that he had heard a loud bang from the back of the Land Rover, which had drifted off the road onto the railway line and within 20 seconds had been hit by the train. On the afternoon of that day, when he was seen again, he said it had been snowing, there was a bang and in a split second his vehicle veered over to the left and violently shook. Once it was on the grass he knew there was nothing he could do. He did not know if it was a tyre or something he had run over. He said that he had had two-and-a-half to 3 hours sleep the night before the accident. That was not his case at trial and he said that that and other wrong answers in the course of interview had been due to the fact that he was in shock on the day of the accident.

¶ 16 On 3rd March, in an interview not with the police but with a loss adjuster and his insurer's

solicitor, he said that he had a tin of beer and an hour's sleep on getting home after seeing his wife. That related to the previous day.

¶ 17 On 19th March, he said that he had now remembered that he had stopped for about five or six minutes to check the trailer and relieve himself and have a coffee in a layby between Louth and Great Heck. He said that he had heard a bang from the rear of the Land Rover but it could have come from in front. It had not come from the trailer. He thought it was a puncture. He tried to steer, turning the wheel left and right but that had no effect. For about five hours during the night before, he had been on the telephone to his Internet acquaintance as a result of which he was buzzing, he said, and could not have slept had he wanted to. On 11th May, he said that the bang had not been loud but a dull noise and he had felt it had been a puncture.

¶ 18 He also said that he had gone over the hard shoulder, at an angle of about 30 to 35 degrees, which it will be recalled was inconsistent with the tanker lorry driver's account and the police evidence as to the shallowness of the angle at which the vehicle left the carriageway.

¶ 19 In evidence the applicant said he had not fallen asleep. He clearly recollected the circumstances of the accident which had been caused by a sudden loss of control, making his vehicle veer to the left. He had had the Land Rover 18 months and maintained it himself and knew of nothing being wrong with it or the trailer. He did not need more than four-and-a-half hour's sleep a night. He had, on the night of the Monday/Tuesday, slept about 10 hours on site in Wigan. But then on the Tuesday he had driven back to Lincolnshire and picked up the Renault with his trailer and had slept for about an hour on the Tuesday afternoon.

¶ 20 He described an hour long telephone conversation at about 4 o'clock in the afternoon with his female Internet acquaintance. He had then gone to his wife's where he had supper and then back to his own home about 9.30 pm. Then he had been on the telephone to the woman Internet acquaintance from about 10.00 pm to 3.00 a.m. He then left at 4.30 a.m. from Scruby for Wigan 'buzzing', the opposite of tired. He had stopped for 2 to 5 minutes to relieve himself and have some coffee from his flask in a layby near Humberside Airport. He knew the road like the back of his hand and was under no pressure to be at Wigan by any time. He noticed the "services 7 miles" sign. He heard a thud from behind whereupon everything broke loose. The Land Rover veered violently to the left and across the rumble strips. He knew that he ought not to brake lest the trailer jack knifed. He corrected the skid but, once on the grass beyond the hard shoulder, his steering had no effect and he ended at the bottom. He got out of the Land Rover and dialled 999 on his mobile telephone.

¶ 21 In cross-examination he said that if he felt sleepy while driving he would pull over and have a sleep because that would be normal and prudent. The explanations he gave to the answers in relation to sleep on the day of the accident were because he was deeply in shock.

¶ 22 There were six other drivers who were called on behalf of the defence. A Mr Coates had passed the applicant's Land Rover on the M62, travelling at a speed, he estimated, of between 50 and 55 miles

per hour and showing nothing erratic in its driving. A Mr Roberts also passed it. He estimated its speed at 40 to 50 miles per hour. It was being driven normally and gave rise to no concern. A Mr Garner, a lorry driver, about three or four miles from the accident site, described being let in by the Land Rover to pass a tanker. The Land Rover had then overtaken both vehicles steadily at 54 or 55 miles per hour, and there was nothing erratic about its driving. Further on, near Cowick, a Mr Buckle had passed the Land Rover comfortably at 60 to 65 miles per hour and there was nothing unusual about it. A Mr Coupland, a lorry driver, overtook it at about 53 miles per hour. Again, there was nothing unusual about its driving and the driver flashed his headlights when he had passed. A Mr Gray overtook it when he was doing about 55 or 60 miles per hour and he too saw nothing unusual about the way in which the Land Rover was being driven.

¶ 23 A Mr Lewis, an expert witness who had provided a report to the prosecution, was called by the defence. He said that a mark on the passenger train's railway line suggested that, at the time when its front bogey flange was climbing the rail, the train ran over a metal object, some 10 to 15 millimetres in diameter, which had assisted in the derailment process. But, he said, if the Land Rover had not been on the line, where it was, the derailment would not have occurred. Another train had passed safely along this track 20 minutes before. No metal object was ever found and where it had come from was never discovered.

¶ 24 Evidence of the applicant's good character from some four witnesses was read to the jury.

¶ 25 On behalf of the applicant Mr Lawson QC advances two matters which he submits give rise to arguable grounds of appeal. First, he challenges the judge's decision not to direct the jury as to the availability of the statutory alternative to causing death by dangerous driving, of careless driving. Mr Lawson accepts that neither prosecution nor defence urged the judge to leave careless driving to the jury. The prosecution said that they were "essentially neutral" and Mr Lawson, before us, says, as is borne out, as one would expect by the transcript, that he left the matter to the judge. The judge was referred to two authorities, Fairbanks 83 Cr App R 251, and Maxwell (in the Court of Appeal (Criminal Division) though not in the House of Lords) 91 Cr App R. Mr Lawson does not suggest that, on this aspect, the decision of the House of Lords made any difference to the decision of the Court of Appeal (Criminal Division).

¶ 26 This Court, in Fairbanks, in a judgment given by Mustill LJ concluded that, in a case where the charge was one of causing death by reckless driving, the offence which has been replaced by the statutory offence with which we are concerned, the judge was obliged to leave the lesser alternative of careless driving only if that was necessary in the interests of justice. Sometimes the interests of justice would require that lesser alternatives to be left to the jury if the evidence was such that the defendant ought at least to be convicted of the lesser offence and it would be wrong for him to be acquitted altogether because the jury could not be sure that he was guilty of the greater offence.

¶ 27 Mr Lawson, in support of this submission, drew attention to the terms of the evidence given by the six other drivers which we have sought to summarise. There, he said, was uncontradicted evidence in

relation to a period of a comparatively few number of minutes before the accident, indicating nothing untoward in the applicant's driving. The applicant had also seen the services sign and, he submitted, in the light of this evidence, notwithstanding the absence of any authority as to when careless driving should be left to the jury, this was a case in which the judge should have left that alternative to the jury.

¶ 28 Mr Lawson's second submission is that the jury's verdicts are unsafe, particularly having regard to the eyewitness evidence of the six witnesses to whom we have referred, demonstrating that the applicant was driving in a sensible and appropriate manner. Such a conclusion, submits Mr Lawson, was also borne out by the skilful manner in which the applicant negotiated the steep grass embankment without permitting his vehicle to overturn.

¶ 29 Finally, on this aspect, Mr Lawson makes the point that the evidence of Mr Lewis, referring to the unidentified metal object between 10 and 15 millimetres in diameter, the source of which was unknown, points to at least the possibility of mechanical failure having occurred.

¶ 30 So far as the second of Mr Lawson's submissions is concerned, it seems to us that there was ample material before the jury entitling them to reach the conclusions which they did. We have rehearsed, in summary form, the various pieces of evidence which were before them and they include, as it seems to us, important evidence as to the shallowness of the angle at which the Land Rover left the carriageway, about which both the experienced driver and the police officers, who took measurements at the scene, spoke. There is, as it seems to us, no reason whatsoever to regard these verdicts as unsafe.

¶ 31 So far as the judge's conclusion that careless driving should not be left to the jury as a possible alternative verdict is concerned, whether or not to leave that possibility to the jury was, of course, a matter for the judge's discretion. He was referred to relevant authorities. There is no suggestion that he misdirected himself as to the relevant law.

¶ 32 Of course, where there is scope for different views as to the quality of a particular piece of driving, that is to say whether it can properly be categorised as falling so far below the standard as to give rise to dangerous driving, or not falling so far below normal standards, so as merely to give rise to careless driving, it will generally be appropriate to leave an alternative possibility to the jury for them to decide whether the driving in question was truly dangerous or merely careless.

¶ 33 But, in the present case, the prosecution said that falling asleep, with the necessary pre warnings that must have occurred, was dangerous. The defence did not argue to the contrary. Their case was that the applicant never did fall asleep. In those circumstances, as seems to us, as the judge concluded in giving the ruling which he did, the only question was whether the applicant had fallen asleep in the circumstances to which we have referred and thereby caused, by consequence of his driving, the death of these unfortunate people.

¶ 34 Leaving aside causation, which was a matter which the judge invited the jury specifically to address, (for he left to them the possibility of convicting of dangerous driving which had not caused the

death), the crucial question on which the judge was entitled to focus the jury's attention was whether the applicant had indeed fallen asleep. To that extent, as it seems to us, not only was he not only entitled not to leave the alternative of careless driving to the jury, it was, in all the circumstances, the proper course to follow.

¶ 35 That being so, as it seems to us, despite Mr Lawson's characteristically attractive submissions, there is no arguable ground of appeal and this renewed application in relation to conviction must be refused.

QL UPDATE: 20030509
Smith Bernal Reporting Limited
cp/d/nc/qlpls

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KINGSTON FIRE AND RESCUE

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TO: **All Staff, KFR**

CC: **L. Thurston, Commissioner**
M. Segsworth, Commissioner
B. Bishop, Director of Human Resources
N. Murphy, Deputy Fire Chief
D. Davison, Labour Relations Officer

FROM: **H.A. Tulk, Fire Chief**

SUBJECT: **Hours of Work**

DATE: **November 18, 2005**

I want to share some of the more important points that were considered by Administration as it relates to the "Hours of Work" issue. We have all been extensively involved in the 24 hour shift trial in the KFR workplace for the past 24 months. We established the trial period through discussions at the bargaining table during our last contract negotiations with the KPFFA Bargaining Committee representatives and any future discussions on this subject will be directed through the bargaining committee as it is required within the FPPA; however, we feel there is value in sharing some of the key issues that have caused the Corporation to notify the Association of its desire to withdraw or bring the trial of the shift to an end at this time.

The first point that requires understanding is the "process" that provided for agreement to try the shift in the first place is the "Letter of Understanding" between the Corporation and the KPFFA which required either party to advise the other of their intention to withdraw from the work schedule or have it entrenched into the Collective Agreement and have it apply to our workplace forever. The Corporation continues to have issues with the shift as it is currently designed and placed the Association on notice that it could not continue with it as a regular practice in the workplace.

We have number of concerns regarding the shift that will be discussed in more detail with the KPFFA representative if that is their request to do so, however I will provide you with some general observations for your information from a Corporate perspective. We provided summary figures on overtime, sick time, etc that were captured within the context of the budget line on over time to cover staff shortages due to long and short term illness, WSIB , training and education, staff meetings and return to duty calls for emergencies. We were able to capture the essence of injury reductions and short term use of sick time benefits complete with the impact the activity had on our financial circumstances by showing totals in the overtime for 2002 through to 2005.

I

focus should be on real fire

The percentage of overtime attributed to staff shortages which were specific to short term sick time and long term absences increased overtime as sick time use increased proportionately. There is a small amount of the total which increased due to minimum staffing adjustments and specialized training and education. We provided summary budget estimates for the two years prior to the trial period as well as the estimates for the two actual years of the trial period. We examined our WSIB, short and long term illness, etc. comparing the same areas of activity leaving us able to draw reasonable conclusions about the area of activity which was driving the budget up in overtime. The area most notably influencing the major increase in the overtime is staff shortages due to unscheduled absences.

We were able to see a decline in the WSIB annual payout during the trial period. We also recognized there may also be other indicators driving the injury activity down. We have increased the quantity and quality of equipment and we have worked together on health and safety issues in a more diligent fashion and we have increased activity in the training area. We realize there remains more to be done but these are all quality activities which leave a win-win for our employees and the Corporation. We must also recognize that from a quantitative perspective we must reference the influences the reduction in WSIB indicates when compared to the 100% increase in the use of sick benefits within the trial period and the influence all of this had on increases in overtime expenses.

We have provided a summary page of financial and other related data for your reference, which we refer to as Appendix "A". We have concluded that there is value in the worker injury experience however, we remain concerned with the increase in the unscheduled absence from the workplace and the influence this activity has on our financial circumstances.

I will comment on my observations of firefighter fatigue and corporate liability because I see them related in every sense in this subject. I placed high value in the feed back I received during my station tours from our firefighters. It was clear to me that the majority is of the view that the 24 hour shift brought improvements in their ability to report for duty well rested as opposed to the often compared shift from Friday to Thursday morning while on the 10 and 14 hour rotation. All of this must also be received in the context of the amount of activity a firefighter could be exposed to during a given shift if we had a major event in the City.

I remain struck by the fact that one must be cognizant of the fatigue factor in any event if for no other reason the extended duty time and the potential for a firefighter to be exposed to hours of vigorous and high risk activity on the fireground. I know we all recognize the fact that the Corporation has a clear responsibility in Occupational Health and Safety to ensure the safety of its workers in the workplace by providing adequate training for the tasks assigned, providing appropriate supervision of its workers and provide the proper equipment for the tasks assigned. I believe consideration must be given to the potential increase in risk the Corporation may assume in sponsoring the extended work periods given their role in Occupational Health and Safety. I have also considered the fact that policies and operational procedures may be examined and adjusted to reduce potential liability, however, at the end of the day the Corporation must meet the "duty of care" responsibility within the financial resources assigned to the fire service, therefore, finance is also directly related to this subject and must be considered by the Corporation.

We examined the circumstances around this work schedule in other jurisdictions as it relates to training, sick time, service coverage etc. and the point that comes to our immediate attention is that the shift schedules vary considerably through out the fire service. We did observe in most circumstances the fire departments were much larger than Kingston. The larger USA departments where they are predominantly Two Pump Engine Companies "In House" are better able to schedule on engine company to the training centre where they remain available on a delayed response if required without altering the service performance significantly or supplementing staff shortages with overtime staff.

The fact that they split engine companies to accommodate training needs or take engines out of service without covering staff shortages with overtime is an activity we cannot carry out in our organizational circumstances. We must cover all staff shortages with overtime and as you know we are just beginning to accept the principle of a delayed response for training in our new organization.

The daily work routine and reporting outcomes were discussed with the committee at the bargaining table, also at quarterly officers meetings, union/management meetings, training division meetings with A/D's and the station visits conducted by myself. I provided guidance to officers as it relates to the need to have reports that reflected the work routine in stations, training reports for crews and the individual firefighters, and all fire prevention activities as it relates to in service inspections, preplans, etc. I have included a copy of the samples provided to the officers as Appendixes "B", "C" and "D" for your reference.

This activity has been a disappointment and continues to be a substantial challenge for our senior staff. Our failure to capture the information may be more appropriately attributed to amalgamation and resistance to change in many circumstances, however, the lack of time issue came up as a major problem in every discussion with our senior staff. I have heard our senior staff testify to the fact they were filing electronic reports at midnight after a very long day without an opportunity to interact with the Deputy Chief while on duty. The responsibility to interact with the Deputy Chief resides with the Assistant Deputies not the Deputy Chief so we leave the Assistant Deputies alone to set their own work routines.

There is no doubt that reports and records management will require constant attention as we strive to improve our reporting process regardless of the hours of work we secure in our workplace. The fact remains that a person assuming responsibility for all the duty staff in the City remains challenged when it comes to the competing interests they must consider when on duty, they need personal contact with staff at stations and senior staff within headquarters as well as providing the appropriate reports describing all the events that have taken place within their duty period of 24 hours. We believe the extended shift and gaps between duty periods contribute significantly to interrupting the business continuum that is required of a fire service the size of Kingston.

The feedback I received from the crews during the station visits indicated that basic training had improved some what from the firefighter's perspective. They did feel that there was more opportunity to practice evolutions peculiar to "their" responsibilities in this shift rotation. I must also point out that I had other concerns expressed that they could not get exposure to the training division and some of the special programs that were being offered by KFR.

We explained that the general skills training was to be provided by the shift officers based on the needs of the firefighters on shift and that the more advanced subjects were to be delivered by the training division. This delivery system has challenged our staff for reasons that go further than the hours of work, however, once again, the extended time away from the workplace has made it far more difficult to manage and facilitate the delivery of new programs. The fire service is one of the last professions where skill development is largely dependant upon exposure to equipment and prescribed evolutions to maintain competency that is acceptable in a high risk occupation. I am of the view that the extended time out of the workplace is a detriment to the growth and development of a professional firefighter at this time.

The fire prevention area where surveys and preplans have been scheduled remained unaffected by the shift change. The enthusiasm of our firefighters to work in this area has been exemplary so I do not believe there is any further need for comment at this time.

Conclusion

I truly believe the trial period that was agreed upon between the parties had value in terms of allowing the parties to better understand the benefits or detriments of the 24 hour shift. I have heard comments that there is respect for the Letter of Understanding process; however, people do not agree with the reasons for the Corporation's withdrawal at this point. I too respect the Letter of Understanding process and the rights of both parties being observed. In my view we brought our inputs to the bargaining table, officers meeting, union/management meetings, health and safety discussions and the Deputy and myself along with the Commissioner conducted station visits in good faith and made every attempt to be objective in our analysis.

I also respect the inputs of our staff as they described the shift as a morale booster, stating they were well rested for duty, more time with family, etc. We all knew going in that there had to be a substantial benefit to both parties in this undertaking if we were to entrench the rotation into the workplace. I also believe we worked very hard to meet our end of the bargain in this venture. I believe that at the end of the day the 24 hour shift is the shift of choice of the rank and file for the reasons previously mentioned. I have also concluded on balance that the value of the shift from a corporate perspective is questionable and is not sufficient enough to implement at this time.

Having said that, I have made every effort to provide you with my concerns as it relates to the shift in its present form. Kingston Fire & Rescue is still in the formative stages of becoming a composite fire service with many challenges ahead which may be distracting to all the parties involved in this endeavour. I do believe that fact is a major influence in all this.

I trust you respect the integrity of the inputs contained herein and that they are provided without prejudice to the Corporations views on the subject in collective bargaining.

Respectfully submitted,

H.A. Tulk

H.A. Tulk, Fire Chief
HT/tp

Notice #17

Appendix "A"

KINGSTON FIRE & RESCUE

Year	WSIB Expense	Sick Days Average	Overtime Expense	Overtime Budget
2002	$171,302	4	$188,587	$146,500
2003	$175,439	4	$235,432	$204,173
2004	$133,210	6	$267,517	$178,326
2005	$115,963*	6*	$321,186*	$198,326

*Prorated based on YTD data.

Appendix "B"

KINGSTON FIRE & RESCUE
DAILY REPORT No:DR001-04

(DRAFT)

DATE	TIME	ACTIVITY

Assistant Deputy Chief

Officer in Charge

CC: Original *Assistant Deputy Chief* *Deputy Chief*

KINGSTON FIRE & RESCUE
DAILY REPORT No:DR001-03

(DRAFT~Example)

DATE	***TIME***	***ACTIVITY***
Dec. 1/03	0800	• Roll call station #5 • Captain Smith in charge • Driver Ariel 51:George Smith • Firefighers: Wilson, Smith and George riding
	0900-1200	• Conducted Fire Prevention Inspections at 20 Railway St. See report #xyz.
	1200-1300	• Crew at lunch.
	1300-1700	• Captain Smith conducting in service training on ventilation. See report #abc.
	1700	• Crew at Dinner.
	1800-2200	• Crew conducting vehicle checks and building maintenance.
Dec. 2/03	0800	• Crew off duty.

Assistant Deputy Chief

Officer in Charge

CC: Original *Assistant Deputy Chief* *Deputy Chief*

KFR TRAINING REPORT

#400001

(draft)

SUBJECT_____ DATE_____

NAME_____ SHIFT_____

TRAINER FACILITATOR_____

Is the training you received satisfactory?_____

_____

Do you require additional training on subject? _____

_____

Comments:_____

_____

_____

_____

_____

_____

_____

Employee Signature_____Date_____

Officer I/C Signature_____Date_____

Senior Officer Signature_____ Date_____

CC: Shift Copy
Training Division
Employee

19	24 Hour & Day shifts (Chief Tulk)	Disclosure on where we are and how we will proceed. ➢ There was a withdrawal of 24 hour shift. ➢ Recommended in writing to continue 24 hour and current day shift. ➢ Memorandum process was/is a default process ~ theory. ➢ Chief requested to be advised if anyone is going to see Commissioner or Council. ➢ Definite directives for balance of trial period. ➢ A requirement is solid recording for items such as: o Vehicle check/equipment maintenance o Training reports o Fire prevention reports ➢ Reports are presently not being funneled to Chief/Deputies ➢ All employees will be interviewed ~ What three things would enhance your career development A/D's ~Brock Street.	H. Tulk

Appendix 7.20

CITY OF TORONTO FIRE SERVICES

24-Hour Shift Committee Report

Recommendation for ‘City Wide’ Trial Period 2006

October 2005

TABLE OF CONTENTS

1 Introduction and History

Amalgamation of the city of Toronto on January 1, 1998 included the amalgamation of fire departments from the six former municipalities. This amalgamation led to a situation where personnel in the Operations Division of Toronto Fire Services (TFS) were working on four different shift schedules. The schedules used involved a rotation of 10-hour days and 14-hour nights, and, in the municipalities of North York and York, a 24-hour Sunday shift. On January 1, 2001, the former shift schedules were harmonized into the current TFS shift schedule (Appendix 8.5). Personnel are now scheduled to work on a '10/14 Shift Schedule' involving a rotating combination of 10-hour day shifts and 14-hour night shifts, averaging 42 hours per week.

The Operations Division of TFS is divided into four Commands - North, East, South and West. Each Command is subdivided into four Districts.

In December of 2003, a 'Letter of Intent' (Appendix 8.1) was drafted between the City of Toronto (the City) and The Toronto Professional Fire Fighters' Association Local 3888 (the Association) with respect to a 24-hour shift schedule. The 24-hour schedule would require Operations personnel to work a rotating series of 24-hour shifts, still averaging 42 hours per week.

The Ontario Fire Protection and Prevention Act (F.P.P.A.) provides for either a '10/14 hour Shift Schedule' or a '24-hour Shift Schedule'. Both shifts are currently in use in Ontario fire departments.

This Letter of Intent defined the establishment and roles of a joint Administration/ Association 'Recommendation Committee' to review the hours of work and shift schedules of the Operations Division of TFS identifying issues and concerns. Further, the parties agreed to establish an 'Implementation Committee' to review and identify the policy and collective agreement issues to be addressed with respect to a 24-hour shift schedule. The Letter also defined a one year 'Pilot Program' to be implemented in one TFS Operations District starting January 1, 2005 and the potential establishment of a one-year 'Trial Period' across TFS following the Pilot Program, pending its successful completion.

In October of 2004, a Memorandum of Agreement (Appendix 8.2) was signed by the City and the Association defining the Pilot Program, general and contractual rules and implications, and the list of measurables against which the Pilot Program would be assessed for its effectiveness in meeting the primary considerations of the letter of intent.

This report contains the observations, conclusions and recommendations of the Joint Recommendation and Implementation Committees of the City and the Association.

2 Recommendation and Implementation Committees

As per the 2003 Letter of Intent, the 24-Hour Shift Recommendation and Implementation Committees were struck as follows:

Recommendation Committee

- 6 members: 3 administration and 3 association
- Role: Review Operations Division hours of work and shift schedules

This committee investigated the feasibility of a 24-hour shift, identified issues of concern and developed recommendations to address the concerns. This committee visited five North American cities where a 24-hour shift schedule is currently in use for fire fighter scheduling. Some of these cities have used a 24-hour shift schedule for many years, while others had only recently transitioned to this type of shift schedule.

This committee recommended the implementation of a "Pilot Program" beginning January 3rd, 2005 in TFS 42 District (West Toronto) and defined a list of 'measurables' against which the Pilot Program's success or failure would be measured. The committee has continued to meet during the Pilot Program to monitor the effectiveness of the 24-hour shift against these measurables and the three primary considerations listed in the Letter of Intent - Employee Health & Wellness, TFS Operational Needs, and Service Levels to the Public.

Implementation Committee

- 5 members: 2 administration, 2 association and 1 from Employee/Labour Relations
- Role: Review and identify policy and collective agreement issues to be addressed for successful implementation of 24-Hour Shift schedule

This committee drafted parallel collective agreement, policy changes and Standard Operating Guidelines (SOGs) to insure all issues were addressed prior to the implementation of the Pilot Program in 42 District.

3 City Visits

The Recommendation Committee visited five North American cities where a 24-hour shift schedule is currently in use for fire fighter scheduling. The committee hoped to examine departments, some of which are similar in size and complexity to Toronto, that had been using a 24-hour shift schedule for different periods of time. The purpose of these visits was to learn from both their challenges and positive experiences and to define their best practices.

Toronto Statistics (2004):

Population:	2,482,000
Number of Fire Stations:	81
Number of Fire Apparatus:	147
Number of Operational Fire Fighters:	2,780
Busiest Apparatus:	4,385 responses annually
Slowest Apparatus:	168 responses annually (Island apparatus) 551 responses annually (other apparatus)
Total Number of Incidents:	130,500 responses annually
Total Number of Unit Responses:	293,023 responses annually

3.1 Kingston, ON

Kingston Fire and Rescue was chosen because it is an Ontario Fire Service that recently (January 2004) converted to the 24-hour shift (recent transition). Kingston has experienced transitional issues that we wanted to investigate and discuss. Kingston also presents the most recent Ontario example of 24-hour shift contractual language changes.

Kingston Statistics (2004):

Population:	120,000
Number of Fire Stations:	4
Number of Fire Apparatus:	6
Number of Operational Fire Fighters:	104
Busiest Apparatus:	2,500 responses annually
Slowest Apparatus:	800 responses annually
Total Emergency Responses:	6,000 responses annually

Lessons Learned:

- There must be a system in place to deal with transitional issues – this includes the development and implementation of a structured format to the work day, wherein there is a clearly defined schedule of responsibilities under the new shift.
- Contract language and required modifications to the collective agreement must be defined and agreed upon prior to any change in shift schedule.
- The importance of frequent, open communications and feedback with operations personnel during the Pilot Program can not be overstated. It is vital to ensure necessary adjustments are made as issues arise.

3.2 London, ON

London Fire Services was chosen because it is an Ontario Fire Service that changed to a 24-hour shift in 1996 (medium-term transition).

London Statistics (2004):

Population:	348,000
Number of Fire Stations:	12
Number of Fire Apparatus:	19
Number of Operational Fire Fighters:	339
Busiest Apparatus:	2,300 responses annually
Slowest Apparatus:	334 responses annually
Total Emergency Responses:	15,961 responses annually

Lessons Learned:

- There must be a structured format to the work day to meet department objectives.
- London had many transitional issues owing in part to the rapid implementation of the new shift schedule. The need to anticipate and prepare for transitional issues, not only by identifying them but also by developing strategies to overcome them became clear. This reinforced the Committee's decision to first implement a Pilot Program, including active feedback through formal and informal surveys and direct communication strategies. This also reinforced the Committee's commitment to being flexible and prepared to adapt and make changes as necessary during the Pilot Program.
- There were specific challenges with delivering training programs that required multiple consecutive days. The Committee addressed this issue through new collective agreement language for hours of work as it relates to consecutive day training.

3.3 Windsor, ON

Windsor Fire and Rescue was chosen because it is an Ontario Fire Service that has been working a 24-hour shift for a long period of time, since 1961 (long-term transition).

Windsor Statistics (2004):

Population:	202,000
Number of Fire Stations:	8
Number of Fire Apparatus:	13
Number of Operational Fire Fighters:	255
Busiest Apparatus:	4,500 responses annually
Slowest Apparatus:	500 responses annually
Total Emergency Responses:	11,000 responses annually

Lessons Learned:

- Windsor clearly demonstrated to the Committee that there can be a very positive, professionally run fire service that provides exemplary service to the public within Ontario using 24-hour shift scheduling. This fire department has successfully dealt with training delivery issues and other identified challenges.

3.4 Houston, TX

Houston Fire Department was chosen because with respect to city size, population, fire department size, structure, and emergency responses, it is a very good comparison city with Toronto. Houston has been working a 24-hour shift since 1979.

Houston Statistics (2004):

Population:	2,000,000 residents (6,000,000 daytime)
Number of Fire Stations:	90
Number of Fire Apparatus:	172
Number of Operational Fire Fighters:	3,800
Busiest Apparatus:	3,816 responses annually
Slowest Apparatus:	100 responses annually
Total Emergency Responses:	267,359 responses annually

Lessons Learned:

- Houston emphasized that alternate methods must be used to ensure good quality training will take place. They recommended a training system based on small modules or units.
- Fire fighters in Houston were very proud and displayed a high level of morale. One of the main factors cited for these positive feelings, despite many labour issues in recent years, was the high level of employee satisfaction with their current 24-hour shift schedule.

3.5 Phoenix, AZ

Phoenix Fire Department was chosen because it is an internationally recognized leader in the Fire Service and has been working on a 24-hour shift schedule since 1960. Fire Chief Brunacini has authored several books and his department has been a pioneer in integrating Incident Management Systems. This fire department is also recognized for its intense and innovative training programs, using in-house video production and fire simulators to train fire fighters and officers.

Phoenix Information (2004):

Population:	1,421,000 residents
Number of Fire Stations:	49

Number of Fire Apparatus:	74
Number of Operational Fire Fighters:	1,398
Busiest Apparatus:	3,868 responses annually
Slowest Apparatus:	275 responses annually
Total Emergency Responses:	137,000 responses annually

Lessons Learned:

- Co-operation between the association and administration is vital to success.
- All outcomes must focus on public service, operational needs and fire fighter health & wellness. This lesson reflects the primary focus of the Toronto Letter of Intent.
- Coping strategies must be developed to deal with shifts incurring an unusually high run volume or prolonged incidents.

4 Pilot Program 2005 Structure

It was decided that the first step in implementing a 24-hour shift schedule for Toronto Fire Services would be to implement it as a "Pilot Program" in one district of TFS. This would allow for the practical identification of efficiencies and inefficiencies, problems and challenges, both actual and potential, before implementing the schedule across all districts of TFS.

A 'Mirror District" was also selected, to act as a control group. The Mirror District experienced no change to its work scheduling during the time period of the Pilot program.

4.1 Selection of Pilot District and Mirror District

The committee selected one of the sixteen fire districts (District 42) for the pilot program and another fire district (District 32) to act as a 'mirror district' for comparison purposes. These districts in particular were selected for a number of reasons. Given the 1998 amalgamation of six fire departments, each with its own department culture and policies, it was felt that the pilot program study districts should reflect a cross-section of employees from the predecessor municipalities. Both districts include stations from more than one pre-amalgamation jurisdiction (District 42 – Toronto and York, District 32 – Toronto and East York.) In addition, the districts selected are of similar size, have similar numbers of annual responses, and have a mix of stations with low, average and high annual responses as compared to other stations across the city. In addition, both the pilot and mirror districts are similar in size to some of the cities visited and studied by the Recommendation Committee (e.g. Kingston.)

	42 District	32 District
Number of Stations	6	6
Number of Apparatus	12	11
Number of Fire Fighters (including vacancies)	224	212
Busiest Fire Apparatus (annual responses)	3,021	3,853
Slowest Apparatus (annual responses)	820	996
Total Run Volume (annual responses)	19,795	23,003

4.2 Measurement of Operational Needs and Service Levels – Daily Agenda

It was clear from the committee's visits to other cities using a 24-hour shift that it would be essential to implement the use of a daily agenda and log. This tool would both alleviate some of the challenges inherent in a 24-hour work day by creating a new structured culture for the shift and allow for an accurate assessment of the 'Measurables' defined in the Memorandum of Agreement.

The daily agenda (See Appendix 8.7) was created and has been in place in both Districts 42 and 32, and each crew is required to complete a daily log of their adherence to the schedule.

4.3 Health and Wellness Study of Pilot and Mirror District Personnel

Dr. Linda Glazner was contracted to design, implement and evaluate a 'Health and Wellness Study' of TFS personnel in the two selected districts. Dr. Glazner is an expert in the field of shift work research, and is one of only a select few researchers with experience in the realm of shift work as it relates to the specific circumstances of fire fighting operations.

The study was implemented through the administration of a written questionnaire to TFS personnel in both the pilot program district and the mirror district. The health and wellness questionnaire study was conducted in three parts. The first phase was in late fall 2004, when personnel in both districts were still working the TFS 10/14-hour shift schedule (Appendix 8.5.) The second phase was in Spring 2005, when District 42 was working the 24-hour shift schedule (Appendix 8.4) and District 32 was still working the 10/14-hour shift schedule. The third and final phase was in late summer 2005.

The conclusions drawn by Dr. Glazner from this study indicate that the 24-hour shift schedule resulted in improved employee feelings of health and wellness. (See Section 5.1 for more details of Dr. Glazner's study conclusions or Appendix 8.11 for a full report on this questionnaire study.)

City of Toronto Corporate Health and Safety staff members were involved in reviewing and providing input into the questionnaires that were used in this study, most specifically in the design and implementation of objective data collection. They were also involved in presenting and explaining the questionnaire study to TFS personnel and in analyzing the results of the study. (See Appendix 8.10 for comments by Jane Byers, City of Toronto Senior Ergonomics Consultant.)

4.4 TFS Administration Interviews and Local 3888 Informal Surveys and Testimonials

Members of the Recommendation Committee, joined by other interested parties from both TFS Administration and Local 3888 visited the stations in 42 and 32 Districts jointly in Fall 2004 to explain the Dr. Glazner Health and Wellness Study and the defined Measurables to be used in evaluating the 2005 Pilot program.

As the study progressed, the parties (TFS Administration and Local 3888) agreed that going out separately would elicit a more open response and greater information flow from the employees working the shift. TFS Administration used personal interviews with each employee, bringing crews in and speaking to each person individually. Local 3888

used informal written and online surveys and testimonials to allow members to express their views, both positive and negative, about the 24-hour shift schedule that they were working.

The information gathered through these processes was used, in conjunction with other statistical and objective factual information, in assessing the defined measurables.

5 Pilot program 2005 Measurables

The December 2003 Letter of Intent clearly defined the health and wellness of employees, the operational needs of the department and service levels to the public as primary considerations (see sections 5.1-5.3 below.) It also required the creation of a list of 'measurables' to assess the effectiveness of the new schedule. These measurables were defined by the recommendation committee as one of the first orders of business and appear below in sections 5.4 – 5.15.

5.1 Health and wellness of employees

One of the most important expected advantages of the 24-hour shift schedule for TFS is improved employee health and wellness. There is a current emphasis in the Toronto Public Service (TPS) on creating a healthy workplace for employees, as evidenced in the *Healthy Workplace as an Organizational Change Strategy* report prepared by the TPS Healthy Workplace Committee. This report emphasizes the need for a holistic approach to health and wellness, emphasizing the advantages of such factors as flexible work schedules and employee lifestyle improvements. It is noted that improved employee health and wellness results not only in a healthier workforce but also significant savings for the employer including decreased absenteeism, higher levels of employee motivation and productivity and reduced Workplace Safety and Insurance Board (WSIB), Long Term Disability (LTD) and health drug plan utilization costs.

The health and wellness of employees in the TFS 24-hour shift pilot program was assessed in three ways: personal interviews administered by fire department management, written and online surveys administered by the fire fighter association, and a questionnaire study including both subjective and objective measurements administered by independent shift work researcher Dr. Linda Glazner.

Personal interviews administered by fire department management (see Appendix 8.8) found that 56% of personnel felt that their enthusiasm towards their job had improved on the new shift, whereas only 5% felt their enthusiasm had decreased. A significant majority of respondents felt that morale had improved due to the 24-hour shift, both on a personal level (77%) and within their station in general (71%). In addition, 70% of interview participants felt that they were able to make more efficient use of their time at work while on the 24-hour shift schedule. General comments from participants indicated that most felt generally better, less tired and enjoyed better time and relations with their families on the new 24-hour shift schedule. While some participants expressed a preference for the previous 10/14 shift schedule, the vast majority preferred the 24-hour shift, especially once they had gotten beyond a six-month adjustment period.

Personnel from District 42 were asked to complete both personal 'testimonials' and informal general surveys about their experiences with the 24-hour shift once they had

been working the schedule for a number of months (see Appendix 8.9). Those who completed testimonials were generally very positive and cited many benefits for employee health and wellness, including feeling healthier and better rested, suffering less fatigue, being more alert at night time emergency calls, experiencing better home and family life, enjoying a reduced commute experience, enjoying better morale and improved relations between platoons at the fire hall and generally feeling more positive and energetic. One respondent even mentioned that he had been very opposed to the shift prior to experiencing it, but that the positive health effects were undeniable and he now felt fully in support of the transition to a 24-hour shift schedule.

Responses to the informal survey showed an overwhelming positive feeling among respondents towards the 24-hour shift schedule:

- Prior to working the 24-hour schedule, 18% of respondents felt negatively towards the schedule; after working the 24-hour schedule only 3% felt negatively. Similarly, while 45% felt positively about the schedule prior to working it, 95% felt positively after working it.
- 95% of respondents reported feeling better on the 24-hour shift
- 87% of respondents reported feeling less tired
- 58% of respondents reported having more energy
- 71% of respondents reported that they experienced better sleep quality
- 85% of respondents reported better family relations
- 96% of respondents reported a better sense of personal well-being
- 80% of respondents reported improved morale and attitude to work
- 72% of respondents reported increased time for public programs

It is interesting to note the consistency of these subjective responses between the personal interviews with administration (Appendix 8.8) and the informal written and online surveys (Appendix 8.9) For example, in the personal interviews, 77% reported feeling improved morale on the 24-hour shift schedule and in the informal written and online surveys 80% reported feeling improved morale. (See Appendix 8.9 for a full report on testimonial and informal survey responses.)

The questionnaire study by Dr. Linda Glazner of both the pilot and mirror districts also indicates that subjective data showed an improvement in the health and wellness of fire fighters on the 24-hour shift. Fire fighters on the new shift showed improvement in their eating patterns, reduced overall sleep deficit, improved relations with family members, and increased feelings of good health (see Appendix 8.11).

5.2 Operational needs of TFS

The transition to a 24-hour shift has a neutral effect on staffing requirements, with no change in the total number of fire fighters required.

With the removal of the afternoon shift change (the 24-hour shift crew change occurs in the morning) there is increased ease in getting staff and vehicles to remote work locations (e.g. mechanical facilities for vehicle maintenance, training facilities for crew training) and having them stay there for the total time required. The 24-hour shift eliminates the need to return the crew to their assigned fire station for an afternoon change of shift.

The removal of the afternoon shift change has also resulted in one less occasion per day where staff must be reassigned to meet operational staffing requirements. This reduces travel reimbursement costs, time lost in transition between work locations, and the time required by supervisors to organize personnel and vehicles to meet staffing and operational needs.

Employees report that the communication between platoons at shift change has improved with the elimination of the frequently challenging afternoon shift change. They also state that they are able to make more efficient use of time at work and that station and vehicle maintenance has often improved or at minimum remained consistent with previous standards.

5.3 Service levels provided to the public

In the early months of the pilot program, concerns were expressed that there may be negative impacts of the 24-hour shift relating to response times to emergency incidents. These concerns were reviewed by the committee using actual statistics on response times in 2005 and 2004, taking into account such factors as time of day, station location and traffic patterns. There was found to be no negative impact on response times or service levels provided to the public.

5.4 Effects on TFS Programs

Despite the concern that the 24-hour shift may have a negative impact on TFS programs, the implementation of the 24-hour shift has shown to have no negative impact on station and crew involvement in local community events, school fairs, fire drills, 'building' audits and other similar TFS programs and activities.

As an example, the number of households visited in the 'Alarmed for Life' program increased substantially in 2005 across the city. The following numbers are a comparison of the households visited up to the end of August in 2004 and 2005.

	South Command		**West Command**	
August 2004	2421		2795	
August 2005	7380		5016	
	32 District	% of Command	**42 District**	% of Command
August 2004	525	21.7	830	29.7
August 2005	2289	31.0	2116	42.2

The removal of the afternoon shift change creates the potential for increased availability of crews for such programs and activities. This finding is consistent with the subjective feelings of firefighters in the pilot program, where 72% of personnel who responded via the informal surveys reported that the 24-hour shift schedule afforded them more time for public programs (See Appendix 8.9.)

5.5 Overtime costs

With the 24-hour shift there is no afternoon shift change. The overtime and mileage allowance costs for one daily change of shift are less than those for two daily changes of shift. As such overtime costs are reduced.

5.6 Attendance

The use of sick days can be compared for both districts for the time period from Jan-Aug 2004 and Jan-Aug 2005.

District 32 sick day use increased 7% from 2004 to 2005
District 42 sick day use decreased 25% from 2004 to 2005

The average sick day use per person increased marginally from 3.1 to 3.3 days per fire fighter in District 32 (increase of 0.2 days per fire fighter) while the average sick day use per person decreased from 5.25 to 3.95 days per fire fighter in District 42 (decrease of 1.3 days per fire fighter.)

TFS sick day use increased marginally from 5.21 days per fire fighter in 2004 to 5.24 days per fire fighter in 2005. It should be noted that District 32 was below the city average in 2004 and is still below that average. District 42 was above the city average in 2004 but well below the average in 2005. Sick day usage in the pilot and mirror districts appears to show a positive impact of the 24-hour shift on attendance.

5.7 Work related injuries

The use of WSIB days can be compared for both districts for the time period from Jan-Aug 2004 and Jan-Aug 2005.

District 32 WSIB day use decreased 65% from 2004 to 2005
District 42 WSIB day use decreased 56% from 2004 to 2005

The average WSIB day use per person decreased from 1.15 to 0.32 days per fire fighter in District 32 (decrease of 0.95 days per fire fighter) while the average WSIB day use per person decreased from 1.08 to 0.39 days per fire fighter in District 42 (decrease of 0.69 days per fire fighter.)

Most WSIB claims by TFS operations personnel are related to injuries incurred while engaged in emergency responses. As such, these claims are highly dependant on the number and type of emergency responses which are, by their nature, highly variable. WSIB usage in the pilot and mirror districts does not show any positive or negative impact of the 24-hour shift on WSIB usage.

5.8 Training Issues

The committee believes training is an area that has tremendous potential for innovation and improvement with the 24-hour shift schedule. In the proposed collective agreement language, the hours of work section contains provisions that would allow for this potential to be explored in a city wide trial period. These provisions include an allowance for modification of the shift schedule to allow for consecutive training days when deemed necessary by training staff. It is expected that the 24-hour shift schedule implementation would provide increased opportunities for effective training of personnel, specifically in such areas as officer development.

Given the small scale of the pilot program relative to TFS, District 42 continued to do its training on the same schedule as other districts. Nonetheless, training division staff

reported that they found District 42 employees to be more attentive during afternoon sessions at training facilities as they were less concerned with returning to their home station in time for the afternoon shift change.

Employees in District 42 report an improvement in the time available for training, both at training facilities and in their own stations. They report feeling less rushed and able to accomplish more.

The committee would monitor training over the trial period and has developed a recommendation to insure this.

5.9 Morale

It is difficult to quantify changes in morale. Several components within the surveys and questions by the administration and the association set out to elicit members' subjective opinions on whether or not morale had improved.

Overwhelmingly members reported improvements in morale, both on a personal basis and in their perception of morale overall in their fire station. Interestingly, there were a number of employees that reported that even though they did not personally find the 24-hour shift better than their previous work schedule, they did feel morale in their work location had improved with the new shift schedule.

5.10 Grievance and arbitration

There has been no apparent effect on the number or type of grievances filed that can be directly attributed to the 24-hour shift schedule. It is expected that the noted improvements in morale may lead to many issues being resolved without the need for grievances.

Involvement in interest based negotiation strategies has been improving the resolution of grievances within TFS. The parties would continue to monitor grievances during the trial period to see if there is any correlation to the 24-hour shift schedule.

5.11 Management and Association Relationship

The joint committees developed under the 24-hour shift letter of intent have had a close working relationship and are evidence of the improving rapport between TFS Administration and Local 3888.

As the parties worked through the contractual language changes necessary to implement the 24-hour shift schedule, many contentious issues arose that appeared difficult to overcome. Equal priority was placed on issues that were significant to each side. The parties candidly communicated their particular concerns and were able to arrive at resolutions that were deemed fair by all parties and that replicate, as close as possible, current practices.

The committee operated with openness and honesty to work to create a 24-hour shift that would be an improvement from both the management and association perspectives over the current shift schedule.

The process used to resolve conflicts came out of the interest based negotiation strategies in which the parties have received training. These strategies have worked in

resolving issues relating to the 24-hour shift implementation and may provide a template for resolving other contentious issues that arise in the future.

5.12 Participation in Promotional Process

The only promotional process scheduled to occur during 2005 was in the training division. Initial concern was that the involvement of employees in support division opportunities (where the 24-hour shift is not in use) would decrease under the 24-hour shift. Despite this concern, actual 2005 involvement in the training division promotional opportunities was comparable to previous years. There does not appear to be any negative effect in this regard.

During the Pilot Program there were no promotional processes that took place in the operations division. The committee feels it is unlikely the 24-hour shift will have any effect on involvement of personnel in future processes in the operations division.

5.13 Participation on committees

Participation on TFS committees in 42 District remained consistent with previous years and did not seem to be impacted by the change in shift schedule.

5.14 Fire Fighter Retention

With an increased number of employees living outside the city of Toronto, there are obvious advantages to the 24-hour shift schedule. Many employees in the pilot program have reported financial savings in reduced fuel consumption and costs (some have also reported insurance savings) and improved personal sentiment coming from less time spent commuting and thus more time available for family time and recreational activities.

It is believed that with a 24-hour shift schedule employees living outside the city will be less likely than they are now to seek employment in other municipalities.

5.15 Reduction of Workload for District and Platoon Chiefs

Included in the roles and responsibilities of a District Chief are the daily staffing assignments and physical visits to their stations. This includes personnel and station management, as well as the distribution and collection of administrative paperwork. District Chiefs in the pilot program reported that the 24-hour shift was a more efficient shift to meet their work requirements. For example, they observed that they needed to assign and move staff only once per day, thus freeing up some of their administrative time. They also found they were better able to visit each of the stations in their district daily, and were less rushed while in those stations. This allowed them to spend more time discussing issues, monitoring and participating in training, as well as developing and maintaining a positive rapport with crews in their district.

Platoon Chiefs were not scheduled onto the 24-hour shift for the pilot program. It is expected that they would realize similar time savings as did the District Chiefs in the reduction of time required for administrative tasks such as daily staff and vehicle assignments.

6 Conclusions

This TFS Administration/Association joint committee has found that a 24-hour shift schedule shows no negative impacts and could provide a number of potentially positive outcomes for TFS Administration, the City of Toronto and Toronto Fire Fighters. The most significant conclusions of the committee, considering the defined considerations and measurables in the pilot program Letter of Intent are as follows:

- Objective data collected by TFS in the pilot program and mirror districts indicates potential for decreased absenteeism and reduced overtime costs.
- While the objective data collected in the Dr. Glazner study was too limited to produce any conclusive results about health and wellness effects of the 24-hour shift schedule, the subjective data collected in three different ways (Dr. Glazner Health and Wellness Study, TFS Administration personal interviews, and TPFFA surveys and testimonials) consistently showed strong feelings of improved health and wellness (e.g. higher morale, better quality sleep, more energy, less fatigue, improved general well-being and improved family relations.)
- There is significant potential for improved training programs with the implementation of the 24-hour shift, especially in the area of officer development.
- The decrease in administrative workload for District Chiefs creates potential for better management of stations in the district, with a more hands-on daily approach to training and personnel monitoring and management.

7 Recommendations of the Committee

Given the conclusions drawn from the 2005 Pilot Program, the committee:

> **Deems the "Pilot Program" successful and recommends the implementation of a one (1) year "Trial Period" in all four (4) commands across the TFS, as set out in the Memorandum of Agreement, *24 Hour Shift Schedule – Transition and Collective Agreement Changes*.**

In addition:

- Current methods used to assure proper rehabilitation of crews while working the 10 and 14 hour shifts will be used with necessary modifications to assure appropriate rotation of busy crews while working the 24-hour shift. This is the current practice but it should be formalized in a TFS Standard Operating Guideline (SOG) to insure it is dealt with in the 24-hour shift schedule, and addresses in particular the need for some period of 'anchor sleep' during a 24-hour shift.

- It is recommended that the daily agenda implemented in Districts 32 and 42 during the pilot program move forward into the trial period. This agenda helps officers to identify necessary daily work and allows for monitoring of efficiencies.

- Training must be monitored during the trial period to ensure relevant training objectives are being met under the 24-hour shift schedule.

- A study should be developed and implemented to collect objective data assessing the health effects of working the 24-hour shift schedule throughout the 2006 Trial Period.
    - This study should be implemented using a sample population that shows a commitment to adhere to the parameters of the scientific study (e.g. regular and consistent body temperature monitoring.)
    - The objective data collected could include, but is not limited to, measures of body temperature, response times, and ability to complete simultaneous required tasks.
    - This study would be designed by this committee in conjunction with experts in ergonomics from the staff of the City of Toronto - Occupational Health, Safety & Worker's Compensation Section.
    - If the analysis of this data shows negative health effects of this 24-hour shift schedule, then the committee would explore ways to resolve them. If the committee is unable to resolve the negative health effects, this would result in a recommendation by the committee to the Fire Chief and the President of the TPFFA that an alternate shift schedule be considered. The Fire Chief and the President of the TPFFA may choose to consider whether these effects are mitigated by other significant measurables including, but not limited to, training, subjective measures of health and wellness, and morale.

8 Appendices

8.1 Letter of Intent December 2003

Operations Division - Hours of Work (24-hour Shift Schedule)

Within thirty (30) days of the implementation of this collective agreement, the parties agree to form a joint Recommendation Committee to review and investigate the hours of work and shift schedules for the Operations Division. The committee will be comprised of six (6) members: three (3) members representing the Management, one (1) member to include the Fire Chief or Deputy Fire Chief, as designated by the Fire Chief; and three (3) members representing the Association, one (1) member to include the President or Vice-President of Local 3888, as designated by the President of Local 3888.

Further, the parties agree to establish a joint Implementation Committee to review and identify the policy and collective agreement issues that need to be addressed for a successful implementation. The implementation committee shall be comprised of five (5) members: two (2) members representing management, which includes one (1) member from the Recommendation Committee, as designated by the Fire Chief; two (2) members representing the Association, which includes one (1) member from the Recommendation Committee, as designated by the President of the Local 3888; and one (1) member from Employee & Labour Relations.

It is understood that the focus of the Recommendation Committee's review will be to investigate the feasibility of a 24-hour shift, identify issues and concerns, and develop a recommendation on how these issues can be addressed. When the Committee has concluded its investigation and if it makes a recommendation to move forward, the following criteria must be addressed:

- There must be a one year "pilot program" in a District of the city, with that District being restricted in terms of transfers, movement of staff and/or other restrictions, as determined by the committee, for the duration of the "pilot program". Such restrictions will be determined prior to the District being identified;
- If the "pilot program" is successful, there must be a further one-year "Trial Period" for the new shift across TFS and the ability for either party to unilaterally opt out of the new schedule at the end of the one-year Trial Period;
- In both the "Pilot Program" and "Trial Period", there must be no additional salary/overtime costs for TFS to both implement the new shift schedule and/or revert back to the former schedule, if necessary;
- The health and wellness of employees, the operational needs of the department and service levels to the public must be primary considerations;
- There must be list of measurables to assess the effectiveness of the new shift schedule, that includes: Addressing the issues and concerns raised by the City of Toronto's Ergonomics Consultant in her report dated November 25, 2003 and the measurables identified in the proposal/binder and presentation provided by Local 3888. The committee will also consider which measurables will be appropriate during the "Pilot Program";
- The parties will mutually agree on the implementation of the shift change, if required.

The Recommendation Committee will be expected to visit several other Fire Departments that are presently operating a 24-hour shift schedule, and are of similar size and complexity to Toronto. The identified fire departments should include one that has implemented a shift change in recent years and one that has been operating a 24-hour shift schedule for many years. The following is a list of Fire Departments that should be considered to visit: Phoenix, Chicago, London Ont., Washington D.C., Windsor Ont., Kingston Ont.

Upon completion of the evaluation, the Recommendation Committee will provide their recommendations to the Fire Chief and the President of Local 3888, on or before September 1, 2004. If a 24-hour shift is recommended as being feasible, there will be a “Pilot Program” implemented, with the understanding that no changes will occur prior to January 1, 2005.

The parties understand that in the event a change to the current shift schedule is implemented there will be a “Pilot Program”. The selection of the District of the “Pilot Program” will be left for the committee to investigate and provide appropriate recommendations.

During the period of the “Pilot Program” the Recommendation Committee will continue to meet to monitor the effectiveness of the 24-hour shift against the agreed upon list of measurables. Further, if the issues and measurables are addressed, the Recommendation Committee will develop a recommendation for implementing a “Trial Period” in the four (4) commands across Toronto Fire Services, subject to a ratification vote of Local 3888. The “trial period” will then be monitored for a further period of one year to assess the effectiveness of the 24-hour shift against the agreed upon list of measurables.

8.2 Memorandum of Agreement October 2004

Memorandum of Agreement

Between :

The City of Toronto

(the "City")

And

The Toronto Professional Fire Fighters Association', Local 3888

(the "Association")

Re: Memorandum of Agreement (24 – hour Shift Schedule)

Pursuant to the Letter of Intent Re: Operations Division (24 hour shift schedule) the parties have agreed as follows:

To deem the "pilot program" a success, finalization of contract language for purposes of the "trial period" must be agreed upon by the joint recommendation committee and subject to ratification by Local 3888. The "pilot program" rules will form the basis of the contract language for the "trial period" with modification and amendments deemed necessary and agreed to by the committee. Such language will include the ability for management to reschedule the firefighter's hours of work to accomplish training. The "pilot program" cannot be deemed a success unless the parties complete and agree upon contract language as set out above.

Attachment I - Pilot Program Rules

The Pilot Program to be carried out in 2005 applies to District 42. The parties agree that there will be no grievances filed based on the proper administration of the Pilot Program. If problems arise during the pilot Program, the committee will meet to resolve them.

Attachment II - Typical Days

The parties agree the "Typical Day" attachment will be used and monitored during the Pilot Program and changes will be made by the Committee as required before moving into the one year trial period, if the Pilot Program is successful. The committee will continue to meet to resolve issues.

Attachment III - Measurables

The parties agree the "Measurables" attachment will be monitored during the Pilot Program and changes will be made by the committee as required before moving into the one year trial period, if the trial period moves forward. The committee will continue to meet to resolve issues.

In the event that the pilot program and/or the trial period is unsuccessful this memorandum of agreement is without prejudice or precedent to either party to the collective agreement and no changes to the collective agreement would apply.

Dated the ____29th_____ day of October, 2004

For the Association: For Management:

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

8.3 Memorandum of Agreement October 2005

MEMORANDUM OF AGREEMENT

Between:

City of Toronto
("the City")

and

Toronto Professional Fire Fighters' Association, Local 3888
("the Association")

24 Hour Shift Schedule – Transition and Collective Agreement Changes

The parties agree that the following agreement will set out the terms and conditions to move into the one year trial period of the 24-hour shift schedule, for the operations division. This agreement is a result of the negotiating process set out in the letter of intent entitled, *Operations Division - Hours of Work (24-hour Shift Schedule).*

This memorandum of agreement is set out in three sections, containing the following:

1. The transition from the current shift schedule to the 24-hour shift schedule beginning January 2, 2006.
2. The amendments, additions and deletions to the current collective agreement that were negotiated to form the new collective agreement for the 24-hour shift schedule. These changes will be effective upon signing this agreement for purposes of vacation, lieu day and mandatory training selections for 2006. All other changes will be effective as of January 2, 2006.
3. The letter of intent allows either party to unilaterally opt to return to the current shift schedule (10-hour days, 14-hour nights) upon the completion of the trial period. This section will only be applicable should either side opt to return to the current shift schedule and sets out the schedule for notification and the transition to the current schedule. If neither party opts to return to the current shift schedule this section will be considered null and void.

The parties agree that the application of this memorandum shall have no bearing or impede any other bargaining or contractual issues that parties have the right to negotiate during the trial period.

Should the parties begin negotiations for the 2007 contract during the trial period, both shall have the right to negotiate the entire contract including items that are still under the trial period. Such negotiations would be subject to all normal terms and conditions for the 2007 bargaining session.

Should either party use the provision in the letter of intent to unilaterally opt to return to the current (10-hour day, 14-hour night) shift, the amendments, additions and deletions set out in Section 2 will be removed and replaced with the language in place the day of signing this agreement.

Other changes negotiated during the term of the trial period that have no bearing or impact on the 24-hour shift schedule will not be returned to the current language, unless specifically set out in those particular agreements.

This Memorandum of Agreement is subject to ratification by Local 3888.

Dated the _____ day of October, 2005

For the Association: For Management:

_____ _____

_____ _____

_____ _____

_____ _____

_____ _____

Section 1

Shift Schedule and Change Over

The 24-hour shift schedule for the Trial Period will commence Monday January 2nd, 2006. See Attachment "A"

The following is how the shifts will align through the transition week beginning January 2nd, 2006.

A Platoon – Works 4 nights week prior and reports for 24 on Wednesday January 4th.

B Platoon – Works 4 days week prior and reports for 24 on Friday January 6th.

C Platoon – Works 3 nights week prior and reports for 24 on Monday January 2nd.

D Platoon – Works 3 days week prior and reports for 24 on Tuesday January 3rd.

See Attachment "A"

Section 2

Article 9.09 - Hours of Work Operations Division –

9.09 Hours of work shall consist of twenty-four (24) hour shifts and shall be in accordance with a schedule of rotating shifts as set forth in Schedule "A". Employees shall not work in excess of a forty-two (42) hour work week averaged over a four (4) week period.

Shifts shall commence at 07:00 hours. Notwithstanding the above, it will be the practice to relieve on a person per person basis of one hour before the start of the shift, or earlier with the approval of the Officer.

A tour of duty will constitute all scheduled working days within a Monday to Sunday period.

9.10 The TFS may require employees to move from the 24-hour shift schedule to an eight (8) or twelve (12) hour training day due to the need for consecutive day training as set out below.

9.10 (a) Training will be conducted in various locations over three (3) consecutive eight hour day shifts, or two (2) consecutive twelve hour day shifts. The training will normally be scheduled on weekdays. Training will not take place on designated holidays with the exception of Remembrance Day. Training conducted by outside agencies or that requires specialized facilities may require weekend training. An employee identified as requiring the training, upon selecting a training session, will not be required to report to one of his/her 24-hour shifts that tour, or the weekend immediately prior. The training session schedule will identify which 24-hour shift off applies to each platoon. Notwithstanding the above, an alternate 24-hour shift off may be identified and offered on the training schedule for selection at the employee's discretion.

9.10 (b) In no case will an employee be required to convert more than three (3) twenty four (24) hour days in a calendar year, to a maximum of four (4) days over any three year period.

9.10 (c) The training schedule and selection of training days will be made after vacation and lieu day selection. A minimum of three (3) training selection choices will be available for each training session to each employee.

9.10 (d) A training schedule will be sent out to the employees no later than December 1st. Employees must submit their training selections no later than December 15th. Employees not returning their selections will be scheduled at the discretion of the Platoon Chief. The schedule will identify employees required to take the mandatory scheduled training, the dates and locations of the training available for each platoon, and the corresponding 24-hour day off. If the training location has to be changed from the initial schedule, it will be relocated no further than an adjacent command. There will be no fewer than three (3) periods available on each platoon for employees to select into over the course of the year. Employees will select from the available dates, listing them in order of preference. Selection will be done by seniority and the Platoon Chief will confirm, by memo to the District Chief, the employees and their training dates before January 1st of the training year. The District Chief will make all reasonable efforts to contact employees at work to inform them of their training schedule. Employees off duty may receive their schedule by phoning the Platoon Chief's office.

9.10 (e) No more than 5 employees will be taken off of any platoon on any given shift for purposes of mandatory training. This will not include mandatory training rescheduled due to sickness.

9.10 (f) In addition to the mandatory training, voluntary training will allow for a maximum of two additional employees for each shift. Once requested and scheduled the employee is required to attend the training as per the rules of mandatory training.

9.10 (g) The number of apparatus involved in in-service training will be adjusted by the number of employees off for mandatory and voluntary training.

9.10 (h) An employee may request rescheduling of mandatory training where a vacancy in the training schedule allows. Duty exchanges are not allowed while on mandatory training. Vacation or lieu day changes will not be considered if they impact an employee's training selection. If the employee can reschedule the training into an open period the vacation or lieu day change request will not be unreasonably withheld.

9.10 (i) If you are unable to complete your training due to sickness or I.D.D., sick days will be taken from your sick bank for each day of training missed and you will be rescheduled into the next available period that you are scheduled to work. You could be required to reschedule your training into the following year. In which case, your rescheduling would be in addition to your normal requirements for that year.

9.10 (j) An employee that does not complete training due to sickness or I.D.D. will have the option of having their training rescheduled as set out in 9.10 (i), or coming in off duty to complete the training during another period. Employees opting to complete their training while off duty will be credited any sick days deducted when they missed the training.

9.10 (k) An employee missing any of the mandatory training due to bereavement has the option to reschedule the training as above or attend the missed training sessions on their own time once notifying the appropriate training officer.

Vacation Selection

12.05 (a) – One float or lieu day constitutes 12-hours. Lieu and float days must be scheduled in two consecutive twelve hour periods commencing at 07:00 hours.
(b) Where a situation arises that an employee has a combination of lieu and/or float days that total an odd number, they will be allowed to schedule a single 12-hour period off. Such 12-hour period will commence at 07:00 or 19:00 hours. *Replaces current 12:05*

12:10 (a) Each vacation selection group is required to select a minimum two (2) vacation weeks consisting of the single day tour (Tuesday) of the twenty-four (24) hour shift schedule.

If all employees within a group have selected their vacation and no one has picked the single shift week, the last employee to have selected (not based on your selection priority, but the actual last person to have made a selection) will be required to convert one of his/her selections to an open single day week. If a further week is still required the second last employee to have selected is required to convert a week. In no situation will an employee be required to select more than one single day week.

If the last employee to have selected has previously selected a single day week, the second required week will be selected by the second last employee to have selected. If employees have self selected these weeks within their normal selection they have met the requirement.

Where there is a vacancy within a vacation selection group which results in the platoon chief selecting time, the platoon chief will select one single day vacation week for each vacancy to a maximum of two single day weeks if there are two vacancies.

Notwithstanding the above, groups that are assigned with six (6) personnel will not be required to select into the single day week vacation unless their aggregate vacation total exceeds twenty-four (24) weeks. If their aggregate total is twenty-five (25) weeks they will be required to select a single day week as set out above. If their aggregate total is twenty-six (26) weeks or greater they will be required to select a minimum two single day weeks. Employees may self select those single day weeks and this will apply against the requirement. Vacancies and platoon chief selection will apply as above. If the aggregate total exceeds twenty-four (24) weeks and there is a requirement to convert selected weeks, the employee(s) required to convert will apply as set out above.
New clause – Current 12:10 will become 12:10 (b)

12:14 A minimum of one 24-hour lieu day may be selected as a choice (notwithstanding 12:05 (b)). A maximum of the number of 24-hour shifts over a consecutive Monday to Sunday period may selected as one choice. *Replaces current 12:14*

12:16 (a) Vacation exchanges are limited to members of the crew or group present in the workplace. Exchanges can be made from employee to employee, however if the exchange is made with open or Platoon Chief time (including rescheduled vacation time) these exchanges must be made on a week-for-week basis and must have an equal number of shifts within. Lieu day exchanges may be made only with other members of the crew or group present in the workplace provided the number of shifts are equal. If no exchange can be made as above, then exchanges may be made on the same platoon within the command on the same basis. Replaces current 12:16 (a)

12.21 Payment of Lieu Days Upon Resignation or Retirement:
(a) For employees who work the 24-hour shift, these days shall be paid out at the rate of 12-hours per day.

Article 13 – Designated Holidays

13:02 (a) For all employees in the Operations Division, in lieu of the holidays referred to above, each employee shall be entitled to a twelve (12) hour period off with full salary for each designated holiday, taken in accordance with Article 12:05. In an employee's first year of employment the holiday entitlement shall be calculated from the commencement of employment.

13:02 (b) For all employees in the Communications Division, in lieu of the holidays referred to above, each employee shall be entitled to an equal number of days off each year with full salary. In an employee's first year of employment the holiday entitlement shall be calculated from the commencement of employment. *Replaces current 13:02 – Current 13:02 becomes 13:02 (a) and add the 13:02 (b).*

13.03 (b) Employees working the twenty-four (24) hour shift schedule who have completed one (1) year of continuous service shall be granted during each calendar year, one twelve (12) hour period off with pay, to be termed a floating holiday, taken in accordance with Article 12:05. *Add this to the current 13:03- current 13:03 becomes 13:03 (a).*

Article 14 Sick Pay

All provisions of this article will apply with the following modifications;

14:01 *Current 14:01 becomes 14:01 (a)*

14:01 (b) For staff working the twenty four (24) hour shift schedule, a day is considered a twelve (12) hour period for purposes of Article 14 only. For staff scheduled into training as set out in Article 9 a sick day will be deducted for each sick day used on the training schedule.

14.04 For the purpose of receiving sick pay credits in accordance with 14.03, service shall be broken for any of the following reasons: *Unchanged*

(a) For staff working the twenty four (24) hour shift schedule; suspension, without pay, of more than two (2) consecutive twenty four (24) hour scheduled days (shifts). For all others; suspension, without pay, of more than four (4) working days (shifts). *Replaces current 14:04 (a)*

14:08 (a) The number of days for which an employee received "sick pay" shall be deducted from his/her cumulative sick pay credit but no deduction shall be made on account of any day on which an employee would normally be entitled to be off work. Absence on account of illness for half a day, and less than a full day, shall be deducted as one-half (1/2) day. *Unchanged*

14:08 (b) Employees working the twenty four (24) shift schedule may return to duty for a twelve hour period and be deemed to have used only one sick day. i.e. An employee off sick at the start of the shift (07:00 hours) who books back to duty and reports at 19:00 hours is deemed to have used only one sick day. An employee leaving the workplace due to sickness after six (6) hours but before twelve (12) hours in the workplace will be deemed to have used one and a half (1 ½) sick days, between twelve (12) and eighteen
(18) hours one (1) sick day; between eighteen (18) and twenty four (24) hours, one half (½) sick days. *Replaces current 14:08*

14.09 (a) (i) For employees not working the twenty four (24) hour shift schedule each employee who is absent due to non-work related illness or injury shall contact the City to advise that he or she has such an illness or injury and the estimated date of return. Once the employee has been absent for more than three shifts, he or she shall, upon request of the employer, have a qualified medical practitioner complete the City's medical form and he/she shall deliver it to the employer as soon as possible.
(ii) For employees working the twenty four (24) hour shift schedule each employee who is absent due to non-work related illness or injury shall contact the City to advise that he or she has such an illness or injury and the estimated date of return. Once the employee has been absent for more than 36 consecutive scheduled working hours, s/he shall, upon request of the employer, have a qualified medical practitioner complete the City's medical form and s/he shall deliver it to the employer as soon as possible. *Replaces current 14:09 (a)*

18.01 Operations Promotional Process – Notification – paragraph 3

Subject to operational requirements, applicants scheduled to be on duty at the time of the written examination, oral or practical components will be required to arrange for a substitute for the day of the exam. The substitute shall be paid his/her regular rate for the hours worked by the City, or shall receive alternate hours off. If conducted in the day a minimum 10-hours off if conducted in the evening a minimum of 14-hours off. *Replace current.*

Duty Exchanges

37.04 Employees are prohibited from working in excess of **36** consecutive hours. In all situations employees must be off duty for a minimum of 24-hours prior to reporting to duty.

37.05 Employees shall be limited to a maximum of thirty (30) duty exchanges in any calendar year. Included within the thirty (30) duty exchange maximum, there is a further restriction to a maximum of fifteen (15) duty exchanges to be used between 07:00 and 19:00 hours Monday through Thursday. A twelve (12) hour period or less constitutes one (1) duty exchange. A duty exchange in excess of 12-hours counts as 2 duty exchanges.

Shift Holdovers for Elections

When a municipal, provincial or federal election is called the TFS will send written notification to all the work locations of the schedule for the upcoming election day.

The shift working the day prior to election day will be required to stay on duty the following day to allow the election day shift three hours to vote. The election day shift will pay back the holdover shift within the next 28 days on the same day of the week (if possible) or other mid-week day.

The use of the holdover shift and the resulting payback will not be on a person to person basis. It will be on a shift to shift basis. It is understood that due to a person's vacation, lieu or sick time use they may be required to work the extra time and be off the day the shift pays the time back. No one is entitled to overtime in this specific situation. The association does not give up any other overtime entitlements set out in the collective agreement.

Elections are called within relatively short time frames. This may impact an employee's scheduled vacation. An employee whose vacation is impacted must arrange duty exchanges to resolve the conflict.

Notwithstanding the above, employees are encouraged to use advance polls to resolve the need for this provision. Employees utilizing advance polls can then utilize their duty exchange provision on a person to person basis. Duty exchanges for election holdovers, will not count towards the employee's annual maximum duty exchange provision.

Section 3

If either party opts to unilaterally return to the current shift schedule (10-hour days, 14-hour nights) they will give formal written notice of such no later then October 1, 2006. The parties agree to meet on or before September 1, 2006 to review the twenty four hour shift schedule, report on the recommendations set out in the *City of Toronto Fire Services 24-hour Shift Committee Report 2005* and disclose if they are contemplating a return to the former schedule.

Should either party unilaterally opt to return to the current shift schedule (10-hour days, 14-hour nights) the change over to revert to the current shift schedule will commence at 07:30 hours on January 1, 2007.

The change over will apply to the four platoons in the following manner:

Shift Schedule and Change Over

The following is how the shifts will align through the transition week beginning January 1, 2007.

A Platoon – Works the 24-hour shift on December 31, 2006 and reports for duty on the three day shift commencing Friday January 5, 2007.

B Platoon – Works the 24-hour shift December 28, 2006 and reports for duty on the four night shift commencing January 4, 2007.

C Platoon – Works the 24-hour shift December 26, 2006 and reports for duty for the four day shift commencing January 1, 2007.

D Platoon – Works the 24-hour shift on December 30, 2006 and reports for duty on the three night shift commencing January 1, 2007.

Should neither party opt to return to the current shift schedule (10-hour days, 14-hour nights), this section is void and will not apply in any fashion.

Attachment "A"

24-hour Shift Schedule

24 hr - 2 off - 24 hr - 7 off - 24 hr - 1 off - 24 hr - 2 off - 24 hr - 2 off- 24 on - 2 off -24 hr - 5 off

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	C	D	A	C	B	A	B
Week 2	D	A	B	D	C	B	C
Week 3	A	B	C	A	D	C	D
Week 4	B	C	D	B	A	D	A

Change Over Schedule 24-hour Trial Period Beginning January 2, 2006

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Dec	26	27	28	29	30	31	1
10 &14	B/C	B/C	B/C	B/A	D/A	D/A	D/A
Jan	2	3	4	5	6	7	8
24	C	D	A	C	B	A	B
	9	10	11	12	13	14	15
24	D	A	B	D	C	B	C
	16	17	18	19	20	21	22
24	A	B	C	A	D	C	D
	23	24	25	26	27	28	29
24	B	C	D	B	A	D	A
Feb	30	31	1	2	3	4	5
24	C	D	A	C	B	A	B

8.4 24-Hour Shift Schedule 28-day cycle chart

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	X			X			
Week 2					X		X
Week 3			X			X	
Week 4		X					

8.5 10-14 Shift Schedule 28-day cycle chart

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1	X 10 HR DAY	X 10 HR DAY	X 10 HR DAY	X 10 HR DAY			
Week 2				X 14 HR NIGHT	X 14 HR NIGHT	X 14 HR NIGHT	X 14 HR NIGHT
Week 3					X 10 HR DAY	X 10 HR DAY	X 10 HR DAY
Week 4	X 14 HR NIGHT	X 14 HR NIGHT	X 14 HR NIGHT				

8.6 24-Hour Pilot Program Typical Day Schedule

0630 to 0700	Report for Duty (pilot program change over is 07:30 hrs)
0700 to 0800	Equipment and Vehicle Checks
0800 to 1000	Firefighting Training, Tactics and Operational Drills
1000 to 1130	Apparatus and Station Cleaning, Maintenance Duties
1130 to 1300	Lunch
1300 to 1500	Continued Training or Building Audits/Pre-Fire Planning, District Familiarization, School or Building Fire Drills, etc. (Flexible to catch up on initiatives not completed in a shift)
1500 to 1630	Physical Fitness training or Hall Duties if not exercising
1630 to 1800	Flextime – to allow for daily schedule adjustments due to calls
1800 to 1930	Dinner
1930 to 2100	Evening Training, stand by time for emergency calls, programs
2100 to 0700	Stand by time for emergency calls, recreation, rest and rehabilitation Occasionally night training simulations/tours and other operational readiness exercises i.e. Subway tours, etc.

Above schedule includes:

- 3 hours dedicated to apparatus and fire stations
- 3 hours dedicated to training
- 3 hours dedicated to programs

8.7 Sample Daily Agenda

24 hr PILOT PROGRAM **DAILY AGENDA**

Duty Officer's Name	Employee ID	Date
Station	Platoon	

6:30 – 7:30	E-PESC E-FLAG E-RAD(U) E-GENE E-OXYG E-DEFI Ensure equipment is on truck
7:30 - 8:30	E-IMSM A-CLEA(Appendix) E-PSAW A-AIR(W) A-AIR(D) E-CUTT A-PUMP F-DUTY - change Duty Officer (***P-EVAL – a reminder)*** A-DRI(L)
8:30 – 10:00	Firefighting Training, Tactics and Operational Drills
10:00 – 11:30	E-FIR E-PSAW operational check power saws A-AER(I) – tested operational the beginning of each tour E- HYDRO – inspect gloves if applicable E-THER F-FUEL F-BIOH – Duty Officer inspects Bio Hazard container F-CLEA(Hall as per Mon. Appendix)
11:30 – 13:00	Lunch
13:00 - 15:00	Training to be continued or building audits/pre-fire planning, district familiarization, school or building fire drills etc.
15:00 – 16:00	Physical Fitness training or Hall Duties if not Exercising
16:00 - 18:00	Flextime – to allow daily schedule adjustments due to calls E-PEBU - inspect bunker gear first shift first tour of calendar month ☐
18:00 – 19:00	Dinner
19:00 – 21:00	Evening Training, stand by time for emergency calls, programs
21:00 – 06:00	Stand-by time for emergency calls, recreation, rest and rehabilitation. Occasionally night training simulations/tours and other operational readiness exercises i.e. Subway tours etc.
Comments – why tasks not completed	

8.8 TFS Management Interviews in 42 District

Interview Questions:
The following questions were asked by TFS Management of employees in the pilot program district during private interviews:

1. Do you find the10/14 or the 24 more compatible to training?

2. Did you have any shifts where you felt excessively tired during the shift due to the number of calls? (in a 24-hour period)

3. Has your enthusiasm towards the job improved or decreased on the 24?

4. Can you keep up with the completion of EIRs (Emergency Incident Reports) while running calls?

5. Do you believe your workload has decreased or increased on the 24 hour shift?

6. Do you believe your station and vehicle are being maintained on the 24 as well as, better than, or less than they were when working the 10/14 shift?

7. Do you believe your morale has improved due to the 24 hr shift?
   Personally:
   Station:

8. Do you switch trucks to alleviate call volume on the 24 hr?

9. Are you able to make more efficient use of your time at work?

10. Do you spend more or less time informing the other shifts about operational issues at shift changeover?

11. Do you have any problems communicating with Support Divisions on the 24?

12. Are the other Platoons leaving work for you to complete that they could not accomplish?

Interview Participation:

	Pilot Program District	Management Interview Participants
District Chiefs	3	3
Acting District Chiefs	4	3
Captains	37	28
Acting Captains	44	30
Firefighters	129	90
Total	217	154

Interview Results:

1. Do you find the10/14 or the 24 more compatible to training?
   - 24 - 57%
   - 10/14 - 12%
   - Same - 31%

2. Did you have any shifts where you felt excessively tired during the shift due to the number of calls? (In a 24 hr period)
   - Yes - 19%
   - No - 81%

3. Has your enthusiasm towards the job improved or decreased on the 24?
   - Improved - 56%
   - Decreased - 5%
   - Same - 39%

4. Can you keep up with the completion of EIRs while running calls?
   - Yes - 100%
   - No - 0%

5. Do you believe your workload has decreased or increased on the 24-hour shift?
   - Increased - 19%
   - Decreased - 5%
   - Same - 76%

6. Do you believe your station and vehicle are being maintained on the 24 as well as, better than, or less than they were when working the 10/14 shift?
   - Better Than - 40%
   - Less Than - 10%
   - Same - 50%

7. Do you believe your morale has improved due to the 24-hour shift?
   - Personally:
     - Improved - 77%
     - Decreased - 6%
     - Same - 17%
   - Station:
     - Improved - 71%
     - Decreased - 1%
     - Same - 15%
     - No Response- 13%

8. Do you switch trucks to alleviate call volume on the 24 hr?
   - Yes - 0%
   - No - 100%

9. Are you able to make more efficient use of your time at work?
   - Yes - 70%
   - No - 10%
   - Same - 20%

10. Do you spend more or less time informing the other shifts about operational issues at shift changeover?
    - More - 32%
    - Less - 5%
    - Same - 63%

11. Do you have any problems communicating with Support Divisions on the 24?
    - Yes - 8%
    - No - 82%
    - Same - 10%

12. Are the other Platoons leaving work for you to complete that they could not accomplish?
    - Yes - 8%
    - No - 54%
    - Same - 38%

General comments common to participants on the 24-hour shift schedule
(included comments are those made by 7 or more interview subjects):

- Feeling not as tired as on previous shift schedule
- Overall better feeling of well-being on 24-hour shift schedule
- Spend more time with family on new schedule
- No rush to get back from training when working 24-hour shift
- Family likes 24-hour shift
- Personally like 24 shift
- Personally preferred 10/14 shift
- Experienced a 3-6 month adjustment period once working new shift schedule

8.9 Local 3888 Informal Synopsis in 42 District

Personnel from District 42 were asked to complete both personal 'testimonials' and general surveys about their experiences with the 24-hour shift.

Testimonials:

Testimonials were completed by 67 operations in the pilot program (over one third of eligible participants.) Those who completed testimonials were generally very positive and cited many benefits for employee health and wellness. Advantages of the 24-hour shift that emerged as themes throughout these testimonials included feeling healthier and more well rested, suffering less fatigue, being more alert at night time emergency calls, experiencing better home and family life, enjoying a reduced commute experience, enjoying better morale and improved relations between platoons at the fire hall and generally feeling more positive and energetic. One respondent even mentioned that he had been very opposed to the shift prior to experiencing it, but that the positive health effects were undeniable and he now felt fully in support of the transition to a 24-hour shift schedule. Even those who expressed negative views of the 24-hour shift in the pilot program countered their negative comments with positive ones. For example, one respondent commented that though he wished the 24-hour schedule in use for TFS would be one with a more compressed rotation of work days. he liked the 24-hour shift and felt it had great potential,

General Survey Questions:

Below is the list of questions that were asked in the general survey, administered both in hand written responses and online through the TPFFA web site. Seventy-eight (78) completed surveys (over one third (1/3) of eligible respondents) were used to determine the summary response data included in italics with each question below (percentages were determined after removing responses that were left blank):

Personal Opinion:

What was your attitude towards the 24-hour shift before trying it?

1	2	3	4	5
Very negative		Undecided/Neutral		Very positive

What is your attitude towards the 24-hour shift now?

1	2	3	4	5
Very negative		Undecided/Neutral		Very positive

Prior to working the 24-hour shift, 18% of respondents felt either negative, or very negative towards the schedule, while 37% felt neutral, and 45% felt either positive or very positive. After working the 24-hour shift, 3% of respondents felt either negative, or very negative towards the schedule, while 3% felt neutral, and 95% felt either positive or very positive.

Health & Safety:

In general, do you feel better / worse on the 24-hour shift? Why?

95% of respondents reported feeling better on the 24-hour shift, with 4% feeling worse, 1% noting no change.

Are you more or less tired during and after your shift than you were on the 10/14? Please consider issues such as call volume, working fires, large scale incidents, etc.

87% of respondents reported feeling less tired, while 3% felt more tired, 10% noting no change.

How does your energy level when responding to calls compare to when you were on the 10/14? Does this depend on the time of day (i.e. morning / evening / afternoon / night)?

58% of respondents reported having more energy, while 5 % reported having less energy, and 37% noted no change.

Do you find any particular week in the 24-hour shift 4-week cycle to be more challenging (e.g. fatigue, stress, etc.) than the others?

47% of respondents reported that they found one week (typically indicating when they work Friday and then Sunday) the most challenging. Many of these respondents also noted, however, that they still found this week less challenging than a week in the 10/14-hour shift schedule, typically noting the week of four (4) consecutive 14-hour night shifts.

Have you found a change in the patterns and/or quality of your sleep at the fire station and/or at home while working this new schedule? Please explain.

71% of respondents reported that they experienced better sleep on the 24-hour schedule, while 5% reported worse sleep, and 23% noted no change in sleep quality.

Morale and Work / Life Balance:

What kind of impact has the 24-hour shift had on your family life (e.g. time together, scheduling, special events, recreational activities, etc.)?

85% of respondents reported better family relations on the 24-hour schedule, while 8% reported worse family relations, and 7% noted no change.

In comparison with the 10/14, how would you rate the quality of the time you now spend with family after a shift?

88% of respondents reported higher quality family time after a shift on the 24-hour schedule, while 1% reported poorer quality family time, and 11% noted no change.

How has the 24-hour shift affected your personal well-being (e.g. stress, happiness, commute, family)?

96% of respondents reported a better sense of personal well-being on the 24-hour schedule, while 3% a worse sense, and 1% noted no change.

What kinds of reactions have you experienced from family / friends in regards to the 24-hour shift?

58% of respondents reported positive reactions from family and friends, while 16% reported negative reactions and 26% felt the reactions were neutral.

Do you feel that the 24-hour shift has affected your attitude toward your work and job morale? Has the 24-hour shift impacted your personal focus regarding firefighting, part-time work or hobbies / sports?

80% of respondents reported improved morale and attitude to work, while 4% reported decreased morale and 16% felt there was no change.

Has the 24-hour shift changed your connection to the job (i.e. committee involvement, sports, events, 3888 involvement, social activities with colleagues)?

69% of respondents reported no change in their connection to the job, while 19% felt they had an increased connection and 12% a decreased connection.

Vacations / Lieu-Time:

Has the 24-hour shift been a positive / negative in relation to vacation / lieu time?

48% of respondents reported positive impacts, while 7% reported negative impacts and 36% felt there was no effect.

Has the 24-hour shift been a positive / negative in relation to time off?

88% of respondents reported positive impacts, while 8% reported negative impacts and 4% felt there was no effect.

Operational Issues:

Has the 24-hour shift affected communication between shifts (re: truck issues, station issues, road construction, fires, etc)?

41% of respondents reported improved communication, while 4% reported decreased communication and 55% felt there was no effect.

Has the 24-hour shift affected communications with administration or other TFS divisions (e.g. operations, training, mechanical, etc)?

66% of respondents reported no impact, while 21% reported improved communication with administration and other divisions and 13% reported decreased communication with administration and other divisions.

Has the 24-hour shift increased or reduced shift changeover issues between Platoons?

68% of respondents reported that the 24-hour shift schedule had reduced issues between platoons, while 1% reported increased issues and 32% felt there was no effect.

Do you find a difference in the time you have to complete public programs such as station tours, school visits, building audits, occupancy checks, etc.?

72% of respondents reported increased time for public programs and 28% felt there was no effect.

Please discuss the impact of the 24-hour shift in the following areas:

Training	The typical station day
Apparatus maintenance / cleaning	Duty exchanges
Station duties – maintenance / cleaning	Workouts / fitness activities at work
Crew cohesion	Relieving - swinging out
Personnel relationships / conflicts	Motivation
Productivity / effectiveness	

71% of respondents reported positive impacts in these areas, while 2% reported negative impacts and 27% felt there was no effect.

Have you noted any other OPERATIONAL advantages / disadvantages as a direct result of the 24-hour shift?

74% of respondents reported operational advantages, while 2% reported disadvantages and 28% felt there was no effect.

Have you noted any other PERSONAL advantages / disadvantages as a direct result of the 24-hour shift?

91% of respondents reported personal advantages, while 5% reported disadvantages and 22% felt there was no effect.

8.10 Report of City of Toronto Senior Ergonomics Consultant, Jane Byers

Thank you for the opportunity to review and comment on Dr. Glazner's report of September 30, 2005.

In the opinion of the Occupational Health, Safety and Workers' Compensation unit, the results outlined in the report are inconclusive and therefore preclude a definitive answer regarding whether the 24-hour shift schedule can be recommended from a health and wellness perspective. A number of factors contribute to the report's lack of conclusiveness:

1. A questionnaire, comprised of a large number of questions, was used to gather information from firefighters in two districts, one that remained on the 10-14 hour shift schedule, the other which changed to the 24-hour shift at the beginning of 2005. Questionnaires were completed on 3 occasions, in 2004 prior to conversion to the 24-hour shift in one of the districts, in March-April 2004 and again in August 2004. Analysis of the questionnaire results to date has been limited, as follows:
   - Responses to only a small number of the questions on the questionnaire, selected by the researcher as likely to be the most compelling in determining shift schedule, have been analyzed to date.
   - Data from questionnaires completed in August 2005 has not been analyzed to date.
   -The results that have been reported on to date have not been statistically analyzed, hence we do not know if any of the differences between the 10/14 shift and the 24 shift groups are statistically significant or not.
   - As there was ambiguity in some of the questions asked (e.g. those related to sleep patterns), the responses are difficult to evaluate.
2. Oral temperature was the only objective measure explored during this study. This was measured to determine the impact of shift schedule on circadian rhythm. To evaluate this impact, temperature measurements needed to be taken by fire fighters on three occasions during the course of the study. Participation in this component of the study was poor, thereby limiting the conclusions that can be reached from the data. There are some questions as to the validity of the results, due to reports that people had difficulty reading the thermometer. In addition, results were ambiguous i.e. the impact of shift on Circadian rhythm was not clearly discernible.

The limited and inconclusive results provided by Dr. Glazner to date do not appear to show negative impacts associated with the 24-hour shift. However, they also do not conclusively demonstrate positive impacts. As the results are inconclusive, some of the concerns we expressed prior to the study remain. These are outlined below.

1. <u>Fatigue</u>

One of the concerns with shift work is fatigue associated with circadian rhythm desynchronization. The various bodily functions of humans fluctuate in an approximate 24-hour cycle called circadian rhythm. Functions such as body temperature, heart rate, blood pressure, adrenaline production and metabolism all decrease by night and increase in the day. Circadian rhythms may be desynchronized when humans disrupt the sleep/wake cycle due to night work, travel across time zones or inadequate sleep. One of the concerns highlighted by Toronto Fire

Services about the current 10/14 shift is desynchronization particularly when working 4 night shifts in a row. Anecdotally, firefighters report that this is the most challenging shift if there has been little opportunity to sleep for four 24-hour periods. By the third and fourth night shift, particularly if there has been high call volume on the first two shifts, firefighters report being fatigued. This tendency to fatigue is supported in the scientific literature. The literature generally supports successive night shifts being limited to two shifts if shifts are longer than 10 hours (Folkard, 2001).

Recommendation 1
If Toronto Fire Services stay on a 10/14-shift schedule, a review of the scientific literature and best practices should be done to determine a schedule and any additional work practices that may be needed to minimize disruption to circadian rhythm.

One of the potential concerns with a 24-hour shift schedule is the accumulation of fatigue during the course of the shift and the lack of recovery time within the shift. The potential for this is greater in busy halls where there may be little time for naps or sleeping between calls and during large incidents when there may be very little opportunities for recovery. If there have been continuous calls or one large incident which does not allow fire fighters to get at least two hours of sleep, fatigue may significantly impact their abilities to perform job tasks.

Motohashi and Takano, in their "Effects of 24-hour shift work with Nighttime Napping on Circadian Rhythm Characteristics in Ambulance Personnel" found that 24-hour shift work altered the characteristics of circadian rhythms of ambulance personnel. Nighttime naps seemed to have a favourable effect on averting changes in circadian rhythms. The threshold was 100 minutes of calls per night, less than which 43% of workers had circadian desynchronization and more than which 83% of staff experienced circadian desynchronization (Motohashi and Takano, 1993). In less busy circumstances/nights, ambulance personnel could sleep for >4 hour continuously, the equivalent of an anchor sleep, which is known to have a stabilizing effect on the circadian rhythm. There is a higher incidence of circadian desynchronization in workers who work 8-hour discontinuous shift patterns in non-sleep conditions. The ability to sleep explains the lower incidence of changes in ambulance personnel compared to workers in 8-hour discontinuous shift patterns in non-sleep conditions.

In a study of firefighters in a 24-hour shift schedule (Harma et al, 1991), the researchers discuss the fact that a 2 hour nap after 20 hours of sleep deprivation has been found to increase alertness almost to the normal level. An opportunity for a 2-hour nap every night is recommended to ensure the minimal recovery time for every fire fighter at work.

Recommendation 2: If Fire Services implements a City-wide trial 24-hour shift schedule, it is recommended that all workers be provided with the opportunity to sleep for a minimum continuous period of 120 minutes and preferably for 240 minutes at some point between 2300 and 0700. Based on discussions with Fire Services and Local 3888, the number of shifts when call volume or large fire incidents that would prevent a 2-hour nap between 2300-0700 is rare.

2. Objective vs. Subjective research

Bendak (2003), in his meta-review of current research on compressed vs uncompressed work schedules, offers perspectives on current knowledge and suggestions for future research. His review concludes that there is considerable evidence from some of the studies that more compressed work schedules tend to cause more fatigue (objectively measured) than less compressed work schedules. There is also evidence to suggest that workers prefer more compressed work schedules (subjectively measured). From the anecdotal evidence provided by Toronto Fire Services (management interviews with approximately 157 firefighters and association surveys with approximately 80 staff) those surveyed seem to favour the 24 hour shift based on a number of subjectively measured criteria (e.g. degree of tiredness, morale, job satisfaction). There is some evidence from Dr. Glazner's survey results to support this, although it is, thus far, inconclusive. To date, there is no conclusive evidence that can be drawn from the oral temperature data. We therefore have no objective data on which to base any recommendations about fatigue levels in this study.

Recommendation 3:

Given that studies using objective measures tend to demonstrate increased fatigue levels with compressed work schedules, it is important, in our opinion, that a smaller study be done that looks at objective measures of fatigue in City of Toronto firefighters working 24 hour shifts. It is recommended that a sampling be taken prior to Jan 1/06 with a group who currently work 10/14 shift and then at least once during the full trial period (Jan 1/06-Dec 31/06) with the same group. It is recommended that objective measures be investigated for feasibility within study time frames (e.g. reaction time, dual task, and recovery heart rate). It is also recommended that oral temperature be studied again but be controlled more closely.

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8.11 Report of Dr. Linda Glazner

EFFECT OF SHIFTWORK ON HEALTH AND CIRCADIAN RHYTHM IN 24-HOUR FIRE FIGHTERS

1. Significance

A. Objectives

Is a 24-hour shift harmful in terms of health and circadian rhythm alteration to a pilot sample of Toronto Fire fighters? The hypotheses are: I. 24-hour shift fire fighters will have a profile of maladaption syndrome similar to those who do not adjust to shift work (negative health complaints in terms of eating and sleeping disorders, substance abuse, and lifestyle and job dissatisfactions); II. 24-hour shift workers will have altered circadian rhythm during the night shift; III. 10/14 hour shift workers will show less severe maladaption syndrome; and IV. 10/14 hour shift workers will show less circadian rhythm alteration. In this study, evidence of non-adjustment to the environmental stressors of night work can be seen if there is:

1) non-periodicity of circadian rhythm;
2) phase shifting of circadian rhythm;
3) desynchronization (or incoherence) between an individual's rhythm when working 10-14 shift or when working 10-14 shift compared to 24 hour shift.
4) increased incidence or prevalence of reported illnesses;
5) increase in complaints of disruption in eating or sleeping;
6) increase in use of drugs, alcohol or smoking;
7) increase in complaints of dissatisfaction with work and/or lifestyle;
8) increase in reporting more fatigue.

B. Significance

Fire fighting is an essential occupation. It requires fit, knowledgeable, skillful and dedicated personnel to fight fires whenever and wherever they occur throughout the day and night. Compared to most occupations where routine and repetition are the norm, fire fighting is highly unpredictable. The physical and physiological demands of fire fighting fluctuate sharply from heavy to light. They include times of crisis requiring intense physical exertion, mental concentration and a high level of teamwork compared to the relatively undemanding times between alarms. The work environment is unpredictable. In the course of fighting a single fire, fire fighters are exposed to numerous health and safety hazards, including marked extremes of heat and cold, sudden shifts from sedentary activities (or sleep) to high-speed vigorous activities and a variety of air contaminants, the concentration and toxicity of which are usually not known to the fire fighter. It is not surprising that a report to the US Congress stated, “By its very nature, fire fighting is a high stress occupation (US Dept of Commerce, 1980.)

The physiologic responses to extreme stress are known to include the release of adrenalin and similar substances in to the blood, an increased heart rate, and an increase in blood flow to the large muscles (Selye, 1974). These stress responses may be triggered simply by the sound of the fire alarm bells in the fire station (Schirmer and Glazner, 1982). Elevated adrenalin levels and heart rate are two of the human body's natural defense mechanism and, as such, they are likely to be present throughout the crisis period of the fire.

Alterations in circadian rhythm suggest that the individual is having difficulty adjusting causing their biological rhythms to be desynchronized. Desynchronization is associated with negative health effects. Comparisons of individuals with and without circadian rhythm alterations could support reported negative health findings.

2. Originality

A. Conceptual/Theoretical Framework

This study is based on several theoretical constructs. The first is that health is affected by changes in an individual's environment. These changes put a stress on the body which may cause a positive or negative effect (Dubos, 1965; Selye, 1974). If the effect is positive, then the individual is able to react, accommodate, adjust or adapt to various stimuli or stressors (Dubos, 1965). If the effect is negative, there is illness or negative health. In this study, evidence of non-adjustment to the environmental stressors of 24 hour shift work can be seen if there is:

1) non-periodicity of circadian rhythm;
2) phase shifting of circadian rhythm;
3) desynchronization (or incoherence) between an individual's rhythm when working 10-14 shift or when working 10-14 shift compared to 24 hour shift.
4) increased incidence or prevalence of reported illnesses;
5) increase in complaints of disruption in eating or sleeping;
6) increase in use of drugs, alcohol or smoking;
7) increase in complaints of dissatisfaction with work and/or lifestyle;
8) increase in reporting more fatigue.

The second construct assumes that normal sleep is restorative and necessary for the body to function. Sleep studies have shown that with increasing lack of sleep, people have more health complaints. Shift workers sleep fewer hours than non-shift workers (Foret and Benoit, 1978;) Further, those who are bothered by shift work usually complain first of lack of sleep (Tasto et al., 1978) and then of eating or lifestyle disruptions (Tasto et al., 1978; Walker, 1978).

Another construct is that the body has a normal biological rhythm, an assumption that has been tested (Aschoff 1960) and found to be true. In addition, this normal biological rhythm is circadian in nature. The circadian rhythm has a sine wave-like motion that parallels the phenomenon of the Earth spinning on its axis, and has approximately a 24-hour periodicity (Aaonsen, 1959; Aschoff, 1968; Monk and Folkard, 1983). Many systems in the body, including

hormones, blood constituents, urine constituents, and body temperature, each posses their own circadian rhythm.

B. Background

Shift work is defined as work performed outside the daylight hours or the normal 9AM to 5PM shift (Leonard, 1981). This type of work existed even in ancient Rome when workers toiled through the night to bring goods and supplies into Rome. The city limited street traffic to the night time hours. With the advent of the industrial revolution, manufacturers employed continuous processes to promote the efficient use of expensive machinery in the production of goods and supplies. Workers were employed to use this investment around the clock. In addition, the public came to expect 24-hour services. Now, more than 20% of the population in America and Europe is engaged in some form of shift work (Monk and Folkard, 1983).

Moore-Ede and Richardson (1985) have given the name "Maladaption Syndrome" to a group of symptoms associated with people who have difficulty working shift. They feel the seriousness of the problem is underestimated because 1) shift workers who have serious problems adjusting to rotating schedules or night work move to day jobs whenever they can find them (Aansonen, 1959); 2) shift workers tend to visit physicians less often than day workers (because they find medical services are less available within their companies as well as in the community) (Koller, 1983; Tasto et al., 1978); and 3) there is a considerable difference in the health effects of different shift schedules (Orth-Gomer, 1983). Shift workers use more days of sick leave (Koller, 1983; Shiftwork Committee, 1979), have poorer scores on a variety of health indices (Shiftwork Committee, 1979) and report a higher prevalence of 1)sleep-wake disorders (Akersted et al., 1977; Angerspach et al., 1980; Harris, 1970); 2)gastrointestinal disorders (Angerspach et al., 1980; Shiftwork Committee, 1979; Koller 1983); and 3)cardiovascular disorders (Moore-Ede and Richardson, 1985; Orth-Gomer, 1983).

Although more research has been done on shift work's effects on biological phenomenon, its effects on social relationships are also important (Aanonsen, 1964; Tasto et al., 1978). Shift workers try to find friends and relatives who work the same shift (Wedderburn, 1978). Shift workers' perceptions of how they feel about their work are important. If there is a positive feeling of job satisfaction, then less ill health is evident (Mann and Hoffman, 1960; Tasto et al., 1978; Walker, 1978).

3. Study Sample or Population

The study population consists of fire fighters working in two (2) Toronto Fire Services Districts, 32 and 42. District 42 (West Toronto) has 220 fire fighters and District 32 (East Toronto) with 208 fire fighters. These Districts were chosen based on several pertinent similarities. Toronto Fire has a total of sixteen (16) fire Districts.

4. Design

This descriptive correlational study uses a prospective cohort-control design. The workers will be in one of two groups. District 32 fire fighters are currently working 10-14 hours shift schedule. They will continue to do this. The study group will be District 42. Both groups will be studied three times, the first in 12/04 when both are working 10-14 shift schedule. The second time will be in spring 05 when District 42 will have worked about 3-4 months on the 24 hours shift and District 32 continues on the 10-14. The third time is in the Summer 05. District 42 will have worked about 7-8 months on the 24 hours shift and District 32 will continue to work the 10-14 hours shift. The comparison groups have been chosen so that environmental or seasonal similarities or differences can be observed. The times of 3-4 months and 7-8 months have been chosen because it is known that it takes about 6 months or more before a person can really feel adjusted to a new shift change. The emphasis is on differences between groups.

5. Measurement Strategies for Relevant Variables

Operational definitions of major research variables:
Adverse health effects: In this study, adverse health effects are defined as one or more of the following occurring in the study population: 1) non-periodicity of circadian rhythm; 2) desynchronization (or incoherence) between rhythms on 10-14 and 24 hour shifts; 3)increased incidence or prevalence of reported illnesses; 4)increase in complaints of disruption in eating or sleeping; 5)increase in use of drugs, alcohol or smoking; and 6) increase in complaints of dissatisfaction with work and/or lifestyle

Circadian rhythm: biological rhythm as obtained from oral temperature readings with a glass mercury thermometer. Readings will be taken every two hours while awake for a three day period.

6. Reliability, Validity and Sensitivity of Instruments

A questionnaire, oral thermometer recordings, and sleep diary comprise the instruments.

A. Questionnaire: The components of the questionnaire have all been used by the National Institute of Occupational Safety and Health in its study of the Health Consequences of Shiftwork (Tasto et al., 1978). This questionnaire includes the Cornell Medical Health Questionnaire which has a reliability of 0.91 and a standard error of measurement of 0.78. This inventory on health has proved to be valid for examining the physical work environment and for absenteeism (Dirken, 1966). The questionnaire includes questions on personal and health information, on occupational history, on tolerance of shift work including eating patterns, sleeping patterns, job satisfaction/dissatisfaction, and morningness-eveningness.

B. Thermometer: Temperature obtaining and recording is based on a protocol that combines suggestions of many authors (Baker et al., 1984). Baker et al., (1984) found there was no statistical difference between the results from a glass or electronic thermometer. A glass mercury thermometer will be used because it is readily available and inexpensive. For many reasons body temperature is a convenient marker for circadian rhythm. It is relatively easy to measure (Froberg, 1977) and its configuration has been known for a long time. It has been

demonstrated that it reflects accurately the body's circadian rhythm and to also reflect changes in that rhythm (Froberg, 1977).

C. Sleep Diary: Sleep diaries have been used to document amount of time slept, where and perception of effectiveness of sleep. Stanford sleepiness index identifies feelings of sleepiness at any point in time (REFEREC)

7. Procedures for Data Collection

It was determined by a combined group of the Toronto Professional Fire Fighters Association: 3888 (3888) and management of the Toronto Fire Department (Joint Recommendation Committee) that the two Districts to be studied were District 32 and District 42. They are very similar in runs (having busy and slow fire halls), numbers and types of equipment and personnel. District 42 was selected as the study group and District 32 as the comparison or mirror group. A visit was made three times to each fire hall.

The first time in December 04, was to explain the study, answer questions, recruit voluntary participants, have informed consent signed and returned, and distribute questionnaires, sleep diaries, thermometers and stamped addressed envelopes for return of the confidential questionnaires to the researcher directly. These visits were made to each fire hall for each shift. The fire service arranged the schedule. People present at each visit besides the members of the fire service, were this researcher, a 3888 member of the 24 hour shift Committee, a manager member of the 24 hour shift Committee and others as needed.

The second visit was in the Spring 05. The above process was repeated. Fire halls were encouraged to continue participation or increase participation.

The third visit (and final visit) was made in Summer 05. Again the above process was repeated. Participation was encouraged at this final point.

8. Data Analysis

Several analysis methodologies will be used. Descriptive data will be presented for each variable or interest. For the circadian rhythm, observational comparisons of temperatures taken were used to see if there is periodicity in the rhythms, if phase shifting and/or desynchronization has occurred between and within individuals working 10-14 and 24 hours shifts.

This summary reports on selected issues that have proven in prior studies, by this researcher, to display differences between 10-14 and 24 hour shifts. This report summarizes the results of similarities and differences between the two groups. These variables were selected at this time in order to answer the questions raised in the hypotheses. Further analysis will be done at a later time.

DEMOGRAPHICS

In most ways the cohort (42 District) and control (32 District) are very similar
(**Table 1**: Selected characteristics)

Average Age 42
Majority are married
More of 42 District lives in 905 area code while more of 32 District lives in 416
More than 2/3rds have children living at home
Most all have more than high school education
Both groups are more morning like or neither

This means that for comparison, they are very much alike.

Table 1: Comparisons of selected characteristics for the two Districts

Selected Characteristics		District 32		District 42
Age (average) in years		41		43
Marital status: Married		78%		84%
Divorced	4%		5%	
Single	18%		11%	
Other	0		0	
Commute distance (Phone numbers)				
214		0		0
416		52%		20%
519		0		7%
613		2%		0
705		4%		16%
905		41%		57%
Have children		65%		71%
Highest grade		>high school		>high school
ME Score				
82-70 (Highly morning-like)		14%		10%
69-57 (Some morning-like)		30%		19%
56-45 (neither)		40%		47%
44-32 (Some evening-like)		15%		21%
31-19(Highly evening-like)		1%		3%

However, there is a difference in response. (**Tables 2 and 3**). Table 2 shows that at each phase (date) 42 District had a higher number of participants. Roughly this same proportion also participated in all 3 parts of the study (in Dec 04, in April 05 and again in August 05).

Table 2: Number and percentage of PARTICIPANTS BY DISTRICT (N=226)*

District	Date 1 12/04	Date 2 4/05	Date 3 8/05
32	58 44%	51 33%	38 33%
42	74 56%	98 66%	76 66%
Total	132	149	114

- currently there are 231 participants but all analysis is based on the 226

Table 3: Comparison of fire fighters who participated in all 3 phases (in numbers and percentage) (N=226)

	District 32		District 42	
Participated in all 3	70	31%	156	69%

We know that people who work shift have complaints about eating (with associated gastrointestinal complaints), sleeping (sleep deficit, sleeping problems, fatigue) and relationships (Glazner, 1999; Tasto and Colligan. 1994). People who work shift report more symptoms and ill health. People who are more morning-like are more likely to report difficulty in adapting to shift work. Finally, people who are having problems adapting to shift work have a desynchronized circadian rhythm.

The following tables compare the 2 Districts while both worked the 10-14 shift (in 04) and then in 05 when the study group (42 District) had worked at least 4 months on the 24 hour shift. There is limited information about the 42 District and their working 8 months on the 24 hour rotation (at this moment).

(Note: the tables are either in percentages or average. The percentages might add up to more than 100% because of rounding)

<u>EATING</u>

Table 4 shows a marked increase in satisfaction in nutrition issues with the 24 hour shift. If you combine very satisfied and moderately satisfied, 32 District in 04 was 70% and improved

slightly in 05 to 76%. However, in 42 District, the 2 factors combined went from 21% in 04 to 74% in 05. Clearly there was great improvement in satisfaction with eating patterns.

Table 4: Comparison of satisfaction with nutrition on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 very satisfied	23%	39%	12%	33%
2 moderately satisfied	47%	37%	9%	41%
3 slightly satisfied	8%	8%	40%	10%
4 slightly dissatisfied	11%	8%	25%	8%
5 moderately dissatisfied	9%	8%	12%	5%
6 very dissatisfied	2%	0%	3%	3%

SLEEPING

Table 5 shows that there is more consistency with sleep patterns on the 24 hour shift. Fire fighters either sleep once in 24 hours or take a nap plus longer sleep. Anecdotally, several fire fighters said they "sleep much better when on the 24 hour shift". They "always know that tomorrow night I will be in my own bed." The preferred sleep pattern is 2) or 3) take as nap plus a longer sleep or sleep once in 24 hours. Fire fighters reported anecdotally that when they worked the 10-14 shift, they often fell asleep on the way home after the night shift. They have not fallen asleep after the 24 hour shift.

Table 5: Comparison of description of sleep on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 sleep few hours at a time	6%	13%	7%	8%
2 take naps plus longer sleep	21%	31%	13%	31%
3 sleep once in 24 hours	32%	28%	38%	49%
4 different for each shift	42%	28%	42%	11%

Table 6 shows that there was an improvement in sleep deficit in both groups. Sleep deficit was calculated by subtracting desired sleep from report of actual sleep. The less sleep deficit reported, the healthier a person feels. 42 District reported less sleep deficit of greater than 4 hours. They also showed an increase in report of no sleep deficit when 04 was compared to 05. 32 District report an increase also, however, 32 maintained a greater percentage of loss of sleep greater than 4 hours.

Table 6: Comparison of sleep deficit on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
No sleep deficit	13%	28%	27%	34%
1 hour lost	30%	7%	23%	25%
2 hours lost	42%	45%	48%	34%
3 hours lost	8%	10%	23%	7%
4 hours lost	4%	7%	2%	0
5 hours lost	2%	0	0	0
6 plus hours lost	2%	3%	0	0

RELATIONSHIPS

It is important to look at how fire fighters perceive others (especially significant others) feel about their work. Social support is very important with shift workers (Tasto et al). It is the opinion of this researcher that fire fighters, by the nature of their work require a strong support system. **Table 7** shows that there was a dramatic improvement in 42 District in 05 related to how people they live with like the shift. **Table 8** looks at how often significant others complain about the shift. Again, there was marked improvement in 42 District in 05. **Table 9** further shows that significant others clearly like the 24 hour shift.

Table 7: Comparison of satisfaction with how do the people you live with like your work hours on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. very satisfied	14%	23%	16%	50%
2. moderately satisfied	42%	52%	29%	38%
3. slightly satisfied	12%	13%	55%	7%
4. slightly dissatisfied	20%	6%	6%	0
5. moderately dissatisfied	6%	6%	6%	1%
6. very dissatisfied	2%	0	4%	0
7. I live alone	4%	0	6%	4%

Table 8: Comparison of how often significant others complain about the schedule on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. Never	13%	40%	21%	46%
2. Occasionally	76%	59%	53%	50%
3. Frequently	9%	3%	18%	2%
4. Always	0	0	3%	2%
5. Not living with anyone	2%	0	3%	0

Table 9: Comparison of how fire fighters feel significant others feel about their schedule on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. Likes it very much	22%	41%	10%	60%
2. Likes it somewhat	41%	38%	57%	28%
3. Dislikes it somewhat	28%	21%	28%	9%
4. Dislikes it very much	9%	0	5%	4%

Tables 10 and 11 shows how many friends, neighbors or relatives work the same schedule. There was no change over the time of the study. People who work the same shifts as others tend to like the shift more (Wedderburn, 1978, Tasto et al., 1978).

Table 10: Comparison of how many friends and neighbors work the same kind of schedule as you on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. all of them	0	0	0	0
2. most of them	0	0	0	0
3. some of them	21%	13%	17%	12%
4. none of them	79%	87%	83%	88%

Table 11: Comparison of how many relatives work the same kind of schedule as you on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. all of them	0	0	0	0
2. most of them	4%	0	0	0
3. some of them	19%	30%	19%	19%
4. none of them	77%	70%	81%	81%

MORALE

Morale can be defined many ways. Satisfaction/dissatisfaction, working conditions and anecdotal comments contribute to the definition. Morale is often shaped by the total holistic experience of each worker which includes a wide range of factors, some of which are, but not limited to; work/life balance, stress factors, job satisfaction, physical wellbeing (fitness, nutrition, etc), relationships (family/social), sleep patterns, etc. An individuals' morale is can be best measured through subjective communication or feedback and can have a direct impact on work performance, absenteeism and other issues.

SATISFACTION

Although more research has been done on shift work's effects on biological phenomenon, its effects on social relationships are also important (Aanonsen, 1964; Tasto et al., 1978). Shift workers try to find friends and relatives who work the same shift (Wedderburn, 1978). Shift workers' perceptions of how they feel about their work are important. If there is a positive feeling of job satisfaction, then less ill health is evident (Mann and Hoffman, 1960; Tasto et al., 1978; Walker, 1978).

Table 12 shows that fire fighters like the work they do, regardless of District or shift. **Table 13** shows they like the people with whom they work**.**

Table 12: Comparison of how fire fighters feel about the work they do on both shifts (in percentage)

		District 32		District 42	
	Year	04	05	04	05
1	very satisfied	79%	37%	46%	59%
2	moderately satisfied	15%	60%	52%	39%
3	slightly satisfied	3%	3%	4%	2%
4	slightly dissatisfied	0	0	0	0
5	moderately dissatisfied	3%	0	0	0
6	very dissatisfied	0	0	0	0

Table 13: Comparison of how fire fighters like the people they work with on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1. I like them very much	64%	73%	76%	69%
2. I like them a little	34%	23%	24%	30%
3. I dislike them a little	2%	3%	0	2%
4. I dislike them very much	0	0	0	0

Tables 14 and 15 shows that supervisors and others helped to make things easier and this was consistent in both shifts. Again, it is the opinion of this researcher that fire fighters, by the nature of their work require a strong support system.

Table 14: Comparison of satisfaction with how your supervisor makes things easier for you on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 not at all	6%	13%	8%	11%
2 seldom	25%	25%	17%	44%
3 sometimes	30%	38%	53%	31%
4 often	40%	22%	23%	10%
5 no such person	0	3%	0	3%

Table 15: Comparison of satisfaction with how others make things easier for you on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 not at all	5%	6%	0.1%	4%
2 seldom	24%	27%	22%	32%
3 sometimes	41%	38%	45%	49%
4 often	30%	22%	33%	13%
5 no such person	0	3%	0	0%

HEALTH

Moore-Ede and Richardson (1985) have given the name "Maladaption Syndrome" to a group of symptoms associated with people who have difficulty working shift. They feel the seriousness of the problem is underestimated because 1) shift workers who have serious problems adjusting to rotating schedules or night work move to day jobs whenever they can find them (Aansonen, 1959); 2) shift workers tend to visit physicians less often than day workers (because they find medical services are less available within their companies as well as in the community) (Koller, 1983; Tasto et al., 1978); and 3) there is a considerable difference in the health effects of different shift schedules (Czeisler et al., 1982; Orth-Gomer, 1983). Shift workers use more days of sick leave (Koller, 1983; Shiftwork Committee, 1979), have poorer scores on a variety of health indices (Shiftwork Committee, 1979; Smith et al., 1982) and report a higher prevalence of 1)sleep-wake disorders (Akersted et al., 1977; Angerspach et al., 1980; Harris, 1970); 2)gastrointestinal disorders (Shiftwork Committee, 1979; Koller 1983); and 3)cardiovascular disorders (Koller, 1983; Moore-Ede and Richardson, 1985; Orth-Gomer, 1983).

Table 16 and 17 shows slight improvement in self report of health in both groups. The number of symptoms also decreased in both groups with the 42 District showing a greater decrease in reports of symptoms. There were very few hospitalizations (no table). Fire fighters in Toronto report more symptoms than other fire fighters that this researcher has studied. However, the number is still lower than for shift workers. Also, a variety of symptoms are included here from belching, to bleeding most days. Further analysis will rank the seriousness of symptoms and then compare the two groups.

Table 16: Comparison of self report of health on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 excellent	42%	44%	36%	51%
2 good	56%	56%	58%	44%
3 fair	6%	0	5%	3%
4 poor	0	0	0	0
AVERAGE	1.6	1.4	1.7	1.1

Table 17: Comparison of self report of symptoms on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
0	5%	9%	0	13%
1-5	7%	12%	6%	5%
6-10	7%	12%	10%	18%
11-15	23%	21%	22%	16%
16-20	14%	12%	16%	18%
21-25	9%	12%	12%	10%
26-30	18%	9%	6%	5%
31-35	9%	12%	16%	5%
36-40	4%	3%	4%	12%
41-45	4%	0	9%	3%
46+	0	0	0	0

FATIGUE

Table18 shows that for both groups there was an improvement in not feeling tired. However, the improvement for 42 District was greater.

Table 18: Comparison of feeling of waking up tired in a week on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 not at all	2%	13%	3%	24%
2 occasionally	60%	56%	54%	58%
3 frequently	21%	28%	35%	14%
4 always	17%	3%	7%	4%

Table 19 shows that mathematically, fatigue stayed about the same for both groups over time. It could be explained by the fact that in Spring and Summer, people feel less fatigue. Fire fighters reported anecdotally that "I fell much less tired while on 24 hours shift" "I didn't realize how tired I had been until I wasn't tired anymore."

Table 19: Comparison of Iowa fatigue on both shifts (averages)

Year	District 32	District 42
04	25.0	24.8
05	26.9	25.1

Table 20 shows that firefighters in 42 District improved dramatically in how they felt on the 24 hour shift. There was an increase in feeling active, vital, and wide awake from 17% in 2004 to 49% in 2005, while firefighters in 32 District only increased from 9% to 16%. The sleepiness score at the other end of the spectrum reveal that firefighters in 32 District remained at the same level of sleepiness.

Table 20: Comparison of SLEEPINESS SCORES on both shifts (in percentage)

	District 32		District 42	
Year	04	05	04	05
1 feeling active, vital, wide awake	9%	16%	17%	49%
2 functioning at high levels but not at peak, able to concentrate	30%	22%	38%	33%
3 awake but relaxed, responsive but not fully awake	20%	20%	28%	14%
4 somewhat foggy, let down	14%	20%	7%	2%
5 foggy, losing interest in remaining awake, slowed down	8%	6%	6%	0
6 sleepy, woozy, fighting sleep, prefer to lie down	14%	9%	4%	0
7 no longer fighting sleep, sleep onset soon, having dream-like thoughts	5%	6%	0	0

FITNESS

There was no decrease in ability to do fitness activities. However, there were some anecdotal opinions both ways. Some felt that they could maintain a fitness program better on 10-14 because they did it only at work and that meant more days available. Others felt that since they did their workouts at home, there were more days to do it.

COPING MECHANISMS

Often times, workers use maladaption coping mechanism in order to adjust to shift work. (The following information is not presented in table form). All the fire fighters did not use alcohol to help them sleep. A smaller percentage of fire fighters smoke than would be expected. They use coffee, tea, or soda or other caffeinated beverages, but do not abuse them.

In addition, **Table 21** shows a very marked decrease in the use of alcohol by fire fighters working the 24 hour shift compared to when they worked 10-24 or compared to the 32 District. Fire fighters on the 10-14 shift often socialize in bars/nightclubs after 4 days in a row. Fire fighters on the 24 hour shift have continued socialization but it now occurs at breakfast, golf, etc. on the morning after their shift. (anecdotal reports)

Table 21: Comparison of use of alcohol by fire fighters working both shifts (in percentage)

		District 32		District 42	
	Year	04	05	04	05
Yes		56%	35%	67%	13%
No		44%	65%	33%	87%

Table 22 shows that use of medication or stimulant stayed very much the same. Over the counter medications, such as No Doz are often used to help withstand the effects of night work. Fire fighters did not report using these.

Table 22: Comparison of increase in illness or use of medications or stimulants on both shifts (in percentage)

		District 32		District 42	
	Year	04	05	04	05
no		91%	84%	82%	86%
yes		9%	15%	18%	14%

MORNINGNESS/EVENINGNESS

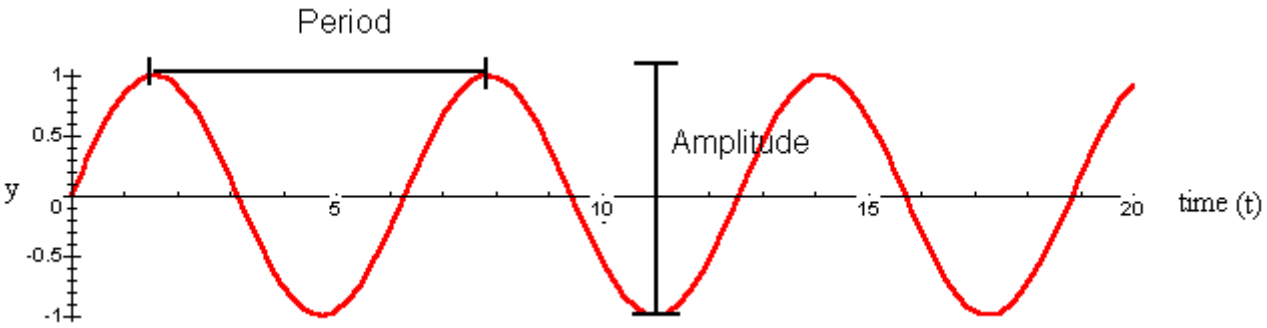
Table 1 shows that most fire fighters are neither morning or evening like. .
Morningness/eveningness is derived from the fact that some people are more alert in the day (larks or morning-like) and others are more alert at night (owls, or evening-like). People who are morning-like have more difficulty adjusting to shiftwork

	32	42
ME Score		
82-70 (Highly morning-like)	14%	10%
69-57 (Some morning-like)	30%	19%
56-45 (neither)	40%	47%
44-32 (Some evening-like)	15%	21%
31-19 (Highly evening-like)	1%	3%

CIRCADIAN RHYTHM

This researcher is sharing graphs from temperatures taken by fire fighters. In order to read and understand them, a brief review of circadian rhythm and sine waves is necessary. Circadian rhythms are essentially sine waves with periods of 24 hours and variable amplitudes. Quantifying properties of circadian rhythms, such as amplitude and period, can help us understand the mechanisms controlling rhythms.

Circadian rhythms produce repeating patterns over time. We can quantify properties of waves such as the amplitude and period. The amplitude of a wave is the height from peak to crest. For the simplest sine wave, y = sin t, the amplitude is 2. The period of a wave is the time for completion of one cycle. For y = sin t, the period is 2π.



(M. Beals, L. Gross, S. Harrell , 1999). Desynchronization occurs when there is no discernable pattern, or the amplitude is flattened.

Comparisons are shared. There are a limited number of fire fighters in both Districts who took their temperatures over two time periods. Ten graphs are shared for each District (32 who remained on 10-14 shift throughout the study; 42 who went form 10-14 shift to 24 hours shift.).

Remember that the body needs time to adapt. It was expected that 6 months would be sufficient time to see if a positive adaptation had taken place.

In addition, single graphs of temperatures of those working either the 10-14 hour shift or the 24 hour shift are shared.

Some temperature graphs had to be excluded because there was no variability. There is a list of 2 people whose temperatures could not be used.

Looking at the comparison groups, firstly 32 District. For each individual, his/her temperature in 04 is presented first with their 05 temperature second. The researcher has commented at the bottom of each graph. All of them, with the exception of participant 53, show no circadian rhythm.

Looking at 42 in the same way, again we see that temperature recordings for 04 and 05 are charted. Again, this researcher has made comments at the bottom of each graph. In all cases, there were no pattern in 04 and the beginnings of a pattern can be discerned in 05 in 6 of the 10 (60%).

Clearly, several impressions arise

1) For most people who worked the 10/14 shift, there is desynchronization of the circadian rhythm. The amplitudes are flattened and there is no pattern.
2) When fire fighters moved to the 24 hour shift, a circadian pattern became somewhat evident in several of the individuals.
3) For those fire fighters who remained on the 10/14 shift, the desynchronization of the circadian rhythm remained.

Looking at the charts of those who only recorded their temperature one time, this researcher has separated the people who work 10-14 and those who work the 24 hour shift. Looking first at the 10-14 shifts. This includes everyone in 32 District, whether their temperature was taken in 04 or 05, as well as 42 District when they took their temperatures in 04. Of the 30 individuals (97%), show desynchronization. 2 (98 and 14) show an approximation of a pattern. It is expected that just by chance some people will not have altered circadian rhythm.

Those who work the 24 hour shift and recorded their temperatures in the Spring, show the beginning of having a patterned circadian rhythm. In general these 14 people (100%) are showing a trend in a positive direction.

Again, those who are working the 10-14 shift are desynchronized and there is a trend towards patterning in the 24 hour shift.

Summary and conclusion:

Questions were chosen at this time to be analyzed based on identifying non-adjustment. on the hypotheses to be tested. In this study, evidence of non-adjustment to the environmental stressors of night work will be seen if there is:

1) non-periodicity of circadian rhythm;
2) phase shifting of circadian rhythm;
3) desynchronization (or incoherence) between an individual's rhythm when working 10-14 or 10-14 compared to 24 hour shift
4) increased incidence or prevalence of reported illnesses;
5) increase in complaints of disruption in eating or sleeping;
6) increase in use of drugs, alcohol or smoking;
7) increase in complaints of dissatisfaction with work and/or lifestyle;
8) increase in reporting more fatigue.

Shift workers sleep fewer hours than non-shift workers or report more sleep deficit (Foret and Benoit, 1978) Further, those who are bothered by shift work usually complain first of lack of sleep (Tasto et al., 1978) and then of eating or lifestyle disruptions (Aanonsen, 1959; Tasto et al., 1978; Walker, 1978).

There has been a subjective improvement for the Toronto fire fighters working the 24 hour shift. This improvement is in a positive direction. It is well known that it takes over six months to adjust to a new shift. Most shift changes include a transition period, therefore some of the improvements may increase over time as the shift change is physically and mentally accepted, and the workers' lives are built around the new shift. The subjective data analyzed does not include August information. It is expected that when the August information is included, there will be even stronger improvement in a positive direction. Clearly though, there was strong improvement in eating and how significant others react to the new shift. Also, anecdotal information supports an improvement in fire fighters' fatigue and energy levels.

The displayed improvement in circadian alteration is cautious but optimistic. In December 04 all who worked on the 10-14 shift display desynchronization of circadian rhythm. The amplitude is flattened and there is no pattern. This continues for fire fighters working the 10-14 shifts. However, for some of those fire fighters working the 24 hour shift, the desynchronized circadian rhythm becomes synchronized with a distinct pattern. While the number of temperatures used to make these statements appears small, it is, in fact, one of the largest studies done to date assessing circadian rhythm. That is a strong statement that the 24 hour shift is healthier for at least some of the fire fighters. This researcher believes that over time, and with more data analyzed, their will continue to be an increase in synchronized circadian rhythm.

After reviewing both the objective and subjective data collected through three rounds (not all data examined or statistically correlated) of Toronto Fire Fighter Health and Wellness surveys, sleep diaries, fatigue levels and temperature tracking, my preliminary findings and recommendations are as follows:
(Data summary was inclusive to both the study group, 42 District and control group, 32 District))

To date, the developing trend is steady improvement for 42 District employees now working the 24 hr shift (the study group). Results of the subjective research showed 42 District employees experienced a lower incidence of fatigue, sleep deprivation and circadian rhythm de-synchronization than their 32 District counterparts on the 10/14 hour schedule. They exhibited a higher level of morale, felt better overall, were more rested when reporting for duty, and reported a better life/work balance.

Based on the scientific and anecdotal data collected and analyzed to date, the evidence is positive in regards to the 24 hr shift. I recommend proceeding to a city wide trial period. We now have a great breadth of data but require more focused depth of information. I also recommend that we continue collecting objective and subjective data to ensure we capture both short and long term effects of the shift on Toronto Firefighters' Health and Wellness and apply corrective measures or coping strategies where required.

Yours truly,

Linda K Glazner DrPH RN COHNs CCM CHES FNP FAAOHN

Enc

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- Comparisons of temperatures for firefighters in 32 District working 10-14 in 04 and 05
- Comparisons of temperatures for firefighters in 42 District working 10-14 in 04 and 24 hours shift in 05
- People working 10-14 shift
- On 24 Hours shift
- Can't use

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Appendix 7.21

MEMORANDUM OF AGREEMENT

Between

THE CORPORATION OF THE CITY OF KINGSTON

("Employer")

- and -

THE KINGSTON PROFESSIONAL FIREFIGHTERS ASSOCIATION
IAFF LOCAL 498

("Association")

WHEREAS the parties are desirous of entering into an Agreement to amend the Suppression Division hours of work on a trial basis to a 24 hour shift schedule;

THEREFORE the terms of this Memorandum of Settlement shall replace the applicable provisions of Article 4:00 during the trial period:

Hours of Work (24 Hour Shift Schedule)

The Kingston Professional Fire Fighters Association (**Association**) and the Corporation of the City of Kingston (**Employer**) agree to amend the Suppression Division hours of work on a trial basis as follows.

(1) The Association and the Employer agree to amend Article 4 – Hours of Work, for the Suppression Division, to provide for the introduction of a twenty-four (24) hour shift system on a trial basis.

(2) The Association and the Employer acknowledge that the introduction of the twenty-four (24) hour shift system will require amendments to other articles in the collective agreement. It is understood that, for the purpose of the introduction of the twenty-four (24) hour shift system, amendments to the collective agreement will be limited to those necessary for the introduction of the twenty-four (24) hour system. The Association and the Employer agree that amendments relating to the definition of workday, vacation, lieu time, sick leave, and any other article will be appended hereto.

(3) The Association and the Employer agree that the twenty-four (24) hour shift system will begin on January 4, 2004, and will be in place for a 'trial' period until January 2, 2005.

(4) The Association and the Employer agree to meet on a date, not later than Thursday September 30, 2004, to discuss the continuance of the twenty-four (24) hour shift system.

(5) The Association, or the Employer, retains the right to unilaterally revert back to the suppression division hours of work in place before the introduction of the twenty-four (24) hour shift system. It is understood that should the Association or the Employer seek to invoke this right, it can do so with an effective date of January 2, 2005, or January 3, 2006 in the event of an extended trial period in accordance with Item No. 6, and only after providing the other party written notice not less than sixty (60) days before the reversion.

It is understood that where either the Association or the Employer invokes the right to revert back to the hours of work in place before the introduction of the twenty-four (24) hour shift, all other amendments to the collective agreement made as a result of the adoption of the twenty-four (24) hour shift system will revert to their pre-twenty-four (24) hour shift language.

(6) The Association and the Employer acknowledge that, should the twenty-four (24) hour shift system continue past January 2, 2005, without the parties having agreed to its permanency, the trial period will be continued for a further one-year period only. The collective agreement amendments necessary for the introduction of the twenty-four (24) shift system will be deemed to be continued as well for a further one-year unless agreed to otherwise.

Should the twenty-four (24) hour shift system continue past the extended trial period, the trial period will be deemed to have been concluded unless otherwise agreed to by the parties and the Collective Agreement amendments necessary will be deemed to be included in the Collective Agreement.

(7) Nothing in this agreement prohibits the Association and Employer from jointly terminating this trial period prior to January 2, 2005, or January 3, 2006 in the event of an extended trial period in accordance with Item No. 6, and reverting back to the suppression division hours of work in place before the introduction of the twenty-four (24) hour shift system.

It is understood that should the parties jointly agree to terminate this trial period prior to January 2, 2005, or January 3, 2006 in the event of an extended trial period in accordance with Item No. 6, that all other amendments to the collective agreement, necessary for the introduction of the twenty-four (24) hour shift system, will revert to their pre-twenty-four (24) hour shift system language.

Definitions:

Workday- 12 hour period from 08:00 – 20:00 or 20:00 – 08:00

Work week/Vacation – one week is a calendar week from Sunday 08:00 – Sunday 08:00

Shift- 24 hour period from 08:00 – 08:00

Lieu day- 12 hours

Sick day- 12 hours

Other Considerations

Any twenty four (24) hour period on duty must be immediately followed by a minimum of twenty four (24) hours off duty.

Shift Transfers or Changes ('trades') may occur, subject to approval, provided a fire fighter does not work more than twenty four (24) consecutive hours.

A sick form is required after three (3) consecutive working days.

Schedule:

The twenty four (24) hour shift schedule proposed for a trial basis for all fire fighters within the suppression division is based on an average forty two (42) hour workweek over a twenty eight (28) day cycle working twenty four (24) hour 'shifts' beginning at 08:00 in the following manner:

Beginning on a Monday morning at 08:00:

- Week #1
  - 24 hours on duty (Monday) followed by seven (7) 24 hour periods off duty
- Week # 2
  - 24 hours on duty (Tuesday) followed by one (1) 24 hour period off duty
  - 24 hours on duty (Thursday) followed by five (5) 24 hour period off duty
- Week # 3
  - 24 hours on duty (Wednesday) followed by one (1) 24 hour period of duty
  - 24 hours on duty (Friday) followed by one (1) 24 hour period off duty
- Week # 4
  - 24 hours on duty (Sunday) followed by five (5) 24 hour period off duty
  - 24 hours on duty (Saturday) followed by one (1) 24 hour period off duty

Appendix 7.22

COLLECTIVE AGREEMENT

- between -

THE CORPORATION OF
THE CITY OF LONDON

- and -

THE LONDON PROFESSIONAL
FIRE FIGHTERS' ASSOCIATION

Expiry Date: ***December 31, 2003***

COLLECTIVE AGREEMENT

THIS AGREEMENT made (in quadruplicate) this ____th day of _____, 2002.

BETWEEN:

THE CORPORATION OF THE CITY OF LONDON
(hereinafter called the "Employer")

OF THE FIRST PART

-and-

THE LONDON PROFESSIONAL FIRE FIGHTERS' ASSOCIATION
(hereinafter called the "Association")

OF THE SECOND PART

WHEREAS the Parties hereto have agreed to enter into these presents for the purpose of defining, determining and providing for remuneration, pensions or working conditions so as to develop and maintain a spirit of co-operation between the Employer and the Association and to promote and establish an efficient Fire Department.

NOW THEREFORE THIS AGREEMENT WITNESSETH:

ARTICLE 1 - RECOGNITION AND ASSOCIATION DUES

1.00 The Employer recognizes the Association as the exclusive bargaining agent for all employees of the London Fire Department, with the exception of the Fire Chief, Deputy Fire Chief(s), Assistant Deputy Chief(s)**,** Manager of Planning and Finance, and the Management Administrative Assistant to the Fire Chief, for a total of five (5) management exclusions***,*** and this Agreement shall be applicable to all such employees; the term "employees" or "employee" as used herein shall refer and apply to all such employees.

1.01 The period of probation for new employees shall be twelve (12) months of cumulative service. The probationary period cannot be completed while the employee is on layoff. During the probationary period, the employment of such probationary employee may be terminated without resort to the grievance procedure as herein provided.

1.02 All employees of the London Fire Department (herein referred to as the "Department"), who are now members of the said Association, shall remain members of the said Association in good standing as a condition of continued employment, and all new employees shall become members of the said Association on completion of the first six (6) months of the probationary period, which shall be calculated from the date of commencement of their employment, and shall continue their membership in good standing in the said Association as a condition of continued employment.

1.03 The Employer shall collect Union dues from each employee by deduction from payroll each pay day in such sums as the Association shall establish from time to time; deductions in respect of new employees will commence on receipt by the Employer of a signed authorization from such new employee effective as and from the completion of his/her first six (6) months of the twelve (12) month probationary period; all such sums deducted, pursuant to this Article, for Union dues, shall be remitted by the Employer to the Association (Treasurer) on the Tuesday following each pay day; together with a list of names of all employees from whose pay deductions have been made; and at the time of said remittance the Employer shall furnish in writing a list of employees whose employment has been terminated; a list of newly hired employees, and the date of commencement of their employment.

1.04 Except to the extent and to the degree agreed upon by the Parties, no work which, in accordance with current practice, is performed by an employee covered by this Agreement, shall be performed by another employee of the Corporation who is not covered by this Agreement, or, by a person who is not an employee of the Corporation, without limiting the application of Article 1.04 of the Collective Agreement, and without prejudice to the position of either party with respect to the interpretation of Article 1.04, the parties agree as follows: that the Fire Chief may, at his/her discretion, have work performed by a person who is not a member of the bargaining unit, provided that such work is essential to the effective operations of the Fire Service and must be performed before a qualified member of the bargaining unit is scheduled to perform such work as a result of his/her availability.

1.05 (a) Notwithstanding any other provisions of this Agreement, the Employer, with the approval of the Association, may hire clerical, and/or secretarial staff on a temporary basis for a period of time not to exceed three (3) months with none of the provisions of the Collective Agreement being applicable to such temporary staff of employees.

(b) Notwithstanding any other provisions of this Agreement, the Employer may hire

Communication Operators on a temporary basis for a period of time not to exceed three months with none of the provisions of the Collective Agreement being applicable to such temporary staff or employees.

ARTICLE 2 - MANAGEMENT RIGHTS

2.00 The Parties hereto acknowledge that it is the exclusive right of the Employer, subject to and in accordance with the terms of this Agreement, and the Fire Prevention and Protection Act and not inconsistent therewith to:

1. maintain order, discipline and efficiency;

2. hire, direct, classify, transfer and promote, discharge, suspend or otherwise discipline employees for just and proper cause;

3. generally to operate and manage the undertakings of the Department and without restricting the generality of the foregoing, to select, install and require the operation of any equipment, plant and machinery necessary for the efficient and economical carrying out of the operations and undertakings of the Department.

ARTICLE 3 - DISCRIMINATION AND COERCION

3.00 There shall be no discrimination or intimidation against any employee because of the employee's membership in the Association or by virtue of his/her holding office in, or performing work on behalf of the Association.

3.01 Provisions of this Agreement shall be applied to all employees without discrimination.

3.02 The parties to this agreement recognize their respective obligations under the Human Rights Code of Ontario and the parties agree that nothing in this Collective Agreement shall be interpreted or applied in a way which impairs the ability of the employer to satisfy its obligations which exist under the Code.

ARTICLE 4 - HOURS OF WORK

4.00 (a) Regular hours of work for all employees assigned to fire fighting duties shall be an average of forty-two (42) hours per week (averaged over an eight week scheduled period) on a one platoon system, commencing at 07:45 hours. The shift shall be a rotating schedule, two (2) twenty-four (24) hour shifts (total of forty-eight) hours every eight calendar days, with a minimum of twenty-four hours off between these two (2) shifts.

A normal tour of duty shall be one 24 hour on-duty shift followed by a 24 hour period of off-duty, followed by another 24 hour period on-duty.

Notwithstanding that a portion of a scheduled shift is worked over two (2) calendar days, a shift shall be defined as the calendar day it is scheduled to start.

(b) Persons employed as Communication Operators shall work a twelve (12) hour shift for an annual average of forty-two (42) hours per week.
(i) The Employer has the sole right to schedule shifts as required.

(ii) No shift shall be spread over a period longer than 12 hours including one hour for lunch and three 15 minute breaks if shift is 12 consecutive hours in length.

An employee called back to duty from off-duty hours shall be credited with a minimum of three hours at the applicable overtime rates.

An employee recalled for duty when on annual vacation leave shall receive 2 times the hourly rate for the first shift worked and the balance of the shifts occurring during the annual leave shall be at the applicable overtime rate, and such an employee will be deemed to have observed such vacation.

An employee required to work overtime consecutive to a regularly scheduled shift shall receive time and one-half the regular rate of pay for the overtime hours worked.

(c) The Communication Operator (Day Shift) shall work an eight (8) hour shift, with one hour for lunch, commencing at 08:00, ending at 5:00 p.m., Monday through Friday inclusive.

The Communication Operator (Day Shift) shall receive acting pay pursuant to Article 11.01(a) in the following circumstances:

(i) The Supervisor of Communications and Information Systems is absent due to vacation pursuant to Article 6;

or

(ii) The Supervisor of Communications and Information Systems is absent for a period of five (5) consecutive working days, inclusive of Statutory Holidays, for any reason other than vacation.

The Communication Operator (Day Shift) will receive acting pay commencing on the 6th day following the start of the Supervisor of Communications and Information System's absence.

4.01 Regular hours of work for all employees other than those referred to in Article 4.00 (a), (b), (c) above, shall be five shifts, 8:00 a.m. to 5:00 p.m. with one hour for lunch, Monday to Friday inclusive of each week, not to exceed forty (40) hours per week.

The Corporation may vary hours of the work week or work day for Fire Prevention Division staff, only with the agreement of the employee. It is understood that any variation of the work week or work day shall not exceed 40 hours per week exclusive of stand by duty, recall to duty, overtime and accumulated time.

Clerk Stenographers hired after August 1, 1998 may be scheduled to work five shifts, nine (9) consecutive hours in duration, within the hours of 7:30 a.m. to 5:00 p.m. with one hour for lunch, Monday to Friday inclusive of each week, not to exceed forty (40) hours per week.

The Chief of the Department, in emergency situations arising from breakdown in electrical equipment or motor vehicles which, in his/her opinion, require immediate repair to provide efficient operation of the Department, may vary the time of the shifts for employees working in the Apparatus Division, to 4:00 p.m. to 12:00 p.m. with one hour

meal allowance (in lieu of 8:00 a.m. to 5:00 p.m.) during the said emergency. It is further provided that no such employee shall be required to work more than one of either of such shifts in any period between twelve midnight of one day and twelve midnight of the following day.

Employees referred to in this Article 4.01 may be required to be on standby duty for periods of seven (7) days (8:00 a.m. Wednesday to 8:00 a.m. of the following Wednesday outside of regular hours of work). When so required, each employee in each job classification shall -

(i) take his/her turn on a strictly rotating basis;

(ii) be paid standby pay at the rate of $35.00 for each seven (7) days of such standby duty;

(iii) be off duty on the Friday in rotation by classification following the seven (7) day period of standby duty, or prior to his/her next tour of standby duty, or have the option of adding the equivalent number of hours to their overall accumulated bank in accordance with Article 24.00 (b), and;

(iv) when recalled to duty during his/her period of standby, shall be given an equivalent number of hours off duty from his/her regular hours of work equal to the number of hours for which he/she is recalled to duty in his/her period of standby within a reasonable period of time after the accumulation of eight (8) or more such hours noting that there will be a maximum of 1/2 hour for actual travel time to work at the start of the call-back period, and 1/2 hour travel time from work at the end of the call-back period. For employees recalled to duty to Middlesex County, the maximum allowance shall be 1 hour at the start and 1 hour at the end of the call-back period.

Employees on standby duty shall make themselves available by telephone or by electronic paging device for recall to duty. Employees referred to in this Article 4.01, who are not required to be on standby duty, and who are recalled to duty, shall be paid in accordance with the provisions of Article 24 of the Collective Agreement.

4.02 (a) It is understood that nothing in the above schedule of hours of work will prevent a Division Head granting the request of any two (2) employees to change shifts or days off. Use of this privilege for personal gain or hire, including self-employment, will result in the loss of this privilege for the employee(s) involved for a period of one (1) year.

(b) Relief for absent Communication Operators is at the discretion of the employer and if off duty Communication Operators are not readily available or for other considerations relief could include the assignment of on duty personnel from other Fire Divisions, trained as assistants to the Communication Operators, to meet the exigencies of service.

Supervision of Communication Operators shall be as designated by the Employer, and shall be the Supervisor of Communications and Information Systems or the Senior Officer of the department on duty in the absence of the Supervisor of Communications and Information Systems.

ARTICLE 5 - OFF DUTY TIME AND PLACE OF RESIDENCE

5.00 The occupation of, and use of, off duty time by an employee when not in uniform and not on duty shall not be subject to any restriction by the Employer.

5.01 In locating their residences within or without the City of London, full time Fire Fighters and Communication Operators shall have regard to their potential for recall to duty in the event of a fire, flood, or other disaster requiring their services.

ARTICLE 6 – VACATION

6.00 All employees with less than one year's service shall be entitled to one day's vacation with pay for each full month of service to a maximum of 10 days for staff persons on a 40 hour work week and one half shift per month (12 hours) for each full month of service, calculated from the original day of appointment to a maximum of two tours of duty for Fire Fighters, or two weeks for Communication Operators on a 42 hour work week computed from the date of original appointment to the end of the calendar year in which they are appointed.

6.01 All employees with one or more years of service and less than four years of service shall be entitled to two (2) weeks of vacation in each calendar year, with full salary.

6.02 All employees with four or more years of service and less than ten (10) years of service shall be entitled to three (3) weeks of vacation in each calendar year with full salary.

6.03 All employees with ten or more years of service and less than seventeen (17) years of service shall be entitled to four (4) weeks vacation in each calendar year with full salary.

6.04 All employees with seventeen (17) or more years of service and less than twenty-four (24) years of service shall be entitled to five (5) weeks vacation in each calendar year with full salary.

6.05 All employees with twenty-four (24) or more years of service shall be entitled to six (6) weeks of vacation in each calendar year, with full salary.

6.06 (a) No vacation time shall be lost:

(1) as the result of an accident or illness covered by an award of the Workplace Safety and Insurance Board;

or

(2) as the result of an accident incurred in the performance of duties;

or

(3) while the employee is absent on sick leave due to illness if:
- (i) the illness occurs before the employee is to commence his/her scheduled vacation,
- (ii) a physician's certificate for the period of illness before and during the scheduled vacation is submitted before the employee returns to

duty,

or

(4) as a result of an employee being assigned to modified work or a work hardening program as part of a rehabilitation program,

in which case no vacation time shall be lost. In all other cases, the scheduled vacation will be deemed to have been taken as scheduled.

(b) An employee absent from work due to illness or injury for a continuous period of six months will cease to earn vacation credits. The earning of vacation credits will resume upon return to active duty. Employees absent as a result of an accident incurred in the performance of their duties will cease to earn vacation credits at the conclusion of 24 months of continued absence.

6.07 Vacation period shall be granted on a system as agreed upon by the Fire Chief and the Association. The Fire Chief and the Association may agree to override the provisions of Article 6.09 to allow proper implementation of the vacation policies agreed to between the parties.

6.08 The present practice shall be continued whereby all periods of an employee's vacation commences with his/her first "on duty" shift or tour of duty (a tour consisting of two (2) twenty-four (24) hour shifts as defined in Article 4.00 (a), four (4), five (5), or six (6) consecutive shifts) for which the employee would otherwise be on duty.

6.09 (a) Vacations as provided in Articles 6.00 and 6.01 shall not be divided. Vacations as provided in Article 6.02 shall be divided into two periods, one of two (2) consecutive weeks (14 days) and one of one week (7 consecutive days). Vacations provided in Article 6.03, namely four weeks, shall be divided into one period of two (2) consecutive weeks and the balance in two periods of one week (7 consecutive days) each. Five weeks of vacation as provided in Article 6.04 shall be divided into two (2) periods of two (2) consecutive weeks each and one week (7 consecutive days). Six weeks of vacation as provided in Article 6.05 shall be divided into three (3) periods of two (2) consecutive weeks each. Employees assigned to Fire Fighting duties shall not be allowed more than one two-week period in the months of May, June, July, August, September and October, so that the present three year rotation shall be maintained.

(b) For employees classified as Communication Operators, the present practice shall be continued whereby all periods of an employee's vacation commences with their first "on-duty" shift for which the employee would otherwise be on duty with one week of vacation being a tour of duty.

6.10 Vacation allowance shall be prorated in accordance with the number of months of service in a calendar year in which the employee leaves the employ of the Department.

ARTICLE 7 - STATUTORY AND DECLARED HOLIDAYS

7.00 Each employee shall be paid on the last pay date in November in each year, or on termination of employment, one extra day's pay for each of the following Statutory Holidays occurring during his/her period of employment in the said year; said Statutory Holidays being as follows:

New Year's Day	Labour Day
Good Friday	Thanksgiving Day
Easter Monday	Remembrance Day
Victoria Day	Christmas Day
Canada Day	Boxing Day
Civic Holiday	

and any other Public Holiday declared by the Governor-General of Canada or by the Lieutenant-Governor of Ontario.

7.01 Each extra day's pay shall be computed and fixed at 1/140 of the employee's annual rate of pay for employees assigned to Fire Fighting and Communications Divisions. Staff personnel working 8 hour shifts shall be paid at the rate 1/260 of the employee's annual rate of pay. All employees shall be paid in accordance with their permanent classification on the day in question under Article 11.

7.02 Whenever an employee is required to assume the duties of a higher rank or classification for a duty shift which commences at 0745 hours on the Statutory Holiday, (being the calendar day of observation) the extra day's pay for such a Statutory Holiday shall be at the rate of the acting rank or classification so assumed, provided the employee assumed such duties for a minimum of one half or more of the hours of the said shift.

7.03 A Communications Operator who is required to work on a recognized observed calendar Statutory or Paid Holiday listed in 7.00 shall be paid time and one half the employee's regular rate of pay for the hours worked between 0001 and 2400 hours of the paid holiday.

ARTICLE 8 - ACCIDENT AND SICKNESS

8.00 Sick leave provisions, are as provided in this Collective Agreement.

(a) Prior to January 1, 1991 each permanent employee, with the exception of employees in the Communication Division, shall be eligible to a credit one and one-half days sick leave for each month of service with the Corporation, such credit to be cumulative.

(b) Each employee, with the exception of employees in the Communication Division, after acquiring seniority shall be eligible to receive sick leave, at full salary or wage rate, for any time lost by illness to the full extent of sick leave credits accumulated before January 1, 1991 available at the time of such absence.

(c) Prior to January 1, 1991 re-employed personnel of the Armed Forces shall receive the same sick leave credit for the time spent in the forces as they would have received had they remained with the Corporation.

(d) An employee with a date of commencement of employment prior to January 1, 1991 (January 1, 1982 for employees in the Communication Division) who is, at the time of his/her retirement, actively engaged at his/her duties or absent on authorized leave, shall be entitled to receive a sick leave gratuity on one, but not both, of the following bases:

(i) On the date of retirement, he/she may be granted a sick leave gratuity in cash equal to his/her salary, wages or other remuneration for one-half the number of days (hours for employees in the Communication Division) standing to his/her credit and in any event not in excess of the amount of one half year's earnings at the rate received by him/her immediately prior to termination of employment; or

(ii) With the consent of the Fire Chief, in lieu of the sick leave gratuity which would otherwise be paid in cash in accordance with the foregoing, such employee may be granted retirement leave with full pay for a period equal to one half the number of days (hours for employees in the Communication Division) standing to his/her credit and in any event, not in excess of a period of six months. The employee shall give at least three months notice of his/her desire to so use the credit, and the consent of the Fire Chief shall not then be unreasonably withheld. Such leave shall be completed as of the date of normal retirement.

(e) Deductions from accumulated sick leave credits of an employee shall only be made in respect of periods of duty for which the employee would normally be required or scheduled to work, if not on sick leave.

(f) In the event of the decease of any employee with a date of commencement of employment prior to January 1, 1991 (January 1, 1982 for employees in the Communication Division) or the termination of his/her employment with the Employer, after eight (8) years of service with the Employer (5 years for employees in the Communication Division hired prior to Jan 1/‘81), the Employer shall pay to the employee (or his/her estate) an amount equal to the regular pay of the employee for one-half the number of days (hours for employees in the Communication Division) of sick leave standing to his/her credit at the time of such decease or termination of employment, such amount not to exceed one-half year's earnings at the rate received by the employee prior to termination of employment or decease.

8.01 (a) Effective January 1, 1991, each permanent employee who is ill or injured and is unable to attend work will be eligible for wage loss replacement for up to 12 shifts per calendar year at 100% of regular base salary. If absence extends beyond 12 shifts in total per calendar year and the absent employee has sick leave credits established prior to January 1, 1991 (January 1, 1999 for employees in the Communication Division) under Article 8.00, these credits must be exhausted prior to being eligible for Short Term Disability as provided in (b). Effective January 1, 1997 any unused wage loss replacement credits shall be accumulative by all employees (January 1, 1999 for employees in the Communication Division), and

be carried forward and added to the number of credits available to the employee for wage loss replacement in subsequent years.

Employees assigned to the Fire Fighting Division who are ill or injured and unable to attend work will be eligible for wage loss replacement for up to six shifts per calendar years at 100% of regular base salary. If the absence extends beyond six shifts in total per calendar year and the employee has sick leave credits established prior to January 1, 1991 under Article 8.00, these credits will be taken on the basis that one “day” in such sick leave bank will equal one half shift. These credits must be exhausted prior to the employee being eligible for Short Term Disability as provided under Article 8.01 (b) of the Collective Agreement. Article 8.00 (d) is unaffected by this understanding.

(b) The Employer shall arrange for and pay the premiums for a Short Term Disability Insurance Plan and a Long Term Disability Insurance Plan, which plans of insurance will provide that effective January 1, 1991, (January 1, 1999 for employees in the Communication Division) each permanent employee who is ill or injured and is unable to attend work will;

(i) upon exhaustion of 100% wage loss replacement, including sick leave credits, receive up to 26 weeks wage replacement as Short Term Disability at 70% of regular base salary at the onset of the disability; and

(ii) upon exhaustion of the Short Term Disability benefits receive Long Term Disability benefits of 66 2/3% of regular base salary at the onset of the disability payable to normal retirement age provided the employee remains eligible.

The wage loss replacement insurances mentioned in this Article shall be as described and set forth in the respective policy or policies of insurance. The Employer is not the insurer of the wage replacement insurance plans and any dispute over payment of benefits under any such policy or policies of insurance shall be adjusted between the insured under such policy and the insurer concerned, but the Employer will use its best efforts to adjust and settle any such dispute.

Upon exhaustion of sick leave credits and pending adjudication of any STD entitlement for which an employee has applied to the insurer, the employee shall have the option of being provided with a monetary advance by the employer equal to the amount of pay that would be received by the employee in the event that the STD claim is allowed, such that there is continuity of income without missing one pay period. In the event that the STD claim is allowed, employees opting for this advance shall be required to repay the advance immediately upon beginning of the STD payment. In the event the claim is disallowed, a mutually agreeable repayment schedule shall be implemented, in no case shall such repayment schedule extend beyond six months.

Schedule `A' attached to this agreement and forming part of this agreement sets out further details of the Short and Long Term Disability Plans.

8.02 a) (All employees with the exception of Communication Operators)
An employee off duty as the result of an accident or occupational illness incurred in the performance of his/her duties within the meaning of the Workplace Safety Insurance Act, shall be provided with free hospitalization and medical care, and shall be paid the difference between his/her salary and the amount of such compensation to make up one hundred per cent (100%) of his/her salary without deduction from his/her sick leave credits, if any.

b) (All Communication Operators)
An employee absent on a work related injury and approved for Workers' Compensation benefits shall receive one hundred percent (100%) of their current net take home pay experienced prior to the absence recognizing that ninety percent (90%) of the net pay as determined by WSIB is not taxable at source. WSIB pension awards arising out of WSIB claims will be deducted at source when an absence results for the same disability for which the pension has been awarded.

8.03 In all cases where the Employer has paid the employee full salary and benefits for the period of absence due to accident or occupational illness incurred in the performance of duties, the Employer shall be entitled to receive all payments for salary made by the Workplace Safety Insurance Board, if any, and the employee shall execute and deliver all such directions, assignments and assurances as shall be requisite and necessary to cause the same to be paid to the Employer.

8.04 An employee off duty as a result of a compensable accident or an occupational illness as defined by the Workplace Safety Insurance Board, incurred in the performance of duties for an employer other than The Corporation of the City of London, or self-employed for gain, shall not be entitled to any Sick Leave benefit as set out in Article 8.00 and 8.01, nor shall any Sick Leave credit be added to the employee's accumulation, nor shall any premiums, for health, accident and insurance benefits be payable by the Corporation, while the employee is unable to resume normal duties with the London Fire Service as a result of such compensable injury, except that an employee may continue his/her coverage in the employer's group insurance plans for up to eighteen (18) months, provided that he/she pays to the City Treasurer the full premium cost of such participation, not later than the twenty-fifth (25th) day of the month prior to the month of which the payment becomes due. If such payment is not made as aforesaid, the employee's participation in such plans shall be terminated forthwith.

8.05 (a) (All employees with exception of Communication Operators and the Fire Fighting Division)
Where an employee is absent from duty, and such absence is caused by accident or illness (which is not covered by “Workplace Safety Insurance Board”) and continues after the employee has been absent for seven calendar days, the employee shall, upon request, provide the Chief of the Department with a certificate from a qualified physician and such certificate shall certify that the employee's disability is such that he/she is unable to attend work. The employer shall forthwith reimburse the employee for any cost assessed by the physician in securing the certificate.

(b) (Fire Fighting Division)
Where an employee in the Fire Fighting Division is absent from duty, and such absence is caused by accident or illness (which is not covered by “Workplace

Safety Insurance Board") and continues after the employee has been absent for more than 2 consecutive regular scheduled shifts, the employee shall, upon request, provide the Chief of the Department with a certificate from a qualified physician and such certificate shall certify that the employee's disability is such that he/she is unable to attend work. The employer shall forthwith reimburse the employee for any cost assessed by the physician in securing the certificate.

(c) (Communication Operators hired prior to January 1/'82)
An employee who gives notice of absence due to sickness may be required to produce evidence of sickness satisfactory to the Fire Chief. In the event the Corporation requests an employee absent on sick leave to be examined by a physician appointed by the Corporation, the Corporate Occupational Health Physician shall be entitled to a copy of the Physician's report and such information shall be kept confidential.

(d) (Communication Operators hired after December 31/'81)
An employee on sick leave credits or long term income protection plan, shall on request, submit to the employer a certificate from the employee's physician certifying that the employee is unable to work and the nature of the illness.

(e) (All employees with the exception of those Communication Officers hired after December 31/'81)
At the conclusion of each thirty (30) calendar days of continuing absence, calculated from the day the employee was first absent, the employee shall provide a certificate from a qualified physician and such certificate shall certify that the employee's disability is such that he/she is unable to attend work. The employer shall forthwith reimburse the employee for any cost assessed by the physician in securing the certificate. These certificates shall be kept confidential.

8.06 The following rules for deducting sick time shall be applied when employees in the Fire Fighting Division are on duty and book off ill, or return from an absence part way through a shift:

<u>Leaving Work</u>
If an employee books off duty any time between the hours of 07:45 and on or before 13:45 hours of his/her working shift, that employee shall have one (1) full sick day deducted.

If an employee books off duty after 13:46 hours but on or before 19:45 of his/her working shift, that employee shall have three-quarters (.75) of a sick day deducted.

If an employee books off duty after 19:46 but on or before 01:45 of his/her working shift, that employee shall have one-half (.50) sick day deducted.

If an employee books off duty after 01:46 but before completion of a full shift of his/her working shift, that employee shall have one-quarter (.25) of a sick day deducted.

<u>Returning to Work</u>
When an employee, who has booked back on to duty and returns to duty after 07:45 but on or before 13:45 of that shift, only one-quarter (.25) shift shall be deducted.

When an employee, who has booked back on to duty and returns to duty after 13:46 but

on or before 19:45 of that shift, only one-half (.50) shift shall be deducted.

When an employee, who has booked back on to duty and returns to duty after 19:46 but on or before 01:45 of that shift, only three-quarters (.75) of a shift shall be deducted.

ARTICLE 9 - HOSPITAL, HEALTH, MEDICAL AND GROUP LIFE INSURANCE

9.00 Active Employee Group (formerly titled Class 1 Employees)

(a) The Employer will pay one hundred per cent (100%) of the premium payable for the coverage for each employee, spouse and dependent children (as defined under a family plan of insurance), under the following plans:

- Ontario Health Insurance Plan
- Liberty Health Group #2436
- Liberty Health Semi-Private Hospital Accommodation Plan
- Liberty Health Extended Health Care Plan
- Liberty Health Eye Vision Care Plan - $250/24 months, (not subject to deductible terms)
- Liberty Health Deluxe Travel Plan – In instances where there is an approved Deluxe Travel Benefit claim that exceeds the 1 million maximum the Corporation will consider payment of excess related health care benefits on a case by case basis. Such payment will not be unreasonably denied.
- Liberty Health Hearing Aid Plan - $250/24 months, effective November 1, 2002, Liberty Health Hearing Aid with Ear Molds - 100% reimbursement up to a maximum of $500 per 12 consecutive months.
- Liberty Health Chiropractic Care - $400/12 months, to supplement differential between the amount payable by the Ontario Health Insurance Plan and the chiropractor's charge for the visit.
- Liberty Health Physiotherapy/Registered Massage - $400/12 months (to supplement differential between the amount payable to the Ontario Health Insurance Plan and the charge for the visit)
- Effective November 1, 2002 - Psychological Services - $120 per hour, maximum 6 hours per benefit year
- Effective November 1, 2002 - Speech Pathologist – Maximum amount allowable $500 per person per benefit year
- Effective November 1, 2002 - Osteopath, Naturopath, Podiatrist – Per treatment up to $15, maximum number of treatments 20 per person per calendar year (each practitioner)

For the purposes of definition, the term dependent child will also include any child who is between the ages of 21 and 25, single, and in full-time attendance at an accredited school. Further, this definition shall be used in Article 9.00(b) to determine eligibility for dental benefits.

(b) The Employer will pay 80% of the premium cost and the employee as a condition of employment, shall contribute the remaining 20% by payroll deduction of Liberty Health, Dental Plan and Riders (current ODA schedules as amended from time to time) as set forth hereunder:

- Dental Plan No. 9

- No co-insurance
- No deductible

Employees shall be entitled to a dental recall frequency under Plan No. 9 of 9 months, with the exception of dependent children, which shall be 6 months.

- Rider No. 3 (orthodontic) with a lifetime maximum benefit of $2,500.00.
  - No deductible
  - 50/50 co-insurance
- Rider No. 2 (dentures)- No deductible
  - 50/50 co-insurance
- Rider No. 4 (Restorative Services - Fixed Prosthodontics Services in Office and Commercial Laboratory Charges) with a lifetime maximum benefit of $2,500.00.
  - No deductible
  - 50/50 co-insurance

(c) The Employer will provide and pay the premiums of policy number 2505 of the Clarica Life Assurance Company insuring the life of each employee for basic life insurance coverage in the amount equal to the employee's annual salary; or for an amount equal to two times the employee's annual salary in the event of accidental death; and for an additional one times the employee's annual salary in the event of accidental death specifically occurring while on the job; the Employer's responsibility under this Article being limited to payment of the premiums payable under the said policy for the continuance of such coverage, but the employer will use its best efforts to adjust and settle any dispute respecting payment of benefits. The premium cost of that portion of the insurance in excess of thirty thousand dollars ($30,000.00) shall be shared; the 5/12ths portion of UIC premium reduction rebate for employees (respecting wage loss programs) shall be paid to the employer, and shall be deemed to cover the cost of this benefit, whether same is actually more or less than the rebate. The Corporation may, in its discretion, decide upon a different insurance carrier, provided that the coverage is equal to or better than described above, and that the terms of any new policy be submitted to the Association for review prior to its being purchased by the Corporation.

(d) Dependent life insurance coverage is available for the employee's spouse and/or dependent children in accordance with the group life insurance contract at the employee's expense by payroll deduction.

(e) The employer shall pay one hundred percent (100%) of the benefit premium costs to cover the surviving spouse and eligible dependents of an employee killed in the line of duty. To be eligible, the surviving spouse and eligible dependents must have been enrolled as dependents at the time of the employee's death. The benefits shall be those as defined in Articles 9.00(a) and 9.00(b), and shall be effective until the employee's Normal Retirement Age (unless this coverage becomes available through a subsequent marital relationship or employment).

(f) The employer shall arrange with its life insurance carrier a "living term" benefit. As a result of this benefit, any employee who is diagnosed with a terminal disease may, at their option, apply to receive up to 50% of their normal life insurance benefit, to a maximum of $50,000, prior to their death to assist with personal expenses. The employer shall be responsible to pay for the costs of any administration fees or medical documentation.

9.01 Retired Employee Group A (formerly titled Class 2 Employees)

(a) For those employees employed on or after January 1, 1986 and subsequently retiring and until the retired employee attains his/her 65th birthday the Employer provides the following health care benefits.

Ontario Health Insurance Plan (100% of premium paid by employer)

Liberty Health Group #2436E

Liberty Health Extended Health Care including semi-private and vision care - 100/24 (employer pays 75% of premium provided retired employee pays balance)

Without retroactivity, effective February 1, 1988 for those employees employed on or after January 1, 1987 Liberty Health Dental Plan 9 - current ODA Schedules, no co-insurance, no deductible, including Liberty Health Rider #2 (dentures) - current ODA schedules, no deductible, 50/50 co-insurance. (employer pays 75% of premium provided retired employee pays balance).

Without retroactivity, effective June 1, 1996 add to the list of benefits Group Deluxe Travel Plan to age 65 (employer pays 75% of premium).

(b) It is agreed that the group life policy of insurance referred to in 9.00(c) shall contain a provision permitting retiring employees, at their option, to continue to carry life insurance coverage under the said policy for an amount of five thousand dollars ($5,000.00) from the date of retirement to age seventy (70) with the employee paying the premium required to be paid under said policy for carrying such insurance from and after retirement until attaining the age of seventy (70) years.

9.02 Retired Employee Group B (formerly titled Class 3 Employees)
Employees retiring after April 2, 2002 will receive benefits as described in 9.00 a) and b) from the date of retirement until age 65. The employer will pay one hundred percent (100%) of the premiums for the coverage as described in 9.00 a) and b).

Employees retiring after April 2, 2002 will be entitled to receive life insurance coverage of $5,000 from the date of retirement to age 70 years. Premiums will be 100% paid by the employer.

9.03 Every employee shall be fully responsible for keeping the City informed of changes in marital status or number of dependents. An employee who is entitled to reduced hospitalization or medical benefit premiums, because of a change in his/her dependency status, and who fails within ten (10) days to notify the City of such change, shall be responsible for the extra premium expense paid by the City on his/her behalf, because of such failure to notify, and this extra cost shall be deducted from the employee's salary.

9.04 The Collective Agreement will continue to refer to Liberty Health as the insurance carrier, but the Corporation, with the agreement of the Association, will be free to obtain coverage from another carrier provided such coverage, and level of service, is at least equal to or better than that provided by Liberty Health.

9.05 The Corporation's obligation to enrol an employee and pay the premium for the various plans, shall be effective with the first day of the month following the month in which the

employee is hired unless the hire date is prior to the 15th of the month in which case the enrolment will occur effective the first day of the month of hire.

9.06 (a) A copy of the contract of insurance and any amendments thereto for the insurances mentioned in Article 8 and 9 will be provided to the Secretary of the Association. The Corporation will publish the current policies and amendments on the Corporate Intranet site.

(b) With respect to insurance coverage described in Article 9 provided to Communication Operators, all of the insurance shall be as more particularly described in the respective policy or policies of insurance. The Corporation will furnish such information as to the content of the policies of insurance as the Association from time to time requires.

ARTICLE 10 - CAR ALLOWANCE

10.00 When an employee is requested to use his/her own car on the Employer's business for in-city driving on a casual basis, he/she shall be paid an amount equal to the Corporate mileage rate for all such use.

Corporate Mileage Rate
Monetary Allowance
$ 0.35/km
Current Rate as of 2000

ARTICLE 11 - CLASSIFICATION AND SALARIES

11.00 Effective as of April 2, 2002 and thereafter, the Employer shall pay employee's salaries as set forth hereunder for the ranks and classifications as follows.

Note: All salaries in this Article denoted as a percentage shall be deemed to be calculated as a percentage of a 1st Class Firefighter's salary rate.

Fire Fighting Division		
Classifications	**Salary Rate**	**Special Notes**
Platoon Chief	135%	
District Chief	125%	
Captain	115%	
Senior Qualified Firefighter	102%	48 most senior employees qualified as Captains (12 per platoon)
Firefighter/Apparatus Operator	102%	

1st Class Firefighter	100%	April 2, 2002 -	$61,233
		July 1, 2002 -	$63,070
		January 1, 2003	$64,175
2nd Class Firefighter	90%		
3rd Class Firefighter	85%		
4th Class Firefighter	80%		
5th Class Firefighter Probationary	70%	(second six months)	
5th Class Firefighter Probationary	65%	(first six months)	

Employees shall during the total probationary period of twelve months, first be classified and paid as "Fire Fighter 5th Class, Probationary - 1st six months" and in the second six months of the said total probationary period, the employee shall be classified and paid at the rate of "Fire Fighter 5th Class, Probationary - 2nd six months". Reclassification of such employees to Fire Fighter 4th Class, 3rd Class, 2nd Class and 1st Class shall be as hereinafter provided in Article 11.03.

Fire Prevention Division					
Classifications		**Salary Rate**	**Special Notes**		
Chief Fire Prevention Officer		135%			
Assistant Chief Fire Prevention		125%			
Fire Prevention Inspector		115%	Appointed prior to August 1, 1996		
		Salary Rates			
Public Fire & Life Safety Educator			**April 2/02**	**July 1/02**	**Jan 1/03**
	Start		$37,409	$38,531	$39,205
	After 1 year		$40,526	$41,741	$42,471
	After 2 years		$43,644	$44,953	$45,740
	After 3 years		$46,760	$48,163	$49,006
Public Information Coordinator		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$39,035	$40,206	$41,412	$42,137
	After 1 year	$42,287	$43,556	$44,863	$45,648
	After 2 years	$44,727	$46,069	$47,451	$48,281
	After 3 years	$47,165	$48,580	$50,037	$50,913
	After 4 years	$49,608	$51,096	$52,629	$53,550
	After 5 years	$52,457	$54,031	$55,652	$56,626
	After 6 years	$55,299	$56,958	$58,667	$59,694

Fire Prevention Inspector		Inspectors hired or appointed after August 1, 1996			
		Salary Rates			
		Dec 31/01	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$38,640	$39,799	$40,993	$41,710
	After 6 months	$41,612	$42,860	$44,146	$44,919
	After 1 year	$44,583	$45,920	$47,298	$48,126
	After 18 months	$47,557	$48,984	$50,454	$51,337
	After 2 years	$50,529	$52,045	$53,606	$54,544
	After 3 years	$53,501	$55,106	$56,759	$57,752

Stores Division					
Classifications		**Salary Rates**			
Stores Clerk		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$33,194	$34,190	$35,216	$35,832
	After 6 months	$35,590	$36,658	$37,758	$38,419
	After 1 year	$38,306	$39,455	$40,639	$41,350
	After 2 years	$41,026	$42,257	$43,525	$44,287
	After 3 years	$43,748	$45,060	$46,412	$47,224
	After 4 years	$46,465	$47,859	$49,295	$50,158

Apparatus Division			
Classifications		**Salary Rate**	
Supervisor		120%	
Assistant Supervisor		115%	
Mechanic			
	After 3 full years	112%	
	After 2 full years	107%	
	First 2 years	100%	
Mechanical Technician			
	After 3 years	90%	
	After 2 years	85%	
	After 18 months	80%	
	After 1 year	75%	
	After 6 months	70%	
	Start	65%	

Electrician			
	After 3 full years	115%	
	After 2 full years	107%	
	First 2 years	100%	

Training Division		
Classifications	**Salary Rate**	
Director of Training	135%	
Assistant Director of Training	125%	
Training Instructor	115%	

Communications Division					
Classifications		**Salary Rate**			
Supervisor of Communications and Information Systems		115%			
		Salary Rates			
Communication Operator		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$39,613	$40,801	$42,025	$42,760
	After 6 months	$41,159	$42,394	$43,666	$44,430
	After 1 year	$42,714	$43,995	$45,315	$46,108
	After 2 years	$44,305	$45,634	$47,003	$47,826
	After 3 years	$46,930	$48,338	$49,788	$50,659
Electronics Technician					
	After 3 years	90%			
	After 2 years	85%			
	After 18 months	80%			
	After 1 year	75%			
	After 6 months	70%			
	Start	65%			

Clerical/Administrative Division					
Classifications		**Salary Rates**			
Administrative Coordinator		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$42,370	$43,641	$44,950	$45,737

	After 1 year	$50,050	$51,552	$53,099	$54,028
	After 2 years	$52,559	$54,136	$55,760	$56,736
	After 3 years	$55,048	$56,699	$58,400	$59,422
	After 4 years	$57,523	$59,249	$61,026	$62,094
	After 5 years	$59,997	$61,797	$63,651	$64,765
	After 6 years	$62,524	$64,400	$66,332	$67,493
Clerk Stenographer		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$24,808	$25,552	$26,319	$26,780
	After 6 mos.	$27,849	$28,684	$29,545	$30,062
	After 1 year	$31,212	$32,148	$33,112	$33,691
	After 18 mos. nth	$32,796	$33,780	$34,793	$35,402
	After 2 years	$34,407	$35,439	$36,502	$37,141
	After 30 mos.	$36,024	$37,105	$38,218	$38,887
Administrative Clerk-Training		**Dec 31/01**	**April 2/02**	**July 1/02**	**Jan 1/03**
	Start	$26,615	$27,413	$28,235	$28,729
	After 6 mos.	$29,009	$29,879	$30,775	$31,314
	After 1 year	$31,404	$32,346	$33,316	$33,899
	After 18 mos.	$33,800	$34,814	$35,858	$36,486
	After 2 years	$36,193	$37,279	$38,397	$39,069
	After 30 mos.	$38,589	$39,747	$40,939	$41,655

The "Compensation Plan" as set out in this Article 11.00 satisfies Provincial Pay Equity legislative requirements within this bargaining unit and shall be posted accordingly.

11.01 (a) Each employee in the Fire Prevention, Training or Apparatus Divisions, who, on the direction of, or with the approval of his/her Senior Officer, assumes the duties of, or acts in the capacity of, an officer or a Classification paying a higher rate of salary, shall be paid such higher rate of salary in respect of each such shift he/she so acts, provided the employee so acts for a minimum of one-half or more of the hours of the said shifts.

Each employee in the Fire Fighting Division, with the exception of Fire Fighter Second Class, Third Class, Fourth Class or Fifth Class, who, on the direction of, or with the approval of his/her Senior Officer, assumes the duties of, or acts in the capacity of an officer or a classification paying a higher rate of salary, shall be paid such higher rate of salary in respect of each such shift he/she so acts and shall be paid at the rate of the higher classification, on an hourly basis for the hours in which they act in that capacity. The hours an employee acts will be submitted on the appropriate form, and each instance in which an employee acts shall be recorded to the nearest complete hour.

Fire Fighters Second Class, Third Class, Fourth Class or Fifth Class, who are required to assume the duties of a Firefighter/Apparatus Operator for a shift or shifts, shall receive a salary rate of 2% more than his/her current applicable rate as a Fire Fighter for each such shift(s) he/she so acts, and shall be paid such higher rate of salary in respect of each such shift(s) he/she so acts and shall be paid at the rate of the higher classification on an hourly basis, for the hours in which they act in that capacity. The hours an employee acts will be submitted on the appropriate form, and each instance in which an employee acts shall be recorded to the nearest complete hour.

(b) It is understood and agreed to by the parties that the Fire Chief shall have the authority to assign members of the Department to the Training Division, from the applicants to the Annual Bulletin, for the purpose of acting as a Training Instructor for periods of time as is required, and that any such employees assigned will receive the rate of pay of a Training Instructor (115%) while performing the training duties as assigned. If such assignment deprives the employee of acting in a higher capacity than his/her permanent classification on his/her regularly assigned Platoon/Division, he/she shall receive the higher rate of salary of the assignment which he/she would have earned in the acting capacity.

It is understood that Management will issue an Annual Bulletin to solicit applicants to act as a Training Instructor in various training assignments. Following the closing date of such bulletin, the Association shall be provided with a list of all applicants.

The senior, qualified and capable person(s) from the list of applicants to the Bulletin will be assigned to assist the Director of Training for such periods of time as is required in the appropriate subject matter.

Notwithstanding the above provisions, should there be no applicants to the Annual Bulletin for a specific subject matter, it is further understood and agreed to by the parties that the Fire Chief shall have the authority to temporarily assign any member of the Department to the Training Division, to act as an Instructor, for periods of time as is required, with the rate of pay to be as stated in the first paragraph of this sub-section.

No employee below the classification of 4th class Firefighter shall be seconded outside the Fire Fighting Division during their year of probation unless mutually agreed upon by the parties.

Notwithstanding the provisions of sub-section 4.01 the normal hours of work for employees assigned or appointed to the Training Division may vary according to the needs of the Division, Monday through Friday, inclusive of each week, not to exceed forty (40) hours per week.

The senior, qualified individual permanently assigned to the Training Division will act in place of the Director after the first day of absence.

(c) Employees (other than Supervisors) in divisions other than Fire Fighting and Training, designated by the Employer to perform training (i.e., program development, delivery and evaluation) shall receive a premium for the period that they are so designated, at a rate of 115% of the employee's current rate of pay.

For better certainty, it is understood that routine job familiarization duties and orientation sessions, such as job shadowing programs, shall not attract a premium rate.

(d) The London Fire Department shall provide one (1) opportunity per year for Officers to participate in Level 1 and Level 2 Training Instructor Courses. Participants shall be selected in order of seniority. Those Officers who achieve certification in the aforementioned Instructor Courses, and who are certified in the appropriate subject area, where applicable, shall be selected in accordance with Article 11.01 (b).

In such cases where the subject is not an accredited course, and where the instructor could not achieve certification as an instructor because there were insufficient vacancies in an Instructor course, they will be eligible for secondments.

Officers assigned to the training division, performing the duties of training instructor, shall receive their salary plus a 15% premium and shall not receive acting pay per Article 11.01 (b).

11.02 Employees shall be reclassified automatically as, and paid at the rate of a "Fire Fighter 5th Class - 2nd six months" on completion of the first six months of the probationary period. The probationary period of any "Fire Fighter 5th Class - 2nd six months", may be extended for a period not exceeding three (3) months, on the written consent of the Association and the Chief of the Department.

11.03 Employees shall be reclassified and paid as Fire Fighter 4th Class on completion of one year's service and on qualifying for advancement as hereinafter provided; likewise such Fire Fighter 4th Class shall be reclassified and paid as Fire Fighter 3rd Class on completion of two years' service and on qualifying for advancement as hereinafter provided; likewise such Fire Fighter 3rd Class shall be reclassified and paid as Fire Fighter 2nd Class on completion of three years' service and on qualifying for advancement as hereinafter provided; likewise such Fire Fighter 2nd Class shall be reclassified and paid as Fire Fighter 1st Class on completion of four years' service and on qualifying for advancement as hereinafter provided. Periods of service shall be calculated from the commencement of the probationary period. To qualify for advancement to the classification of Fire Fighter 4th Class, Fire Fighter 3rd Class, Fire Fighter 2nd Class and Fire Fighter 1st Class, such employees shall successfully complete examinations, practical, written or oral; such examinations shall be arranged by the Employer to ensure that examinations are completed for each employee in each classification within the following periods:

Such Fire Fighter 5th Class - second six months, advancing to Fire Fighter 4th Class, within a period of not less than eighteen calendar weeks and not more than twenty-one calendar weeks computed from the date upon which the employee was reclassified as a "Fire Fighter 5th Class - second six months".

Such Fire Fighter 4th Class advancing to Fire Fighter 3rd Class, within a period of not less than thirty-six calendar weeks and not more than forty calendar weeks computed from the date upon which the employee was reclassified as a Fire Fighter 4th Class.

Such Fire Fighter 3rd Class advancing to Fire Fighter 2nd Class, within a period of not

less than thirty-six calendar weeks and not more than forty calendar weeks computed from the date upon which the employee was reclassified as a Fire Fighter 3rd Class.

Such Fire Fighter 2nd Class advancing to Fire Fighter 1st Class, within a period of not less than thirty-six calendar weeks and not more than forty calendar weeks computed from the date upon which the employee was reclassified as Fire Fighter 2nd Class.

11.04 Each employee shall be advised in writing within three weeks following such examinations whether or not he/she has qualified for advancement to the next classification; all such examinations shall be conducted by the Chief of the Department - primarily through the Training Division, and the same shall reasonably relate only to the subject matter of the course of training and instruction given such Employee while serving in the classification; all such examinations shall be arranged and conducted on a reasonable, fair and equitable basis, and the content, assessment and marking of the same shall be such as to determine whether or not the employee has acquired a reasonable and working knowledge of the subject matter covered in his/her course of training.

11.05 Each employee in the classification of "Fire Fighter 5th Class - 2nd six months", "Fire Fighter 4th Class", "Fire Fighter 3rd Class" or "Fire Fighter 2nd Class" not notified within his/her period of service in such classification, as hereinafter specified, shall be deemed to have qualified for the next higher classification, namely:

"Fire Fighter 5th Class - 2nd six months" within a period of the first four months of his/her service as "Fire Fighter 5th Class - 2nd six months", "Fire Fighter 4th Class" within a period of the first ten months of his/her service as "Fire Fighter 4th Class", "Fire Fighter 3rd Class" within a period of the first ten months of his/her service as "Fire Fighter 3rd Class", "Fire Fighter 2nd Class" within a period of the first ten months of his/her service as "Fire Fighter 2nd Class".

11.06 The question as to whether or not an examination has been arranged, conducted, marked or assessed, as in this Agreement provided, may be the subject matter of a grievance by the Association, or the employee, commencing at Step 2 of the Grievance Procedure, the grievance being filed or submitted to the Fire Chief within ten days after the employee has been given notice, as aforesaid, as to whether or not he/she has qualified for advancement, as aforesaid. If any such grievance is resolved in favour of the Association or the employee, the employee shall be deemed to have qualified by the examination, and shall be reclassified and paid at the rate of the higher classification for which he/she is deemed to have qualified, as of the date and in the same manner as if he/she had qualified by such examination.

11.07 The Association will be advised of the time and place of all such examinations, including the Corporation's intention to conduct simultaneous examinations. A member of the Executive of the Association may be present at all such examinations, written, oral or practical, as an observer, and on request of the Association, with the consent of the employee, will be furnished promptly with the particulars of the examinations of any such employee and the marking and assessment thereof. Examination participants will be apprised of the value of each written examination question as part of the overall value of the examination.

11.08 (a) All employees, excluding the Communication Operators, with five years' service or more and less than ten years of service shall be paid service pay of $60.00

annually. Employees with ten years of service or more, and less than fifteen years' service shall be paid service pay of $120.00 annually; employees with fifteen years of service or more, and less than twenty years of service shall be paid service pay of $180.00 annually. Employees with twenty years of service or more, and less than twenty-five years of service shall be paid service pay of $240.00 annually; employees with twenty-five years or more and less than thirty years of service shall be paid service pay of $300.00 annually; employees with thirty years of service or more shall be paid service pay of $360.00 annually. Employees with service for a part of the year shall have entitlement pro-rated. Service pay will be paid in a single payment to be made on the last pay date of a year, or at time of separation.

(b) A Communication Operator qualified by service requirements shall receive $75.00 annually for every five years of continuous service. Communication Operators hired after Jan. 1/91, shall receive $60.00 annually for every five years of continuous service.

A Communication Operator who leaves the employ of the employer shall be entitled to service pay on a pro rata basis for the portion of year served.

11.09 (a) Employees shall only be permitted to write “qualification” examinations for classifications designated to be within a Division in which they are permanently assigned, and such opportunities to “qualify” shall be offered in order of seniority within the Division in which the Administration seeks to promote or to “qualify” for the purposes of acting.

The frequency of such examinations and number of individuals to be qualified at any one time will be at the discretion of the employer, however, the employer shall ensure that a sufficient number of personnel shall be “qualified” so as to meet its obligations defined within this Agreement, and any other agreements it may have with the Association.

(b) Employees may apply for posted vacancies that are outside their permanently assigned Division and will be permitted to participate in a “qualification” process. If such employees are unsuccessful in their attempt to fill the vacant position, they shall not be deemed to be “qualified” to work nor act in that Division by virtue of writing the examination and must re-qualify for each subsequent vacancy.

11.10 Promotional exams with a pass mark of 70% shall be provided for the positions of Captain, District Chief, Assistant Fire Prevention Officer, Assistant Director of Training, Supervisor of Communication and Information Systems. Such exams shall be conducted in accordance with Articles 11.04, 11.05, 11.06, 11.07, 11.09, and 11.11 of this agreement.

11.11 An employee who has failed to qualify for advancement to the next higher classification or rank, shall present himself/herself at the two subsequent examinations of the type at which he/she failed to qualify, or shall be required to decline, in writing, further promotions; subsequent examinations shall be arranged and held, if requested or required, at intervals of not more than approximately (3) months from the date the employee failed to qualify.

ARTICLE 12 - PROMOTIONS AND SENIORITY

12.00 (a) Seniority with the Fire Department a Division of the City Manager's Department, shall be as listed on the Seniority Roll which commenced with and is based upon the Seniority Roll dated December 31st, 1967. In January of each year, the Corporation will update the Seniority Roll and will deliver copies to the Association. Complaints about the accuracy of the Seniority Roll will be considered within thirty days of the date of such delivery and if no complaints or grievances are received within that time, the list shall then be deemed to be accurate. Such Seniority Roll shall determine seniority of service; new employees on completion of their probationary period shall be placed on the seniority list with seniority as of the date of commencement of employment; where a number of new employees commence their employment on the same date, their order of seniority on that date shall be determined by the Chief of the Department, primarily through the Training Division, who have conducted examinations prior to the completion of their probationary period, such determination shall be based upon the average of the examination results for examinations conducted in accordance with Article 11 of this Agreement conducted within the first year of employment. Such determination shall be based on the following formula:

- 25% recruit program examinations
- 30% 6 month review examination
- 45% 1 year qualification examination

This determination shall be final. In the event of layoff prior to the completion of the examinations the seniority shall be determined based on the average of the examinations taken up to date of layoff with the higher seniority accorded to the employee with the higher average. Former employees re-entering the service after continuity of service has been broken by any reason (Her Majesty's Service excepted) shall be considered new employees and seniority shall start as of the date they recommence work in one of the job classifications set forth in Article 11. Provided, however, that in determining seniority any employee laid off for no fault of his/her own shall retain credit for the employment in said job classification, served prior to such lay-off, subject to the employee returning to employment in the Department when recalled.

(b) Seniority within the Communications Division shall be as set out in Schedule "B", the Communications Centre Seniority Roll (attached). In January of each year, the Corporation will update the Communications Centre Seniority Roll and deliver copies to the Association. Complaints about the accuracy of the Seniority Roll will be considered within thirty days of the delivery date.

New employees within the Communications Division on completion of their probationary period shall be placed on the seniority list with seniority as of the date of commencement of employment. Where an employee transfers from another department to the Communications Centre, the employee shall retain seniority with the City for the purpose of determining vacation but seniority for the purpose of job posting shall begin from the date of employment with the Fire Department. In the event of layoffs seniority shall begin from the date of appointment to the Communications Centre.

Seniority of Communication Operators shall be considered broken for the following reasons:

(i) if the employee terminates employment for any reason;
(ii) if the employee is discharged and the discharge is not reversed through the Grievance Procedure;
(iii) if an employee who has been laid off does not report for work within fourteen calendar days of recall;
(iv) if an employee is absent from work without permission for five or more consecutive working days.

12.01 Where an employee transfers from another civic department to the Fire Department, he/she shall retain his/her overall seniority in service with the City for the purpose of determining employee benefits, but his/her seniority for the purpose of service pay shall only begin from the date of his/her enlistment or appointment to one of the classifications in the Fire Department as set forth in Article 11 hereof.

12.02 No position in the Department which has become vacant by reason of death, resignation or dismissal of an employee and which has not been abolished, shall be left unfilled for a period of more than three (3) months. Pay of rank or appointment shall commence from the date on which the pre-noted employee assumes the duties of the vacant position.

12.03 Recommendations for all promotions, transfers or appointments to all officer ranks above 1st Class Fire Fighter shall be made by the Fire Chief and promotions, transfers and appointments to all such ranks shall be based on seniority, qualifications and capabilities unless the most senior employee is not qualified or is not capable of performing the duties of the position or appointment in question, in which event the promotion, transfer or appointment shall be effected in favour of the most senior employee who is qualified and capable of performing the duties of the position or the promotion, transfer or appointment in question.

Qualifications for Senior Qualified Firefighter and above in rank in the Fire Fighting Division shall reflect a minimum experience requirement of ten years in the Fire Fighting Division.

All promotions, within the non-fire fighting Divisions, (Fire Prevention, Training, Communications, Apparatus, Clerical), shall be subject to a trial period in these capacities for a period of time not to exceed six months.

If, during this trial period, an employee is deemed unacceptable in the position, or if the position is unacceptable to the employee, he/she will be returned to the fire fighting or non-fire fighting Division at the same classification he/she had at the time of his/her appointment. In such event, no demotion or reversion shall occur to any other employee who has been appointed to that rank or classification to fill the vacancy caused by the original promotion. The returning employee will be eligible for the next promotion which occurs in that rank or classification in the system of seniority and qualifications for promotion as set forth in the Collective Agreement.

Notwithstanding the foregoing, and without restricting the employers right to transfer, an employee requesting a transfer to another Division, as defined in 12.06, will be ineligible for promotion in that Division for a period of 24 months from date of transfer.

12.04 Notice of all vacancies for positions within the bargaining unit and the request for applications for the vacancy, shall allow the employee at least thirty (30) days notice to make application. Official notice of all appointments, promotions or transfers shall be forwarded to the President of the Association when approved by the City Manager and the Director of Human Resources. The Fire Chief shall advise the President of the Association of such appointments, promotions and transfers as they occur.

12.05 (the provisions of this sub article are not applicable to the job classification of Communication Operator)

Except upon mutual agreement of the Parties, there will be no revision or change in the existing ranks or job classifications set forth in Article 11.00 hereof. The Employer may establish a new rank or ranks in addition to those referred to in Article 11.00 hereof, provided that at least fifty (50) days prior to the introduction thereof, it submits to the Association, a detailed job description of such new rank and the applicable salary, and during the said period of fifty (50) days negotiates and bargains in good faith with the Association with a view to securing agreement and consent of the Association to the introduction of the new rank, the job description therefore and the applicable salary. Failing agreement of the Parties, as aforesaid, within the said period of fifty (50) days, either of the Parties may refer the matter to Arbitration within a period of fifteen (15) days following the expiration of the said fifty (50) days, to fix and determine the proposed new rank, the job description therefore and the salary to be paid for the same. Pending the Arbitration Award, the Employer may introduce the new rank, job description and salary which shall be altered, adjusted or amended in accordance with the Arbitration Award. The Parties agree that the Arbitration Board shall be authorized to settle and determine the said rank and the job description and salary therefore. The Parties agree that the salary of any existing employee will not be decreased by the introduction of any such additional rank, and that the job description in respect of any such additional rank shall be substantially and clearly different than the job description of any existing rank.

12.06 (a) For the purpose of promotion, the following Divisions shall be recognized:

Fire Fighting
Training
Fire Prevention
Communications
Apparatus
Clerical/Administrative
Stores

(b) Promotions within each Division shall be made in accordance with Article 12.03.

(c) In the event that there is no successful applicant from within a Division, an employee from outside that Division may be appointed in accordance with Article 12.03.

(d) In the event that there is no successful applicant as determined by the requirements of Article 12.03, from within the employee group, the Employer shall be free to make such appointment as it deems proper.

(e) In the event of a transfer to the Fire Fighting Division, the employee who is transferring must first meet entry level requirements as established by the

Department.

12.07

(a) All employees will be offered an opportunity to qualify for promotion under the Educational and Promotional Policy according to their order of seniority.

(b) All employees, as defined in 12.07 (a), shall indicate their intent to either;

(i) Qualify for promotion as per the Collective Agreement, or;

(ii) Indicate that they will not participate in the qualification process for promotion now, or in the future.

(c) An employee who indicates that they are not interested in participating in the qualification for promotion process, shall not be offered any promotional opportunities in the future; and further, they permanently decline any future promotional opportunities to higher classifications within their division as per the Collective Agreement.

(d) If an employee elects to qualify and meets the Department's qualification standards, they will then be placed on the respective "Qualified Acting List", and shall act in that respective higher classification, by their order of seniority, when notified to do so. If at any time in the future the employee decides that they have no further desire to act in the respective higher classification, that employee may then indicate in writing to the Fire Chief of their desire to be removed from the "Qualified Acting List".

(e) Should an employee request to be removed from the "Qualified Acting List", they will be given a sixty calendar-day period from the date that their letter was received by the Fire Chief, in which to reconsider their intentions. If at the end of the sixty calendar-day period, the employee has not forwarded their written intention to the Fire Chief requesting to change his/her decision, their name shall then be permanently removed from the "Qualified Acting List"; this shall acknowledge that they will not be afforded any future promotional opportunities to a higher classification within their respective division in the Collective Agreement.

(f) If an employee forwards a letter changing their intention to decline a promotion, as written in 12.07 (e), they shall then be placed on the "Qualified Acting List" once again. If an employee after having done so, once again elects to be removed from the "Qualified Acting List", they shall not be afforded the 60 calendar-days to reconsider their decision and shall be permanently removed from the "Qualified Acting List", acknowledging that they will not be afforded any future promotional opportunities to a higher classification within their respective division in the Collective Agreement.

ARTICLE 13 - LAY OFF AND RECALL

13.00 The Employer shall give a minimum of ninety (90) days notice to the Employee and the Association prior to lay-off of an employee; in the event of such lay-off the employee having the least seniority being laid off first provided, that in no circumstances shall the result jeopardize the effective operation of the Department. Notice shall be given personally to the affected employee, or by Registered Mail to his/her last known address

on file in the Human Resources Office.
An employee who is given notice of a lay-off has the right to transfer to a position in which a less senior employee is incumbent, provided, the senior employee has the necessary skill, abilities and qualifications to perform the duties of the position held by the junior employee.

The least senior employee in the position to which the senior employee has transferred, then assumes the notice of lay-off, with the balance of time remaining, and can himself (themselves) exercise the right of transfer assuming he/she (they) is senior to another employee and has the necessary skill, abilities and qualifications.

When notice of lay-off is given to any employee, the employee has 5 days to give written notice to the Fire Chief that he/she intends to exercise this right of transfer to another position. Failure to give such notice within this time limit will mean the employee will forfeit any right to transfer in accordance with this article.

Employees laid off shall be recalled to duty in order of their seniority, provided he/she (they) possesses the necessary skill, abilities and qualifications to perform the job in question; notice of recall shall be given by the Corporation by Registered mail to the address of the laid off employee, as recorded on file in the Human Resources Office. The delivery date record of the Post Office will be the determining date with respect to giving notice of intention to comply with the recall request. Upon receipt of such notice, the laid off employee shall return to work within five (5) days, or shall forfeit his/her claim of employment and be deemed to have terminated his/her service.

No new employee without seniority shall be hired until all employees laid off have been recalled to duty, provided that in no circumstances shall the result jeopardize the effective operation of the Department.

Employee benefits terminate upon lay-off, except that an employee may continue his/her coverage in the Employer's group insurance plans for up to eighteen (18) months after lay-off, provided that he/she pays to the City Treasurer the full premium cost of such participation, not later than the twenty-fifth (25th) day of the month prior to the month of which the payment becomes due. If such payment is not made as aforesaid, the employee's participation in these plans shall be terminated forthwith.

ARTICLE 14 - COLLECTION OF CREDIT UNION PAYMENTS

14.00 Subject to The Wages Act and "Credit Unions and Caisses Populaires Act", the Employer shall upon receiving written request from any employee deduct from the salary payable to such employee at each time of payment of salary the amount specified for Credit Union Payments.

ARTICLE 15 - LEAVE OF ABSENCE

15.00 (a) Five (5) members of the total Association Executive shall be granted such leave of absence with pay, including acting pay if applicable, as may be necessary for the purpose of renegotiating the Collective Agreement with the Corporation, on mutually agreeable dates, when such meetings are convened on a regularly scheduled working shift of a member of the Executive.

(b) Members of the Association Executive, will be paid where engaged in the proper performance of Association duties, up to and not to exceed 720 hours (60 shifts x 12 hours) per year, not to include grievance and/or arbitration hearings as set out in Article 21.00 (b) of the Collective Agreement. Prior notification of the use of such shifts shall be given to the Fire Chief.

15.01 Any employee, who is elected or appointed on a full-time basis, as an Officer of the Ontario Professional Fire Fighters' Association or the International Association of Fire Fighters, AFL-CIO, or the Canadian Association of Fire Fighters, or, the full-time President of the London Professional Fire Fighters Association shall be granted Leave of Absence without pay and without benefits except as hereinafter provided in this article, and without loss of seniority for one consecutive period of not exceeding two (2) years. While on such Leave of Absence, the employee may make across the counter payments to continue his/her medical, hospital, pension and other benefits under this Agreement.

15.02 (a) The Corporation will grant Pregnancy and Parental Leave in accordance with the provisions of the Employment Standards Act, 2000, S.O. 2000, c.41. Regular full time employees on maternity leave as provided for under this agreement who are in receipt of employment insurance maternity benefits pursuant to the Employment Insurance Act shall be paid a supplemental unemployment benefit. This benefit will be equivalent to the difference between seventy-five (75%) percent of regular bi-weekly earnings and the sum of bi-weekly employment insurance benefits and any other earnings.

(b) An employee's seniority and vacation credits shall continue to accumulate during such leave.

15.03 A Communication Operator absent from duty for a continuous period exceeding twelve (12) months shall accumulate annual vacation, statutory leave, paid holiday leave, and sick leave benefits during the first twelve (12) months of absence only, after which, such benefit accumulation will cease. Upon return to regular duty such member shall be entitled to accumulate such benefits prorated, on a monthly basis.

ARTICLE 16 - BEREAVEMENT

16.00 (a) In the case of the death in the immediate family of an employee, namely spouse, common-law spouse, child, mother, father, sister or brother, the employee shall be granted Leave of Absence with pay up to:

(i) three (3) consecutive calendar days for all employees, except those assigned to the Fire Fighting Division, one of which must be the day of the funeral.

(ii) two (2) twenty-four hour shifts for employees assigned to the Fire Fighting Division, one of which must be the day of the funeral and both those days must be within a two (2) day tour of duty.

(b) In the case of the death of an employee's mother-in-law, father-in-law, grandmother, grandfather, son-in-law, daughter-in-law or grandchild, the employee shall be granted Leave of Absence with pay up to:

(i) two (2) consecutive calendar days for all employees, except those assigned to the Fire Fighting Division, one of which must be the day of the funeral.

(ii) two (2) twenty-four hour shifts for employees assigned to the Fire Fighting Division, one of which must be the day of the funeral and both those days must be within a two (2) day tour of duty.

(c) It is understood and agreed that to be entitled to such Leave of Absence with pay in (a) or (b) the following conditions apply:

(i) Employees, with the exception of those assigned to the Fire Fighting division, must be scheduled to work a day or night shift on the day of the funeral, as applicable, and shall attend the funeral of the deceased relative.

(ii) Employees assigned to the Fire Fighting Division shall be scheduled to work a twenty-four (24) hour shift on the day of the funeral, and shall attend the funeral of the deceased relative.

(d) In the case of the death of an employee's uncle, aunt, cousin, nephew, niece, sister-in-law, or brother-in-law, the employee shall be given Leave of Absence with pay up to one (1) shift. It is also understood and agreed that the employee to be entitled to such one day Leave of Absence with pay must be scheduled to work a shift on the calendar day of the funeral and shall attend the funeral of the deceased relative.

ARTICLE 17 - PENSIONS AND RETIREMENT

17.00 Each employee shall be entitled to the benefits and privileges of the Ontario Municipal Employees' Retirement System and the Canada Pension Plan. The mandatory retirement age for members of the Fire Department, excluding Communication Operators, is 60 years of age.

17.01 The Employer will purchase and provide all employees, excluding Communication Operators, with a Type I Past Service only OMERS Supplementary Benefit Plan with a two per cent (2%) formula -normal retirement age of 60 years with total cost paid by the Employer - and with the CPP being integrated at 65 years of age -the same to be effective and provided as of January 1, 1980.

17.02 Subject to the provisions of the Municipal Act, the Ontario Municipal Employees Retirement Systems Act and the regulations thereunder, the parties agree that the pensions applicable to the Communication Operators shall be in accordance with the By-law of the Corporation of the City of London providing for basic pensions for the employees of local Boards of the said Corporation and By-laws A-4125-536 and attached agreement and A-4440-256 and attached agreement.

That effective 1 JAN 83 the employer shall provide OMERS Type I and OMERS 90 Plan to provide an unreduced early retirement benefit for Communication Operators.

Ontario Municipal Employees Retirement System pensionable earnings will be based on regular or base earnings only.

17.03 Effective July 1, 1996, employee pension groups shall be defined as comprising a "Fire Fighting" group and a "Non-Fire Fighting" group. The firefighting group shall be defined as an OMERS Type I Normal Retirement Age 60 (NRA 60) plan. Participating in this plan shall be all employees of the Fire Fighting and Training Divisions, and those employees not employed in the Fire Fighting division who participated in the OMERS Type I NRA 60 plan prior to July 1, 1996 and who continue to be employed in the Fire Department.

The Non-Fire Fighting group shall be defined as OMERS Type I NRA 65. All employees hired after July 1, 1996 except those working in the Fire Fighting and Training Divisions shall participate in the Non-Fire Fighting pension group, as shall those employees who did not participate in the OMERS Type I NRA 60 pension plan prior to July 1, 1996.

ARTICLE 18 - UNIFORMS AND EQUIPMENT

18.00 (a) On commencement date of employment, all Fire Department personnel shall receive an initial issue of uniform consisting of one uniform jacket and two pair of matching trousers; three pair of fatigue pants; five short-sleeved shirts with shoulder flashes (or long-sleeved shirts, if requested); one pair of shoes; one cap; one tie; one all season jacket; three t-shirts, one white uniform dress shirt; one sweatshirt; one fatigue hat and one winter hat.

On completion of the employee's first year of service, he/she shall receive an additional issue of uniform consisting of one uniform jacket and two pair of matching trousers; three pair of wash and wear trousers; five short-sleeved shirts with shoulder flashes (or long-sleeved shirts, if requested).

All Fire Department personnel assigned to other than fire fighting duties shall receive a yearly issue consisting of five short-sleeved shirts with shoulder flashes (or long-sleeved shirts, if requested).

(b) UNIFORMS: Uniforms are to be patterned identically to the Canadian Armed Forces uniform pattern and the material used in its manufacture shall be of an “all season” weight. Buttons on uniforms and hat badges for all employees shall be silver or chrome in colour, except as otherwise herein specified. Buttons, badges and arm band insignia on uniforms and hat bands and badges, shall be gilt in colour for the following personnel:

- All Officers of the Fire Fighting Division
- Chief Fire Prevention Officer
- Director of Training
- Assistant Director of Training
- Assistant Fire Prevention Officer
  (As specified in Article 11.00)

Not withstanding the above, the clerical staff will receive a long winter coat and one pair of dress shoes.

(c) ALL SEASON JACKET: This jacket shall be as approved by the Parties.

(d) WORK WEAR: shall include shirts, t-shirts, sweatshirt, pants and any other articles of clothing negotiated by the Parties through the term of the agreement.

(e) FOOTWEAR: shall be black in colour, safety type, style and quality as negotiated by the Parties through the term of the agreement. Dress shoes for staff assigned to the Clerical/Administrative Division, should be black in colour, style and quality as negotiated by the Parties.

(f) HEAD WEAR: shall be issued with badges and the appropriate insignia, style and quality as negotiated by the Parties through the term of the agreement.

(g) FATIGUE HEADWEAR: one fatigue hat and one winter hat shall be issued as required to a maximum of one per year.

(h) Additional issues of all items of clothing specified in (a), and described in (b), (c), (d), (e), and (g) of this Article will be provided on an "as required" basis.

(i) When standards on fire retardant work clothing are established and released by the Ontario Ministry of Labour, such standards will be adopted by the department, and used for any tender calls issued after the release of the standards. Work clothing meeting those standards will then replace the work clothing set out in this Article. For purposes of clarity, the present work clothing is identified as the wash and wear trousers, and work shirts in a colour appropriate to rank.

18.01 **CLOTHING ISSUE COMMITTEE**

(a) A Committee shall be formed to consider the need for replacement clothing, one representative selected by management (Deputy Fire Chief), one representative selected by the Association, and a third representative selected by mutual agreement of both Parties.

(b) The decisions of the majority of this Committee on the issue of replacement of clothing cannot be overruled and shall be binding on both Parties hereto.

(c) The Association and Management may change their member of this Committee after thirty days' notice. Notice to replace the Third Party, shall be sixty days' notice. Vacancies caused by death, dismissal, retirement, resignation, request to leave the Committee or Leave of Absence, shall be filled immediately.

(d) The Committee may, after a minimum of twelve (12) months and a maximum of eighteen (18) months' experience, recommend to the Association and Management that members who are abusing the "as required" system, be required to pay for the clothing next issued.

(e) The Committee shall examine the material or items which are submitted with the tenders.

(f) The Committee may make recommendations to the Corporation concerning the quality of the issued clothing and such recommendations shall be considered at the next tender call for the required items.

(g) The Committee is empowered, through the duration of the agreement, to review and analyze the type, material content, quality, fit and design of clothing supplied to the members of the Department. If its analytical process suggests changes or improvements are warranted, it may recommend to the Management and the Association changes to the type, quality, fit and design. The Association and Management may negotiate changes, through the course of the agreement, that include some or all of the recommendations. When such changes are negotiated they shall form the new standard.

18.02 Each Fire Fighter shall be supplied with clothes for fire fighting duty. All protective clothing shall meet a standard that was designed for the purpose of firefighting. Clothing shall consist of one pair of fire fighting boots, bunker type firefighting gear, one helmet, one flame retardant balaclava, one pair of mitts, one pair of safety firefighting gloves, and any other item of clothing as recommended by the Clothing Committee and subsequently agreed to by the Parties. All clothing to be furnished as required.

18.03 All articles of clothing and equipment supplied to employees shall have the Union Label attached thereto, wherever possible.

18.04 On resignation or dismissal, employees shall turn in the last issue of clothing of all work wear, uniform wear and protective clothing for firefighting duty if applicable. Members who retire will be required to turn in only protective clothing for fire fighting duty if applicable.

18.05 Uniforms shall be tendered for and purchased on an open tender basis so that measurements and issue can be done at any time.

ARTICLE 19 - REGULATIONS

19.00 All regulations governing the Department shall from time to time be consolidated and printed in pamphlet form at the expense of the Employer, and a copy thereof shall be distributed to each employee. No rules, regulations or directives shall be instituted, promulgated or put into effect by the Employer which are contrary to, inconsistent with or at variance with any of the terms and provisions of this Agreement except with the Agreement in writing of the Parties hereto.

ARTICLE 20 - SAFETY

20.00 The Employer shall observe all reasonable precautions for the safety of the employees and shall, after consultation with the Association Safety Committee, supply such safety equipment as may be considered reasonably necessary.

20.01 All employees shall use safety equipment provided by the Employer, and co-operate with the Employer in the prevention of accidents.

20.02 On each shift from the Fire Fighting, Training, Apparatus Divisions where an Officer is absent from duty for any authorized reason, an Officer of the same rank or the most Senior Officer or qualified employee, permanently assigned to the Division, below that rank, on duty on each such shift, shall be assigned from the respective group of

employees (Fire Fighters, Training, Apparatus) to which the absent Officer is normally detailed, to fill the vacancy.

In the absence of the Chief Fire Prevention Officer, the Assistant Chief Fire Prevention Officer or the next senior qualified Fire Prevention Inspector on duty, shall be assigned to fill the vacancy.

The next senior qualified Fire Prevention Inspector shall receive acting pay pursuant to Article 11.01(a) in the following circumstances:

(i) Assistant Chief Fire Prevention Officer is absent due to vacation pursuant to Article 6;

or

(ii) The Assistant Chief Fire Prevention Officer is absent for a period of five (5) consecutive working days, inclusive of Statutory Holidays, for any reason other than vacation. The next senior qualified Fire Prevention Inspector on duty will receive acting pay commencing on the 6th day following the start of the Assistant Chief Fire Prevention Officer's absence.

In the event that an employee in the Clerical Division is assigned on a temporary basis to an acting assignment for a minimum of one week, the employee will be paid the next higher rate of the assigned position with a minimum rate increase of $500.00 per annum retroactive to the first day of the assignment.

20.03 Where the Chief of the Department, or his/her designated replacement, determines that a temporary vacancy in the office of Fire Chief, Deputy Fire Chief, or Assistant Deputy Fire Chief requires that the duties of that office be assumed, the Chief, or his/her designated replacement, shall assign a qualified officer in the Fire Fighting Division of the Department to assume such duties.

(i) The annualized salary rate for those appointed to Acting Deputy Fire Chief will be142% of a first class fire fighters' rate.

(ii) The Corporation will apprise the Association of the terms and conditions of future appointments made under Article 20.03

20.04 (a) On all shifts at each station where any of the following vehicles are assigned, namely: Pumpers, Aerials, Rescue vehicles, and any other vehicle which responds on the first response to a general alarm, save and except all other vehicles not assigned to first line fire duty, or any Tanker(s), an Officer of the rank of Captain or above shall be assigned to be in charge of the same and where no such Officer is so assigned and on duty, the most senior Fire Fighter, qualified and capable as a Captain and who is on duty on the said shift, shall be assigned to be in charge of the same and be paid at the rate of a Captain on each such shift where he/she so acts.

(b) On all shifts at each station where any of the following vehicles are assigned, namely: Pumpers, Aerials, Rescue vehicles, in-service Tankers (total of two (2)), and any other vehicle which responds on the first response to a general alarm,

save and except all other Department vehicles not assigned to first line fire duty, a Firefighter/Apparatus Operator shall be assigned to drive and operate the vehicle and where no such Firefighter/Apparatus Operator is so assigned and on duty, the most senior Fire Fighter, qualified and capable as a Firefighter/Apparatus Operator, and who is on duty on the said shift, shall be assigned to drive the vehicle and shall be paid at the rate of a Firefighter/Apparatus Operator (as set out in Article 11.01) on each such shift where he/she so acts.

(c) An employee earning an acting rate of pay shall have same paid to him/her in the pay period following which it was earned.

20.05 All persons to have an annual medical by a physician of their choice and subsequently forward a wellness certificate completed by the examining physician to the medical section of the employer. It is the intent of the parties that the medical shall be the annual medical permitted by the Provincial Health Plan.

ARTICLE 21 - GRIEVANCE AND ARBITRATION

21.00 (a) It is the mutual desire of the Parties hereto that complaints and/or grievances of employees shall be adjusted as quickly as possible. It is understood that any employee, with or without the assistance of a member of the Grievance Committee of the Association, may present an oral complaint to his/her immediate superior at any time, without resorting to the Grievance Procedure. It is further understood that any employee may take his/her complaint beyond his/her immediate supervisor to the Division Head who shall be given the first opportunity to adjust his/her complaint. In discussing his/her complaint with the Division Head, he/she may be accompanied by a member of the Grievance Committee of the Association.

(b) The Grievance Committee of the Association shall consist of not more than three (3) members of the Executive which members shall be entitled to attend at grievance or arbitration hearings arising from the administration of this Collective Agreement without loss of pay including acting pay if applicable. Where additional members of the Association Executive are required to attend such hearings, they may attend at the Association's expense, or as herein otherwise provided in the current Collective Agreement.

(c) In this Article, "Grievance" shall be defined as being a difference of opinion arising out of the interpretation, application, administration or alleged violation of this Agreement.

(d) A grievance, at any Step, shall be deemed received by the Corporation if a member of the Association’s Grievance Committee, or in their absence a member of the Executive, delivers a copy of the grievance to the Fire Chief, or any member of management defined in Article 1.00. Such grievance shall be date stamped or signed and dated by the recipient of the same.

STEP 1 - An employee's complaint which is not settled by the Division Head, as aforesaid, shall be reduced to writing in triplicate and shall be signed by the employee, or a member of the Grievance Committee, or both, and two copies of the same submitted to the Fire Chief within seven (7) days after the Division Head has

answered the complaint, as aforesaid, or within fourteen (14) days of the circumstances giving rise to the grievance, whichever is the later. The Fire Chief, or in his/her absence, Deputy Fire Chief or Assistant Deputy Fire Chief shall deal with the grievance and give a decision in writing and deliver same to the Employee or member of the Grievance Committee signing the grievance as the case may be, not later than the seventh (7^{th}) day following the day upon which it was received in writing.

STEP 2 - If the said grievance is not settled at Step 1 of the Grievance Procedure, the same be submitted in writing by the employee or a member of the Grievance Committee to the Director of Human Resources of the Employer within seven (7) days following delivery of the decision at Step 1 of the Grievance Procedure, or within ten (10) days following submission of the grievance, to the Fire Chief, whichever is the later. The Director of Human Resources shall deal with the grievance and give his/her decision in writing and deliver same to the employee or a member of the Grievance Committee signing the grievance, as the case may be, not later than the tenth day following the day upon which the Director of Human Resources received the grievance. At this step the grievance may be submitted and submissions made respecting the same by any member or members of the Grievance Committee and/or the employee.

STEP 3 - An employee's complaint which is not settled at Step 2 may be submitted by the Grievance Committee in writing to the Board of Control (through the City Manager, or the City Clerk of the Employer) within seven (7) days following delivery of the Director of Human Resources' decision at Step 2 of the Grievance Procedure, or within twelve (12) days following submission of the grievance to the Director of Human Resources, whichever is the later. The Board of Control shall deal with the grievance at its next regular meeting following receipt of the grievance by the City Manager or City Clerk, as aforesaid, and give its decision in writing and cause the same to be delivered to the Association, not later than the fifth day following the said meeting; delivery of the written decision to the Association may be made by delivering same to any member of the Grievance Committee of the Association. At this step, there may be present any of the following who shall be permitted to assist in the submission and presentation of the grievance to the Board of Control, namely the employee, any member(s) of the Grievance Committee of the Association and any Solicitor, agent or spokesman for the Association which may include any representative of the International Association or the Provincial Association with which the Association is affiliated.

STEP 4 - Failing settlement of any grievance, under the foregoing procedure, which arises out of the interpretation, application, administration or alleged violation of this Agreement, including any question as to whether the matter is arbitrable, the grievance shall be referred to arbitration and the same settled fully and conclusively without stoppage of work. If no written request for arbitration is received within fifteen (15) days after the grievance and delivery of the decision of the Board of Control, as aforesaid, the grievance shall be deemed to be abandoned.

21.01 **ARBITRATION OF GRIEVANCE** - Either Party hereto may refer the grievance to arbitration and the referral shall be in writing, addressed to the other Party hereto. If the recipient of the notice and the Party desiring the arbitration do not, within 10 days, agree upon a single arbitrator, then a Chairman of the said Board of Arbitration shall be

appointed by the Minister, as so specified in the Fire Protection and Prevention Act, upon application to him/her by either of the Parties hereto.

21.02 No matter may be submitted to arbitration which has not been properly carried through all previous steps of the Grievance Procedure within the time limits, herein specified.

21.03 No person may be appointed as an arbitrator who has been involved in an attempt to negotiate or settle this grievance.

21.04 Each of the Parties to an Arbitration with a single arbitrator shall share equally the costs of the arbitration proceedings and the cost of the arbitrator; in respect of a Board of Arbitration established pursuant to the Fire Protection and Prevention Act consisting of a Chairman and two members, each Party shall assume its own costs of the arbitration proceedings and shall share the cost of the Chairman (third arbitrator) equally.

21.05 The Board of Arbitration shall have no power to alter or change any of the provisions of this Agreement, or to substitute any new provisions, nor to deal with any matter not covered by this Agreement, provided, however, that where the grievance, the subject matter of the arbitration, pertains to disciplinary action respecting an employee (including suspension or discharge) it is agreed that the Board may substitute in lieu of any such disciplinary action imposed or set to be imposed on an employee, such lesser disciplinary action as the said arbitrator may consider reasonable and just.

21.06 The decision of any Board of Arbitration shall be consistent with the terms and provisions of this Agreement.

Proceedings before the Arbitration Board shall be expedited by the Parties hereto. The decision of the Board of Arbitration shall be final and binding on both Parties to this Agreement.

21.07 All agreements reached under the Grievance Procedure between the representatives of the Employer and the representatives of the Association, will be final and binding upon the Employer, the Association and the Employees.

21.08 Any time limits referred to in the Grievance Procedure or arbitration, or any sub-section thereof, within which any procedure is required to be taken or notice required to be given, shall be calculated exclusive of Saturday, Sunday and Statutory Holidays, (as in this Agreement allowed), and may also be extended by mutual agreement of the Parties concerned.

21.09 **ASSOCIATION GRIEVANCE**: The Association may institute a grievance consisting of an allegation of a general misinterpretation or violation by the Employer of this Agreement, in writing, at Step 2 of the Grievance Procedure, provided it is presented within fifteen (15) working days after the circumstances giving rise to the grievance have originated or occurred. The grievance shall be processed through the subsequent steps of the grievance procedure and to arbitration as hereinbefore provided. The Fire Chief shall be copied on all Association Grievances submitted to the Director of Human Resources at Step 2 of the Grievance Procedure.

21.10 **EMPLOYER'S GRIEVANCE**: The Employer may institute a grievance consisting of an allegation of a general misinterpretation or violation by the Association, or any Employee of this Agreement, in writing, at Step 2 of the Grievance Procedure, by forwarding a

written statement of such grievance to the President of the Association, provided it is

presented within fifteen (15) days after the circumstances giving rise to the grievance have originated or occurred; the President of the Association shall give his/her decision in writing within five (5) days after receiving the written grievance, and, failing settlement, the grievance may be referred to arbitration by the Employer in a manner as hereinbefore provided.

ARTICLE 22 - ATTENDANCE AT ONTARIO FIRE COLLEGE

(The provisions of this Article are not applicable to Communication Operators)

22.00 Employees detailed to attend the Ontario Fire College at Gravenhurst, Ontario will be paid in advance an allowance of $50.00 per week for each week of attendance at the College.

22.01 Employees who attend the said College may return from the said College to London for a weekend period approximating 48 hours at the expiration of each one week period of attendance at the said College and on return from said College to London will report by telephone to the Communication Centre at London confirming that they have returned to London and if required, pursuant to Section 2(7) of the Fire Departments Act, R.S.O. 1970, Chap. 169, may be recalled to duty. At the expiration of the said period of 48 hours, the employee will return to the said College and resume study and training at the said College. Employees shall be paid their travelling expenses to and from the said College and the City of London in advance of their attendance at the College. When corporate vehicles are available, employees shall be expected to use same; however, in the event that such vehicles are not available, employees may, at their discretion, use their personal vehicle. Travelling expenses shall be paid at the Corporate policy mileage rate (as defined in Article 10.00), each way for the distance travelled between the College in Gravenhurst and the Central Fire Station. Where two (2) or more employees travel together for attendance at the same time, only one (1) is to be paid this expense allowance. Payment made by the Province of Ontario for transportation costs of employees attending the Fire College shall be paid over to the Corporation immediately following the employee's return to London on completion of the said course.

22.02 Employees detailed to attend the Police College at Aylmer, Ontario and any other work related course, seminar, or conference shall be paid in advance prior to attending, the appropriate return mileage travelling expenses at the Corporate policy mileage rate (as defined in Article 10.00), and additionally, the amount of daily per diem entitlement as set forth under the current corporate policy.

ARTICLE 23 - JURY DUTY

23.00 (a) An employee who is summoned to serve as a juror or who is required by writ of subpoena to appear in Court as a witness will be paid his/her regular pay for the time he/she is required to be in Court, provided the employee presents to the Corporation the process which required his/her presence in Court and pays over to the Corporation the amount received by him/her as such juror or witness.

(b) In the event that an employee is on vacation and would otherwise have received reimbursement for his/her regular pay per the preceding as in Article 23 (a), any vacation time lost will be credited to the employee, and the employee will observe that vacation at a mutually agreeable time during the calendar year.

ARTICLE 24 - RECALL TO DUTY AND OVERTIME

24.00 (a) Whenever an employee in the Fire Fighting or Communication Divisions is recalled to duty, he/she shall be entitled to be paid at the following rate:

One and one-half times his/her basic rate with a guarantee of three hours minimum pay at this rate for each recall, calculated on the following basis for each hour or portion thereof.

The rate paid per hour shall be calculated by dividing 2184 into the annual rate of pay of the employee concerned.

Where an employee in the Fire Fighting Division has completed his/her regular shift, but is still on duty, he/she shall be paid one quarter hour of pay, at the straight time rate, for each complete one quarter hour he/she remains on duty. If the employee is required to remain on duty for more than one hour, then all hours or complete quarter hour portions, including the hour for which he/she would have otherwise been paid at the straight time rate, shall be paid at the rate of one and one-half times his/her basic rate.

(b) (i) Employees in the Fire Prevention Division, Apparatus Division, Training Division, Stores Division, and Clerical Administrative Division shall have the option of receiving payment for overtime at the rate of one and one-half times their regular rate of pay based on 2080 hours per annum , or in time off duty at the rate of one and one-half times the time worked. Such banks of overtime shall not exceed forty (40) hours at any given time. Where such occurs, the Chief or his designate may require the member to take time off work, or at the Chief's discretion, the employee may be paid, at the appropriate overtime rate, for the extra hours.

(ii) Employees in the Communications Division shall have the option of receiving payment for overtime at the rate of one and one-half times their regular rate of pay based on 2184 hours per annum , or in time off duty at the rate of one and one-half times the time worked. Such banks of overtime shall not exceed forty-eight (48) hours at any given time. Where such occurs, the Chief or his designate may require the member to take time off work, or at the Chief's discretion, the employee may be paid, at the appropriate overtime rate, for the extra hours.

In both situations described in 24.00(b)(i) and 24.00(b)(ii), employees exceeding the maximum hours bankable shall be required to take a minimum of one (1) complete shift off within the next pay period they are scheduled to work.

Members who choose to bank their overtime for time off purposes shall dispose of these credits by making application to the Chief, or his designate. Such application shall be considered by the Chief in the context of staffing requirements necessary for the efficient and effective operation of the service.
In all cases where an employee is subsequently paid for banked overtime, payment shall be at the rate or salary the employee earned at the time the overtime was banked.

(c) Employees assigned by the Chief Fire Prevention Officer to conduct or perform

activities such as fire prevention lectures or demonstrations shall, where such

activities occur in whole or in part outside of regularly scheduled working hours, be compensated for any time outside of normal working hours by receiving time off, with the amount of time off being equal to one and one-half times the time worked outside of normal working hours. Such time off shall be scheduled at a time mutually agreed upon by the Chief Fire Prevention Officer, and the employee involved, provided that within three months of being earned, if not used by mutual agreement, the scheduling of such time off shall be at the discretion of the Chief Fire Prevention Officer. Such time off shall not form part of the employee's bank of overtime.

(d) If such an employee is recalled to duty, (and such employee is not on stand-by as set out in Article 4) he/she shall be guaranteed a minimum of three hours pay at the overtime rate as set out above.

24.01 Overtime pay shall be calculated and paid (except where banked) in the pay period following which it is earned.

24.02 An employee who is required, whether by subpoena or at the direction of the employer, to attend before any competent Court of Jurisdiction, any Inquest or Tribunal (including any hearing or inquiry conducted by or at the request of the Office of the Fire Marshal or representatives of the Workplace Safety and Insurance Board), during off-duty hours to give testimony on any matter arising out of, or in connection with the performance of his/her duties on behalf of the employer, shall receive payment based upon his/her regular salary for time spent while actually in attendance at such Court, Inquest or Tribunal, and shall receive payment for such time on the basis of overtime and for each attendance, he/she shall be credited with a minimum of three hours attendance. If the employee attends such Court, Inquest or Tribunal pursuant to a subpoena he/she shall present the subpoena to his/her next Superior Officer as soon as reasonably possible following the receipt of the same by him/her.

If the employee is paid witness fees or travelling expenses for attending before any such Court, Inquest or Tribunal he/she shall, upon receipt of such payment, release and deliver such payment to the Employer through his/her Superior Officer or the Fire Chief. When the employee has been required to attend before any such Inquest, or Tribunal, as aforesaid, during his/her period of vacation he/she shall retain any such witness fees and travelling expenses and shall not be obliged to release or deliver same to the employer.

ARTICLE 25 - TECHNOLOGICAL CHANGE

25.00 At least 90 days prior to the introduction or implementation of substantial technological change, or substantial changes in mechanization affecting employees, the Corporation shall, by written notice, furnish the Association with full information of the planned change or changes. Such prior notice shall contain relevant information respecting:

The nature and degree of the change.
The date or dates on which the Corporation plans to effect the change.
The location or locations involved.

As soon as reasonably practicable after the foregoing notice has been given, the Corporation will make disclosure to the Association of the effects of the change or changes on each classification of employees.

Following the said disclosure, representatives of the parties will meet for the purpose of

engaging in effective consultations with a view to resolving any issue which may concern

the employment status of any employee.

No employee covered by this Agreement shall suffer loss of his/her employment as a result of the exercise by the Corporation of its right to introduce or implement technological change, mechanization change, or changes in operating methods or organization, provided the said employee was in the employ of the Corporation at the time the aforementioned notice was given by the Corporation.

25.01 Employees shall not be required to undertake, as part of their duties, work on Fire Department property which involves major station repairs, renovations or construction of any kind.

ARTICLE 26 - DISCIPLINE

26.00 Where a meeting occurs for the purpose of discipline where that discipline will be a matter of the employee's record, that employee shall be offered the opportunity for Association representation. If the employee refuses such representation, the employee shall be required to sign the record of discipline specifying the same.

The employer shall remove documents pertaining to employee discipline from personnel records on the second anniversary of each disciplinary action unless there is a similar disciplinary measure within the two year period in which case the discipline record will remain.

In the event that the employer becomes aware of the need to consider disciplining an employee, the employee must be served written notice of such consideration, including the subject of the issue, within fifteen (15) days of the employer becoming aware of the alleged offence; and subsequently, a disciplinary meeting must be held within twenty one (21) days of the employer becoming aware of the alleged offence. If the employee is unavailable for any reason, including but not limited to leave of absence or vacation, the disciplinary meeting will occur on the date of return to work, unless there are extenuating circumstances. Dates shall be calculated exclusive of Saturday, Sunday and Statutory Holidays (as in this agreement allowed) and may also be extended by mutual agreement of the Parties concerned. In the case that the employer decides not to issue discipline, the employee shall be notified as soon as possible.

ARTICLE 27 - INDEMNIFICATION

27.00 The Corporation shall indemnify and save harmless members of the London Professional Fire Fighters' Association from civil liability flowing from his/her duties and shall continue the coverage under the present municipal employee legal indemnity by-law No. A-4.

ARTICLE 28 - REHABILITATIVE PROGRAMS

28.01 The Corporation and the Association jointly agree to a workplace rehabilitation program aimed at assisting employees with occupational or non-occupational disabilities or diminished capacity to safely return to gainful employment with the main objective to return the employee to the employee’s regular pre-disability work when possible.

28.02 The Corporation will provide, wherever practical, temporary rehabilitative work assignments to employees within the Fire Department, who may become temporarily

disabled, and the Corporation and the Association agree that employees requiring

rehabilitative work assignments will be given preference to such suitable work as is available and which they may be qualified to perform. The work must be productive and meaningful, and the results of such work must have value. Modified Work assignments must first take into consideration the employees pre-injury regular assigned duties within their division without withholding any temporary or permanent promotions, reassignments or secondments of non-injured employees.

28.03 **MODIFIED WORK PROGRAM**

1. The employee shall report their injury or illness to the employer as per the Collective Agreement and the Rules and Regulations.

2. Where appropriate, as soon as possible, the Fire Chief or his/her designate will contact the employee to afford them the opportunity of modified work. The employee will be requested to consult with a Health Professional, as defined in the Workplace Safety and Insurance Act (WSIA), of their choice as to the possibility of modified work. It shall be the responsibility of the employee to have the Health Professional complete a Workplace Safety and Insurance Board (WSIB) generated Functional Abilities Evaluation (FAE) Form, and return this report to the Modified Work Committee. The committee will consider the limitations, if any, and provide suggestions as to specific possibilities of modified work.

3. A temporary modified work plan may be made on the Platoon Shifts (24 hrs), Communication Shifts (12 hours) or on Support Divisions Shifts (8 hours). Placement will be determined by the type of modified work required and available, the work Limitations supplied the employee's Health Professional, through the FAE Form, and the final decision by the Modified Work Committee.

4. Employees requesting modified work on the Platoon shifts must be certified by their Health Professional to return to full shifts and tours of duty.

5. Every effort will be made to update missed training assignments while the employee is on modified work.

6. On the basis of the recommendations of the Modified Work Committee, the employee shall have their Health Professional review the specific modified work being offered to ensure that it is consistent with the physical restrictions. The Health Professional will provide written verification to that effect to the employer. The Modified Work Committee will monitor all such modified work assignments to ensure that it remains appropriate for the employee.

7. If the employee encounters difficulties in the performance of the assigned duties he/she shall report their difficulties to a member of the Committee immediately. The Modified Work Committee shall review such difficulties and adjust the duties if possible. If these duties cannot be adjusted, the employee shall consult with their Health Professional for their review, and if necessary the employee will be returned to sick leave or leave in accordance with the WSIA.

8. The Employee shall be allowed time-off for any approved medical health care under the Modified Work Program.

9. Any costs for the completion of requisite forms shall be paid by the Corporation.

10. The committee shall meet on an "as required basis", but not less then every six months.

11. The participation of an employee in a modified work program shall not replace or displace any existing personnel.

12. The Joint Modified Work Committee shall be formed of two representatives from Fire Administration, and two representatives from the London Professional Fire Fighters Association chosen by its Executive Committee.

ARTICLE 29 - DURATION

29.00 All articles of this Agreement shall remain in force and effect from the 2nd day of April, 2002, until the 31st day of December, 2003 and from year to year thereafter.

Either Party may give written notice for the termination of the Agreement provided such notice is given within a period of not more than two (2) calendar months and not less than one (1) calendar month prior to the expiry date (November 1st to November 30th, but inclusive).

It is agreed by the Parties hereto that, in the event either Party desires to change, alter, add to or delete from, any of the provisions of the within Agreement, but does not desire to terminate same, such Party shall give to the other Party written notice within the aforementioned period setting forth the details and particulars of the changes, alterations, additions or deletions desired or proposed; the remaining provisions of this Agreement in respect of which neither Party has given notice of its desire or proposal to change, alter, add to or delete from the same, shall be deemed to be automatically renewed and form part of the provisions (or all of the same as the case may be) of the Agreement between the Parties for the calendar year following the termination of this Agreement.

It is provided, however, that if one or both of the Parties hereto, within the period aforesaid, has given such notice, the other Party shall have the right to make proposals for alterations in answer thereto for a period of fifteen (15) days after receipt of the proposals aforesaid; except as notified either within the time limit or any extension thereof agreed upon in writing by the Parties, neither of the Parties hereto shall be required to negotiate in respect of any provision contained in this Agreement, any change or alteration thereof, or any proposed addition thereto or deletion there from respecting which no notice has been given by either of the Parties as aforesaid; and it is further agreed that no Board of Arbitration shall consider any such proposed change, alteration, addition to or deletion from, this Agreement unless notice as aforesaid was given by either or both Parties hereto within the time limits hereinbefore provided.

IN WITNESS WHEREOF the Employer has hereunto caused its Corporate Seal to be affixed under the hands of its duly authorized Officers, and the Association has caused this Instrument to be executed by their proper Officers hereunto duly authorized, the day and year first above written.

SIGNED, SEALED AND DELIVERED
in the presence of:

THE CORPORATION OF THE CITY OF LONDON	
)	Mayor, Anne Marie DeCicco
)))	
	City Clerk,
THE LONDON PROFESSIONAL FIRE FIGHTERS ASSOCIATION	
))	
)	President - Brian George
))	
)	Vice President - James Holmes

SCHEDULE "A"

SHORT TERM/LONG TERM DISABILITY PLAN
FOR
LONDON PROFESSIONAL FIRE FIGHTERS' ASSOCIATION

OUTLINE

1. Employees would be required to utilize all available accrued Sick Leave Credits first.

2. Following exhaustion of Sick Leave Credits, without a waiting period, employees would be entitled to STD benefits equal to 70% of regular earnings. The STD benefit payable will be 70% of regular earnings. The STD benefit period maximum is 26 consecutive weeks. For the STD benefit "regular earnings" equals the employee's annual salary divided by 52 at the onset of the disability. The maximum benefit level is $1,000.00 per week.

3. The Long Term Disability monthly benefit is equal to 66 2/3% regular earnings integrated with Canada Pension Plan Disability benefits, for which the employee must apply, and any Workers' Compensation benefits or pensions. The L.T.D. benefit commences following exhaustion of the STD benefit.

   The 85% all-sources rule applies to the L.T.D. benefit so that an employee may apply for the OMERS Disability benefit and increase total disability income to 85% of regular earnings.

   For the L.T.D. benefit, the "regular earnings" equals the employee's annual salary divided by 12 at the onset of disability. The maximum benefit level is $10,000.00 per month.

4.

   - (All Employees with the exception of Communication Operators)
     Sick leave credits shall cease to accrue for all employees as of December 31, 1990. All accrued sick leave credits will remain credited for each employee. Any employee with a seniority date prior to December 31, 1990 will be eligible for the Sick Leave Gratuity leave or pay as provided in Article 8.00(i) and (ii).

   - (Communication Employees employed prior to December 31, 1981)
     Sick leave credits shall cease to accrue for all Communication Operators who were covered under Schedule 'C', Part 'A' (1998/99 Collective Agreement) as of midnight December 31, 1998. All accrued sick leave credits will remain credited for each employee who was covered by Schedule 'C', Part 'A' (1998/99) and such employees will be eligible for the Sick Leave Gratuity leave or pay as provided in Schedule 'C', Part 'A' (1998/99) Clauses 8(i), 8(ii) and 9.

5. Effective January 1, 1997 all employees (January 1, 1999 for Communication Operators) will be eligible for 12 shifts per year (144 hours being the average shifts for employees working 10,12, 14 or 24 hour shifts; or 96 hours being the average for all other employees) of paid sick leave which will accrue from calendar year to calendar year. Employees will be eligible for 100% regular earnings when ill and unable to work to the maximum number of shifts or parts thereof available. Sick leave credited prior to January 1, 1991 (January 1, 1999 for Communication Operators) will continue to be drawn on the basis of a day's credit is a shift. For the duration of the trial period defined in 4.00(a), sick leave for employees of the Fire Fighting Division shall be in accordance with Article 8.01(a).

6. STD or LTD Benefits are payable only to the employees Normal Retirement Age.

SCHEDULE “B”

COMMUNICATIONS CENTRE SENIORITY ROLL

Employee	Employee Number	City of London Service Date	Fire Dept. Seniority Date	Communications Centre Seniority Date
L. Morton	50128	76/11/22	91/01/01	76/11/22
D. McCutcheon	50129	78/09/05	91/01/01	78/09/05
K. Dunham	50122	80/11/10	91/01/01	80/11/10
M. Anne Scherer	50127	84/01/09	91/01/01	84/01/09
L. Embury	50123	84/08/27	91/01/01	84/08/27
S. Phillipson	50121	84/12/10	91/01/01	84/12/10
S. Casey	50126	89/01/09	91/01/01	89/01/09
K. Dubeau	50130	86/09/02	91/01/14	91/01/14
J. Barnes	50108	82/02/15	90/05/10	93/09/13
B. Bond	50236	88/08/15	93/12/13	97/02/03
L. Jean	50299	99/02/22	99/02/22	99/02/22
I. Piroli	50300	99/02/22	99/02/22	99/02/22
K. Edgar	40606	88/08/02	88/08/02	02/11/04

LETTERS OF UNDERSTANDING

The following current Letters of Understanding and Letters of Intent are to be printed and published with the Collective Agreement as per the Memorandum of Agreement. The Letters of Understanding are renewed for the term April 2, 2002 to December 31, 2003.

1. Insurance Coverage (Articles 8, 13, 15) and reimbursement of physician's fees.
2. Policy for Alignment of Squad Personnel.
3. Accumulation of Banked "Time - Off in Lieu" of Monetary Payment for Overtime for Special Initiatives.
4. Specialty Teams Agreement and Specialty Teams Agreement Addendum
5. On Squad Training Instructor (Hazardous Materials)
6. Co-op Student(s) – Fire Prevention Division and Communications Division
7. Vacation and Seniority in the Communications Division
8. Qualifications and 12:03

LETTERS OF INTENT

1. Early Retirement Incentive Program
2. Implementation Strategy - Leather Structural Firefighting Boots
3. Staffing Levels in Compliance with NFPA 1710

Veronica McAlea Major Director of Human Resources		Brian George President
E. David Hodgins Fire Chief and Director of Paramedic Services		James Holmes Vice President

INDEX **ARTICLE**

Appendix 7.23

2002 – 2004

Agreement entered into

between

THE CORPORATION OF THE CITY OF WOODSTOCK

And

THE WOODSTOCK PROFESSIONAL FIREFIGHTERS' ASSOCIATION

INDEX

AGREEMENT made this 5th day of June, 2003.

BETWEEN:

The Corporation of the City of Woodstock

(hereinafter called the "Corporation")

of the first part

and

The Woodstock Professional Firefighters' Association

(hereinafter called the "Association")

of the second part

WHEREAS the parties have agreed to enter into these presents for the purpose of more effectively defining duties, privileges, working conditions and remuneration, respecting the employment of the Fire Fighters employed by the Corporation.

NOW THEREFORE THIS AGREEMENT WITNESSETH:

Article 1 - Recognition

1.01 It is agreed that this Agreement shall apply to all full time Fire Fighters of the Corporation except the Chief and the Deputy Chief, including specifically all full time Fire Fighters as defined by The Fire Departments Act and amendments thereto. The Corporation recognizes the Association Committee duly elected as the exclusive bargaining agent for all the said employees.

Article 2 - Membership in Association

2.01 A compulsory check-off of monthly union dues shall apply to all employees coming within the scope of this Agreement commencing after a period of thirty (30) calendar days of employment. Such compulsory check-off of monthly union dues shall continue during the period of this contract. The amount to be deducted shall be such a sum as may from time to time be assessed by the Association upon its members according to its constitution, for general union purposes; it shall not extend to special assessments or to an assessment which relates to special union benefits, such as, for example, union insurance, in which the non-union member employee, as such, would not participate or the benefit of which he would not enjoy.

2.02 All deductions made under the provisions of Article 2.01 will be remitted monthly to the proper authorized officials of the Association.

2.03 There shall be no discrimination or intimidation against any employee because of the employee's membership or lack of membership in the Association or by virtue of his holding office or not holding office in the Association. Provisions of this Agreement shall be applied to all employees without discrimination.

2.04 Whenever the masculine pronoun is used in this Agreement it includes the feminine pronoun and vice-versa where the context so requires. Where the singular is used, it may also be deemed to mean plural and vice-versa.

Article 3 - Reservation of Management Rights

3.01 The Association acknowledges that it is the exclusive function of the Corporation to:

(a) Maintain order, discipline and efficiency, and to establish and enforce rules and regulations necessary therefore, and generally to govern the conduct of the employees

(b) Hire, discharge, promote, demote, layoff, classify or suspend or otherwise discipline employees, provided that any claim by a full time Fire Fighter who has passed through his probationary period that he has been disciplined or discharged without reasonable cause may be the subject of a grievance and dealt with as hereinafter provided. That notice of suspension, discharge or other form of discipline shall be in writing.

(c) Exercise any of the rights, powers, functions, or authority which the Corporation had prior to the signing of this Agreement, except as these rights, powers, functions or authorities are specifically altered or modified by this Agreement and without restricting the generality of the foregoing the Corporation retains the right to generally operate the Fire Department in a manner consistent with the obligations of the Corporation to the general public in the community served. The employer shall advise the Association before the introduction of any major technological change which may adversely affect the employee's working conditions. If the status of an employee may be adversely affected by such technological change, the Corporation shall advise the Association in writing, at least thirty (30) calendar days prior to implementation of such change. If requested, the Corporation shall meet with the Association to discuss such change prior to implementation.

(d) Delegate any of its functions, rights, powers or duties whether referred to in this Agreement or otherwise, to the Fire Chief, or to such other persons or committees as the Corporation in its sole discretion may deem advisable, providing they are not inconsistent with the terms and provisions of this Agreement or **The Fire Protection and Prevention Act** for the Province of Ontario.

3.02 The foregoing functions shall be exercised by the Corporation subject to the terms and provisions of this Agreement, and in a manner consistent with the general purpose and intent of this Agreement and subject to the rights of the Association, and employee, or employees, to file and process a grievance respecting any alleged violation or misapplication of this Agreement.

3.03 All employees shall promptly conform to and obey all by-laws and regulations in force from time to time which are applicable to such employees and insofar as they do not conflict with the terms of this Agreement. The members of the Association shall at all times co-operate with the Corporation and the Chief of the Fire Department to their fullest extent, to provide an efficient fire fighting organization for the benefit of the Corporation and inhabitants thereof.

3.04 Each employee shall be a full time employee of the Woodstock Fire Department and any employee doing work of other than a casual nature outside such employment for remuneration, either directly or indirectly, shall be subject to a first offence to suspension without pay, of not less than one (1) week, at the discretion of the Fire Chief and for a second offence, to immediate dismissal.

Article 4 - Hours of Work

4.01 The required hours of work for all employees assigned to Fire Fighting Division shall be an average of forty-two (42) hours per week, on a four shift system, twenty-four (24) hours on duty, twenty-four (24) hours off duty, twenty-four (24) hours on duty with days off on a rotating schedule as per Schedule "A" attached hereto.

All tours of duty will commence at 08.00 hours and run for twenty-four (24) consecutive hours.

4.02 The standard hours of work for all employees assigned to daytime work shall be an average of forty (40) hours per week over two (2) calendar weeks. The days worked per week and the times worked per day shall be as scheduled by the Fire Chief. The usual working schedule may be changed on five (5) days written notice or as may be mutually agreed to between the employee and Fire Chief or designate.

4.03 Fire Fighters may exchange their working shift or shifts and exchange their off duty day or days with other Fire Fighters of equal rank or comparable qualification, subject to the express approval of the Fire Chief or the Senior Shift Officer. Requests to exchange working shifts or off duty days must be submitted, in writing, four (4) calendar days prior to the exchange, except in case of an emergency.

Exchange of working shifts or off duty days may be for the full 24 hours (08:00 hours to 08:00 hours) or may be for 12 hours (08:00 hours to 20:00

hours or 20:00 hours to 08:00 hours). The hours exchanged must be clearly recorded on the daily duty sheet by the Shift Officer.

Exchange of shifts will not be permitted if an individual will be required to work more than 36 consecutive hours unless deemed an emergency by the Fire Chief or the Senior Shift Officer.

Fire Fighters reporting on sick leave will have their sick leave allowance or the accumulation of, deducted as follows:

24 hours off duty - 2 days deducted
12 hours off duty - 1 day deducted

A Fire Fighter reporting on sick leave may return to work if feeling well enough at 20:00 hours and only 1 day sick leave allowance will be deducted.

The policy "Sick Leave Policy" will stay in effect for the duration of this Collective Agreement.

Article 5 - Annual Vacations

5.01 Each employee shall be entitled to the following vacation with pay in each calendar year subject to the following Article 5.04:

Effective January 1, 2003:

After 1 year of employment	- 2 weeks vacation
After 5 years of employment	- 3 weeks vacation
After 10 years of employment	- 4 weeks vacation
After **16** years of employment	- 5 weeks vacation
After **25** years of employment	- 6 weeks vacation

Effective January 1, 2004:

After 1 year of employment	- 2 weeks vacation
After 5 years of employment	- 3 weeks vacation
After 10 years of employment	- 4 weeks vacation
After **15** years of employment	- 5 weeks vacation
After **24** years of employment	- 6 weeks vacation

5.02 For the first year, new employees will be entitled to one (1) day per month vacation with pay for each month of service to a maximum of eight (8) days.

5.03 Vacations shall be arranged on a system as agreed by the Chief and the President of the Association. In the event of the failure to agree by March 1st in any given year, it will revert to the system used in the previous year. In the event of manpower shortage or emergency situation, the Chief shall have the right to make changes in the vacation schedule.

5.04 Effective January 1, 1997, all employees covered by this collective agreement and leaving the service of the Fire Department at any time throughout the year will have their vacation pay entitlement pro-rated to their last day as an employee of the City of Woodstock.

Article 6 - Statutory or Declared Holidays

6.01 Each employee shall be entitled to twelve (12) days extra pay in lieu of statutory and declared holidays. Each employee may request upon final written approval of the Fire Chief, the equivalent time off in lieu of pay. This time off in lieu of pay shall be arranged on the same system as Article 5.03. The amount of pay for each of the statutory or declared holidays shall be the annual salary of the employee divided by one hundred and eighty-two (182). The remaining amount of the unused twelve (12) days will be paid on the last pay in November of each year. It is further understood that one (1) statutory or declared holiday will equal twelve (12) hours.

6.02 For the purpose of this Article, statutory and declared holidays shall be considered to be:

New Year's Day	Thanksgiving Day
Good Friday	Remembrance Day
Easter Monday	Half Day Christmas Eve Day
Victoria Day	Christmas Day
Canada Day	Boxing Day
Civic Holiday	Half Day New Year's Eve Day
Labour Day	

Article 7 - Uniforms and Equipment

7.01 Each member of the Association shall be supplied by the Corporation as follows:

a) The Corporation will supply all items below in list "I" upon hiring a new employee and all items below in list "II" upon being promoted from Probationary rank. All employees above the rank of 5th Class shall receive 315 points annually for the purpose of exchanging such points for items of clothing as identified below from list "I" to "III".

		Point value per single item
I	**Items upon hiring:**	
	Black Safety shoes (*receipt must be provided)	**125***
	2 T-shirts	**10**
	2 Navy Blue Fatigue shirts	**50**
	2 Navy Blue Fatigue pants	**90**

		Point value per single item
II	**Items after probation:**	
	Tunic	**200**
	Dress Pants	**70**
	Short sleeve dress shirt	**20**
	Hat	**50**
	Hat badge	**15**
	Fatigue jacket	**80**
	Tie	**10**
	Winter jacket	**150**
III	**Extras:**	
	Ball Cap	**15**
	Sweater	**50**
	Sweatshirt	**35**
	Long sleeve T-shirt	**15**
	Nylon Jacket	**35**
	Burberry coat	**150**
	Shirt badge	**40**
	Name tag	**15**

b) Employees will be allowed to carry over unused points from year to year but may not exceed 825 points at any time.

c) Uniform issues shall be supplied by June 30th of each year. The Tunics, winter jackets, Nylon Jackets and Burberry coats must be turned in when being replaced.

d) Such uniforms and equipment shall be deemed the property of the City and upon resignation of a member of the Association shall be turned over to the City. All above clothing shall maintain comparable quality and price and be agreed upon by the Chief and the Association.

7.02 All fire fighting staff will be supplied with protective clothing for fire fighting duties. Safety helmets will be provided to staff when on house inspection or similar duties.

7.03 The Corporation will repair or replace any article of uniform clothing damaged during regular duties other than normal wear and tear. The Fire Chief shall be responsible for deciding whether the clothing is to be repaired or replaced.

7.04 All Fire Department personnel must wear a uniform in conformity with the rules and regulations of the Department and as required by the standards of the Fire Chief.

7.05 In the year of an employee's retirement he will not be entitled to receive clothing as set out in this Article.

7.06 All uniforms and equipment shall be worn during working hours only.

Article 8 - Accident, Sickness and Retirement

8.01 Employees off duty as a result of an accident or occupational illness incurred in the performance of their duties shall be provided with free hospitalization and medical care as provided by The Workplace Safety and Insurance Act of Ontario. While an employee is off work and receives WSIB benefits or Insurance at less than his regular full pay, he shall be paid the difference between WSIB payments and his normal earnings by the Corporation. Such payments by the Corporation shall continue only while the employee is on full WSIB benefits, and shall terminate at such time as either an award for permanent disability is made to the employee by the WSIB or a period of one (1) year from the date of such accident or the employee returns to active employment whichever should first occur. Where any dispute arises relative to employees suffering from an accident occurring on duty, such dispute will be adjudicated under the procedure and regulations of the Workplace Safety and Insurance Act.

(a) At the end of one (1) year, if an employee remains on WSIB benefits and is being paid at less than his normal earnings, he shall continue to be paid the difference between WSIB payments and normal earnings. Such difference shall be deducted from the employee's accumulated sick days and shall continue until the employee returns to active employment, or the employee's sick leave credits are exhausted, or he is determined to be permanently disabled or no longer qualifies for WSIB benefits or scheduled retirement, whichever should first occur.

8.02 All present Fire Department personnel shall receive sick leave allowance at the rate of one and one-half (1 1/2) days per month. Absence of an employee, by reason of sickness or accident (other than sickness or accident in respect to which Workplace Safety and Insurance Board benefits apply) shall be for working days only, and shall be deducted from the sick leave allowance or the accumulation thereof. Upon termination of employment, or in the case of employee's death, the employee or beneficiary shall be entitled to receive an amount equal to one-half (1/2) the number of days accumulated to his credit not to exceed one-half (1/2) year's salary, except for the following provision that in the event of the termination of employment by reason of discharge for cause, such termination shall not constitute a termination within the meaning of this Section. Severance Pay as set-out shall be paid to all employees after seven (7) years of employment.

8.03 This article does not provide sick pay for disability resulting from intentionally self-inflicted injury, war or injury sustained while committing or attempting to commit an assault or crime.

8.04 It is understood and agreed by the Association and the Corporation that all employees of the Fire Department shall be required as a condition of employment to become members of The Ontario Municipal Employees Retirement System on date of hire. Retirement age is sixty (60) years. The Corporation will ordinarily not extend employment after an employee's sixtieth (60th) birthdate as a matter of policy except in cases of emergency, but in no case any longer than six (6) months.

8.05 Hospital-Medical Insurance. The Corporation shall pay one hundred (100) percent of the cost of premiums of the following plans for all employees:

1. Ontario Health Insurance Plan
2. Private Hospital Care
3. Extended Health Care, $ .35 Deductible Drug Plan effective January 1st, 1999 a maximum dispensing fee of $8.00 only if drugs are prescribed, dispensed and available in Woodstock for $8.00 or less.
4. Vision Care Plan**, $250.00** every 2 years
5. Liberty Health #9, or equivalent Dental Plan, current O.D.A. Fee Schedule
   - Rider #3, Orthodontics **$1750** lifetime maximum
   - Rider #4, Crowns
   - The Corporation shall pay seventy-five (75) percent of the premium of Rider #3 and #4, and the employee shall pay the remaining twenty-five (25) percent. Effective January 1, 1997 those eligible employees and their eligible dependents twelve (12) years of age or older will be governed by a nine (9) month turnaround time limit on their next dental check up. Those employees with eligible dependents that are less than twelve (12) years of age maintain the six (6) month turnaround time limit for eligibility of their next dental check up.
6. Hearing Aid Plan - $350.00 every three (3) years.

If there is a proposed change in any plan, it will be discussed with the Association before implemented.

(a) The following hospital medical insurance will be available to retirees from the date of their retirement to age 65. The Corporation shall pay one-hundred (100) percent of the premium:

- Ontario Health Insurance Plan
- Extended Health Care, including .35 Deductible Drug plan and private hospitalization.

(b) The following dental benefit will be available to retirees, namely Liberty Health #9, or equivalent, current O.D.A. schedule, with the exception of Riders #3 or #4, as follows:

-early retiree before age 60 – 100% employee paid
-early retiree age 60 to 65 – 50/50 co-pay

(c) Definition of retiree is an employee who is in receipt of an OMERS Pension, or, who has qualified for and is in receipt of OMERS Disability Waiver of Contributions.

(d) Such coverage will continue until age 65 or the retiree's death whichever occurs first, provided, equivalent coverage is not available through other sources and that such premiums are paid on or before the first day of each month or in accordance with other arrangements that may be made with the Corporation from time to time.

(e) In the event there is an improvement in a benefit set-out herein, retirees already in receipt of such benefits will be eligible to receive such improvement.

(f) At time of retirement, if a benefit set-out herein is available from other sources, and such coverage ceases, the retiree may apply for such benefit through the Corporation, provided at time of retirement the employee registered the sources of such benefit with the Corporation.

(g) Should an employee, at time of retirement, elect not to participate in a benefit, such benefit or subsequent improvements will not be available to the retiree at any time thereafter.

8.06 Group Life Insurance. It shall be a condition of employment that all employees of the Corporation shall be required to join in the Group Life Insurance Plan of the Corporation, for which the Corporation will pay one-hundred (100) percent of the cost of premiums. Insurance coverage shall be two (2) times annual salary **with Accidental Death and Dismemberment (AD&D) coverage equal to the amount of life insurance coverage provided by the City..**

(a) The Group Life Insurance provided in Clause 8.06 is subject to the terms and conditions of the Carrier providing such coverage.

(b) All employees at time of retirement shall receive a $2,000 paid-up Life Insurance Policy.

Article 9 - Appointments, Promotions and Layoffs

9.01 In cases of promotions as between Fire Fighters, other than appointments to positions outside the scope of the bargaining unit, the following factors will be considered:

1. Skill, competence, efficiency, merit, training, physical fitness, initiative and leadership qualities;
2. Divisional Seniority;
3. Departmental Seniority.

Where the factors in 1 and 2 are relatively equal, factor 3 will govern. In the evaluation of factor 1, the Fire Chief will be the judge, provided however, that if an employee believes that a proper consideration of his skill, competence, efficiency, merit, training, physical fitness, initiative and leadership qualities has not been given, he may file a grievance claiming that the Fire Chief acted in an arbitrary, unfair or unfairly discriminatory manner.

9.02 In the event of reduction in staff of any Division, for which notification of same will be made by posting on the notice board for not less than ten (10) days prior to the date on which the reduction is to take place, lay-off shall take place in the inverse order of Divisional Seniority. That is to say that the least senior employees shall be laid off first, and if they already possess the required qualifications and have worked previously for a continuous period of not less than six (6) months in another Division, they may bump any person with less Departmental Seniority in the other Division. Recall shall be a reversal of the lay-off process.

9.03 (a) Divisional Seniority shall mean the length of continuous service, within a particular Division of the Woodstock Fire Department, said Divisions being defined as follows:

Fire Fighting
Fire Prevention
Fire Training

(b) Departmental Seniority shall mean the length of continuous service within the Woodstock Fire Department from the date employment commenced within the Department. Former employees re-entering the service after continuity of service has been broken for any reason (Her Majesty's Service excepted) shall be considered new employees, and seniority shall start as of the date they re-enter the service.

9.04 A seniority list shall be prepared by the City in January of each year and a copy shall be forwarded to the Association.

9.05 An employee transferring from one Division to another will be placed on six (6) months probation, during which time if unable to perform satisfactorily, or desires to transfer back to former position, may do so within such six (6)

month period. Such probationary period may be extended for a further period of up to six (6) months by mutual agreement of both parties.

(a) Any employee hired, promoted or transferred to fill such vacancy will be laid-off or transferred back to position held at time of promotion or transfer. Such service shall not be credited as divisional seniority within that Division, but shall be credited back to the Division in which employees transferred back to.

Article 10 - Job Posting

10.01(a)(i) When a vacancy occurs, other than the entry level position of a Probationary Fire Fighter or Probationary Public Information Coordinator, such a position shall be posted on all Fire Department Bulletin Boards for a minimum of ten (10) working days prior to filling the position in order that all employees will know about the position and be able to make written application.

10.01(a)(ii) In the case of a vacancy at the entry level, that being the Probationary Level of Fire Fighting or the Public Information Coordinator such a position(s) will be simultaneously posted internally and externally. The internal posting shall be governed by the foregone language in Article 10.01(a)(i). The external advertising of such a position(s) shall be governed at the discretion of Management, but will not occur before the internal posting has commenced.

10.01(a)(iii) In the filling of these jobs, the Corporation shall not be limited to selecting employees who have made application, the Corporation shall be subject to the same limitations as set forth in Article 9 relating to cases of promotion. The Human Resources Department will notify the successful applicant, by letter, and will thereafter post the names of the successful applicant(s).

10.01(b) Vacancies in the positions of Captain and Lieutenant in the Fire Fighting Division will be filled within one-hundred and twenty (120) calendar days, of becoming vacant, to maintain a minimum officer complement, within such Division, of four (4) Captains and four (4) Lieutenants.

10.02 Vacancies and new positions shall not include temporary positions nor those positions that are planned to last less than six (6) months.

10.03 Information on Posting. The following minimum job description shall be provided:

- nature of position, qualifications, required knowledge and education, skills, shift and salary rate.

These qualifications may not be established in an arbitrary or discriminatory manner.

Article 11 - Grievance Procedure

11.01 As it is the mutual desire of the parties hereto that grievances of employees shall be adjusted as quickly as possible, the Association shall appoint a Grievance Committee of three (3) members and shall file notice annually with the Corporation the names of the employees serving on the Grievance Committee. The Corporation shall also be notified of changes in the personnel of the same Grievance Committee which might take place from time to time. Any difference between the parties to the Agreement relating to the interpretation, application or administration of the Agreement, including a question as to whether a matter is arbitrable and any question as to whether the suspension, discharge or other discipline of an employee is reasonable may constitute a grievance and shall, at the request of either party, be dealt with as follows provided that the time limits specified herein may be extended by mutual consent. No employee or group of employees shall be permitted to lodge a grievance with the council or any member of the council except as expressly provided for herein. All grievances must be in writing and filed with the Chief within seventy-two (72) hours of alleged grievance.

Stage 1: The grievor(s) or Association shall take the matter up with the Chief of the Department and the Chief shall advise the grievor(s) or Association of his decision within forty-eight (48) hours of the filing of the grievance. If the decision of the chief is not satisfactory to the grievor(s) or Association at this stage the grievor(s) or Association shall, within forty-eight (48) hours of having been notified of the decision, proceed to Stage 2.

Stage 2: The grievor(s) or Association shall take the matter up with the Grievance Committee. The Grievance Committee shall give due consideration to the grievance and shall, within forty-eight (48) hours of having been notified of the grievance, advise the grievor(s) or Association of its decision. If the Grievance Committee has satisfied itself that there is just cause for a grievance the Grievance Committee accompanied by the grievor(s) or the Association shall, within forty-eight (48) hours of having advised the grievor(s) or Association of its decision, proceed to Stage 3.

Stage 3: The Grievance Committee accompanied by the grievor(s) or the Association shall take the matter up with the Chief Administrative Officer and the Chief Administrative Officer shall advise the Grievance Committee of his decision within forty-eight (48) hours of filing of the grievance. If the decision of the Chief Administrative Officer is not satisfactory to the Grievance Committee at this Stage the Grievance Committee and the grievor(s) or the Association shall within forty-eight (48) hours of being notified of the decision, proceed to Stage 4.

Stage 4: The Grievance Committee and the grievor(s) or Association shall advise the Municipal Council of their desire to meet with the City

Council at its next regular meeting at which time the matter shall be presented for consideration. The said council shall advise the Grievance Committee of its decision within forty-eight (48) hours of the council meeting to which the matter was presented.

Stage 5: If the decision of the City Council is not satisfactory to the Grievance Committee at Stage 5 the Grievance Committee of the City Council shall, within five (5) days of notification of the decision of the City Council have the matter referred to arbitration as provided in The Fire Departments Act and amendments thereto.

11.02 Should any difference arise between the Corporation and the Association as to the interpretation, application or alleged violation of the provisions of this agreement affecting the association as such or the employees as a whole, the Association shall have the right to initiate a grievance at Stage 3 of the Grievance Procedure.

11.03 At Stage 3, and thereafter, the Grievance Committee may be accompanied by a representative of the Provincial Body, and a Solicitor or other individual whose presence is requested by the Grievance Committee and the Chief Administrative Officer may similarly be accompanied by a Solicitor or other advisors.

11.04 In this Article the terms "hours" and "days" shall be taken to exclude Saturdays, Sundays and Statutory Holidays.

11.05 All replies to grievances shall be in writing.

11.06. In any discharge or discipline grievance, an arbitration board or single arbitrator shall have the power to dispose of the grievance by any arrangement which in the opinion of the arbitrator or board is deemed to be just or equitable.

Article 12 - Salaries

12.01 Upon the signing of this collective agreement, the salaries to be paid under this Agreement shall be those set out below:

Salaries for the Years 2002, 2003, 2004

Classification	Percent of 1st class Firefighter	Jan. 2/02	July 1/02	Jan. 1/03	July 1/03	Jan 1/04	July 01/04
DIVISION							
Fire Fighting							
Probationary (1-6 mths)	60%	$36,133	$36,765	$37,316	$37,876	$38,444	$39,117
5th Class (7-12 mths)	70%	$42,155	$42,893	$43,536	$44,189	$44,852	$45,637
4th Class	75%	$45,166	$45,956	$46,646	$47,345	$48,056	$48,896
3rd Class	90%	$54,199	$55,148	$55,975	$56,814	$57,667	$58,676
2nd Class	95%	$57,210	$58,211	$59,084	$59,971	$60,870	$61,935
1st Class	100%	$60,221	$61,275	$62,194	$63,127	$64,074	$65,195
Lieutenant	110%	$66,243	$67,402	$68,413	$69,440	$70,481	$71,715
Captain	115%	$69,254	$70,466	$71,523	$72,596	$73,685	$74,974
Fire Prevention							
Probationary Public Info Coordinator (1-6 months)	60%	$36,133	$36,765	$37,316	$37,876	$38,444	$39,117
5th Class Public Info Coordinator (7-12 months)	62.5%	$37,638	$38,297	$38,871	$39,454	$40,046	$40,747
4th Class Public Info Coordinator	65%	$39,144	$39,829	$40,426	$41,033	$41,648	$42,377
3rd Class Public Info Coordinator	70%	$42,155	$42,893	$43,536	$44,189	$44,852	$45,637
2nd Class Public Info Coordinator	75%	$45,166	$45,956	$46,646	$47,345	$48,056	$48,896
1st Class Public Info Coordinator	80%	$48,177	$49,020	$49,755	$50,502	$51,259	$52,156
Probationary Fire Inspector (1 - 6 months)	60%	$36,133	$36,765	$37,316	$37,876	$38,444	$39,117
5th Class Fire Inspector (7 - 12 months)	70%	$42,155	$42,893	$43,536	$44,189	$44,852	$45,637
4th Class Fire Inspector	75%	$45,166	$45,956	$46,646	$47,345	$48,056	$48,896
3rd Class Fire Inspector	90%	$54,199	$55,148	$55,975	$56,814	$57,667	$58,676
2nd Class Fire Inspector	95%	$57,210	$58,211	$59,084	$59,971	$60,870	$61,935
Fire Inspector	107%	$64,436	$65,564	$66,548	$67,546	$68,559	$69,759
Probationary Fire Prev Officer	110%	$66,243	$67,402	$68,413	$69,440	$70,481	$71,715
Captain - Fire Prevention Officer	115%	$69,254	$70,466	$71,523	$72,596	$73,685	$74,974
Fire Training							
Probationary Fire Training Officer	110%	$66,243	$67,402	$68,413	$69,440	$70,481	$71,715
Captain - Fire Training Officer	115%	$69,254	$70,466	$71,523	$72,596	$73,685	$74,974

On December 31, 2003 a First Class Firefighter, with all other classes being adjusted according to this schedule, will be no more than $675 behind a First Class OCPS Police Officer

12.02 New employees shall be deemed to be Probationary until a period of six (6) calendar months, or an additional period of six (6) months has elapsed from the commencement of employment with the Corporation during which period the discharge of such Probationary employees shall not be subject to the provisions of the Grievance Procedure.

(a) An employee transferring from one Division to another will not suffer any loss or reduction in pay**, except where such transfer is requested by the employee to a previously held position in that division, if that position is available.**

(b) (i) For a new employee, advancement in the Fire Prevention Division shall conform to the provisions of Clauses 12.04 and 12.05.

(ii) In the case of a Fire Fighter below the rank of 1st Class or holding the rank of, in the Fire Fighting Division who is promoted to or elects to transfer to fill a vacancy in the Fire Prevention Division as Fire Inspector said employee shall be placed on the next higher salary classification of Fire Inspector and the date of such promotion and/or transfer shall be claimed to be the anniversary date for advancement through the ranks until the position of Fire Inspector is reached.

(iii) When the rank of Fire Inspector has been reached, there will be no further advancement until a vacancy for Fire Prevention Officer occurs. Such advancement shall be as provided for in Article 9.

(iv) In the case of a Fire fighter below the rank of 4^{th} Class or holding the rank of 4^{th} Class, in the Fire Fighting Division who Is promoted to or elects to transfer to fill a vacancy in the Fire Prevention Division as Public Information Coordinator, said employee shall be placed on the next higher salary classification of Public Information Coordinator and the date of such promotion and/or transfer shall be claimed to be the anniversary date for advancement through the ranks until the position of 1^{st} Class Public Information Coordinator is reached.

12.03 Upon successful completion of the probationary period and successful completion of a qualifying examination conducted under the direction of the Fire Chief, probationary employees shall be advanced to the position of Fifth Class Fire Fighter and salary increments shall become effective on the first day of the calendar month following.

(a) Failure to qualify for advancement to Fifth Class shall result in dismissal or additional three (3) month periods of employment as a probationary employee and re-examination at the discretion of the Chief.

12.04 Advancement to Fourth Class Fire Fighter shall be conditional upon completion of six (6) consecutive months of service in the Fifth Class and upon successful completion of a qualifying exam conducted under the direction of the Fire Chief.

Advancement to Third Class, Second Class and First Class Fire Fighter shall be conditional upon completion of twelve (12) consecutive months of service in each respectively named Class and successful completion of a qualifying examination conducted under the direction of the Chief at the end of each such twelve (12) month period. Salary increments in all cases shall become effective on the first day of the calendar month following such advancement.

(a) Failure to qualify for advancement to the next Class, shall result in further period or periods of three (3) months service and re-examination at three (3) month intervals until successful completion of qualifying examination.

12.05 All hours worked, beyond the normal hours of work as described in Article 4, shall be considered as overtime and paid in monies at the rate of time and one-half.

(a) An employee attending an in-house training course, on an off duty day(s) will be paid their regular hourly rate of pay for all hours spent in attendance at the course, subject to the approval of the Fire Chief.

12.06 An employee who is called in to work outside the normal hours of work as described in Article 4, other than for scheduled overtime work shall be paid in monies:

(a) a minimum of four (4) hours at his overtime rate; or

(b) at his applicable overtime rate for the time worked on the call back, whichever is greater.

12.07 Mileage Allowance. Employees requested to operate their personal vehicle on City business shall be paid such mileage in accordance with City Council's Policy providing for payment of such allowance.

Article 13 - Service Pay

13.01 **Service pay is grandfathered. Those who currently accumulate it will continue to accumulate it. Anyone hired after June 5, 2003 will not be eligible for Service Pay. The Corporation shall pay service pay to each eligible employee, on the last pay of November each year, based on his years of service as follows:**

For five (5) to ten (10) years completed service	**$60.00**
Ten (10) to fifteen (15) years completed service	**$120.00**
Fifteen (15) to twenty (20) years completed service	**$180.00**
Twenty (20) to twenty-five (25) years service	**$240.00**
Twenty-five (25) to thirty (30) years service	**$300.00**
Employees with more than thirty (30) years service	**$360.00**

13.02 Service Pay shall be paid on a pro-rata basis for that portion of the year following the completion of the **eligible** employees fifth, tenth, fifteenth, twentieth, twenty-fifth and thirtieth years of service.

13.03 When an **eligible** employee leaves the service of the Corporation he will receive service pay pro-rated on the number of days service in that year calculated from the 1st day of January to the day he leaves such service and received that portion of the service pay he should be entitled to for that year.

Article 14 - Leave of Absence

14.01 The President and any two (2) executive members of the Association shall be granted such leave of absence without pay as may be necessary for the proper performance of their duties insofar as the regular operation of the service of the Fire Department will permit at the discretion of the Fire Chief. Leave of absence without pay may be granted to any member of the Association.

14.02 If an employee has a bereavement in his immediate family consisting of: spouse, child, stepchild, father, mother, sister, brother, mother-in-law, father-in-law, he shall be given leave of absence to attend the funeral for a period of four (4) calendar days, including the day of the funeral, provided he attends the funeral. The combination of days must be approved by the Fire Chief or authorized representative.

(a) If an employee has a bereavement in his collateral relations, consisting of: brother-in-law, sister-in-law, grandparent, grandparent-in-law, grandchildren, daughter-in-law, son-in-law, he shall be given the day's leave of absence on the day of the funeral provided he attends the funeral.

If any of these days falls on a day on which he would be required to work, he shall be paid for same. It shall be the person’s responsibility to notify the Fire Chief as soon as possible following such bereavement.

Article 15 - Jury Duty or Court Witness

15.01 Any employee who is required to serve on a jury or as a court witness shall be paid his regular salary for the time lost from his regular scheduled work shift by reason of such service, subject to the following provisions:

(a) Employees must notify their immediate supervisor within a reasonable time after receipt of notice of selection for jury duty or court witness;

(b) Employees called for jury duty or as a court witness and who are temporarily excused for attendance at Court during working hours must report for work within a reasonable time;

(c) The employee must provide a written statement from the appropriate public official showing the date and time served and turn over to the Corporation the amount of pay or fees received for his service. Failure to do so will result in no pay for the time absent from work.

(d) No such payment shall be made to any employee under the provisions of this Article when such leave is solely in the cause of the employee involved.

Article 16 - Pay for Acting Rank

16.01 Each employee who is required, by authority of the Chief of the Fire Department, to act in the capacity of an officer shall be paid the rate of such office in respect of all days thus worked.

Article 17 - Legal Fees

17.01 Where an employee is charged under The Criminal Code, the Highway Traffic Act or any other Statute or Act for any offence arising in the performance of his duties, the Corporation shall reimburse the employee for any reasonable legal fees incurred in defending any such charge or charges if the employee is ultimately acquitted of or has withdrawn against him all charges flowing from such incident. The Corporation shall have the right to have the said fees approved by its counsel or assessed pursuant to the Solicitors' Act prior to payment of same.

Bill 103, (An Act to provide firefighters with protection from personal liability and indemnification for legal costs), to become attached and form part of the collective agreement.

Article 18 – **Job Preservation**

No employee covered by this agreement shall suffer loss of employment within the Fire Department, loss of pay or be demoted or laid off as a result of work customarily performed by employees under this agreement being performed by any person outside of the bargaining unit.

Article 19 – Manning

There shall be a minimum of forty (40) Firefighters in the Division of Fire Fighting.

Article 20 – Contracting Out

Except to the extent and to the degree agreed upon by the parties, and except in the case of an emergency, no work customarily performed by an employee covered by this Agreement shall be performed by another employee of the City who is not covered by this Agreement, or by a person who is not an employee of the City.

Article 21 - Duration

21.01 This Agreement as heretofore agreed shall become effective upon signing of this collective agreement. This Agreement shall continue in effect until **December 31st, 2004**. Thereafter it shall be automatically renewed from year to year thereafter unless within a period of not more than sixty (60) days and not less than thirty (30) days prior to the **31st day of December, 2004** or prior to the expiry date in any year, subsequent thereto, either party proposing to change or alter this agreement shall give to the other party written notice of such requested changes or alterations in this agreement and both parties shall, thereupon, negotiate in good faith with respect to the matters which it is proposed to change or alter and the remaining provisions shall automatically renew themselves as aforesaid.

IN WITNESS WHEREOF the Corporation has hereunto caused its Corporate Seal to be affixed under the hands of its duly authorized officers, and the Association has caused this Instrument to be executed by its proper officers hereunto duly authorized this the day of , 2003.

Signed, Sealed and Delivered in the presence of

) THE CORPORATION OF THE CITY
) OF WOODSTOCK
)
)
)
)
) _____
) Mayor
)
)
)
)
) _____
) City Clerk
)
)
) THE WOODSTOCK PROFESSIONAL
) FIRE FIGHTERS' ASSOCIATION
)
)
)
)
) _____
) President
)
)
)
)
) _____
) Secretary

A.T. POLGAR ASSOCIATES INC.

Consultants in Organizational
And Individual Behaviour

A.T. Polgar Associates Inc.
In Collaboration With
POMAX Inc.

A Discussion Paper

The Introduction of a 24 Hour Shift Pattern in a Compressed Work Week Agreement at the City of Hamilton Fire and Emergency Services

Spring 2006

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Discussion Paper

The Introduction of a 24 Hour Shift Pattern in a Compressed Work Week Agreement at the City of Hamilton Fire and Emergency Services

Issue:
What effect would the introduction of a 24 hour shift pattern have on the operation, administration, and staff of the City of Hamilton Fire and Emergency Services?

Current Status:
The City of Hamilton and the Hamilton Professional Fire Fighters Association, IFFA Local 288 (the Association) are in the process of collective bargaining. Bargaining has been delayed due to the departure of the city's Manager of Labor Relations and the Association has filed for labor conciliation. Conciliation is scheduled to start on May 3rd 2006.

One of the Association's proposals within the bargaining process is the introduction of a compressed work week agreement that includes a 24-hour duration shift pattern.

The City of Hamilton Fire and Emergency Services has asked A.T. Polgar Associates to perform a high-level assessment of the effects of a 24-hour duration shift pattern that will assist the Fire and Emergency Services during collective bargaining and conciliation. The Fire Services has provided clear instructions to the consultants that the preliminary report, and possible further examination, are not required to take a position on the issue (pro/con), and that the information provided by the consultant must be objective and factual to assist the fire services administration, and the city, to determine whether 24 hour shifts are appropriate. The consultants understand that the city and fire services have not taken a position on the Association's proposal.

Background:
The Hamilton Professional Fire Fighters Association has proposed the implementation of a compressed work week schedule based upon shifts of 24 hours duration. The Association has supported its proposal with a report from the Toronto Fire Services titled '24-Hour Shift Committee Report; Recommendation for 'City Wide' Trial Period 2006'; and information found within the City of Mississauga Fire Fighter Association's (MFFA local 1212) proposal to the Fire Chief for a 24 hour shift.

Our assessment included a review of:

- the Toronto Fire Services 24-Hour Shift Committee Report, which included a report by Dr. Linda Glazner titled 'Effect of Shiftwork (sic) on Health and Circadian Rhythm in 24 Hour Fire Fighters';
- the Mississauga Fire Fighters 24-hour shift proposal including information on 'Considerations and Benefits of Existing Shift', 'Testimonials', and 'Proven Benefits';
- other studies referenced on the Mississauga Fire Fighter Association's web site (if we were able to find them via an internet search); and,
- other internet searches on the subject of 24 hour shifts or related matters including:
    - Effects of 24-hour shift work with nighttime napping on circadian rhythm characteristics in ambulance personnel;
    - The APCO (Association of Public Safety Communication Officials) Exchange Forum 'Re: 24 Hour Shifts';
    - The United Kingdom Parliamentary Office of Science and Technology, 'The 24 Hour Society';
    - 'Efficacy of 24-hour shifts: prepared or impaired? A prospective study, Metro Life Flight, MetroHealth Medical Center, Cleveland, OH.;
    - Medscape; '24-Hour Shifts Pose Higher Motor Vehicle Risks for Interns;
    - 'Sliding Down the Bell Curve: Effects of 24-hour Work Shifts on Physicians' Cognition and Performance, Division of Sleep Medicine, Harvard Medical School;
    - A discussion string on a web site for nurse researchers concerning fatigue and social aspects of shift work;
    - British Columbia Employment Standards Branch requirements for oil and gas well drilling and servicing employees working 24-hour shifts.

The references provided by the fire fighters' locals and our own review afforded a reasonably wide cross section of information on the subject of shift fatigue, 24-hour duration shifts, and chronobiology. We combined the research described above, with our previous investigation of shift work and chronobiology to arrive at the conclusions that follow.

Discussion:

Shift work is a negative implication of society's growth and strive for productivity. Population growth, the Industrial Revolution, and technology and information improvements have all contributed to a society that functions 24 hours a day. In turn fire services and other emergency services must provide public protection at all times which results in the necessity of shift work for emergency service workers.

However, most creatures are biologically tuned to be awake during periods of daylight and asleep when it is dark, thus setting up a conflict between our biological hard-wiring and society's demands. Even if some shift workers are taught, and practice, techniques for ameliorating the impact of shift work, these are interrupted by practicalities such as child care, keeping appointments (which have to take place mostly in the daytime), long commutes (in distance or time) and the wish to spend time with friends and family. In and ideal world we would all get a restful eight or nine hours of sleep, wake up during daylight hours, travel only a few minutes to work, work from nine o'clock to five o'clock (high school students would start school at 9:30 since, biologically, that age cohort does not start to function effectively until that time) and then return home to interact with family and friends before starting the routine again. Unfortunately a large part of society cannot follow that routine and instead work during the time that our biology tells us to rest.

Workers, administrators, and their representatives seek ways of reducing the effect of shift work, and one of the most common is to extend the duration of a shift in order to decrease shift frequency. Therefore, compressed work week agreements have become common, particularly in emergency services. However, the combination of 10, 12, and 14 hour shifts plus the necessity of commuting which, not uncommonly, may take 1 to 2 hours at each end of a shift, and the need to take care of children and other family demands, can leave shift workers with very few hours of sleep before having to return for their next shift. It is possible that fire fighters, who are able to rest during night shifts when not responding to calls, may be in a better position to cope with the effects of extended shifts than are other shift workers. Nevertheless it is also common for fire fighters to have second jobs which completely negates the advantage of being able to rest when working a night shift.

In an effort to further reduce the impact of shift work the Hamilton Fire Fighters' Association is proposing a 24-hour shift duration which will provide more time off between shifts.

The purpose of this discussion paper is to examine the advantages and implications of 24-hour duration shifts. We indicated in the **Background Section** (above) that our assessment included a review of the Toronto Fire Services 24-Hour Shift Committee Report, which included a report by Dr. Linda Glazner titled 'Effect of Shiftwork (sic) on Health and Circadian Rhythm in 24 Hour Fire Fighters', as well as information found on the Mississauga Fire Fighters' Association web site and other information found via an internet search. The following segment of this discussion paper offers observations as a result of our review.

Observations and Findings:

1. *Toronto Fire Services 24-Hour Shift Committee Report*:

a) The City of Toronto's Senior Ergonomics Consultant, Jane Byers, reviewed Dr. Glazner's report and concluded that Dr. Glazner's findings were essentially inconclusive. However, Ms. Byers did not oppose the implementation of the one year "Trial Period".

b) Ms. Byer's noted that the significance attributed to the self reported positive subjective evaluations of the "Pilot Program" staff is diminished by the facts that:

   i. Only a small number of the questions on Dr. Glazner's questionnaire were analyzed and reported. Analysis of the remaining questions was said to be pending.

   ii. The last data, collected in August of 2005, were not analyzed.

   iii. Data reported by Dr. Glazner were not analyzed for statistical significance, but are simply descriptive of the participants' responses.

   iv. Some of the questions were judged to be ambiguous and the responses are difficult to evaluate.

c) Ms. Byers concludes that the only objective measure taken (oral temperature) by Dr. Glazner was contaminated by methodological concerns.

d) In discussing fatigue and shift work, Ms. Byers identifies that the Toronto Fire Service did not have a training program that deals with known strategies with which the harmful effects of shift work can be mitigated.

e) Ms. Byers recommends that on a 24-hour duration schedule all workers be provided with "the opportunity to sleep for a minimum continuous period of 120 minutes and preferably for 240 minutes between 2300 to 0700 hours.

2. *Dr. Glazner's Report:*

   The report described the results of a 24-hour duration shift trial period at the Toronto Fire Services that used cohort (42 District) and control (32 District) groups. We suggest that the **Tables** within the report raise questions that could affect the validity of Dr. Glazner's observations. For example:

   a) **Table 1** included commute distance which was determined by telephone area code. Area code is not an accurate indicator of commute time. A fire fighter living in the 905 area code could live in Mississauga or Niagara Falls. The commute distance would be substantially different. No one from either the cohort or control group lived in the 214 area code, which appears to be Dallas, Texas. This possibly should have been the 647 code.

b) **Table 4 satisfaction with nutrition**: Dr. Glazner noted that in 42 District (cohort) participants who reported that they were 'very satisfied' or 'moderately satisfied' with nutrition increased, from 21% prior to the implementation of 24-hour duration shifts, to 74% after implementation. But there is no explanation as to why the control group (32 District – 10 & 14 hour shifts) was already 70% satisfied with nutrition – which increased to 76% satisfaction – and therefore exceeded by 2% the satisfaction rating of the cohort participants.

c) **Table 7** reports on how fire fighters perceive others like their work hours. The report does not explain why the satisfaction rating (very or moderately satisfied) for the control group actually increased between 2004 and 2005. In the same way, the report does not explain why the control group's frequency of complaint by significant others decreased between 2004 and 2005 (**Table 8**). In 2005, 99% of significant others 'never' or only 'occasionally' complained about the fire fighters' schedule. This is a better satisfaction rating (albeit marginally) than the cohort group. **Table 9** shows that the control group's opinion as to "how firefighters feel significant others feel about their schedule" improved from 22% to 41% (Like it very much) between 2004 and 2005.

The reasons for the improvement in the control group's assessment of "how firefighters feel significant others feel about their schedule" (considering that the control group continued to work 10 and 14-hour duration shifts) are significant, and should be explored. It is possible that a similar percentage increase in satisfaction by the cohort group could be attributed to factors other than the change to a 24-hour duration shift pattern.

Several other areas of the report raise further questions that are not explained by Dr. Glazner. This causes us to agree with Ms. Jane Byers that Dr. Glazner's findings were inconclusive, and we find that the report does not assist us in determining the efficacy of 24-hour duration shifts.

3. *Mississauga Fire Fighters' Association web site pertaining to 24-hour duration shifts*

a) The Mississauga Fire Fighter's Association offers some reasonably balanced information about 24-hour duration shifts. For example, the Association notes that items for consideration include:

i. Interaction between shifts and members may be limited or different;

ii. Positive / negative effects on personal schedules / activities (e.g. child care, social, & recreation) due to 24 hour stretches away from home;

iii. The effects of occasional increased workloads (training, call volume, etc.) in a 24 hour period. The Association likens this effect to a fire fighter reporting for duty without prior rest at the beginning of a set of shifts on the current shift schedule. The Association also indicates that "evidence shows that recuperation time between shifts is increased on the 24 hour schedule". We are unsure if this means that it takes longer to recuperate from a 24 hour duration shift, or that more time is available to recuperate.

b) Testimonials concerning a 24-hour duration shift pattern included:

i. "the sick time is reduced as the 5 off helped with any pains you may have";

ii. "I find myself liking the 24 more and more. When we are busy during the day and run a few calls at night it makes for a very long work day";

iii. "I find that my quality of life has greatly improved allowing me to partake in numerous hobbies in my off-duty time…";

iv. From a Portland, Maine firefighter: "One of my concerns was the potential for fatigue. Even though incidents of fire and related hazards are down here, there was a potential of being involved in an "All Hand" or major incidents during a 24 hour shift. If that potential was met, then that would bring in the fatigue factor. With fatigue comes accident and injury. Injury to you, co-workers, and the public…… The 24 has promoted a "part-time" mentality concerning the FD and more emphasis put on the "outside" work. When firefighters are away from the "job" for that length of time frequently, it can lead to a decreased effort or inefficiency."

v. "24 hour shifts are easy to work, you are no more tired working a night following a day at the fire station instead of working a night after a day of pounding nails. Every time you come in for your first day after 5 off, I feel like I am coming back from vacation and need a bit to get back into the swing of things…. Most of us end up working a fulltime 2nd job. Often this can feel like a part-time job, just 2 days a week you work before getting back to your everyday commitments".

4. An Abstract of a study of the 'Effects of 24-hour shift work with nighttime napping on circadian rhythm characteristics in ambulance personnel' indicates that 24

hour shifts altered the characteristics of circadian rhythms of ambulance personnel, but nighttime naps of greater than 4 hours seem to have a favorable effect in averting changes in circadian rhythms.

5. A posting on the Association of Public Safety Communications Officials web site, dealing with 24-hour duration schedules, relates how one fire communications center has made 24-hour duration schedules work by "…overstaffing, over paying and being overly generous with regards to sleep and PT [activity] periods". The discussion thread goes on to say that: "Once you are past the sticker shock, you will find that, without the major [staff] turn-over issues, this is the only way to fly".
6. The United Kingdom's Parliamentary Office of Science and Technology, in a publication about the effects of 'The 24-Hour Society' (November 2005, Number 250) indicates that "workers should be educated about circadian issues, but on an ongoing basis, rather than a single training session …. Educational and vocational courses do not attach enough importance to circadian issues".
7. An abstract of a prospective study, "Efficacy of 24-hour shifts: prepared or impaired?" published in the Air Medical Journal indicates that "24-hour shifts do not result in cognitive decline compared with 12-hour shifts. Inconsistent sleep, number of flights, and stressfulness may have a greater impact".
8. The British Columbia Employment Standards Act stipulates rest periods for oil and gas sector workers who are required to be on site 24 hours a day. The Act says that the 24 hour period must include a 12 hour rest period which, if interrupted for work, the employee must be paid double time in some cases.

Conclusions:

Our conclusions are based on a review of the subject matter and literature described in this discussion paper as well as previous research we have completed into the effects of shift work, impact upon circadian rhythms, and methods of reducing any negative effects.

1. The Toronto Fire Services 24-Hour Shift Committee Report, which included a report by Dr. Linda Glazner titled 'Effect of Shiftwork (sic) on Health and Circadian Rhythm in 24 Hour Fire Fighters' was not of great assistance to us. The report did not explain baseline variances between the control and cohort groups. Those variances generally indicated that the control group had greater satisfaction with their shift pattern, better nutrition, and a greater acceptance of the shift pattern by significant others – than did the cohort group – before the trial period began, and in many cases overall nutrition, satisfaction, and acceptance increased for the control group during the trial period. This could

reasonably be interpreted to mean that there were factors involved other than shift patterns and duration.

While it is possible that a 24-hour duration shift may have had positive benefits for the cohort group, baseline variances were not addressed in the paper, which makes it a non-factor in our assessment of the efficacy of 24-hour duration shifts.

2. The Mississauga Fire Fighters' Association lays out both positive and negative effects of 24-hour duration shifts. However, concern is raised by the testimonials that discuss fatigue and the issues of fire fighting becoming "part-time work".
3. Contrary to what proponents of 24-hour duration shifts indicate, reports from people who work 24-hour shifts as well as scientific research (described above) indicate that 24-hour duration shifts interrupt the circadian rhythm and that napping for more than 4 uninterrupted hours is required to avert changes to circadian rhythm.
4. There are indications that 24-hour duration shift patterns could be more expensive than other shift patterns. We were not able to find an analysis and comparison of costs of various patterns, and the scope of this review does not include a cost-benefit analysis. The impact upon paid absences, other benefits, management and staff interaction, and operational objectives are not clear at this time.
5. Training needs with respect to circadian issues should be assessed, not only for 24-hour duration shifts but all variable work hour patterns.
6. There is precedence for the requirement for uninterrupted rest periods within variable and extended work agreements, either as part of the agreement or within law. Within these precedents, staff are financially compensated if they do not have the opportunity to take scheduled rest periods. Ms. Jane Byers recommended, within the Toronto Fire Services 24-Hour Shift Committee Report, that all workers be provided with "the opportunity to sleep for a minimum continuous period of 120 minutes and preferably for 240 minutes between 2300 to 0700 hours."

   Considering that there is evidence that napping for more than 4 hours[1] is required to avert changes to circadian rhythm when working 24-hour duration shifts, and that inconsistent sleep and stressfulness may have a greater impact on task performance, the possible effects on cost, operations, and administration

[1] 'Effects of 24-hour shift work with nighttime napping on circadian rhythm characteristics in ambulance personnel', Motohashi Y, Takano T., Department of Health and Environmental Science, School of Medicine, Tokyo Medical and Dental University, Japan.

should be assessed in case such practices (such as uninterrupted rest periods) become a requirement either through collective bargaining or legislation.

Recommendation:

Insufficient information exists for us to determine the benefits or disadvantages of 24-hour duration shifts. Further examination of the operational, administrative, and financial impact should take place prior to making a decision on the efficacy of 24-hour duration shift patterns within Hamilton's Fire and Emergency Services.

ORIGINAL ARTICLE

The impact of overtime and long work hours on occupational injuries and illnesses: new evidence from the United States

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Aims: To analyse the impact of overtime and extended working hours on the risk of occupational injuries and illnesses among a nationally representative sample of working adults from the United States.
Methods: Responses from 10 793 Americans participating in the National Longitudinal Survey of Youth (NLSY) were used to evaluate workers' job histories, work schedules, and occurrence of occupational injury and illness between 1987 and 2000. A total of 110 236 job records were analysed, encompassing 89 729 person-years of accumulated working time. Aggregated incidence rates in each of five exposure categories were calculated for each NLSY survey period. Multivariate analytical techniques were used to estimate the relative risk of long working hours per day, extended hours per week, long commute times, and overtime schedules on reporting a work related injury or illness, after adjusting for age, gender, occupation, industry, and region.
Results: After adjusting for those factors, working in jobs with overtime schedules was associated with a 61% higher injury hazard rate compared to jobs without overtime. Working at least 12 hours per day was associated with a 37% increased hazard rate and working at least 60 hours per week was associated with a 23% increased hazard rate. A strong dose-response effect was observed, with the injury rate (per 100 accumulated worker-years in a particular schedule) increasing in correspondence to the number of hours per day (or per week) in the workers' customary schedule.
Conclusions: Results suggest that job schedules with long working hours are not more risky merely because they are concentrated in inherently hazardous industries or occupations, or because people working long hours spend more total time "at risk" for a work injury. Strategies to prevent work injuries should consider changes in scheduling practices, job redesign, and health protection programmes for people working in jobs involving overtime and extended hours.

A growing body of evidence suggests that long working hours adversely affect the health and wellbeing of workers. Studies have associated overtime and extended work schedules with an increased risk of hypertension,[1 2] cardiovascular disease,[3 4] fatigue,[5 10–13] stress,[14–17] depression,[17 18–20] musculoskeletal disorders,[21–25] chronic infections,[26] diabetes,[27] general health complaints,[26–28] and all-cause mortality.[29] Several reviews and meta-analyses have been published summarising these research findings.[30–38] Systematic reviews generally have concluded that long working hours are potentially dangerous to workers' health. However, existing research is sparse and inconsistent in many areas.

Comparatively few studies have examined the impact of long work hours on workers' risk for occupational injuries and illnesses. Some studies have detected evidence of a relation between long working hours and an increased risk of occupational injuries among workers in specific occupations and industries, including construction workers,[39] nurses,[40] anaesthetists,[41] veterinarians,[42] other healthcare professionals,[43 44] miners,[45] bus drivers,[46] long distance truck drivers,[47] fire-fighters,[48] and nuclear power plant workers.[49] In one of the only studies involving the manufacturing sector, an increased risk of severe hand injuries was found for Hong Kong factory workers working more than 11.5 hours per day.[50] A large scale cross-industry study of 1.2 million German workers' compensation records found that the risks of non-fatal and fatal workplace accidents increase during the latter portion (after the eighth hour) of a long work shift.[51 52] Similar findings of an increased risk of work injuries during the latter portion of long shifts has also been observed in studies from Scandinavia and the United Kingdom.[53 54] Other researchers have investigated the affect of successive long shifts and the length of rest breaks between shifts as possible risk determinants for industrial accidents.[55]

Nevertheless, researchers' understanding of the impact of long working hours on workplace injuries remains incomplete and equivocal. Several investigations have found no evidence of an association,[56–59] or have observed a protective effect.[60 61] Authorities have noted that many existing studies have serious methodological shortcomings, including small sample sizes, unique industry specific circumstances that limit generalisability of the findings, and the failure to account for potential confounding factors. For example, jobs performed during long working shifts might be inherently more dangerous, or people working in extended-hour schedules might have different personal characteristics (for example, age, gender, or underlying health status) that affect their injury risk. Additionally, the vast majority of existing studies have been performed in Europe, Asia, and Scandinavia. Only a handful of studies have been conducted in the United States, and none of them have involved large sample sizes or study populations representing a mix of industries and occupations.

This article reports on a study of the impact of overtime and extended working hours on the risk of occupational injuries and illnesses among a nationally representative sample of working adults from the United States. The study spans 13 years and draws on information contained in 110 236 job records. Multivariate analyses are employed to

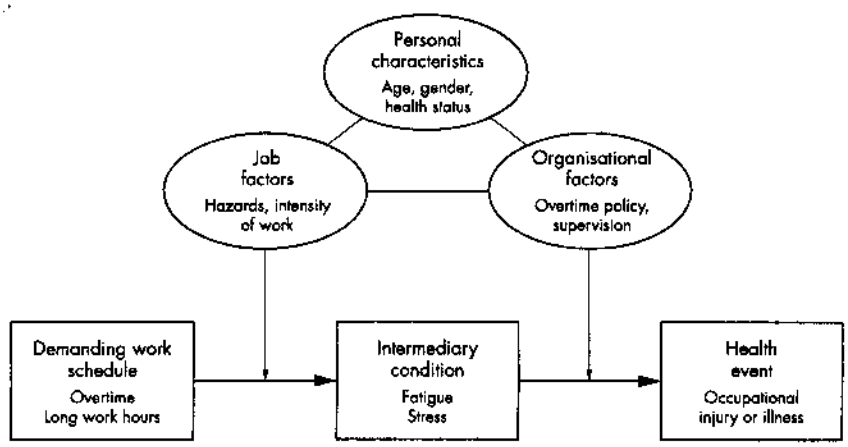

Figure 1 Conceptual model of the relationship between demanding work schedules and occupational injuries and illnesses (adapted from Schuster and Rhodes[42]).

control for the influence of workers' age and gender, region, industry sector, and occupation. The study is based on the hypothesis that working overtime or an extended work schedule increases the likelihood of reporting an occupational injury or illness compared to workers having less demanding schedules. Moreover, we hypothesise that the risk of injury increases with increasing volume of work performed in the demanding schedule.

The conceptual basis for this study is adapted from a theoretical model proposed by Michel Shuster and Susan Rhodes in 1985.[42] In this model, overtime and long hours of work are presumed to affect the risk of workplace accidents by precipitating various intermediary conditions in affected workers, such as fatigue, stress, and drowsiness. The pathway linking a demanding work schedule to the intermediary condition and ultimately to a workplace accident can be mediated by a variety of individual and environmental factors, including personal characteristics (for example, age, gender, health status, job experience), job factors (for example, intensity of work, exposure to hazards), and organisational factors (for example, overtime policy, supervision) (see fig 1). Our study analyses the association between exposure to overtime and extended work schedules and the incidence of reported work related injuries and illnesses, adjusting for the influence of several mediating factors, including age, gender, occupation, industry sector, and geographical region. The specific mechanisms by which fatigue, stress, or other intermediary conditions bring about a workplace accident are not investigated in this report.

METHODS

Data for this study comes from the National Longitudinal Survey of Youth (NLSY), which is sponsored by the US Bureau of Labor Statistics and administered by the Ohio State University Center for Human Resource Research.[43] The NLSY cohort is comprised of 12 686 men and women who were 14–22 years of age when first surveyed in 1979. Follow up interviews with NLSY respondents have been conducted annually from 1979 to 1994, and biannually since 1996. Because of NLSY funding restraints, no questions concerning work related incidents were included in the 1991 survey and therefore this year of data was excluded.

The NLSY collects information on respondents' socio-demographic characteristics, household composition, education, training, detailed work histories, job and employer characteristics, income and assets, health insurance status, incidence of work related injuries and illnesses, episodes of work disability, and respondents' social and domestic functioning. The survey's sampling strategy was designed to be representative of the non-institutionalised civilian segment of young people living in the United States in 1979 and born between 1 January 1957 and 31 December 1964.[44] Additionally, NLSY over-sampled civilian Hispanic, black, and economically disadvantaged white youth to help detect variations in employment and health conditions according to respondents' race, ethnicity, and socioeconomic status. Subjects for the survey were selected based on the results of 57 000 household screening interviews conducted by the National Opinion Research Center (NORC) at the University of Chicago.[45] NLSY provides sampling weights for each response to reflect the national distribution of Americans in this age range.

This study examined the experience of these individuals between 1987 and 2000. Attempts were made to re-interview every remaining cohort member at each survey. Survey response rates for those years (excluding deceased respondents) ranged from 91.0% for the 1988 survey to a high of 92.5% in 1989 and a low of 83.4% in 2000. During that period, 10 793 members of the cohort reported working in at least one job. Among employed cohort members, 52.2% were male, 13.2% were black, and 6.7% were of Hispanic ethnicity (weighted percentages). A job record was created for each position held by an individual during each survey period, with a "job" defined as a cohort member being employed in a particular position for a specific employer with a position start date and (if applicable) end date provided. If an individual held more than one position at a time (for example, for different employers), another job record was created to reflect the individual's experiences in the positions held concurrently. Changes occurring within a position (for example, changes in job activities) did not result in the creation of a new job history record, but a new record was created when a worker changed positions (for example, a machinist becoming a supervisor). A total of 110 236 job records were available for analysis, encompassing a total of 89 729 person-years of accumulated working time. Each job record contained extensive self-reported information about the characteristics of the job including the date of beginning work in the job, the end date (if applicable), job responsibilities and activities, occupational category, employer's industry sector, job location, customary work schedule, usual daily job starting and ending times, commuting time, and

Table 1 Characteristics of the workers reporting work related injuries and illnesses, weighted data

Characteristics of the workers reporting a work related injury or illness	Work related injuries and illnesses reported in all jobs n=5139	Work related injuries and illnesses in jobs with an exposure* n=2799
Male (%)	61.1	67.7
Age (mean years)	31.7	32.3
Black race (%)	11.2	11.2
Hispanic ethnicity (%)	6.8	7.0
Family income (mean dollars)	$33419	$35502
Schooling completed (mean years)	12.6	12.6
Region (%)		
Northeast	16.6	16.9
North Central	31.0	31.6
South	31.8	32.4
West	20.6	19.1
Urban residence (%)	27.4	29.5
Occupation classification (%)		
Professional and technical	11.0	9.7
Managers, officials, proprietors	9.8	10.5
Sales workers	2.4	2.5
Clerical	11.1	9.4
Craftsmen, foremen	19.6	17.6
Machine operators	20.0	22.6
Labourers, except farm	9.3	9.0
Service workers	15.1	16.5
Other	1.7	2.2
Industry classification (%)		
Agriculture, forestry, and fisheries	3.7	3.7
Mining	1.1	1.7
Construction	11.6	9.8
Manufacturing	23.3	25.5
Transportation and communication	7.7	8.6
Wholesale and retail trade	18.5	18.7
Finance, insurance, real estate	2.2	1.7
Business and repair services	6.3	6.9
Personal services	3.1	2.8
Entertainment and recreational	1.5	1.9
Professional and related services	14.6	11.6
Public administration	6.3	7.0
Worker covered by union contract	20.8	23.0
Worker dislikes the job	15.8	16.1
Annual wages (mean dollars)	$21265	$23439

Some individual workers reported more than one injury and thus their characteristics are counted more than once in this table.
*Jobs with any of the four types of exposures.

information about overtime work and the receipt of overtime pay.

For the purposes of this study, five exposure categories were specified:

- *Extended hours per week*: Jobs in which the respondent reported regularly working 60 or more hours per week were considered to have this exposure.
- *Extended hours per day*: Jobs in which the respondent reported regularly working 12 or more hours per day were considered to have this exposure.
- *Overtime*: For the 1988–93 survey years, the individual's job was considered to have this exposure if the worker responded "yes" to the question: "Did you work overtime at this job?". The NLSY survey did not define the meaning of "overtime"; interpretation of that term was left up to the discretion of the respondent. Owing to changes in the NLSY questionnaire, from the 1994 to 2000 survey years, the individual's job was considered to have this exposure if the worker responded "yes" to the question: "At this job, did you usually receive overtime pay?".
- *Extended commute time*: Jobs in which the respondent reported regularly commuting two or more hours per day to and from the workplace were considered to have this exposure.
- *Overtime or extended hours*: This was a derived summary exposure variable. A worker's job was considered to have this exposure if it contained any of the preceding four exposures.

The exposure categories were not mutually exclusive and so a particular job potentially could have one or more exposures.

The primary outcome of interest in this study was the self-reported incidence of a work related injury or illness. This was based on a respondent's affirmative response to the following question:

> "I would like to ask you a few questions about any injuries or illnesses you might have received or gotten while you were working on a job. Since [date of last interview] have you had an incident at any job that resulted in an injury or illness to you?"

During the 13 year study period, 5139 work related injuries and illnesses were reported. Of those, 2799 occurred in jobs having exposure to at least one of the four exposure categories. Table 1 summarises characteristics of the effected workers and their injuries. For the purposes of this analysis, we assumed that the reported injuries were independent

Table 2 Job records with reported work related injuries or illnesses that were included in the regression analysis compared to those that were excluded, weighted data

Variable	Job records included n=4765	Job records excluded* n=374	p value
Gender (% male)	62.6	61.8	0.78
Race (e.g. % black)	23.4	19.8	0.44
Marital status (% married)	53.2	48.7	0.08
Region (e.g. % Southern)	33.5	35.6	0.30
Urban (%)	24.2	24.3	0.94
Occupation (e.g. operatives)	22.1	21.3	0.74
Industry (e.g. % manufacturing)	23.2	24.4	0.46
Injury (e.g. % musculoskeletal)	34.0	35.6	0.16
Satisfaction (% likes job)	83.3	84.2	0.66
Age (mean)	29.3	31.3	<0.01
Family income (mean $1000s)	30.4	30.5	0.97
Family size (mean)	3.20	3.03	0.29
Education (mean years)	12.1	12.4	0.05
Salary (mean $1000s)	15.5	20.2	<0.01

*An additional 174 excluded job records containing a second or subsequent injury have not been included in this comparison because they are a subset of the included jobs.

from one another. Also, we assumed that a distinct worker may suffer more than one injury, and in that circumstance, the worker's characteristics (in table 1 and the subsequent analyses) would be counted more than once. These presumptions reflect typical patterns of acute injury occurrence and accident reporting in industrial settings. For example, it would not be uncommon for a particular worker to fall and sprain an ankle on one occasion and then subsequently (perhaps even in the same year) suffer a different injury (for example, a cut finger) without there being a specific causal connection between the two events.

Crude (unadjusted) occupational injury and illnesses incidence rates for each of the five exposure categories (for each survey period) were calculated by dividing the total number of work related injuries and illnesses reported in jobs having each type of exposure by the total accumulated person-time worked in those jobs. The crude incidence rates for each exposure category were plotted graphically for every NLSY survey year from 1988 to 2000 to depict trends over time and to visually portray the relative difference in rates between jobs with and without each type of exposure (that is, the relative rate ratio). Information about commuting time was only collected in NLSY survey years 1988, 1993, and 1994, and thus trend lines for that exposure category were not graphed.

Rate ratios, reflecting the relative risk of reporting the occurrence of an occupational injury or illness, were calculated by dividing the incidence rate for the accumulated person-time in jobs with an exposure by the incidence rate for accumulated person-time in jobs without that exposure. So, for example, in a particular survey period, if 300 injuries were reported to have occurred in jobs containing a total of 3000 person-years with an exposure and 200 injuries were reported to have occurred in jobs containing a total of 4000 person-years without that exposure, then the crude rate ratio would be 2.0, calculated as follows:

- (300 injuries/3000 exposed person-years) ÷ (200 injuries/4000 unexposed person-years) = 10.0 injuries per 100 exposed person-years ÷ 5.0 injuries per 100 unexposed person-years = rate ratio of 2.0

To adjust for the influence of selected covariates, multivariate analyses were performed to calculate hazard ratios for each exposure category using Cox proportional hazards regression techniques, which are used to analyse the effect of multiple risk factors over the time preceding the occurrence of an event. The multivariate analyses included all accumulated person-time of exposure preceding the first injury in a particular job during a survey period, disregarding subsequent injuries and associated exposure time in that job during the period. Of the total number of work related injuries reported (5313), only 174 (3.3%) were the second or subsequent injury in a job during a survey period and thus were excluded from the analyses. Other job records were excluded because of insufficient information about the specific date of injury or time spent on a job, resulting in the exclusion of an additional 370 injuries, and the absence in some records of sample weights, resulting in the exclusion of an additional four injuries (and the associated exposure time). We performed a comparison of the job records with injuries used in the regression analysis (4765) to the 374 records with missing data to determine if those included and excluded were significantly different. The 174 "subsequent injury" records were not included in this comparison because by definition they had the same job characteristics as those included in the 4765 job records with first injuries. Our comparison showed that the records excluded from the analysis were very similar to those included (table 2).

As a result of these methodological considerations, there was a total of 109 087 job records and 4765 injuries used in the Cox proportional regression analyses of hazard ratios compared to 110 236 job records and 5313 injuries used in the crude analyses of incidence rates and rate ratios. Sample weights were applied to derive nationally representative estimates for individuals in the NLSY age range (14–22 years old as of 1979; 22–43 years old during the study period from 1987 to 2000).

Each regression model included the accumulated person-time for one of the five exposure categories as the primary independent variable, the reporting of a work related injury or illness as the dependent variable, and age (continuous variable), gender (M/F), region (Northeast, South, North Central, West), occupational grouping (high risk/low risk), and industry grouping (high risk/low risk) included as covariates. "High risk" occupations included US Census (1970) Occupation Classification Codes 401–575, 601–715, and 740–785 (craftsmen, foremen, operatives, and labourers), and "high risk" industries included US Census (1970) Industrial Classification Codes 067–077 and 107–398 (construction and manufacturing sectors).[65] The occupation and industry codes selected for inclusion in the "high risk" categories have traditionally higher than average occupational injury and illness incidence rates as reported by the US Bureau of Labor Statistics.[66] We tested the proportional hazards assumption and it held for every variable used in the regression model with the sole exception of region. However,

Table 3 Types of injuries and illnesses reported by workers in jobs with and without exposure, percent distribution, weighted data

Type of injury or illness	Injuries and illnesses in jobs with an exposure n = 2799	Injuries and illnesses in jobs without exposure n = 2339
Musculoskeletal conditions	34.9	34.4
Fractures	7.8	7.4
Cuts and bruises	25.0	24.9
Burns	3.3	3.3
Other traumatic injuries	12.2	11.6
Peripheral nervous system diseases	2.8	2.7
Other occupational diseases	9.2	10.2
Miscellaneous	4.8	5.5

in our analysis, region was considered only as a potential confounder. We did not draw or report any conclusions in this study about the effect of region on the propensity for injury. Thus, based on the general applicability of the assumption for all of the primary exposure variables and the main outcomes variable (injury) used in the analyses, we applied the Cox proportional approach and reported the results accordingly.

Crude incidence rates and rate ratios were calculated with SAS (version 8.0) statistical software.[67] The ProQuest software system was used to create a database of jobs and person-time exposure records,[68] and Cox proportional regression analyses were performed on that database using Stata SE (version 7) statistical software.[69] Because the hazard ratio calculations were based on a sample rather than the NLSY's entire target universe (Americans aged 14–22 as of 1979), the results were subject to sampling error. To account for sampling effect, 95% confidence intervals around the hazard ratios were estimated by applying Taylor approximation techniques using SUDAAN (version 7.5) analytical software.[71]

RESULTS

Table 3 summarises the types of injuries and illnesses reported, among people working in jobs with and without exposure. Most reported work related conditions were either musculoskeletal disorders (34.7% of all reported injuries) or cuts and bruises (25.0%).

The unadjusted incidence rate for the entire duration of the study was 7.50 reported injuries per 100 worker-years for people in jobs with exposure to extended hours per week, 29% higher than the rate among those in jobs without exposure to extended hours per week (5.81 reported injuries per 100 worker-years). Similarly those in jobs with exposure to extended hours per day had an incidence rate 38% higher than those in jobs without that exposure (7.97 *v* 5.77 injuries per 100 worker-years), those in jobs with exposure to overtime had an incidence rate 84% higher than those in jobs without that exposure (7.49 *v* 4.06 injuries per 100 worker-years), and those in jobs with exposure to extended commute time had an incidence rate 7% lower than those in jobs without that exposure (6.90 *v* 7.46 injuries per 100 worker-years).

Incidence rates for each type of exposure varied by survey year, with a general downward trend in injury rates observed from 1988 to 2000 for all exposed and non-exposed groups (fig 2). Between 1988 and 2000, rates among the various exposure categories decreased by 54–69%. There were some fluctuations observed in the relative gap between exposed and unexposed groups during the study period, but no notable trends in the relative difference between groups over time were detected.

There was a strong positive relation observed between the magnitude of exposure for extended hours per week and extended hours per day and the corresponding injury incidence rate (fig 3). For extended hours per day, every additional five hours per week over 40 was associated with an average increase of approximately 0.7 injuries per 100 worker-hours. For extended hours per day, every additional 2 hours per day over 8 was associated with an average increase of approximately 1.2 injuries per 100 worker-hours.

Table 4 summarises the unadjusted rate ratios and 95% confidence intervals for each exposure category and the unadjusted hazard ratios calculated using first injuries only through the Cox proportional method. The ratios and confidence intervals calculated by each method were generally quite similar. The final adjusted hazard ratios calculated by the Cox proportional methods, after adjusting for age, gender, occupation, industry, and region, are presented in table 5. The results of the adjusted analysis indicates that the association between exposure and the risk of injury was only slightly affected by the influence of those covariates. This analysis found that, after adjusting for those factors, jobs with extended hours per day have a 37% higher injury hazard rate compared to jobs without that exposure. Similarly, working in a job with extended hours per week was associated with a 23% higher injury hazard rate, working in a job with overtime was associated with a 61% higher injury hazard rate, and working in a job with any overtime or extended hours schedule was associated with a 38% higher injury hazard rate. No association was detected between working in a job with extended commute time and the injury hazard rate.

DISCUSSION

This study of nationally representative data from the United States adds to the growing body of evidence indicating that work schedules involving long hours or overtime substantially increases the risk for occupational injuries and injuries. Unlike previous studies, our investigation had the advantage of covering a large variety of jobs, and controlling for the potential confounding affect of age, gender, occupation, industry, and region. We analysed nearly 100 000 job records extending over a 13 year period, and employed several statistical techniques for quantifying the extent of risk. The results of this study suggest that jobs with long working hours are not more risky merely because they are concentrated in inherently hazardous industries or occupations, or because of the demographic characteristics of employees working those schedules. Our findings are consistent with the hypothesis that long working hours indirectly precipitate workplace accidents through a causal process, for instance, by inducing fatigue or stress in affected workers. However, our findings are also consistent with other hypotheses and thus we cannot be certain of a causal connection based on this study alone.

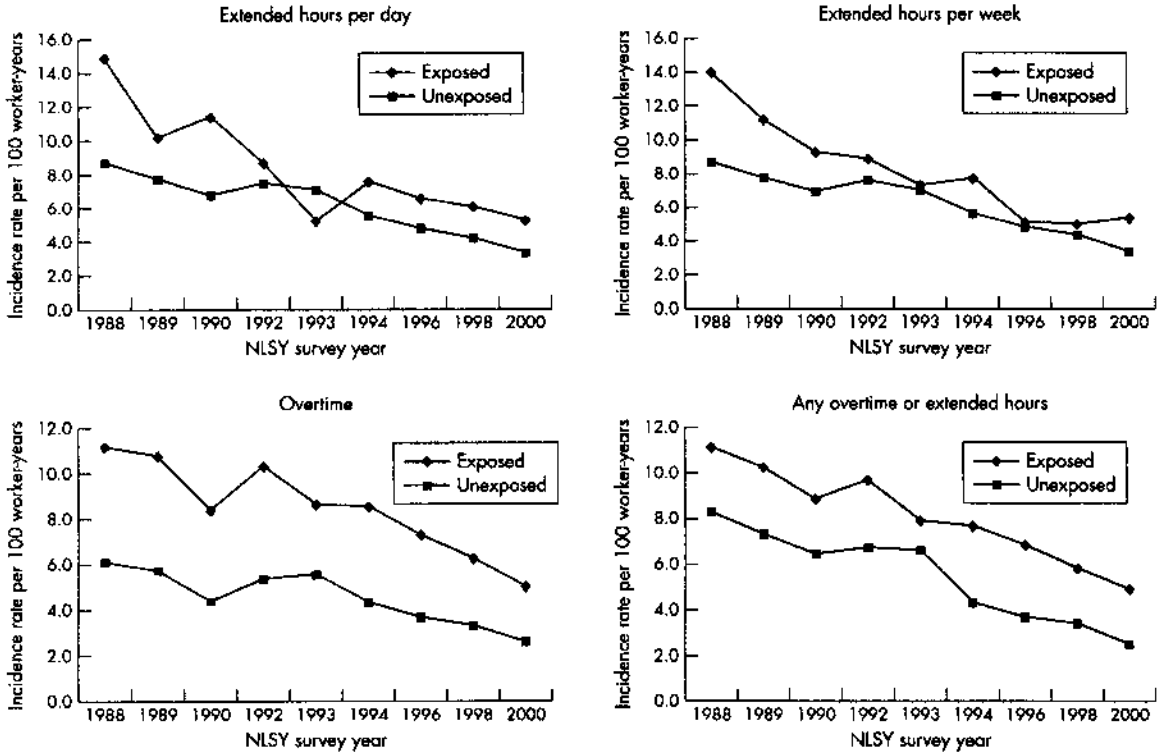

Figure 2 Trends in incidence rates of reported work related injuries and illnesses in jobs with and without exposure, by exposure category. NLSY survey periods 1988, 1989, 1990, 1992, 1993, 1994, 1996, 1998, and 2000. Note: NLSY changed the wording for the question regarding overtime in 1994, thereby potentially affecting the trend lines for "overtime" and "any overtime or extended hours".

Our comparison of injury incidence rates for workers in jobs with and without exposure was normalised by using a common denominator of 100 worker-years, thus avoiding a common methodological flaw that has afflicted some previous studies in this field. For example, workers who, on average, work longer hours (for example, 2500 hours per year) can be expected to experience more injuries than those who work shorter hours (for example, 2000 hours per year), even if the underlying risks to both groups are actually the same, because the former group spends more time "at risk" for injury. Many studies that have observed more injuries among persons who work longer hours have failed to take

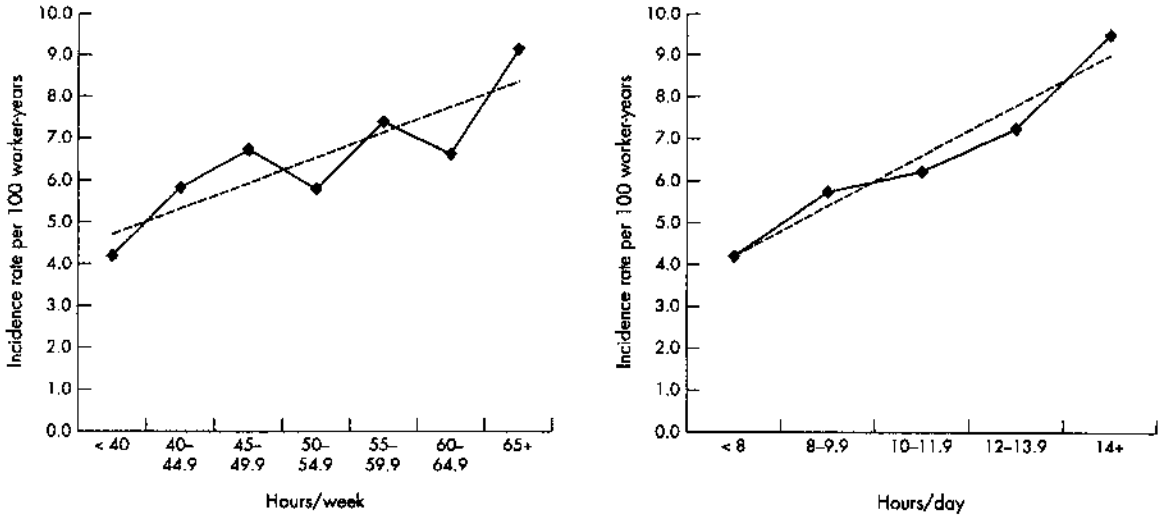

Figure 3 Trends in incidence rates of reported work related injuries and illnesses in jobs with and without exposure, for two exposure categories (hours/week and hours per day), by amount of exposure. NLSY aggregated data covering 1987–2000.

Table 4 Unadjusted rate ratios, hazard ratios, and 95% confidence intervals for injuries or illnesses reported in jobs with exposure to overtime and extended hour schedules

Exposure category	Unadjusted rate ratio	95% CI	Unadjusted hazard ratio	95% CI
Extended hours/week (≥60)	1.29	1.18 to 1.42	1.29	1.15 to 1.46
Extended hours/day (≥12)	1.38	1.26 to 1.51	1.46	1.30 to 1.63
Overtime	1.84	1.75 to 1.94	1.84	1.70 to 2.00
Extended commute time (≥2 hours)	0.93	0.75 to 1.14	0.94	0.72 to 1.22
Any type of overtime or extended hours	1.41	1.35 to 1.48	1.48	1.38 to 1.59

NLSY data, 1987–2000. n = 110 236 job records for rate ratios, 109 087 for hazard ratios.

this consideration into account (as would happen, for instance, if incidence rates were to be calculated on the basis of number of injuries per 100 full-time workers). This study controls for that effect by deriving rate ratios (and hazard ratios) which compare the propensity to suffer injuries in each group during a standardised period of "at risk" time.

A notable result of our analysis was the detection of a clear dose-response effect, in which the number of hours worked per week (over 40) and the number of hours worked per day (over 8) were positively associated with an increasing risk of injury (per 100 worker-years). This finding lends support to the idea that there may be a causal process linking long work schedules with occupational injury. In this respect, our study is consistent with others[51 52 54 70] that have shown increasingly greater level of injury risk in the latter portions (for example, beyond 9 hours) of long work shifts.

To some extent, the decline in incidence rates between 1988 and 2000 observed in our study reflects the general decline in occupational injury and illness rates reported nationally during that period. Data from the US Bureau of Labor Statistics (BLS) indicate that occupational injury and illness rates (all case, private industry) decreased by 29% during that period, from an average of 8.6 to 6.1 reportable cases per 100 workers.[72] That decline has been attributed to various possible causes, including safer workplaces and a shift from manufacturing to service oriented jobs, which typically have lower average incidence rates.[73] Another factor that may help to explain the relatively larger (54–69%) rate decreases observed in our study is the aging of our cohort, who were 23–31 years old in 1988 and 35–43 years old as of 2000. Younger workers generally have higher incidence rates than older ones, in part because workers tend to move into lower risk occupations (for example, managerial and administrative) as they age.

Our study found that overtime schedules had the greatest incremental risk of injury, with overtime workers having a 61% higher injury hazard rate compared to workers in jobs without overtime, after controlling for age, gender, occupation, industry, and region. This finding is consistent with other studies that have identified overtime work as particularly hazardous.[21 29 49 74] But few previous studies have compared the relative risk of "overtime" schedules to other schedules with long working hours per day or per week. Indeed, the meaning of "overtime" is not precise, and thus the term might be used differently in different contexts and locations. Prior to 1994, no specific definition of "overtime" was provided to NLSY respondents, and so the term could have been interpreted in a variety of ways: referring, for example, to long work hours, work that exceeds the respondent's conventional work schedule, unusual or unexpected hours of work, or work that qualifies the worker for overtime pay. To help clarify this issue, the wording of the "overtime" question in NLSY was changed in 1994 to refer specifically to work that qualifies for overtime pay.

Under the US Fair Labor Standards Act of 1938 (FLSA), employees covered under the act are entitled to receive overtime pay equalling at least 150% of their regular pay rate for all work time exceeding 40 hours per week. It was estimated that the FLSA covered 74 million American workers in 2000, about 79% of the US civilian labour force.[75 76] On average, approximately 20% of covered workers receive overtime pay in any week.[77] During the 1990s, the average weekly overtime hours put in by manufacturing workers covered by FLSA grew by 25%.[78] Workers exempt from FLSA coverage include most administrative, professional, executive, supervisory, and outside sales personnel who are paid on a salaried basis. New regulations recently promulgated by the US Department of Labor have extended the FLSA exemptions to an additional 8 million white-collar workers.[79]

In the USA, approximately 19–33% of overtime work is mandatory (also called "compulsory", "forced", or "involuntary").[75 80] Mandatory overtime is overtime work required by employers, often under the threat of job loss or other penalty if the worker fails to comply. Several studies have suggested that mandatory overtime is especially hazardous with respect to its affect on worker fatigue, stress, impaired performance, and the potential for accidents, especially in the nursing and healthcare professions.[75] The NLSY did not differentiate between mandatory and voluntary overtime, and it is not currently addressed or regulated by the FLSA.

Our study also found greater injury risks associated with work schedules exceeding 60 hours per week and 12 hours per day. These specific values for identifying "extended hours" were chosen based on previous research studies which had detected increased risks at those levels.[6 11 25 50 81 82]

Table 5 Adjusted hazard ratios and 95% confidence intervals for injuries or illnesses reported in jobs with exposure to overtime and extended hour schedules, after controlling for age, gender, occupation, industry, and region

Exposure category	Adjusted hazard ratio	95% CI
Extended hours/week (≥60)	1.23	1.05 to 1.45
Extended hours/day (≥12)	1.37	1.16 to 1.59
Overtime	1.61	1.43 to 1.79
Extended commute time (≥2 hours)	0.87	0.59 to 1.23
Any type of overtime or extended hours	1.38	1.25 to 1.51

NLSY data, 1987–2000, n = 109 087 job records.

Main messages

- Working in jobs with schedules that routinely involve overtime work or extended hours increases the risk of suffering an occupational injury or illness.
- Overtime schedules had the greatest relative risk of occupational injury or illness, followed by schedules with extended (≥12) hours per day and extended (≥60) hours per week.
- The risk of injury was found to increase with the increasing length of the work schedule, even after controlling for the entire amount of working time spent "at risk" for injury.
- Multivariate analyses indicated that the increased injury risks are not merely the result of the demanding work schedules being concentrated in riskier occupations or industries.
- These results are consistent with the hypothesis that long working hours indirectly precipitate workplace accidents by inducing fatigue or stress in affected workers.

Policy implications

- This study supports initiatives of the European Union and other governments to regulate the length of working schedules.
- Proposals in the United States to modify the Fair Labor Standards Act should examine the impact of those proposed changes on the injury risks associated with overtime work.
- Strategies for preventing workplace injuries and illnesses should consider changes in work organisation and job design addressing the length of work schedules and the performance of overtime work.

However, increased risks also have been detected at other work-hour levels by a variety of researchers and there is as yet no consensus criterion for the precise amount of work that is considered to be hazardous. In an attempt to create uniform labour standards, the European Union issued a Working Time Directive in 1993 that limited normal working hours to no more than 48 per week (averaged over a four month period) and specified other requirements related to rest breaks, shift work, and overtime. Some European nations (for example, the UK) have introduced provisions for workers to voluntarily opt out of these requirements or to otherwise provide flexibility in their implementation.

Study limitations

This study was based on self-reported information from NLSY cohort members regarding their employment and injury/illnesses experiences. Respondents were asked to recall information from the time of the previous interview, which in most cases was one year (for the 1988–1994 surveys) or two years (for the 1996–2000 surveys). There were no means to externally validate their responses. Our results, therefore, may be subject to potential inaccuracies related to the inability of respondents to recall information correctly. At the same time, the NLSY has advantages in this regard compared to other self-reported surveys in that the cohort had been surveyed regularly since 1979 and thus was quite familiar with the questionnaire, the response process, and the information required. Also, the NLSY was not designed to be a survey about work related injuries and illnesses or demanding work schedules—its primary objective was to evaluate participants' long term labour market transitions and wage history. The survey thus avoids problems of information bias that typically plague attempts to ask injured workers about their working conditions and job exposures. Unlike data sources related specifically to the field of occupational safety and health, it is unlikely that respondents to the NLSY will intentionally or unintentionally be attempting to justify the legitimacy of a work related disorder, establish its compensability under workers' compensation laws, or establish the employer's culpability for the injury. All of those issues are unrelated to the main concerns of NLSY and thus the data obtained presumably will be less susceptible to contamination by such considerations.

A strength of the study is its ability to control for the potential confounding affects of age, gender, occupation, industry, and region. However, many other potential covariates—such as workers' education and income levels, family composition, and health status—were not considered in the analysis, and thus their influence was not assessed. Our methods for considering the risks imposed by workers' occupation and the employer's industry classification may have masked more subtle differences related to particular job assignments within a broader occupational classification or specific industry group.

Because the study was based on secondary analysis of existing national data, we were also limited in our ability to evaluate other potentially important aspects of the dynamics underlying the risks of long working hours. For example, we did not have information available on the time of day the injury occurred, the kinds of job activities being performed, or the specific cause of the injury. However, information was available about the type of shift generally worked on each job (day, night, evening, split, or rotating shift) and thus we were able to consider the influence of shift work on injury risk and the combination affect of working both an unconventional shift schedule and long working hours. Those results will be reported in a separate publication.

Policy implications

The ultimate reason for conducting this research is to prevent occupational injuries and illnesses, promote overall worker health, and minimise the adverse consequences to affected workers. Most authorities believe that effective prevention of workplace injuries and illnesses requires a multifaceted approach that combines comprehensive hazard identification and control, ergonomic job design, worker training, medical surveillance, competent supervision, and a workplace culture and organisation that promotes optimal safely and health.

The results of this study suggest that special attention needs to be paid to establishing protective measures for people working overtime. For example, intensive accident hazard identification and control procedures (for example, periodic safety inspections) could be focused towards jobs in which employees work overtime schedules. Other protective approaches might include changes in work organisation (for example, periodic rest brakes, redesigning processes to avoid the need for overtime assignments, and employing more people to work fewer hours each), employer sponsored health promotion programmes (for example, counselling and education about the risks of long work schedules, periodic medical surveillance examinations for "at risk" workers, and ergonomic redesign to decrease job demands), and individual coping and behavioural practices (for example, maintaining good sleep and nutrition, getting daily physical exercise and regular medical care, avoiding drugs and alcohol, and seeking

supportive services when needed). Our study was not aimed at assessing the effectiveness of these interventions in decreasing the risk of injury, and additional research is needed in this regard.

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Answers to questions on *Genetic screening and occupational and environmental exposures* by P Vineis *et al*, on pages 657–662

(1) c; (2) a and b; (3) b and d; (4) c and d; (5) d

K. Palmer
Work in brief
Occup. Environ. Med., September 1, 2005; 62(9): 585a - 585a.
[Full Text] [PDF]

D Loomis
Long work hours and occupational injuries: new evidence on upstream causes
Occup. Environ. Med., September 1, 2005; 62(9): 585 - 585.
[Full Text] [PDF]

Appendix 7.26

TO	**CHAIR AND MEMBERS BOARD OF CONTROL**
FROM	**JOHN KOBARDA FIRE CHIEF AND DIRECTOR OF PARAMEDIC SERVICES**
SUBJECT	**FIRE FIGHTER OVERTIME COMPARATIVE STUDY**

RECOMMENDATION

That this report **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINTENT TO THIS MATTER

- *Update on Fire Services, May 10, 2005*
- *Update on Fire Services, June 22, 2005*
- *Review of London Fire Services' Response to OFM Report, August 24, 2005*
- *Update on Fire Services, January 24, 2006*
- *Report to Board of Control on 2005 Fire Fighting Division Overtime Costs, February 15, 2006*

BACKGROUND

Early in FY2005, Fire Services identified a possible trend with respect to increased overtime usage. Preliminary projections suggested overtime costs might escalate to $700,000, significantly over the budgeted amount of $430,000. Concerned about a possible emerging issue, Fire Services reported the matter to the Board on May 10, 2005.

At the direction of the Board of Control, Fire Services reported quarterly overtime expenditures throughout the balance of 2005, with the last report delivered on January 24, 2006. During that report, Fire Services noted the actual FY2005 overtime costs as $368,007, $61,993 under the budgeted amount. At that meeting, the Board requested that the Fire Chief and Director of Paramedic Services bring forth a report comparing overtime usage of London Fire Services against other comparable Fire Services in Ontario.

Considerations

When undertaking such a study, it is important to understand that a true "apple to apple" comparison is rarely possible for several reasons. First, there are no "hard and fast" provincial standards governing service, as each municipality provides a level of service that meets its needs and circumstances. Second, all fire departments operate differently because of the needs and circumstances of the community, collective agreement obligations, etc. Finally, the relative size of each organization and variances with respect to collective agreement obligations, etc. create discrepancies that skew the comparative data. Notwithstanding the foregoing, where possible, this report attempts to present the data in a comparative format, as well as explain variances where possible.

<u>Key Considerations</u>

- London's budget figures represent 2003 salary rates, whereas the comparative group's costs represent 2005 values.
- With the exception of Windsor, London is the only other department within the

study group whose firefighters work a twenty-four (24) shift. Accordingly, where appropriate, the hours of work data related to London and Windsor have been adjusted to reflect the shift schedules of other departments.

- For the purpose of this report, the three main types of absences studied included daily absences due to illness (incidental), vacation liabilities and lieu days.

Method

Fire Service commenced the study by developing nine questions seeking information related to overtime, staffing, major categories of absences, etc. Focusing on municipalities with similar sized department, Fire Services extended invitations to comparable fire departments serving a population of 100,000 or more; however, excluded Toronto. Of the nine (9) surveys distributed, seven (7) responded. The list below depicts the data sought from each respondent (2005-budget year):

- Actual fire fighting division salary costs
- Actual fire fighting division overtime costs
- Total platoon complement
- Minimum staffing level
- Average number of sick days taken per firefighter
- Average number of vacation weeks taken per firefighter
- Do you provide firefighters time off for statutory holidays, or do you pay in lieu of time off?

Observations

Overtime Costs

A straight across the board comparison is impossible given the differences in the size of each force and its associated operating costs, as well as the overtime costs. To undertake a valid comparison, it is necessary to develop a means by which to normalize the figures. Appendix A shows the results of a normalization using the following formula:

$$\textbf{Overtime as a \% of the Salary Budget} = \frac{\textbf{Overtime Costs}}{\textbf{Salary Costs}}$$

Applying this formula, the percentages of overtime versus salary costs ranged from Mississauga's low of 0.89% to Markham's high of 5.79%. London ranked third lowest at 1.27%, just slightly above Ottawa's 1.25%. It is important to note that Markham's unusually high experience was the result of a delay in the hiring of replacement fire fighters.

Staffing Ratios

Staffing ratios are a mathematical measure of how many firefighters a department employs to maintain a defined level of service. The formula for calculating the staffing ratio is:

$$\textbf{Staffing Ratio} = \frac{\textbf{Platoon Complement}}{\textbf{Minimum Daily Staffing}} \times \textbf{4 Platoons}$$

Reviewing the above formula, a higher staffing ratio implies a department employs a greater number of firefighters above a minimum complement to address "time off" liabilities, whereas those departments with a lower ratio might use overtime to achieve the same objective. Typically, departments with ongoing predictable shortages will use a higher ratio because it is more economical to use permanent staff costing between 92% to 122% of a 1st Class Fire Fighters rate (salary plus benefit costs) to address daily shortages rather than bringing staff in on overtime at 1 ½ (150%) their regular rate. Conversely, departments experiencing random and unpredictable absences and vacancies may elect to use an overtime strategy because the low frequency of shortages. Occasionally paying a firefighter at an overtime rate is more cost efficient than paying one or more fulltime employees salaries plus the benefits for an entire year.

Concerning staffing factors of the comparative group, Appendix B shows London ranked second lowest with a ratio of 5.01:1. This ratio translates into the City requiring 20 firefighters to operate a four-person vehicle on a 24/7 basis. Burlington ranked the

lowest with a ratio of 4.80:1 or 19.8 firefighters per 4-person vehicle. The highest in the comparative group was Ottawa with a ratio of 5.58:1 or 22.34 firefighters per platoon per four-person vehicle.

Absences - General

Appendix C summarizes the responses to the survey concerning daily absences due to illness (incidental), vacation liabilities and lieu days.

Incidental Absenteeism

For the purpose of this report, incidental absenteeism is defined as daily, random absences attributable to illness; however, it does not include long and short-term disability or time off related to a workplace injury (WSIB). Incidental absence has the potential to significantly affect overtime costs or create pressures to hire more firefighters because the number of firefighters off can vary dramatically from day to day making it difficult to predict, albeit modelling based on historical patterns can assist somewhat. Within this category, London ranked the highest with an average of 10.8 days off per firefighter with Windsor and Hamilton following at 10.02 and 10.00, respectively. Burlington ranked the lowest in the group with 6.0 days off per firefighter.

Vacation Liabilities

Of the three categories of absenteeism reviewed, absences related to vacation liabilities are by far the most significant. Despite their significance, fighters must schedule vacations well in advance so they are planned and predictable. Like staffing ratios, vacation liabilities vary from department to department for several reasons. A newer, less senior department will most likely have a lower vacation liability because this benefit is service sensitive, whereas a more senior department will have greater vacation liabilities. In addition to pressures noted, some within the comparator group provide a greater number of weeks vacation and/or the trigger points are lower than others in the comparison group. London, Windsor and Markham ranked the lowest with an average per fire fighter vacation liability of 3.4 week, 3.4 weeks and 3.5 weeks, respectively. Hamilton reported the highest obligation with 5.0 weeks on average be owed to each fire fighter.

Lieu Days

The last category included in the study is lieu days. Unlike factories, offices, and other non-emergency related organizations, emergency services cannot shut down on a statutory holiday. Nevertheless, employees working these days are entitled to some form of compensation, time off or otherwise. Again, the method by which this compensation occurs across the comparable group varies, including the provision of time off at another time in the year, simply paying out the time at a negotiated rate or a combination of both. The formula below illustrates how those departments providing time off might calculate the additional complement required.

$$\textbf{Additional Platoon Complement} = \frac{\textbf{(\# of Stat Holidays x Hours Off x \# Firefighters/Platoon)}}{\textbf{(24 Hours/Day x 365 Days/Year}}$$

It is interesting to note that a few departments that previously provided time off are now converting to pay in lieu strategy, or a combination thereof, with others exploring the concept. Unlike the departments that provide pay in lieu, those providing time off in lieu must coordinate this additional time off with other scheduled and unscheduled absences. Appendix C identifies the forms of statutory holiday compensation, time off, monetary or combination thereof. Where time off is provided, the liability is noted in an equivalent number of weeks.

In accordance with the collective agreement, London pays its firefighters in lieu of time off. Although the City cannot unilaterally change to a time off system, converting to such a system with the current collective agreement obligations would require the City to provide each firefighter 7.15 twenty-four hour shifts off. A detailed analysis is necessary to determine how many firefighters would be required to cover these absences; however, if one assumes that this liability is spread equally across the 45 tours, up to 6.6 firefighters could be required on each platoon.

Summary

Appendix C provides a summary of each respondent's "time off" liabilities based on the three categories of absence. It should be noted that other factors not included in the study may contribute to the absences, albeit to a lesser degree, including, but not limited to WSIB, modified work, STD/LTD, bereavement, executive leave, and off platoon training reassignments. The chart identifies Burlington's liabilities as being the lowest at 5.71 weeks on average per fire fighter with Hamilton being the highest at 10.14 weeks on average per fire fighter. London's liability ranked the second lowest at 6.49.

Discussion

This report identifies three major categories of absence, namely vacation, lieu days and incidental absenteeism. Although not included as a part of this study, it is important to note that several other types of absences also exist such as workplace injuries, retirements, off shift training, absences related to short and long-term disabilities, modified work, bereavement leave, and Association leave. These did not form part of the study because they are relatively minor compared to the three major types.

On the surface, the concepts surrounding absences appear simple; however, the multi-dimensional aspect of absences makes them quite complex. Various forms of absences exist including uncontrollable, controllable, scheduled and randomly occurring. Some may fall into more than one category. For example, absences related to major training initiatives (i.e. special teams, company officer development) fall into the controllable and scheduled category because when an individual participates is at administration's discretion: however, it is also uncontrollable, as health and safety requires it to occur. Uncontrollable absences, which include, but are not limited to, sick time, retirements, workplace injuries, etc., occur randomly. Regardless of the type of absence or its categorization, the proper combination thereof on any given day can trigger overtime.

Over the last couple of years, Fire Services developed a staffing model so that it could monitor absences in relation to platoon complements. The staffing model shown in Appendix E, which reflects London's platoon configurations since 2002, more finitely illustrates the various types of absences considered when establishing a platoon complement. It is important to note that platoon models typically use average figures and fractions of individuals, so they are not based on worse case scenarios but instead rely on probability theories. Concerning averages, the model below accounts for 4.89 firefighters being off sick on average per day but that number can range from zero to over 10 on any given day. Similarly, with respect to fractions of people, the model notes 0.28 people on WSIB. Either no one is off or one or more entire individuals are off injured. The same logic needs applies to all of the other categories. On the matter of probabilities, the assumption is that on any given day one or more categories of absence will not be used thereby offsetting ones that are.

Appendix D correlates the data in an attempt to summarize the comparative study. Reviewing the data, London's current time off liability is lower than the comparative groups, save and except Burlington. Interestingly, while London's staffing ratio is slightly higher than Burlington's, its overtime ratio is slightly lower. By comparison, Ottawa has the third highest time off liability of the comparative group at 9.05 weeks per firefighter; however, that city's overtime is second lowest. The chart shows that Ottawa uses a higher complement of fulltime staff to address its operational needs with the highest staffing ratio of the group at 22.34:1. This finding suggests the department uses operational salary to address the staffing challenge in lieu of overtime dollars. Given the size of their time off liabilities, it is reasonable to assume that the frequency of absences support the use of fulltime staff instead of the reliance on overtime. As another example, Windsor's comparatively low staffing ratio (converted for 48 hour average workweek) cannot address its current high time off obligations (2nd highest). Therefore, the department must use a greater amount of overtime to maintain service. Similar analogies may be drawn across the comparative group.

Emerging Issues

London's time off liabilities will gradually increase in the future due to its changing demographics. For example, approximately 25% of the staff has less than 7 years service. As this large group gains additional service, there will be significant pressures on the system potentially requiring additional overtime or hiring of staff to offset vacation related absences alone. To compound the issue, several other smaller but significantly sized groups are also moving through the system. Another pressure surrounds the

department's efforts to diversify, specifically with respect to expanding Fire Services' complement of female firefighters. However, because of changes to the collective agreement, legislation and an increased awareness with respect to the dangers surrounding firefighting, female firefighters could be assigned to off shift duties for an extended period. In speaking with London Police, we learned female police officers come off street duties for two to three years, and up to five if they decide to have additional children consecutively. As both occupations carry inherent physical risks, it is safe to assume that Fire Services experience will be similar.

Report prepared by J. Kobarda, D. Kitterman, with the assistance of G. Francis.

SUMMARY

Because of the differences with respect to the delivery of services, dissimilarity between collective agreements and varying demographics, a direct and valid comparison of overtime is not possible. Notwithstanding the foregoing, we normalized the data to enable some form of comparison. In an attempt to analyze the overtime figures, the study also reviewed factors staffing ratios and overall "time off" liabilities, as they are major contributing factors to overtime.

Of the comparable group, London ranked as follows:

- Overtime as a % of Salary Budget
  - London - third lowest at 1.27%.
  - Highest: Markham - 5.79%
  - Lowest: Mississauga - 0.85%.
- Staffing Ratio (No. of Firefighters per 4-person vehicle)
  - London – second lowest at 20.06
  - Highest: Ottawa - 22.34
  - Lowest: Burlington - 19.20
- Average Sick Days Used/Firefighter
  - Highest: London - 10.8 Days
  - Lowest: Burlington - 6.0 Days
- Time Off Liability – Weeks Off/Firefighter
  - London – second lowest at 6.49
  - Highest: Hamilton - 10.14
  - Lowest: Burlington - 5.71

  Time Off liability includes vacation accruals, absenteeism and time off for statutory holidays.

RECOMMENDED BY:

JOHN KOBARDA
FIRE CHIEF AND DIRECTOR OF PARAMEDIC SERVICES

c. Jeff Fielding

Appendix A - Overtime as a Percentage of Salary

	Ottawa	Mississauga	Hamilton	Windsor	Markham	Kitchener	Burlington	Average	London	Deviation from Group Average
Total Salary ($) of Fire Fighting Division	$54,578,852	$40,362,483	$31,014,596	$18,860,000	$15,077,793	$11,778,125	$9,877,999	$25,935,693	$28,986,514	**$3,050,821**
Total Cost of Overtime for Fire Fighting Division	$680,032	$342,000	$413,487	$530,800	$873,082	$327,138	$129,697	$470,891	$368,007	**($102,884)**
Overtime Budget as a Percentage of the Fire Fighting Division Salary	**1.25%**	**0.85%**	**1.33%**	**2.81%**	**5.79%**	**2.78%**	**1.31%**	1.82%	1.27%	**-0.55%**
Ranking	2	1	5	6	8	7	4	n/a	3	n/a

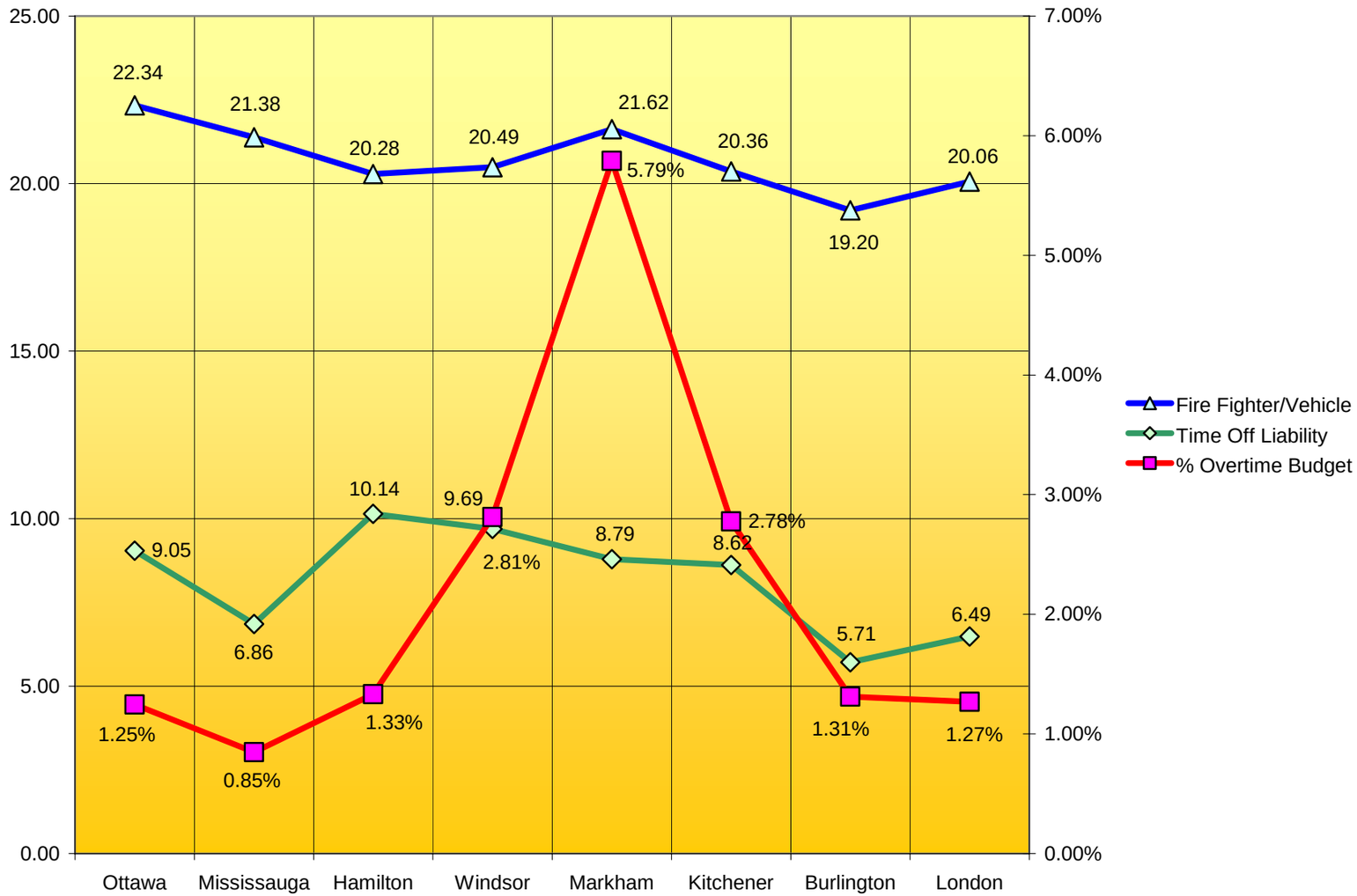
Appendix B - Fire Fighting Division Staffing Ratios

	Ottawa	Mississauga	Hamilton	Windsor	Markham	Kitchener	Burlington	Average	London	Deviation from Group Average
Number of Fire Fighters	860	588	431	292	200	168	144	383.3	336	**(47)**
Total Platoon Complement	215	147	108	73	50	42	36	95.8	84	**-11.82**
Minimum "On-Duty" Platoon Complement	154	110	85	57	37	33	30	72.3	67	**-5.29**
Staffing Ratio	5.58	5.35	5.03	5.12	5.41	5.09	4.80	5.20	5.01	**-0.19**
Fire Fighter Staffing/Equivalent 4 Person Vehicle	22.34	21.38	20.28	20.49	21.62	20.36	19.20	20.8	20.06	**-0.75**
Ranking	5	6	8	4	7	3	1	n/a	2	n/a

Appendix C - Time off Liabilities

	Ottawa	Mississauga	Hamilton	Windsor	Markham	Kitchener	Burlington	Average	London	Deviation from Group Average
Average Number of Sick Days used per Fire Fighter (Fire Fighting Division)	9.84	8.3	10.0	10.02	6.5	9.5	6.0	8.6	10.8	**2.21**
What is the average number of vacation weeks for Fire Fighting personnel?	4.52	4.00	5.00	3.40	3.50	4.76	4.00	4.17	3.40	**-0.77**
Do you pay statutory holidays in the form of lieu day pay or through time off?	Optional--take stat lieu time off or be paid out when lieu has been earned.	Paid out at rate of 1.5 Time off not allowed	Pay out 4 days and provide 8 days off	Time off	Time off	Pay out 8 days and provide 4 days off	Paid		Paid out at rate of 1.3 Time off not allowed	
Lieu Days (12 hours) provided or estimated	6	1	8	12	12	4	0	6.1	0	
Lieu days provided or estimated - Equivalent weeks (@ 42 hours/week)	1.71	0.29	2.29	3.43	3.43	1.14	0.00	1.76	0.00	
Total "Time Off" Liability (Weeks)	9.05	6.66	10.14	9.69	8.79	8.62	5.71	8.38	6.49	**-1.89**
Ranking	**5**	**6**	**8**	**4**	**7**	**3**	**1**	**n/a**	**2**	**n/a**

Appendix D - %Overtime Budget vs. Time off Liabilities vs. Fire Fighter/Vehicle Staffing



Appendix E – London Fire Services Platoon Staffing Model

	Scheduled	Random	2002	2003	2004	2005
Minimum Staffing			67	67	67	67
Controllable Absences						
Training	♦		2.03	1.17	0.94	0.48
Secondments	♦		0.00	0.14	0.00	0.07
Uncontrollable Absences						
Retirements (See note)		♦	2.00	2.00	2.00	2.00
Absenteeism		♦	4.34	4.54	4.81	4.89
WSIB		♦	0.53	0.30	0.27	0.28
STD/LTD		♦	0.18	0.03	0.00	0.00
Modified Duty		♦	1.01	0.36	0.44	0.46
Other Absences		♦	0.47	0.54	0.89	0.51
Vacation	♦		7.08	7.16	7.47	7.79
			84.64	83.24	83.82	83.48
Average Complement/Platoon			86	84	82	84

Note: Retirements are estimated