

ALASKA LEGISLATURE COMMITTEE FILES 1997-1998 8672

9282 HOUSE LABOR & COMMERCE

This is not a union vs non-union issue; this is a people, family, city, and state issue.

If the law is changed so as to allow 12 hour work days, you are placing the employees, their families, the community, and the state in jeopardy.

1st Scenario: If the company was working a seven day, 12 hour per day operation, they will still be paying some overtime. Example: The logical shifts would be: one person - Monday, Tuesday, Wednesday at 12 hours per day, and Thursday at 6 hours per day. second person - Thursday at 6 hours per day, and Friday, Saturday, and Sunday at 12 hours per day. Each employee would work 42 hours per week with 2 hours of overtime pay.

If the demand for gold, in this case, declined, a natural cut back would be to go to a six day operation. Then each person would work 36 hours per week, which would reduce the employees take home pay, thus affecting their family, the community, and the state's economy. The employees have no guarantee of 40 hours per week.

2nd Scenario: If the company was working a seven day a week, 24 hours per day operation. I have an example with me of a major nation-wide firm working in a state that, several years back, changed the state law to allow 12 hour days, but kept overtime over 40 hours per week. In this example (the schedule for 1997) the employee is forced to work the following schedule:

Work - 2 shifts on days; off - 3 1/2 days, going back to work at 7:00 p.m.; work - 2 shifts on nights; off - 2 days; works - 3 shifts on days; off - 2 1/2 days, going back to work at 7:00 p.m.; works - 2 shifts on nights; 3 days off, etc.

These employees' pay period is every two weeks, thus the paycheck is for a total of 96 hours; 80 hours of straight time and 16 hours of overtime. Part of the reason for the total overtime hours is that all Sunday work is at time and one-half wages.

The real problem with this type of work schedule is the inability for a consistent family life. The parent is not regularly available for family functions, i.e., church, school meetings, boy/girl scouts, musicals, plays, etc., that children participate in.

We already have major problems in our communities with juvenile crime; and why? Because of the lack of having the core family unity and children being unsupervised.

Instead of furthering opportunities for destruction of our families and communities, we need to watch big business to make sure they are not playing a major role in this destruction just for the almighty dollar.

On another note, and I do not have the paperwork to back this up, however, I am working on getting it, in the early 1980s, the oil companies did a study on the length of work days and the length of time spent living in camps on the North Slope. They determined that the amount of work/production accomplished in the hours worked between 10 and 12 was not worth even straight time wages - this is very inefficient.

We all came from some where, some of us came 25 years ago, some after that.

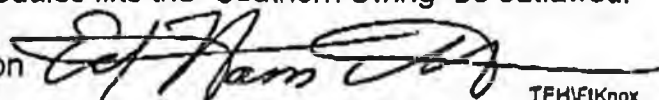
It seems to me that with a little effort, Alaska could be a better place to live by learning from the mistakes made in the lower 48 states, rather than blindly going forward adopting laws that have failed in the lower 48 and that make situations worse for Alaskans.

Finally, this morning I received a copy of the current work schedule at Ft. Knox and the newly proposed work schedule if this were to become the law. It is very obvious why the employees at Ft. Knox are supporting this change in the law. What they are currently working is called the "Southern Swing"; seven days, seven afternoons, seven nights. This type of work schedule has been done away with almost entirely throughout the Lower 48; and why? Because of mental and physical health and family problems of employees. Divorces and suicides have entered into this.

The company's proposed new work schedule is very similar to the second scenario I spoke about, and it's obvious why an employee would prefer this over their current work schedule ("Southern Swing"). Even though people working this scenario in the Lower 48 don't care for it.

In closing, I would ask that the law not be changed for the sake of the employees and their families (in particular, their children) and that work schedules like the "Southern Swing" be outlawed.

Ed Hamilton



TEHVF1Knox

F.D. Knof

Current Schedule

Southern Swing

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Off	Off	Off	Off	Off	Off	Off
Week 2	Off	Off	Swing	Swing	Swing	Swing	Swing
Week 3	Swing	Swing	Off	Night	Night	Night	Night
Week 4	Night	Night	Night	Off	Off	Off	Off

	Hours	Dollars
Straight Time	40	\$700
Overtime	0	\$0
Straight Time	40	\$700
Overtime	0	\$0
Straight Time	40	\$700
Overtime	8	\$210
Straight Time	40	\$700
Overtime	0	\$0
Straight Time	160	\$2,800
Overtime	8	\$210
Total	168	\$3,010

Proposed

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Week 1	Days	Days	Days	Days	Off	Off	Off
Week 2	Off	Off	Off	Off	Night	Night	Night
Week 3	Night	Off	Off	Off	Day	Day	Day
Week 4	Off	Night	Night	Night	Off	Off	Off

Straight Time	40	\$700
Overtime	8	\$210
Straight Time	36	\$630
Overtime	0	\$0
Straight Time	40	\$700
Overtime	8	\$210
Straight Time	36	\$630
Overtime	0	\$0
Straight Time	152	\$2,660
Overtime	16	\$420
Total	168	\$3,080

\$1540



Alaska State Legislature

Please enter into the record my testimony to the LABOR & COMMERCE
 committee name
 committee on HB 68 , dated 1-29-97
 bill/subject

DEAR REPRESENTATIVE ROKEBERG
 Fax #907 4652040

For the record I am sending you and the committee supporting documentation why 12 hour work days are bad for employees along with documentation why the current work schedule (Southern swing) should be outlawed

Thank You
Ed Hamilton
 Fax #907 3376668

Signed: ED HAMILTON *Ed Hamilton*
 Testifier

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Extended workshifts and excessive fatigue

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SUMMARY Studies of overtime have pointed to fatigue as a potential factor producing, for example, a three-fold increase in accident rate after 16 h of work, increases in back injuries, hospital outbreaks of bacterial infection, or nuclear-power plant safety compromises. Fatigue has been measured more directly in studies of scheduled long workshifts, where performance decrements in both work-related tasks and laboratory-type behavioural tests have been observed, and significant loss of sleep and increases in subjective sleepiness have been reported. Analyses of accidents or injuries during scheduled extended workshifts, however, have produced equivocal results. Factors which could compound the fatiguing effects of extended workshifts, such as workload, noise, chemical exposure, or duties and responsibilities outside of the workplace, rarely have been studied systematically. It is concluded that extended workshift schedules should be instituted cautiously and evaluated carefully, with appropriate attention given to staffing levels, workload, job rotation, environmental exposures, emergency contingencies, rest breaks, commuting time, and social or domestic responsibilities.

KEYWORDS accidents, long work hours, overtime, performance decrements, sleep loss, work scheduling.

INTRODUCTION

Socio-economic developments in industrialized countries over the past two decades have produced a trend toward increasing use of workdays or workshifts longer than the typical 8 h. Some schedules compress the workweek by completing a 36-48 h week in 3 or 4 days instead of 5. Other situations require frequent bouts of overtime work because of impending deadlines (e.g. in construction), understaffing (e.g. in nursing), or emergency contingencies (e.g. in firefighting). Other industries, such as shipping, mining, or oil drilling, formally schedule long periods of work, followed by long rest periods, because the difficulty with travel to a remote site makes frequent staff turnover impractical. The degree to which the jobs in any of these contexts can be performed safely and efficiently has been the subject of considerable debate. In Europe, such debate has intensified recently as a current directive on working time proposes, with some exceptions, a minimum daily rest period of 11 consecutive hours, and a maximum of 3 h of night work (Harrington 1994). The concern of this directive, and the debate in general, is the avoidance of excessive fatigue and

the possible risks of accident and injury in the short term, or deterioration of health in the long term. The purpose of this review is to characterize the state of knowledge on long work hours and their association with fatigue, and point to some factors which might produce fatigue or deterioration of performance and alertness in the worker. Studies of extended workshifts can be divided roughly into those concerned with scheduled long workshifts, such as the 10- or 12-h shifts used in compressed workweeks, and those concerned with unscheduled or sporadic long workshifts, which collectively can be termed as overtime.

OVERTIME

Survey and questionnaire studies have associated overtime mostly with health outcomes or with outcomes which are both health- and safety-related. Overtime has been associated least with outcomes which are primarily within the domain of safety, such as accidents or acute traumatic injuries. An exception is a recent analysis of a national occupational-injury database where a constant accident/injury rate was observed through nine consecutive hours of work, followed by a progressive increase to three times that rate at 16 h of work (Åkerstedt 1994). That report is preliminary, however, so it is not clear whether those rates

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are associated with overtime vs. scheduled extended shifts, or whether the effects are concentrated in specific occupations or industries.

In the health or health/safety domain, overtime has been associated with lower self-ratings of health status (Broadbent *et al.* 1985), lower birth weight or gestational age in children of women working overtime (Marbury 1992), and increased presence of corticosteroids (in women) possibly indicative of a stress response (Härenstam and Theorell 1990; Lundberg and Palm 1989). Increased triglycerides and cholesterol (risk factors for cardiovascular disease) were observed in construction managers who frequently worked overtime (Sutherland and Davidson 1993). This group also reported higher levels of job dissatisfaction and poor psychological health. Frequent overtime work was associated with heavy and problem-drinking in men (Kawakami *et al.* 1993), higher suicide rates in both men and women (Sarrin *et al.* 1990), and cardiovascular mortality in women (Sarrin *et al.* 1990). In all of these studies, the possibility of a role for fatigue as one of the underlying factors producing health compromises at least should be considered, but such a possibility is highly speculative given that no attempt was made to measure fatigue.

A few reports raise the possibility of a more direct role of fatigue from working overtime. In a case-control study, overtime was identified as a risk factor for occupational low back injury in mail handlers (Daltroy *et al.* 1991), while another study reported that complaints of low back pain were more frequent in those who worked less overtime (Svensson and Andersson 1983). In the latter study, the authors suggested that workers with low back pain had limited their working hours because of their condition.

Two reports identified increased staff overtime as a factor contributing to separate outbreaks of *Staphylococcus aureus* infection in hospitals (Arnow *et al.* 1982; Russell *et al.* 1983). In both incidents, an unanticipated combination of high patient load and understaffing resulted in extensive use of overtime to meet demands for patient care and treatment. The infectious outbreaks associated with these periods of overtime were attributed by the investigators both to time pressure from the high patient load, and to high levels of fatigue from long work hours, which resulted in inadequate compliance with aseptic practices (i.e. skipping steps or rushing through procedures). While perceived time pressure or fatigue levels were not assessed directly in these studies, the fatigue interpretations given by the authors are consistent with our laboratory study demonstrating increased errors and faster response times (a speed-accuracy tradeoff) in an externally-paced reasoning task during 12-h work days compared to rest days (Rosa and Colligan 1988).

Operator fatigue from working overtime was also suggested as a factor that is detrimental to safety performance in nuclear-power plants (Baker *et al.* 1994). In a plant-level analysis of operator, technical, and maintenance staff overtime, safety incidents were associated most strongly with operator average annual overtime, which

ranged from 300 to 1200 h. These results were attributed to operator fatigue, rather than overall plant inefficiency, because no strong association was observed between safety incidents and technical staff or maintenance staff overtime.

Worksite studies taking behavioural measures of fatigue (e.g. performance tests or self-report scales) in association with overtime are rare. In a cohort study of automotive industry workers, however, recent experience with overtime was associated with poorer performance on neuropsychological tests, such as trailmaking and card sorting, which are sensitive to fatigue-related deficits in attention or cognitive function (Proctor 1992).

In summary, cross-sectional studies have associated overtime work with a handful of health and safety outcomes which may be related to fatigue. In most of these studies, it was recognized that the fatigue effects of overtime occurred in combination with other personal, occupational, or organizational factors and that, because of the cross-sectional designs, clear directions of causality could not be determined. The putative role of sleep loss, excessive fatigue, or their combination, usually was not explicit. Only one study attempted to quantify fatigue deficits using behavioural measures. No studies were identified which were able to prospectively measure safety- or health-related effects of overtime. The irregular and often unscheduled nature of overtime work, however, would make such a study difficult to conduct.

SCHEDULED EXTENDED WORKSHIFTS

Surveys of on-the-job fatigue effects of scheduled extended workshifts have considered efficiency and productivity accidents, absenteeism, and subjective reports. Regardless of the outcome variables tested, there are no consistent trends. With respect to productivity, there were, for example, equal numbers of oil refineries reporting increases, decreases, or no change after the introduction of 12-h shifts (Campbell 1980). Nevertheless, a major US electronics manufacturer and a majority of US government sites abandoned long workshifts because of reductions in productivity (Tepas and Tepas 1981). Studies of absenteeism have also produced equivocal results (Campbell 1980), as have surveys of accidents and injuries. No change in accident frequency or severity, for example, was observed in 57 oil refineries, an increase was observed in five refineries, and a decrease was observed in eight refineries (Campbell 1980). Another study reported no increases in accidents, or in violations of occupational health and safety regulations, in a sample of 5 oil refineries (Northrup *et al.* 1979). The adequacy of the survey approach used in these studies is open to question however, as the investigators reported only manager impressions in response to brief, general questions to determine the frequency of accidents or safety violations. Since the cause of most of these incidents involve multiplicity of factors, a more fine-grained analysis than that gained from one or two brief questions is required.

determine the contributory role of long workshifts. Such an approach was used in a long-term study of accidents over 10-y periods of 8-h and 12-h shifts in a yarn manufacturer (Laundry and Lees 1991). In that study, lower rates of the most minor injuries on the job, but higher rates of more major injuries off the job, occurred during the 10-y period of 12-h shifts.

Despite the fact that some studies of scheduled extended workshifts have reported little or no effect on gross indices of health and safety, there still are persistent concerns about excessive fatigue. Such concerns were given as a primary reason for not adopting the compressed workweek by 800 members of the American Management Association (Wheeler *et al.* 1972). In Singapore, 12-h shift systems in several industries were abandoned because of their adverse impact on worker health and social life (Kogi *et al.* 1989). The reported health factors associated with fatigue included insufficient sleep and weight loss, while other factors potentially associated with fatigue included lower productivity, high turnover, and more frequent part-time work on off-duty days. Even among industries using long workshifts, the subjective impression of increased fatigue is acknowledged. Studies have shown that the primary source of worker dissatisfaction with compressed workweeks was increased fatigue (Hodge and Teller 1975). Despite the fatigue, however, employees generally were more satisfied with the compressed schedule.

Attempts at more direct assessments of fatigue have analysed job factors or administered laboratory-type performance tests and self-report scales. With a standard nursing-care job analysis, Mills *et al.* (1983) concluded that 12-h shifts had no adverse impact. Todd *et al.* (1989), on the other hand, concluded that overall nursing care was adversely affected by 12-h shifts, while direct physical care was not affected. Reid *et al.* (1993), however, reported that nurses' direct care time with patients was reduced on 12-h shifts as more unscheduled rest breaks were taken. In his analysis of truck-driver accidents, Hamelin (1987) reported that accident risk was particularly high after 11 h of work, especially if work occurred at night.

Behavioural assessment of extended workshifts with standard performance tasks and self-report scales have indicated some improvements and some decrements associated with these shifts. Volle *et al.* (1979) reported decreased grip strength and decreased critical flicker fusion frequency in a factory on 10-hour shifts compared to a similar factory on 8-h shifts. Peacock *et al.* (1983) reported increased sleep, improved subjective alertness and cardiovascular fitness in police officers after a switch from 8-h to 12-h shifts, and no effect on critical flicker-fusion frequency or grammatical reasoning performance. Mills *et al.* (1983) reported increased subjective fatigue in nurses across a 12-h shift and more frequent errors in a grammatical reasoning task and a medical record reviewing task. Daniel and Potasova (1989) concluded that chemical workers on 12-h shifts performed more poorly on reasoning, visual search,

reaction time and tapping tasks when compared to 8-h shift workers. They suggested, however, that differences in the capabilities of the workers selected for each shift system contributed to these results.

The United States National Institute for Occupational Safety and Health has conducted two worksite evaluations of extended workshifts using standard performance tests and self-report scales. In the authors' first study (Rosa *et al.* 1989), decreased reaction time and grammatical reasoning performance and increased subjective fatigue were observed after 7 months of 12-h shifts as compared to the previous 8-h shift schedule. Daily sleep logs indicated a 1-h sleep debt by the end of the 12-h/3-4 day workweek. Performance did not deteriorate across the workweek, however, indicating that the shorter workweek compensated somewhat for the longer workshift. After 3.5 y on the 12-h shift schedule, declines in alertness with time on-shift and reductions in total sleep time were still apparent, and few improvements were observed relative to the 7-month test phase (Rosa 1991). In a second worksite study at a natural gas utility, there were decrements in reaction time performance and subjective alertness 10 months after the change to the 12-h shift schedule (Rosa and Bonnet 1993). There were also reductions in sleep across the workweek which were most apparent on 12-h night shifts. The declines in alertness observed in the authors' studies were most apparent at night when lowered circadian arousal added to fatigue resulting from hours of work (see also Hamelin 1987).

TWO SPECIAL CASES OF LONG WORK HOURS

The 'on-call' schedules of hospital-resident physicians in training and the part-time work of adolescents who also attend school constitute two special cases of long work hours which do not fit neatly into the overtime or scheduled extend workshift categories. The average 80-h workweek of resident physicians has received substantial study over the last three decades because the potential for functional impairment from the combination of long work hours and sleep deprivation might compromise patient care. Behavioural studies of resident physician fatigue, however, have met with equivocal results. Several of these studies have been reviewed recently and tabulated in detail by Leung and Becker (1992). These authors attribute the lack of consistent results to three methodological domains including differences in test methodology, variations in the definition of sleep deprivation, and failures to distinguish between acute and chronic sleep loss. With respect to differences in test methodology, some studies used standard neuropsychological or laboratory performance tests, other studies used work-related tasks, and a third set of studies used medical examination results. Definitions of experimental (sleep-deprived) and control (rested) conditions by different studies varied by several hours. Deaconson *et al.* (1988), for example, defined sleep-deprived subjects as those receiving

less than 4 h of sleep and control subjects as those receiving more than 1 h of sleep in the 24 h prior to testing. Rubin *et al.* (1991), on the other hand, defined the sleep deprivation condition as less than 2 h of sleep and the rested condition as more than 6 h of sleep in the previous 33 hours. Many studies did not define the rested condition at all. While some attempt was made to define acute sleep loss in the previous 24–48 h, little effort was made to quantify chronic sleep debt or circadian-rhythm disruptions which may have accumulated over several days. In addition to the methodological concerns highlighted by Leung and Becker (1992), the consecutive number of hours worked (as opposed to simply resting at the hospital) was considered rarely, which may have contributed further to the variable results. A notable exception concerning work hours is an early study by Wilkinson *et al.* (1975), who reported that greater numbers of hours worked within the on-call duty period were associated with lower self-reported levels of work efficiency. Despite a failure to observe fatigue or sleep-loss effects in some studies, the number of studies observing such effects has prompted recent review and revision of resident physician work schedules, both within hospital systems and at the government or professional-association level (American College of Physicians 1989; Leung and Becker 1992; Scott 1992).

A second special case of long work hours involves adolescents engaged in part-time employment. If the primary 'job' of adolescents is schoolwork (in the USA, approximately 35 h of school attendance plus homework), then any additional employment can be construed as within the domain of extended work hours. Based on a survey of over 3900 students, Steinberg and Dombuch (1991) reported that approximately half had part-time employment, and that half of those employed worked more than 20 h per week. Increasing hours of employment was associated with poorer school performance, higher psychological stress, more frequent substance abuse, and reduced parental supervision. Those students working the most hours tended to obtain the least sleep and were the most sleepy during the day based both on electroencephalographic assessment (the Multiple Sleep Latency Test), and on subjective reports of intrusive sleepiness while driving or frequent inattention during class (Carskadon 1989/90; Carskadon 1990). From these studies, it can be asserted that schoolwork plus 20 or more hours of employment places a significant number of students at acute risk of accident or injury (from sleepiness, possibly combined with substance use), and also presents a developmental disadvantage because of poor school performance (if they attend school at all) and increased stress.

FACTORS PRODUCING FATIGUE

A multitude of factors can contribute to the level of fatigue or performance efficiency observed during extended workshifts. These factors can be divided roughly into those

related to work-rest scheduling, job tasks and workload, the environment (both within and around the workplace), and social/domestic demands and support. Of these factors, only work-rest scheduling has been examined with any frequency and only in its broadest terms, i.e. considering such parameters as number of hours worked, day work vs. night work, number of consecutive days worked, or opportunity for sleep/recovery. When increased fatigue is observed, as in our own worksite studies, then fatigue, sleepiness, or performance loss, will increase with number of hours worked. This effect will be higher on night shift compared to day shift and may be compounded by partial sleep deprivation, but may be tempered by a shorter workweek.

Virtually no worksite research has compared different job tasks or workloads under the same extended workshift schedules, and environmental or social elements have been recognized but not studied systematically in terms of how they might affect fatigue (see Carskadon 1989/90, for an exception). With respect to job tasks, it appears that scheduled extended workshifts have been applied most frequently in jobs that are sedentary, automated, or require relatively more cognitive as opposed to physical activity (e.g. control room monitoring, computer operations). Almost no studies have examined extended workshifts in jobs with high physical workloads. One notable exception is a study of 12-h workshifts in underground mining where the associated fatigue was judged to be no different from that seen on 8-h shifts. That study was conducted at a remote mine site where the workers stayed at the site for several days (Duchon *et al.* 1994). Such a practice also occurs on off-shore oil rigs using extended workshifts. Environmental factors and support systems are quite different in those situations because non-work activities are restricted (e.g. prohibition of alcohol, no access to a second job) and food and housing needs are provided at the site (Parke 1994).

In addition to physical workload, other job factors can affect fatigue observed on long workshifts. Job pacing, for example, has been examined only rarely, although worker-paced jobs afford, and externally-paced jobs forbid the opportunity for unscheduled rest breaks to reduce fatigue (Reid *et al.* 1993).

Environmental and social effects have been recognized but not studied systematically. As mentioned above, workers are separated from the demands and distractions of home and community then long workshifts might be manageable. Such observations lead to questions about the compounding fatigue effects of a long commuting time, heavy traffic, or the fatigue effects of a high domestic workload, such as in the care of small children. For example, if the individual working long shifts is the primary caretaker in the home, then that person's own rest and recovery may be sacrificed for the needs of the children.

Other environmental exposures on the job can affect fatigue but there are few standards for work periods long than 8 h. Chemical solvents cause drowsiness (Dick 1981).

and noise, vibration, or heat may produce performance decrements (Hockey 1983, reviews), yet little is known about the influence of an additional 2-4 h of daily exposure to any of these agents.

CONCLUSION

In conclusion, research demonstrating increased fatigue with long workshifts, and a lack of substantial research on other factors which may modulate fatigue, indicates that schedules requiring long workshifts should be instituted with caution. If such schedules are used they should be evaluated carefully. While many jobs allow a wide margin of error, any situation where increased fatigue, decreased sleep, or performance loss can be demonstrated is a situation where the margin for error is reduced, albeit by some unknown amount.

If experts in a certain occupation or industry already consider a job to be dangerous on an 8-h shift, then extended workshifts probably should be avoided. When extended workshifts are used, it is conservative to assume *a priori* that the margin for error will be reduced and contingency plans should be devised accordingly. A primary concern is having sufficient personnel to cover all working hours, because an individual required to work an additional 6-12 h overtime following their usual 12-h shift may push fatigue past acceptable limits.

In addition, workloads should be distributed to account for critical time periods when fatigue is assumed to be high. From our own studies, the final 4 h of a 12-h night shift was identified as a critical time because the fatigue from extra hours of work combines with the circadian low-point in arousal to produce the highest amount of subjective sleepiness and fatigue, and the lowest efficiency in performance.

Where demand permits, breaks should be distributed liberally throughout the shift to provide temporary recovery from the task at hand. Job rotation also becomes more critical as repetitive work, or long, monotonous tasks can induce boredom and loss of attention. The risk of fatigue-related mishaps off the job must also be anticipated because institutionalized safety procedures at the worksite will be absent. A critical time in this regard is the commute to and from the worksite as excessive fatigue can compromise the quick response time occasionally needed to drive in dense urban traffic, and also increase the potential for drowsiness during long, monotonous drives in unpopulated areas.

Studies of long workshifts at remote worksites point to the influence of domestic obligations adding to work-related fatigue. Especially when children are involved, day-to-day home duties may not change just because additional hours are worked each day. Therefore, if a substantial number of single parents of small children comprise the workforce, then use of long workshifts may not be advisable.

Beyond the initial anticipation and rectification of factors which may exacerbate extended workshift fatigue, periodic quantitative evaluation of the work schedule is strongly advised for continued prevention of undue risk. Evaluation efforts should extend beyond the initial 'honeymoon' or 'Hawthorne' period, when the mere act of change is viewed positively, into the time of potential complacency when a relaxed state of vigilance could allow problems to arise.

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The Prevalence and Health Impact of Shiftwork

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AND CHARLES A. CZEISLER, PHD, MD

Abstract: Data from the National Center for Health Statistics National Survey of Personal Health Practices and Consequences were analyzed to determine the impact of variable shift schedules on health-related behaviors of persons in the United States labor force. Twenty-six per cent of men and 18 per cent of women in the US labor force reported working a variable shift in Spring 1980. As compared

to men working non-variable work schedules, those working variable shifts exhibited higher rates of heavy drinking, job stress, and emotional problems. Female variable shift workers reported higher rates of sleeping pill, tranquilizer, and alcohol use, as well as lower social network scores, more job stress, and more emotional problems. (*Am J Public Health* 1986; 76:1225-1238.)

Introduction

When Thomas Edison opened the first power plant in Manhattan in 1882 and thereby made available a steady and reliable source of power throughout the day and night, he also opened the potential for round-the-clock equipment and service operations. Throughout industrial nations over the past 20 years, there has been a dramatic increase in the practice of using two or more shifts of workers to cover operations exceeding the length of a normal work day. Shiftwork has become common in the food, health, safety, and transportation services, in certain industries where the technical processes cannot be interrupted without deterioration or destruction of the product, and in industries where expensive equipment can only be used profitably when in constant operation. In France, the proportion of businesses operating with multiple shifts rose from 10 per cent to 22 per cent between 1957 and 1974. In the United States, the proportion of manufacturing centers operating on multiple shifts has been increasing about 3 per cent every five years, with some major industries having more than half of their workers on shifts.¹ While some schedules may have permanent assignment to a given shift, others may rotate.

Despite the growing number of people forced by their work schedules to deviate their life schedules from the traditional sleep-activity cycle, relatively little is known about the physiological, medical, and psychosocial consequences of night and rotating shiftwork. Since both occupational health specialists and union leaders have tended to focus on toxic exposures in the workplace, few outside the fields of ergonomics and sleep disorders have studied the impact of different types of work schedules.

There are a number of reasons to expect that workers on rotating shifts may experience adverse consequences as a result of their work schedules. First, it is well documented that certain physiologic functions, e.g., body temperature and hormonal release, vary systematically over the course of the day.² These physiologic functions are regulated by the body's internal clock which has a longer than 24-hour intrinsic period and which is synchronized to the 24-hour day by cues from the external environment (zeitgebers), e.g., light and temperature. These circadian rhythms play important roles in regulating sleep, alertness, and other physiologic

processes. When workers are forced to alter their sleep/activity schedule abruptly to correspond to a new work shift, there is usually a mismatch between the body's resources and the demands placed upon it until the circadian phase can adjust. Also, working at night usually disrupts social activities, and it is well established that the degree and quality of social interaction are related to physical and mental health.³

The best documented health consequences of night and rotating shiftwork are disorders of sleep and digestion.² Several studies have reported an excess of sleep problems among night and rotating shiftworkers as compared to those working straight day or afternoon shifts. These difficulties include difficulty in falling asleep, shorter duration of sleep, poorer quality of sleep, and persistent feelings of fatigue akin to "jet lag". Night and rotating shiftworkers are also more likely to report disrupted eating habits and poorer diets than those who work straight day or afternoon shifts, as well as a higher prevalence of gastric and peptic ulcers, gastritis, and constipation.

Field studies have indicated that night and rotating shiftworkers are at excessive risk for involvement in accidents and serious injuries on the job.⁴ The incidence of errors and accidents is much higher during the early morning hours (4:00 to 6:00 am) than at any other time of day.⁵ Laboratory studies have shown an association between disturbances in circadian rhythms and loss of attention, motivation, ability to concentrate, and a slowing of perceptual-motor processes.⁵ Thus, it may be that rotating shift schedules place some workers at greater risk for accidents and injuries because their circadian rhythms are continuously disrupted.

There has been little research on the extent to which variable shift schedules are related to drug, alcohol and cigarette use, and psychological and social problems. In a study of 900 electricity workers in Australia, Wallace, *et al.*, found that shiftworkers reported higher levels of cigarette, coffee and tea consumption, and more frequent use of laxatives, sleeping pills, pain killers, and cough medicine than did day workers. Shiftworkers also reported more interference to their family lives, especially in terms of the time available to spend with their wives and children.⁶ Mott found a significant association between the extent to which shiftworkers perceived that their work schedule interfered with their ability to fulfill roles as spouses or parents and self-reported psychological and psychosomatic disturbances.⁷ Staines and Peck found that shiftwork was related to problems in scheduling family activities.⁸

The present study examined the impact of variable shiftwork on a broad range of health practices, perceived stress, and social network participation in a representative sample of US workers. The literature reviewed above refers

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to both straight night and variable shiftwork. Unfortunately, because of the way the data for this study were collected, it was not possible to estimate the effects of these two different types of work schedules.

Methods

The National Center for Health Statistics National Survey of Personal Health Practices and Consequences (NSPHPC) is a two-wave panel study of a three-stage stratified cluster sample of the non-institutionalized adult population aged 20-64 years in the United States.^{9,10} Telephone interviews were conducted with 3,025 respondents in the Spring of 1979, representing a response rate of 81 per cent. In the Spring of 1980, 2,436 of the original respondents (81 per cent) were reinterviewed. The interview contained questions about sociodemographic characteristics, perceived health status and health practices, as well as a question about whether the respondent had a "variable work schedule, including both day and night work." The main disadvantage of telephone interviews is that approximately 7 per cent of US households do not have a telephone. However, the quality of data collected in telephone interviews appears to be similar to that collected during face-to-face interviews.¹⁰ The proportion of women interviewed for this survey was substantially higher than the proportion of women in the population. Results from this survey have been compared to results from the National Health Interview Survey and it has been determined that the unrepresentative sex ratio in this sample did not result in any appreciable bias in the distribution of respondents with respect to race, marital status, or employment.¹⁰ No adjustments were made for this discrepancy, but all analyses were conducted for each sex separately.

The data are weighted, when appropriate, to adjust for the fact that persons were randomly sampled within households and therefore people from small households were overrepresented. The weighting factor was normalized so that the total sample size of the weighted sample is equal to the original sample size. The standard errors of estimators are affected by the stratification, clustering, and weighting. A design effect of 1.2 was taken into account in all statistical tests to account for these effects.

We first examined the prevalence of exposure to a variable shiftwork schedule during a one-year period in this sample. We then examined the extent to which variable shiftwork was related to alcohol and coffee consumption, cigarette smoking, use of sleeping pills, tranquilizers, and digestion aids, average length of sleep, social network scores,¹¹ and stress. These analyses were conducted using the data collected in Spring 1980 because the full range of questions about health practices were asked only in that interview. Finally, we developed logistic regression models to estimate the impact of work schedules on the health practices controlling for individual characteristics.

Results

In Spring 1980, approximately 26 per cent of the men and 18 per cent of the women in the United States labor force worked a variable shift schedule. Among individuals who were employed at both Spring 1979 and Spring 1980, the proportion who reported working a variable shift schedule at either Wave I, Wave II, or both Waves was much higher—36.1 per cent of men and 26.3 per cent of women. This estimate of the fraction of the population exposed to variable shift schedules within a one-year period is much greater than previous estimates.¹²

TABLE 1—Proportion of Currently Employed Men and Women in the United States Aged 20-64 Working Variable Shifts by Education, Age, and Income* (Spring 1980)

	Men (weighted N = 828)	Women (weighted N = 833)
Education Level	%	%
Less than High School Grad	25.2	21.4
High School Grad	28.1	18.4
Some College/Training	20.4	18.6
4+ Years College	21.4	16.3
Age (years)		
20-34	27.0	22.8
35-44	24.7	16.9
45-54	21.4	13.7
55-64	30.0	13.0
Income Level		
< \$10,000/year	32.2	17.8
\$10,000-14,999	25.3	14.9
\$14,999-24,999	20.9	18.3
> \$25,000/year	28.1	17.0
Total	25.8	17.8

*Proportion of labor force respondents "yes" to the question: "Does your job involve a variable work shift? That is, do you work the day shift sometimes and the night shift at other times?"

The data presented in Table 1 indicate that among all persons employed in Spring 1980 variable shiftwork was not associated with age, education, or income level in any important way, although older women were less likely to work variable shifts. It is interesting to note that although many people think of variable shiftwork as a blue collar phenomenon, education was not clearly related to the probability of being a shiftworker. A variety of professionals such as health care workers and computer users must work variable shifts.

The differences in reported self-medication for digestion and sleep problems, alcohol use, and perceived stress between those working variable shifts and straight shifts in Spring 1980 are presented in Table 2. Men who worked variable shifts were more likely to be heavy drinkers and somewhat more likely to use digestion aids on a regular basis. Women who worked variable shifts were significantly more likely to use sleeping pills and tranquilizers on a regular basis, to have lower social network scores, and to be heavier drinkers than women working straight shifts. Both men and women also were more likely to report a great deal of job stress and severe emotional problems if they worked variable shifts.

Since heavy drinking, medication use, and stress were all associated with age, income, and/or education level, we conducted multivariate analyses to determine whether variable shiftwork remained an independent risk factor for increased drug and alcohol use, low social network scores, and stress after controlling for these variables. Table 3 shows that adjusting for age, income, and education, men and women who work variable shifts were more likely to experience job stress and emotional problems, and female shiftworkers were more likely to use sleeping pills or tranquilizers, drink heavily, and have lower social network scores.

Contrary to our expectations, variable shiftworkers did not differ from those who worked straight shifts in rates of heavy (> 1 pack/day) cigarette smoking or coffee drinking. We also did not find the expected difference in number of hours of daily sleep. Unfortunately, the NSPHPC did not contain questions about quality of sleep.

PREVALENCE, HEALTH IMPACT OF SHIFTWORK

TABLE 2—Differences between Men and Women Variable and Non-variable Shiftworkers on Measures of Drug and Alcohol Use, Sleep and Stress

	Men		Women	
	A (weighted N = 214)	B (weighted N = 514)	A (weighted N = 140)	B (weighted N = 688)
	%	%	%	%
Frequent Sleeping Pill Use	0.5	0.5	1.0	0.2
Any Sleeping Pill Use	1.6	2.3	0.9	3.1
Frequent Sleeping Pill/Tranquilizer Use	1.7	1.8	5.3	1.1
Any Sleeping Pill/Tranquilizer Use	3.2	5.2	10.0	7.9
Frequent Indigestion Aid Use	7.3	4.7	5.0	4.2
Heavy Drinking (> 4 drinks/day)	15.0	10.9	7.0	3.2
Heavy Smoking (> 1 pack/day)	12.2	11.8	8.2	7.2
Low Social Network Score Average < 7 hrs Sleep/Night	6.3	12.4	22.8	12.9
Experience Extreme Job Stress	30.7	20.5	28.0	21.4
Experience Severe Emotional Problems	30.0	18.7	22.4	13.8
Frequent Coffee Use (> 5 cups per day)	10.2	4.3	15.7	8.0
	27.0	25.1	15.1	18.2

Frequent use includes response categories "pretty often" and "almost daily".
 Column A = variable shiftworkers.
 Column B = non-variable shiftworkers.

TABLE 3—Odds Ratios for Drug and Alcohol Use, Shortened Sleep, and Stress, Men and Women Variable vs Regular Shiftworkers, Adjusted for Age, Education, and Income Level

	Men (N = 801)	Women (N = 858)
	OR (95% CI)	OR (95% CI)
Frequent Sleeping Pill Use	0.86(0.25-2.89)	2.60(1.01-6.69)
Frequent Sleeping Pill/Tranquilizer Use	1.00(0.57-2.08)	1.77(1.08-2.82)
Frequent Indigestion Aid Use	1.32(0.92-1.90)	1.08(0.88-1.34)
Heavy Drinking (> 4 drinks per day)	1.22(0.94-1.57)	1.55(1.04-2.30)
Heavy Smoking	1.18(0.79-1.63)	1.02(0.70-1.48)
Low Social Network Score	0.83(0.1-1.11)	1.22(1.10-1.50)
Average < 7 hrs Sleep/Night	1.11(0.91-1.34)	1.19(0.95-1.49)
Experience Extreme Job Stress	1.43(1.17-1.75)	1.22(1.04-1.48)
Experience Severe Emotional Problems	1.67(1.20-2.30)	1.34(1.02-1.77)

Frequent Use includes response categories "pretty often" and "almost daily".

Discussion

Our results indicate that a substantial proportion of the US labor force works a variable shift schedule, and that this type of schedule is associated with higher levels of sleeping pill and tranquilizer use, heavier alcohol use, and lower social network scores among women; more frequent use of indigestion aids among men; and higher rates of drinking and severe job stress among both men and women. However, contrary to our expectations, it was not related to patterns of cigarette smoking or coffee drinking. Some of these negative findings may be due in part to our inability to identify individuals who worked a straight night shift. A recent study of shiftworkers found no significant difference between rotating shiftworkers and straight shiftworkers on overall quantity of sleep, but did find a consistent negative effect on quality of sleep, even when such factors as psychological

stress, noisiness of sleeping room, and coffee consumption were controlled.¹³ Research has shown that night workers have a higher prevalence of sleep and digestive disorders and disrupted social lives than day workers. Thus, combining those who work straight shifts, irrespective of whether they are night or day, may obscure certain effects.

Another consideration is the instability of the population working a variable shift. Examination of the longitudinal data on respondent work schedule at Waves I and II showed that approximately 40 per cent of the men and 51 per cent of the women working variable shifts at Wave II had not been doing so at Wave I, and 13.8 per cent of the men and 8.8 per cent of the women working straight shifts at Wave II had been working variable shifts at Wave I. There is some evidence to suggest that those who transfer out of variable shiftwork may do so because they were experiencing more adverse health or social consequences than those who remain with a variable shift schedule.¹⁴ It is also possible that those who started variable shift schedules during the year were not exposed long enough to experience the deleterious effects. We examined differences among workers in each of the four shift history categories in our sample, and found no consistent patterns. However, it may be that there were too few respondents to calculate reliable estimates for each of the subcategories.

With round-the-clock operations here to stay for the foreseeable future, it is important for public health researchers to examine more carefully the impact of shiftwork and other industrial practices introduced as a result of technological advances on the health, behavior, and quality of life of workers and their families. The growing interest in the workplace as an arena for health intervention provides an opportunity for occupational health, health promotion, and organization development specialists to cooperate in the exploration of how the structure of work influences lifestyles and health. The product of this cooperative effort could be the

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development of recommendations for workplace changes to enhance the health, well-being, and productivity of the labor force, and to reduce the effects of work-induced stress, fatigue, and constraints on social interaction.

Research suggests that restructuring the way work is done, i.e., redesigning shift schedules to be more compatible with the body's circadian rhythms, can lead to improved health, reduced stress, and increased job satisfaction and productivity.^{15,16} Further research in, and application of the principles of sleep research and ergonomics—the study of how to improve the interaction of people with their physical environment—may well broaden the scope and potential effectiveness of worksite health promotion activities.

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NIH Consensus Panel Issues Report on The Prevention of Venous Thrombosis and Pulmonary Embolism

A National Institutes of Health (NIH) consensus development statement on the Prevention of Venous Thrombosis and Pulmonary Embolism now may be obtained from the NIH Office of Medical Applications of Research.

The report was prepared by a panel of experts, which considered scientific evidence presented at a consensus development conference at the NIH. It contains recommendations and conclusions concerning venous thrombosis and pulmonary embolism.

At NIH, consensus conferences bring together researchers, practicing physicians, representatives of public interest groups, consumers, and others to carry out scientific assessments of drugs, devices, and procedures in an effort to evaluate their safety and effectiveness.

Free, single copies of the consensus statement on the prevention of venous thrombosis and pulmonary embolism are available from:

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Working Around the Clock: Shiftwork and Health

by Nancy Mogck

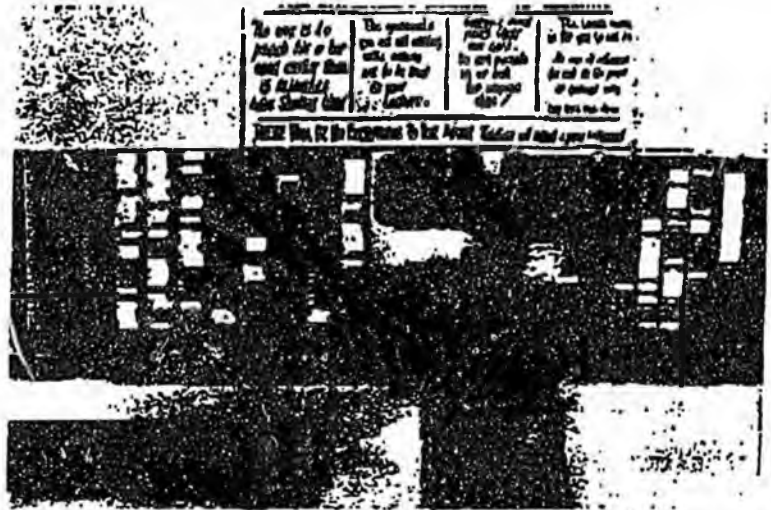
I OHP Intern

It was my own personal experience with shiftwork that sparked an interest in the subject for me. I began as most workers new to shiftwork do, with total ignorance of its implications and effects. The oil refinery where I worked steadfastly ignored all problems related to shiftworking. The company provided no educational programs to help employees try to cope with shiftwork, nor any options for those, like myself, who had adverse reactions to unusual work schedules.

Refineries are only one kind of industry where shiftwork is common. Approximately one of every four workers in the U.S. has a job which involves some form of shiftwork. That number is on the increase as computerization makes it possible to run more and more operations and facilities on a 24-hour basis. Lumber mills, steel mills, glass factories, and other production facilities that employ equipment and machinery that can be operated 24 hours a day usually must have people to work around the clock. And most emergency services are 24-hour operations. Police, firefighters, hospital staff, and many others may often be shift workers. Much of the transportation industry requires shiftwork too: pilots, flight attendants, bus drivers, taxi drivers, truck drivers, and train crews may all be at work in the middle of the night.

More stores and restaurants have begun to operate on a 24-hour basis as well. (Most Safeway Stores in California, for example, are now open 24 hours a day.) The military and power plant operators also work shifts.

Is there anything wrong with shiftwork, other than the fact that it's inconvenient—that it involves working odd hours and usually having days off other than Saturday and Sunday? The effects of shiftwork on the individual and the repercussions on society are relatively new fields of study. Consequently, issues involving shiftwork



(Photo: Ken Lirhi.)

have not been adequately addressed in many industrialized countries—and even less so here in the U.S., where production and profits usually take precedence over the health and well-being of individuals and society.

WHAT IS SHIFTWORK?

In order to get a clear grasp of the issues involved, one must begin with an understanding of what shiftwork is. Most people know it means working odd hours, but many have no idea of the variety of shiftwork schedules that exist. Many also don't realize that some schedules are much more harmful to health than others.

Some of the more common types of schedules that are labeled as shiftwork include:

- **Rotating shifts.** Shifts that rotate between day, swing, and graveyard; or just between day and swing. An individual might rotate weekly, monthly, every six months, etc. Such a shift could also involve stints shorter or longer than the normal eight hours. (For example, parts of the U.S. military do six-hour stints with twelve-hour rest periods in be-

tween, making the "day" 18 hours instead of 24.)

- **Straight shifts.** Any regular shift other than the normal day shift; in other words, some evening hours are included in the workday. These shifts do not rotate but might be straight swing (like noon to 8 pm or 4 pm to midnight), or straight graveyard (like 10 pm to 6 am or midnight to 8 am.)

- **12-hour shifts.** There are many variations on the 12-hour day. Some rotate; some don't. The advantage purportedly is that by lengthening the workday hours, workers can get three- and four-day weekends.

Of the above possibilities, weekly rotation that involves all three shifts (day, swing, and graveyard) is the worst. The rotation is especially hard on the body if it does not "follow the sun." (A move from day to swing to graveyard would be following the sun.) I worked such a schedule for seven years. The schedule I worked also included some mandatory 16-hour shifts.

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SHIFTWORK

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BIOLOGICAL RHYTHMS

The effect of shiftwork on health can best be understood by examining the human connection to natural rhythms.

All plants and animals, including even single-cell algae, operate on biological clocks. In humans, body rhythms or body clocks are synchronized with the light/dark cycle in such a way that we are active primarily during the day. We are not nocturnal animals. These rhythms are called *circadian* rhythms.

Scientists define cues that help regulate bodily rhythms as either *exogenous* or *endogenous*. Exogenous factors are those outside of the organism such as light/dark cues. Nocturnal species become most active during the night, darkness being one of the exogenous cues that begins their activity. (At the Primate Center in the San Francisco Zoo, for example, a simulated nighttime atmosphere, including night noises, keeps the nocturnal primates somewhat active during the day when zoo visitors can observe them.)

For humans, the social environment and awareness of clock time are also important exogenous cues. What we do and when we do it has a lot to do with what the rest of society is doing, what time it is, and whether it is day or night.

Endogenous cues are internal. Researchers have found that many internal body rhythms are paced from a specific area of the brain. Hormonal activity, heart rate, body temperature, nerve impulses, eating, sleeping, and numerous other internal body functions are rhythmically orchestrated by the brain, each body function having its own separate high and low activity periods throughout the 24-hour day. For example, muscle contractions in the stomach occur approximately every 90 minutes because circadian rhythms affect the stomach muscles.

Another example is body temperature; our body temperatures rise and fall throughout the 24-hour period. Though this is a small variation of only about 1°F, it affects our performance levels. The body temperature drops to its lowest point around 4 am, and starts slowly to rise again around 6 am. Anyone who has worked graveyard shifts knows from experience that from about 4 am to 6 am, activity and alert-

ness levels hit an all-time low; this is the most difficult time during the 24-hour period to stay awake and alert.

The internal and external cues are synchronized to achieve a balance within the body. A well-balanced, synchronized human organism will not only sleep at night and be active during the day; internal rhythms will also be in balance so that, for example, body temperature and hormonal levels rise and fall at appropriate times throughout the 24-hour cycle, in sync with the external cues. When out of balance, the organism is in a state of *dischronia*. Dischronia occurs when there is confusion of signals to the part of the brain that triggers circadian responses.

Those who have traveled are familiar with jet-lag, which is a perfect example of desynchronization. Usually a few days of rest and recuperation will help a traveler's body rhythms adjust to a new time zone. Until one has adjusted, though, fatigue, disorientation, clumsiness, and crankiness will prevail.

Compare this to the shift worker who cannot rest and recuperate after every change in "time zone" (i.e. shift change.) Thus one begins to glimpse the problems shiftworkers face when they rotate weekly. They remain in a constant state of jet-lag. Furthermore, such frequent upsets of the circadian rhythms make it impossible for the rhythms to get resynchronized. There

is not time, except for a two- or three-week vacation, for the numerous body functions involved in this intricate system of rhythms to resynchronize because some of these functions, once thrown out of whack, take as long as 25 days to normalize.

According to a 1978 article in the *Journal of Occupational Medicine* by Winget, Hughes, and LaDou (see accompanying bibliography):

"When resynchronizing to a 12-hour shift, the EEG rhythm resynchronizes within five days and the respiratory rate rhythm within 11 days, whereas the potassium excretion rate rhythm requires more than 25 days to return to normal."

HEALTH CONSEQUENCES OF DESYNCHRONIZATION

The health consequences of desynchronized body rhythms are just beginning to be studied and documented. Sleep disorders and gastrointestinal disease are the most widespread and commonly known health problems among shiftworkers at this time.

Sleep disorders related to shiftwork have been studied by researchers at various sleep disorder centers. They have discovered some very interesting facts about the sleep process.

First, and most obviously: Most shiftworkers who sleep during the day



Firefighters and other emergency personnel work around the clock. (Photo: LOHP Photo File.)

do not sleep under ideal conditions of quiet and darkness. Since the majority of activities in society occur during the day, workers who try to sleep by day must sleep with the noise of traffic, planes, lawn mowers, children playing, and other normal daytime noise. Warmer temperatures and the light of day also become enemies. It is difficult, as one example, to darken bedrooms positioned to receive sunlight. (When I was on shiftwork, I finally taped up one of my bedroom windows using the best shade material I could purchase, and coupled that with a pull-down shade and yet another window covering. I never looked out that window again until I was off shiftwork six years later.)

But when the sleep pattern is altered from night to day, even under ideal conditions there are problems. Brain waves show that sleep stages are severely affected. Affected sleep stages include the "REM" (Rapid Eye Movement or dream sleep) phase and "Phase 2," the basic sleep stage. Stages 3 and 4, the deep sleep stages, appear to be unaffected. Daytime sleeping is not as beneficial as nighttime sleeping because the affected stages (REM and Phase 2) do not occur rhythmically the way they should. Only nighttime sleep, in a synchronized human body, allows for the necessary sleep phases.

It has been shown that when shiftworkers sleep during the day, they sleep from one to four hours less than when they sleep at night. Even if they do manage to sleep seven or eight hours, they will not wake up refreshed. Sleeping during the day negatively affects both the quantity and the quality of sleep.

Sleep deprivation results from this unnatural day-sleeping. The consequences are fatigue, reduced alertness, and general malaise. Furthermore, it takes at least two weeks for the abnormal brain patterns that result from a day-sleeping schedule to return to normal once a nighttime sleeping schedule is reestablished. (The same is also true for body temperature patterns.)

Long-term consequences remain unknown but there is speculation. Studies conducted in 1971 on laboratory animals subjected to forced weekly "shift" changes showed a 20% shorter life span than in animals allowed to maintain balanced 24-hour cycles of sleeping and waking. Some researchers have recently suggested there may be a link between shiftwork and cardiovascular disease. The effects of medications on a desynchronized body are another

area of concern. Some drugs, like digitalis (heart medication), are usually more effective when administered at night, but this is no longer true if the patient's rhythms are disrupted.

And what effect do toxic substances have on a desynchronized organism? There is currently no information on the subject, but if medication can be more or less effective depending upon whether certain body rhythms are at their high or low points, it seems likely that chemicals may be more or less toxic at different times during the body's cycles. And if a worker is in a general state of fatigue due to shiftwork, then he or she is more susceptible in general to disease, illness, and the health effects of workplace toxics. There is a need for more research in these areas.

DISRUPTED LIVES

Workers' social and family lives are also negatively affected by shiftwork. Such disruptions are primarily due to night shifts (both swing and graveyard.)

Many social activities occur in the early evenings, and night shifts reduce the worker's ability to take part in them. Even the rotating worker, who may have evenings free occasionally, cannot make ongoing commitments to evening classes, meetings, sports or cultural events because the shifts are not always the same. A certain amount of social isolation results, and it is a common complaint among shiftworkers.

Night shifts separate couples and interfere with sexual and emotional relationships. The mood swings and fatigue that result from shiftwork can affect relationships with family and friends who may not understand the shiftworker's physiological upsets, edginess, tiredness, moodiness, or depression.

Unsympathetic families and friends, ignorant of the harmful consequences of shiftwork, can make the situation even less endurable both for the shiftworker and for themselves. A spouse may begin to feel ignored and disliked; children may begin to feel as though they have an occasional second parent who doesn't care about them enough to be around more often. In my experience, divorce among shiftworkers was very common. So was the loss of friends. It's no wonder, then, that shiftworkers share close bonds with each other and tend to form friendships among themselves; this is one of the few ways in which the pain of their social isolation can be lessened.

DRUG AND ALCOHOL ABUSE

In the refinery where I worked shifts, a significant number of workers had serious drug and/or alcohol problems. A drink, a pill, or a hit of cocaine can alter how one is feeling physically and mentally during the wee hours of the night when you'd rather be in bed with your spouse and not at work. And where else can shiftworkers go to hang out together after the shift besides a bar? Close bonds formed between shiftworkers are many times ritualistically sealed by the use of drugs and alcohol before, during, and after the shifts—especially the graveyard shifts.

But alcohol and drug abuse at the worksite are generally not approached as problems related to working conditions. Instead, most management personnel in this country insist that such abuse is the *individual's* problem, unconnected to social factors such as the worksite. Other difficulties that arise from shiftworking (which is a working condition) are also treated as personal problems by most employers. Many employers have policies which say: if you don't like shiftwork, quit; if you can't kick drugs or alcohol with the "help" of a management sponsored and controlled program, then you deserve to be fired. Such rehabilitation programs often mandate a recovery period set by the company in accordance with its own needs (what it is willing to give), and return workers to the very job and working conditions which may well have driven them to drink (or drugs) in the first place.

At the refinery where I worked, a 12-year employee who was well-known, well-liked, and much relied upon for his expertise was addicted to cocaine. When he began to miss work due to drug-related problems, the company gave him an ultimatum to enter the Employee Assistance Program (EAP) or be fired. He joined the program and after four weeks was back on shiftwork. After his first graveyard shift he started using cocaine again. He couldn't stay awake all night without it, and he couldn't stand the way he felt, working all night without the coke. He was fired about a month later. This is an all too common problem, yet shiftworkers are not given options such as being transferred to day jobs in

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SHIFTWORK

continued from page 7

these cases, since management refuses to acknowledge that shiftwork can be part of the problem.

COMPUTERIZATION

Computerization is making shiftwork more prevalent in our society. Computers control many necessary 24-hour processes with minimal (although still some) human staffing. But they also allow many ambitious, hard-driving employers to operate their businesses on a 24-hour basis when such businesses don't need to be run 24 hours a day.

Continuous operations such as power plants, refineries, sewage facilities, etc. usually cannot be shut down for the night. Nor can emergency services stop at 5 p.m. But canneries, supermarkets, and numerous other businesses provide no essential services that we as a society must have at 3 a.m.

THE PROFIT MOTIVE

Employers clearly profit from running their operations around the clock. Production is increased and equipment is better utilized. Also, it is well known in some industries that night shifts make it easier to "bend the rules." Fewer eyes are watching. Some companies engage in illegal dumping of toxic chemicals on the night shifts. And, at the refinery where I worked, the graveyard shift was frequently used to force workers to perform unsafe, dangerous work.

American shiftworkers are left with narrow choices. Studies show that more than 20% of shiftworkers will never adapt to shiftwork, and for those who cannot tolerate it, the only alternative is to find another job that does not involve shifts. But for shiftworkers, changing jobs usually means a drastic cut in pay, loss of seniority rights, possibly non-union work, and usually less job security. It's not an easy choice: a choice between one's health and one's financial well-being.

ALTERNATIVES

With these restrictions in mind, what can be done? Unions must continue to



Truck drivers' irregular work schedules can produce a variety of health problems. (Photo: Ken Light.)

push for decent hours of work. At the very least, unions should be pressing employers and policy makers to restrict shiftwork so that shifts follow the sun and rotate gradually (no more often than every six weeks). Workers and their families should be educated about the hazards of shiftwork and informed about precautions they can take to lessen those hazards. There should be laws to govern shiftwork, protecting workers from excessive work hours.

There should be a centralized data bank that gathers information on shiftwork schedules and their relationship to workplace illnesses, accidents, and injuries. Shiftworkers should be tracked for health problems, especially those that are known or suspected to result from shiftwork.

Unions should be fully involved at all levels in designing shift schedules, and should call in their own health specialists for advice. A union might want to press for establishment of a right to transfer to daytime work without loss of pay and benefits. Shifts should be scheduled on a yearly basis so workers can plan their lives. If weekend and holiday work are incorporated into shift schedules, employees should be compensated in such a way that working those days causes minimal hardship on their family and social relationships.

Unions might suggest to employers that humane shiftwork policies (such as less rotation) could boost productivity.

Some studies have found increases of over 20%. (Of course, any specific proposals for shift redesign considered by a union are likely to be controversial among the membership, and such disputes should be resolved before approaching the employer with a plan, so the union can present a united front.)

These types of reforms are possible and are worth pursuing. But we have a long way to go.

SHIFTWORK POLICIES

ABROAD

We can look to other industrialized nations for leadership and guidance on how to approach the complex problem of shiftwork.

Sweden is one of the most progressive countries when it comes to improvements in the work environment. In Sweden there is a strong commitment to ergonomics (the science of fitting the workplace to the worker's needs) and to safety and health. Swedish society is keenly aware of stress issues and takes measures to limit stressful working conditions. It is also very much aware of the interrelationships among work, family, and society as a whole. Modern technology is used to improve the workplace environment for workers. Consideration for the worker is a high priority in Sweden.

and this shows up clearly in Swedish policies concerning shiftwork.

In 1980, Swedish researchers did a nationwide study of bus, train, and suburban train drivers on shiftwork. They found a number of problems among these workers, including excessive fatigue, insomnia, stomach disorders, high absenteeism, high turnover rates, and disruption of family and social lives. Consequently, the following recommendations were made and implemented:

- Shorten the work week to 33 hours;
- Make shift patterns regular;
- Mix permanent fixed schedules with alternating schedules to reduce the number of alternating ones;
- Use a "work load time" rule (for example, every hour worked between 10 pm and 6 am is counted as two hours worked.)

Holland and West Germany conducted similar studies among train drivers and came up with similar results. West Germany was especially interested in the extent of safety hazards that could result from drivers' fatigue and upset circadian rhythms. After this study, it was concluded that, for safety reasons, shifts had to be shortened and rest periods between shifts should be well over 16 hours. The West German researchers also recommended that shifts be made flexible, tailored to the individual to suit each worker's particular needs, since there is some individual variation in normal circadian rhythms.

Norway and Sweden have shortened the work week in a number of factories to 28 hours with no loss of pay due to shiftwork hazards. England, Germany, France, and Switzerland created government agencies to regulate the working conditions of shift workers at the turn of the century!

Belgium, Norway, Sweden, Poland, and Denmark have banned night work in all but continuous process industries and essential services. In Poland there are frequent, longer break periods for night workers, including hour-long "naps" for those on the graveyard shift. Finland has even suggested that workers be allowed to follow a 25-hour clock (with 8 hours, 20 minutes on shift and 16 hours, 40 minutes off), slowly rotating an hour forward every day, if

that proves more compatible with circadian rhythms. (This idea, however, was generally unacceptable to workers due to the disruption it caused to family life.)

The fact is that all European countries have been actively involved in studying shiftwork problems and developing policies to regulate shiftwork for a long time, especially over the past 30 years as shiftwork has dramatically increased. In European countries, these concerns are shared by unions, health professionals, and policy makers.

There is also concern in countries as diverse as Israel, Pakistan, India, Canada, Australia, and Japan. In Australia, where 57% of the labor force is unionized, union workers at a Kodak plant insisted on designing their own schedules if shiftwork were to be introduced. To avoid turmoil, management agreed. The workers were finally able to negotiate a schedule consisting of two 12-hour shifts and one eight-hour shift each week (i.e. a three-day work week). In Canada, the hazards of shiftwork are taken seriously enough that the provincial government of Ontario established a commission last year to investigate hours of work and overtime in relation to health and safety issues.

In Japan, shiftwork increased dramatically after World War II. In 1976, a Shift Work Committee with members drawn from 19 different medical institutions began extensive studies because of alarm about "the spread of ill effects" caused by "high-rate economic growth" and Japan's "production-first policy." The committee recommended reducing night and other shiftwork by all possible means. It also produced a series of recommendations for allevi-

ating the effects of shiftwork, including rest periods between shifts of at least 16 hours; soundproof and air conditioned resting rooms at the workplace; day nurseries for parents on shifts; hot meals on shifts; better transportation facilities for shiftworkers; limitations on overtime; and limitations on the frequency of graveyard shifts. It also recommended better soundproofing of residences and creation of "quiet zones" in residential neighborhoods. Other recommendations included monitoring of shift workers, regular medical exams, and health and safety training on the hazards of working nights and other shifts. Finally, the study concluded that only socially necessary and public service shiftwork should be permitted, not shiftwork implemented for "economic reasons."

CONCLUSION

Japan, like many of the other countries I researched, showed a real concern for the health and well-being of its workers. A major reason is that cooperative efforts are being made which involve unions, health professionals, social scientists, business, and policy makers. Although such cooperative efforts are slowly beginning to emerge in the U.S., at this point only a few people are aware of shiftwork issues and little has been done to address them. The fact that workers in America are largely unorganized is a serious problem too. In 1985, only 18% of the American workforce was unionized. Without strong unions, health and safety issues like shiftwork cannot and will not be addressed.



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by Nancy Mogck

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April 1990

SHIFT WORK AND BODY RHYTHM

WASHINGTON, D.C.—(INS)—Every 24 hours, our body processes go through a rhythmic, tide-like rising and falling pattern set by our circadian rhythm.

Changes brought about by this ebb and flow correspond to the day-night cycle and influence a number of body functions, including temperature, blood pressure, pulse rate, and hormone level.

These body functions reach a peak during the day and drop to their lowest point at night. That suits the human organism fine, because man, by nature, is not a nocturnal animal. Normally, we work during the day and rest at night.

But what happens if we turn this pattern upside down—turn night into day, in a manner of speaking—as shift work does for many people.

For most of these workers (not all), the low point of their biological rhythms, normally a time of reduced activity and rest, now comes at a time of peak work demands. Later, when the shift ends, they have to try to sleep when their internal activity is on the upswing.

Shift workers—especially those on the night shift—on the average get one or two hours less sleep than day workers. Furthermore, the quality of the sleep and its effectiveness in refreshing the workers is less than nighttime sleep.

-2-

Sleep disorders and gastrointestinal illnesses are the most widespread and commonly identified health problems among shift workers. Ulcers and constipation are also more common among shift workers, according to researchers.

Switching shifts can also cause problems. Some workers may lose their appetites. Others may react by overeating. These problems are often aggravated by irregular meals, poorer food in many cases, and eating when the body's digestive system is at a low point.

Fatigue and disruption of the central nervous system, often brought on by a lack of sound sleep, can also have adverse effects on digestion.

When the body is out of rhythm and under stress, it also may be more susceptible to the effects of physical agents such as noise, vibration and radiation, as well as to chemical agents such as fumes, gases and dusts.

One survey of accidents at a medium-sized steel mill showed a lower rate on the night shift, but the accidents that did occur were more serious than on the morning and evening shifts.

(All three shifts, incidentally, worked under the same intensity of artificial lighting.)

Not all workers, of course, dislike shift work, even preferring the night or graveyard. For some, it may be the incentive of the extra pay. Others just feel they come alive after dark.

Greater adaptability to night work also has been found among those with an extroverted nature whose circadian rhythms follow an evening pattern.

Clinical observations have shown a relationship between an inability to adapt to shift work and the early-to-bed, early-to-rise type.

-more-

-3-

Although we can't change circadian rhythms, here are some ideas about making shifts a better deal for everybody:

- o Give workers a greater voice in designing flexible work and shift rosters, and a choice of shifts.
- o Reduce hours of work on shifts and schedule more breaks.
- o Keep first aid and medical facilities available at all hours.
- o Provide better meal and transportation facilities for the odd-hour shifts.
- o Provide management-paid medical checkups every six months.

Article by: Phillip L. Polakoff, M.D., Director, Western Institute for Occupational/ Environmental Sciences. If you have any questions, or suggestions for future articles, write to Dr. Polakoff at WIOES, 5655 College Ave., Suite 310, Oakland, California 94618.

#



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: _____

Carole K. Foester

Testifier

Representing (Optional)

11301 Forest Drive Anchorage, AK 99516

Address

(907) 349-1474

Phone No.



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
 committee name
 committee on CSHB 68, dated 1-27-97
 bill/subject

Signed: Roy F Ronholdt
 Testifier
SELF
 Representing (Optional)
400 SCORPICO CIR
 Address
ANCH AK 99508
 Phone No. 3385061



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE _____

COMMITTEE NAME

COMMITTEE ON

HB 63

DATED

1 27 98

BILL/SUBJECT

I Testify That Changing The OVERTIME LAW in ALASKA in any industry is unRALEY. & That Changing The LAW. will hurt I myself & my Brothers & Sisters of The Union Changing The Hour of work can & will result ~~as~~ HAZARD To Fellow EMPLOYEE & To The Public. for Having Fatigue or ~~THE~~ Tired People on The work site or on Public Highs driving from work also it will cut a big chunk or sum of money out of our pay, if This is Pass, I feel That EVERY industry in ALASKA will follow suit soon There will BE no such Thing as OVERTIME I BEEN A Resident of Alaska since 1968 and HAVE SEEN out of State Companies come in ALASKA & Hire out of State worker for less dollars & Push us Alaskans ~~to~~ out of work I had my pay cut & cut again I FEEL This is just Another way To put my family Toward WELFARE & Food Stamps

SIGNED

[Signature] Richard R. Ross

TESTIFIER

REPRESENTING (OPTIONAL)

3044 Supper cwy Ln N.P. AK

ADDRESS/PHONE NUMBER

(60)



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
 committee name
 committee on CSHB 68, dated 1-27-97
 bill/subject

*I strongly object to this Bill
 its A Bunch of Bull shit,*

Signed: Ronald E. Howell
 Testifier

Representing (Optional)
P.O. Box 233493

Address
AAC, AK 99523

Phone No. 563-6926



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: Romeo R. Tamargo
Testifier

Representing (Optional)

Address
(243-1769) or 243-6997

Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Labour + Commerce
 COMMITTEE NAME
 COMMITTEE ON AB 68 DATED 1-27-98
 BILL/SUBJECT

For the record, I am apposed to the above named bill. Hours worked Per month or days are not what's important. It's the paycheck that counts + pays the bills. I believe this bill would allow employers to reduce overtime pay and eventually reduce overall wages. Please vote against this Bill on my behalf. Thank You

SIGNED Curtis W. Ted
 TESTIFIER
Local 302 Republican
 REPRESENTING (OPTIONAL)
P.O. Box 75208 Fairbanks AK, 99707
 ADDRESS/PHONE NUMBER



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed

Debbie Keyote
Testifier

Representing (Optional)

2151 Minerella Way
Address 99515

Phone No.



Alaska State Legislature

JAN 31 1997

Please enter into the record my testimony to the Labor & Commerce committee name

committee on HB 68 (C.S.), dated 1/29/97
bill/subject

Chairman Rokkeberg & committee members, thank you for this chance to testify.

I am speaking against H.B. 68 (C.S.)

I do appreciate Rep. Theriault's narrowing down the bill, to only cover open pit metal mining. However any changing of current state labor laws opens up a Pandora's box of possibilities.

I understand why the employees want a change of shift. Because of company design this is a horrible one they are working.

The 12 hr. straight time shift is only slightly better for 241 employees. It has the chance of harming 1000's of others.

If Rep. Theriault really wants to do something for his district, he would pressure the company for a better shift for their employees under the current law. It can be done.

Signed: Phillip A. [Signature] Thank you.

Testifier

Carpenters Local 1281

Representing (Optional)

407 Denali Suite #100

Address

276-3533

Phone No.



Alaska State Legislature

FEB 10 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

I Don't understand the logic behind this Bill.
If you work more than 8 hours per day you need to
be paid for it.

Looks to me like someone is trying to lower
everyones standard of living, or make this a right to
work state.

This bill must have been sponsored by Big Business.
Think about the people that have to work for a living.

Signed: Mark Suter
Testifier

Representing (Optional)

12301 Rockridge Anch 99516

Address

345-4495

Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE _____
COMMITTEE NAME

COMMITTEE ON BILL No 68 DATED _____
BILL/SUBJECT

I oppose this bill

SIGNED Thomas Tighe
TESTIFIER

LOCAL 942 FAIRBANKS AK
REPRESENTING (OPTIONAL)

288 SHANNON DR, FAIRBANKS AK 99701
ADDRESS/PHONE NUMBER



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
 committee name
 committee on CSHB 68, dated 1-27-97
 bill/subject

Strongly disagree!

Signed: [Signature]
 Testifier

Representing (Optional)
1741 Kelain Street 99504

Address
338-3811

Phone No.



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: Charles T. Trapp
Testifier

Representing (Optional)
7141 Scalero Cir.

Address
907-344-8458
Phone No.

HB

68

File 5

3-17-97

MAR 27 1997

MR. ROKEBERG

I Firmly Believe House Bill
68 should Be voted Down.

The construction Industry in
Alaska has already Taken enough
Negative Legislation. IF H.B. #68
PASSES what will They go AFTER
Next. It is already HARD enough
To make a Decent Living Here So
NO MORE WAGE CONCESSIONS OF
Any kind Should even Be considered.

I urge you To please defeat
HB #68. Also ANY other House and
Senat members should vote This Down.

LARRY DXIENKOWSKI

Larry Dzienkowski
3-17-97



Alaska State Legislature

HB 0 5 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

I am opposed to this bill.
as an employee, I feel this
would be a slap in the face
to the working people in
this state.

Signed: Sh L Torrey
Testifier

Representing (Optional)

HC 32 Box 6557-A3 Wasilla, AK 99654

Address

907-745-1367

Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE commerce labor
 COMMITTEE NAME
 COMMITTEE ON HB-68 DATED 1-27-97
 BILL/SUBJECT

I would suggest that
 the people/politicians for
 this bill, study the history
 of the American labor
 movement, vis a vis
 Homestead Massacre,
 Hay market square,
 the coal field wars
 etc.

SIGNED Leon F. Tomasic
 TESTIFIER
302
 REPRESENTING (OPTIONAL)
479-4727
 ADDRESS/PHONE NUMBER



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE

COMMERCE
LABOUR

COMMITTEE NAME

COMMITTEE ON

HB 68

DATED

1-27-77

BILL/SUBJECT

No to HB 68

SIGNED

TESTIFIER

Randy Tupper RANDY TUPPER

REPRESENTING (OPTIONAL)

ADDRESS/PHONE NUMBER

2117 SOUTHERN FBK, AK. 99709

(54)



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
committee name
committee on CSHB 68, dated 1-27-97
bill/subject

We're union
AND WE
VOTE !!

Signed: William C Sand
Testifier

Representing (Optional)
101 Ocean Park Dr
Address
907 3493081
Phone No.



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

We work hard for a living so I am
opposed to this bill.

Signed: *[Signature]*
Testifier

Representing (Optional)
2001 ARLENE ST ANCH AK 99502

Address
907 243-4520
Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE House LABOR & COMMERCE
COMMITTEE NAME

COMMITTEE ON OVERTIME DATED JANUARY 27, 1997
BILL/SUBJECT

I oppose any temporary or partial or permanent elimination of overtime after 8 hours a day. I have worked in salaried - overtime ~~and~~ exempt positions and in 8 hour overtime positions. The difference? With the 8 hour then overtime position, my health improved, I was able to spend quality time with my daughter, and my work product was as good, if not better, than in the 8-12 hour day salaried position. 12 hour days are a killer to health & family life. Let's NOT step backward in Alaska! Maintain the eight hour day!

SIGNED RICHARD SEWARD *Richard Seward*
TESTIFIER

REPRESENTING (OPTIONAL)
4582 DRAKE ST, Fairbanks AK 99709
ADDRESS/PHONE NUMBER

(421)

ALASKA STATE LEGISLATURE

House of Representatives

COMMITTEE MEMBERS:

REPRESENTATIVE NORMAN ROKEBERG, CHAIRMAN
REPRESENTATIVE JOHN COWDERY, VICE CHAIRMAN
REPRESENTATIVE BILL HUDSON
REPRESENTATIVE JOE RYAN
REPRESENTATIVE JERRY SANDERS
REPRESENTATIVE TOM BRICE
REPRESENTATIVE GENE KUBINA
COMMITTEE HEARING ROOM 17 STATE CAPITOL



INTERIM:
716 WEST 4TH AVENUE, SUITE 640
ANCHORAGE, AK 99501
PHONE: (907) 258-8191
FAX: (907) 258-2916

SESSION:
STATE CAPITOL, ROOM 24
JUNEAU, AK 99801-1182
PHONE: (907) 465-4954
FAX: (907) 465-2040

Labor and Commerce Committee

February 12, 1997

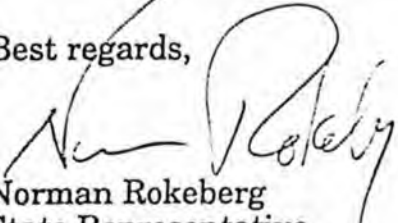
The Honorable John "Jack" Shay
Ketchikan Gateway Borough
344 Front Street
Ketchikan, AK 99901

Dear Mayor Shay:

Thank you for your letter of February 5, 1997.

I appreciate your comments regarding HB 68 and will add your letter to the bill file for consideration.

Best regards,


Norman Rokeberg
State Representative
Chair, House Labor & Commerce Committee

KETCHIKAN
GATEWAY
BOROUGH

FEB 10 1997

OFFICE OF THE MAYOR
John "Jack" Shay
344 Front Street
Ketchikan, AK 99901-6494
907-228-6605
(Fax) 907-247-8439

February 5, 1997

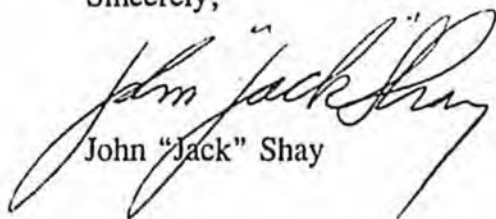
Representative Norman Rokeberg
Chair Labor & Commerce
State Capital - Room 24
Juneau, Alaska 98801-1182

HOUSE BILL NO. 68 - AN ACT RELATING TO THE EXEMPTION FROM THE
REQUIREMENT FOR PAYMENT FOR OVERTIME UNDER A VOLUNTARY WORK
HOUR PLAN

After reviewing the most recent version of HB68, I believe that the measure should be politely killed. After speaking with quite a few persons involved in labor matters and, as a former worker with the Alaska Department of Labor, it is apparent that the bill is targeted at one specific operation and for their specific benefit. The legislation in place already provides for cooperative agreements allowing employees to work 10 hours per day and this arrangement works well.

Admittedly, the proposal allows for an agreement between employees and employers to create this work schedule, but I strongly believe that the measure is merely an attempt to avoid paying overtime compensation to the workers. With an arduous 12 hour shift an employee should expect to be compensated at a premium rate. It is regrettable that the business in question cannot afford to pay the extra wage, but if this is the case, they should explore the methods others operations such as added or altered shifts, etc.

Sincerely,



John "Jack" Shay

cc: Honorable Gene Therriault, Room 517, Capital Building, Juneau, AK
Tom Cashen, Commissioner of Labor
Mary Urquhart, Alaska State Employees Association
Ketchikan Gateway Borough Assemblymembers

FEB 10 1997

KETCHIKAN
GATEWAY
BOROUGH

OFFICE OF THE MAYOR
John "Jack" Shay
344 Front Street
Ketchikan, AK 99901-6494
907-228-6605
(Fax) 907-247-8439

February 5, 1997

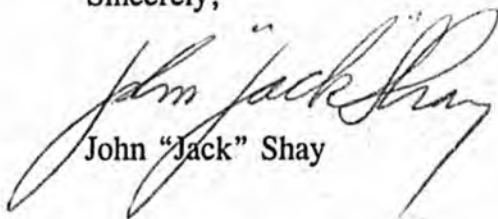
Representative Norman Rokeberg
Chair Labor & Commerce
State Capital - Room 24
Juneau, Alaska 98801-1182

HOUSE BILL NO. 68 - AN ACT RELATING TO THE EXEMPTION FROM THE
REQUIREMENT FOR PAYMENT FOR OVERTIME UNDER A VOLUNTARY WORK
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Admittedly, the proposal allows for an agreement between employees and employers to create this work schedule, but I strongly believe that the measure is merely an attempt to avoid paying overtime compensation to the workers. With an arduous 12 hour shift an employee should expect to be compensated at a premium rate. It is regrettable that the business in question cannot afford to pay the extra wage, but if this is the case, they should explore the methods others operations such as added or altered shifts, etc.

Sincerely,



John "Jack" Shay

cc: Honorable Gene Therriault, Room 517, Capital Building, Juneau, AK
Tom Cashen, Commissioner of Labor
Mary Urquhart, Alaska State Employees Association
Ketchikan Gateway Borough Assemblymembers



Alaska State Legislature

HB 0 5 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

THERE IS NO WAY THIS ~~48~~ BILL
SHOULD PASS!!!

Signed: Gordon Siemsen

Testifier

~~68~~

Representing (Optional)

1801 N. SALOM DR. ANCH AK 99508

Address

(907) 562-6020

Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE LABOR & Commerce
COMMITTEE NAME

COMMITTEE ON HB 68 DATED 1/27/97
BILL/SUBJECT

I am opposed to HB 68. The purpose of this bill is simply ~~a bill~~ to provide economic savings on the operating budget of Ft. Knox and not solely providing more time off for their employees. The managers of Ft Knox were fully aware of the operating cost of Labor in Alaska. The employees were aware of the shift schedules prior to hiring on the job. Now the Company has decided, with the help of Mr. Casey, Therrint, ^{me.} James, and Mr Kelly to gut laws Miners fought for during the 1920's: eight hr. day and living wage. The Tanana Mining Association took on this issue ~~in~~ 70 yrs. ago.

The passage of this bill for the 200+ employees @ Ft Knox will have devastating effects on the other tens of thousands blue ~~collar~~ collar workers thru-out the state who want to maintain working conditions earned over the years. Don't sell us out to Big Business!

SIGNED Daniel P. Simien
TESTIFIER

REPRESENTING (OPTIONAL)

407 Wedgewood Dr. 99707
ADDRESS/PHONE NUMBER

(48)



Alaska State Legislature

Please enter into the record my testimony to the Labor and Commerce
committee name
committee on CSHB 68, dated 1-27-97
bill/subject

I am against the house bill 68. I don't
feel working 10 to 12 hours should be passed.
If you work you should be paid overtime

Signed: Jamey Smith
Testifier

Representing (Optional)

P.O. Box 878665 Wasilla AK 99687

Address

892-7049

Phone No.



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
 committee name
 committee on CSHB 68, dated 1-27-97
 bill/subject

I AM greatly opposed to this bill.
 This bill goes AGAINST ALL that we
 have been brought up to believe in,
 The 40 hr work week, the eight hour
 work day. What would be next, if
 this were to be passed. Perhaps we
 could be like some third world nation.
 I thought we were trying to build our
 selfs up not tear it down

Signed: Jerry South Jerry South
 Testifier

Representing (Optional)
19907 Eagle River Road, Eagle River AK
 Address
696-1036
 Phone No.



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: *Sueen Sabej*
Testifier

Representing (Optional)
2803 Husleyan River
Address
3337882
Phone No.



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed:

Sharon A. Stafford
Testifier

Representing (Optional)

4300 Boniface, Pruy 99504
Address

907-269-4265
Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Labor + Commerce
COMMITTEE NAME

COMMITTEE ON H.B. 68 DATED 1-31-97
BILL/SUBJECT

Why would we ~~not~~ want to go
backwards for the working man or woman
union or non union, secretary or bell ringer

Record no question marks

oppose this Bill Please Vote NO !!!

SIGNED Clayton Ray Stoney, Jr.
TESTIFIER

Taxpayer / voter
REPRESENTING (OPTIONAL)

P.O. Box 51542 302 16th Ave Fairbanks, AK 99708
ADDRESS/PHONE NUMBER

(907) 388-9889



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Labour & Commerce
COMMITTEE NAME

COMMITTEE ON H.B. 68 DATED 1-27-97
BILL/SUBJECT

Some of the workers I talked to before this Bill came out, biggest complaint was the rotating shift. One week Day shift, One week swing shift, One week nite shift. They said they'd rather work one shift on a regular basis all the time.

From what I've seen Fairbanks Gold has not done a whole lot for this community and the state to be in a position to have state laws changed to ruin the conditions of all working people. Have we forgotten about Tic/Osborn both out-of-state contractors and the advertising they run in newspapers to bring out-of-state workers up here, to take local jobs and to pay them extra to move up here and to leave.

House Bill 68 does not affect Only Fairbanks Gold. It affects everyone. Usbelli Coal mine, Red Dog mine, any surface mine including all gravel pits and all crusher work at those pits. Also the way I've seen it written it would include every working person in this state. Is this what we all want? Are our representatives working for Fairbanks Gold now? Or are they working for everyone?

Some simple math will tell what Fairbank Gold potential could be. The newspaper quoted Fairbank Gold cost estimate at \$215⁰⁰ per ounce. At a selling price of \$350⁰⁰ an ounce that's 135⁰⁰ an ounce profit. At full production, estimates are 1,000 ounces per day that's \$135,000⁰⁰ a day, times 365 days per year the total is \$49,275,000⁰⁰ yearly profit. They can't afford \$1.5 million in overtime to the workers that are helping them make this profit. Let's give their workers something, instead of taking from all the workers in the state

SIGNED R. M. Staley Richard Staley
TESTIFIER

REPRESENTING (OPTIONAL)

P.O. Box 55882 North Pole AK 99705
ADDRESS/PHONE NUMBER



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: _____

L. Kay Steyer
Testifier

Representing (Optional)

2901 Lily St Anch. Ak 99508
Address

337-5878

Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE House of Representatives
COMMITTEE NAME

COMMITTEE ON HB 68 DATED 1-27-97
BILL/SUBJECT

Please don't pass this Bill!

I believe people walking more than 8 hrs a day, are more subject to accidents, because of tiredness. Working 12 hrs a day without extra compensation isn't fair to them, it only makes for a better profit for the company.

SIGNED Gisela Stone
TESTIFIER

REPRESENTING (OPTIONAL)
P.O. Box 58051 FBKS, AK 99711 488-4308
ADDRESS/PHONE NUMBER



Alaska State Legislature

Please enter into the record my testimony to the Labor and Commerce
 committee name
 committee on CSHB 68, dated 1-27-97
 bill/subject

Rate goes up.

Our forefathers worked very hard to establish the eight hour work day and the forty hour work week. Some of them even gave their lives. Research has shown that this schedule optimizes productivity. It has been proven that productivity declines *+ Accident* beyond eight hours. In this day when two incomes are needed to support a family, parents should be encouraged to spend as much time as possible at home as regularly as possible. This bill is a blatant attempt to turn back the benefits fought for by our fathers. It is an attack on the integrity of the family unit and should not be supported.

Signed: *William D. Strat*
 Testifier

Representing (Optional)
306 Bunnell St. Anch. AK. 99508.
 Address
907-333-6118
 Phone No.



REPRESENTATIVE NORMAN ROKEBERG
ROOM 24
STATE CAPITOL
JUNEAU, AK. 99801-1182



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE LEGISLATURE
COMMITTEE NAME

COMMITTEE ON HOUSEBILL 68 DATED 1-27-97
BILL/SUBJECT

I AM AGAINST THIS BILL.

12 HRS A DAY IS TOO LONG A DAY
NOT TO GET ANY OVERTIME.

SIGNED Loren Swisher (LOREN SWISHER)
TESTIFIER

REPRESENTING (OPTIONAL)

215 5th AVE FRES. 99701 452-7163
ADDRESS/PHONE NUMBER



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68 , dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: Fred O. Swain
Testifier

Representing (Optional)
7606 Lake Otis Rd. Anch AK.
Address 99507
(907) 344-2438
Phone No.

RECEIVED

JAN 29 1997

January 24, 1997
Ans'd

Room 208

Juneau, Alaska 99801

Dear Representative Gail Phillips,

I'm writing this letter in reference to House Bill 68.

My husband and myself both work at Fairbanks Gold Mine, Fort Knox. He is an equipment operator in the mine, and I'm a mill operator. Even though we are fortunate, thanks to the company able to work the same shifts we are left with very little time at home.

We are very much in favor of working 12 hour shifts, giving us more time at home. We both request your support for House Bill 68.

Respectfully Yours,

Bob Saphir
Dawn Saphir



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE LABOR IN COMMERCE
 COMMITTEE ON HB 68 DATED 1/26/97
COMMITTEE NAME
BILL/SUBJECT

I just want to express my opposition to the proposal of House Bill 68. I feel that the passing of such a bill would be a step backwards for the labor movement. It's hard to believe that Pete Kelly could allow his name to be associated with such an injustice. If our elected representatives can't see where this bill is a big mistake then hopefully TOM CASHEN will do the right thing.

SIGNED Saverio S. Silvers
 TESTIFIER
IBEW
 REPRESENTING (OPTIONAL)
Fairbanks AK 456 3731
 ADDRESS/PHONE NUMBER

2



JAN 31 1997

Alaska State Legislature

(H) Labor + Commerce

Please enter into the record my testimony to the LEGISLATIVE INFORMATION
committee name

committee on H.B. 68 , dated 1-29-97
bill/subject

As A CONSTRUCTION WORKER OF
OVER 20 YEARS IN ALASKA I OPPOSE
H.B. 68 IN THAT I FEEL IT WOULD
EVENTUALLY TEND TO ERODE THE
VERY WORK CONDITIONS WE
STRUGGLED SO LONG TO ACHIEVE

Signed: D. R. Fournier
Testifier

Representing (Optional)
4411 EDINBURGH DR. ANCHORAGE AK.

Address
248-3367
Phone No.



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

FORGET THIS! I AM IN NO WAY IN
FAVOR OF THIS BILL. I WANT THINGS
LEFT THE WAY THEY ARE! THANK YOU,
I LIVE IN AMERICA!

Signed: Gary D. Jones
Testifier

Representing (Optional)
2715 ASPEN DR. ANCHORAGE, AK,

Address
(907) 248-2957
Phone No.



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
committee name
committee on CSHB 68, dated 1-27-97
bill/subject

I am not in favor of CSHB68

Signed: James M. Fenton
Testifier

Representing (Optional)

6950 Chad^{SE} Anchorage, AK 99518
Address

344 5999
Phone No.



JAN 31 1997

Alaska State Legislature

Please enter into the record my testimony to the Labor & Commerce Committee
committee name

committee on HB 68, dated 1-29-97
bill/subject

Policies that favor an employer ~~working~~ ^{working} a 12 hour workday will only lead to a higher accident and death rate due to mental fatigue by the worker. The insurance industry and jobsite safety engineers will agree that this can be substantiated.

If this legislation is passed, it will lead to more Non Alaskans employed at Fort Knox. Alaskans realize that at these wages, overtime is necessary to maintain payments of Alaskan cost of living.

Most construction workers realize that coercion exists on the job most everyday. Those "volunteering" or alligning themselves with the employer's proposals feel that they will continue to be employed. Resistance will have a layoff slip soon. Volunteering = a job

Signed: _____

David Ford

Testifier

Ironworkers #751 and its employers

Representing (Optional)

650 W. International Suite 101 Anchorage, AK

Address

563-4766 (home 6930 Crawford Anch AK 99502) 99518

Phone No.



FEB 03 1997

Alaska State Legislature

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

I Do NOT Support This Bill AS A
ALASKA WORKER VOTER RESIDENT

Signed: James M. Fuller
Testifier

ALASKA WORKER'S
Representing (Optional)

3310 SHAMROCK AVE. ANCH 99504
Address

338-4604
Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE House Labor & Commerce
COMMITTEE NAME

COMMITTEE ON HB 68 DATED 1-27-97
BILL/SUBJECT

The passing of this bill would be very destructive to the working mans wages. Giving up our optional choice of pay for just the opportunity to work at a job, would hurt my families financial stability. If my employer ~~or~~ or future employer has the right to choice my schedule of hours worked for a week and limiting my hours to 40 til overtime. He could cut my work day per week to fit his budget not my family-finical needs. I would need to work two jobs at two different companies to make a living as such as I am now. With the overtime pay coming after my 8 hour day. I've worked at the Greens Creek Mine 7 days a week 12 hours a day. The pay was good for the work that was expected on a long day with still 3 hours of traveling involved. I wouldn't give up my overtime just to work under those conditions.

SIGNED Glenn Frank Kenny Fricke
TESTIFIER

IBEW 1547 apprentice wireman
REPRESENTING (OPTIONAL)

2243 Bridgewater Rd. Unit B
ADDRESS/PHONE NUMBER

Fairbanks, AK 99709 (907) 456-6417
permanent address:
PO Box 22941 Juneau, AK 99802 (907) 780-6417



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE LABOR & Com.
COMMITTEE NAME

COMMITTEE ON LABOR 68 DATED 11/27/97
BILL/SUBJECT

H.B. 68 is micro management of industry. Scheduling problems w/in the Ft Knox mine is their problem. Erodig workers rights state-wide is not the answer. Many mines operate under the law and thine Ft. Knox needs to look at their Management for answers not the state Legislature.

Thank You,

SIGNED Richard J. Gaul
TESTIFIER

REPRESENTING (OPTIONAL)

849 BOHNET DR. FBX, AK 99712
ADDRESS/PHONE NUMBER



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE _____

COMMITTEE NAME

COMMITTEE ON HR 68 DATED 1-27-96

BILL/SUBJECT

anyone naive enough, let alone anyone who's worked 12 hrs a day, who thinks safety is not jeopardized by working 12 hrs a day and then driving home! I'm definitely not concerned about Community Safety. Let alone the problem with disfunctional families and Spouse abuse. All this applies to this bill. I've lived in Alaska 23 years and have seen all this in the boom and bust days of FBto.

SIGNED

TESTIFIER

REPRESENTING (OPTIONAL)

ADDRESS/PHONE NUMBER

Tommy Corner

Ferdinand Nath Sparborough

2835 King Arthur Way FFB AK 99709

VOTER

Ned Griffith 48

1543 Porchet way 99709

(907) 457 5748

IN Pro test of House
BILL NO 68.

The way I read This Bill
They say 10hr. BUT have 12
under Line. The way Bill 68
is written. A EMPLOYER
could start 2 10 hr. shift
Then just go to 12hr shift
that would just ~~eliminate~~
~~1 shift~~. The EMPLOYER
~~could work a round the~~
~~clock~~ with 2 shift and
~~pay no over time~~.

There is NO way
Bill 68 could be for
a ~~employee~~



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Ned Griffith
 COMMITTEE ON opase Bill 68 DATED 1-27-68
 BILL/SUBJECT

In Pro test of House Bill 68

the way I read this Bill they say

10 But have 12 under line. BILL 68 is

written A Employer could just go to

2-12 hr shift and just eliminate

1 shift. The Employer could work

around the clock and pay to Quarters

SIGNED Ned M Griffith
 TESTIFIER

REPRESENTING (OPTIONAL)

ADDRESS/PHONE NUMBER



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE _____

COMMITTEE NAME

COMMITTEE ON _____

HB-68

BILL/SUBJECT

DATED _____

1/27/97

1.5 million - small price to pay for a gold company that expects to make, ~~literally~~, millions & millions of dollars of this gold mine. Again, everything seems to be in the best interest of Fairbanks Gold Company. Fairbanks Gold is no more interested in the working man than they were hiring local people ^{women} to build the mine. (a verbal commitment from the mine to the people of Alaska),

SIGNED

TESTIFIER

Zinn Decker Jr - Z. Decker over →

REPRESENTING (OPTIONAL)

ADDRESS/PHONE NUMBER

P.O. Box 10955, Fairbanks, AK 99710

(68)



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE LABOR & COMMERCE
 COMMITTEE NAME
 COMMITTEE ON HB-68 DATED 1-27-97
 BILL/SUBJECT

I ADAMANTLY OPPOSE HB-68.

THE CURRENT LABOR LAW IS THERE FOR A REASON. WERE HB-68 PASSED INTO LAW IT WOULD HAVE WIDESPREAD REPURCUSSIONS WITH REGARD TO THE LIVELYHOOD OF, FIRST, THE SURFACE MINERS AND, SECOND, TO ALL WORKERS ACROSS THE STATE OF ALASKA.

THE PASSING OF HB-68 WOULD BE THE FOOT IN THE DOOR TO FURTHER ERODE LABOR LAWS WITH REGARD TO OVERTIME ^(O.T.) PAY. LABOR LAWS WERE ENACTED TO HELP INSURE EQUITABLE PAY FOR WORK PERFORMANCE AS WELL AS WORKER SAFETY.

THE REASON GIVEN FOR THE PROPOSAL OF THIS AMENDMENT TO CURRENT LABOR LAWS, IS DUE TO COMUTE TIME NECESSARY FOR MANY OF ~~ITS~~ WORKERS EACH DAY. PERHAPS SOME THOUGHT SHOULD BE GIVEN TO SAFETY CONCERNS NOT ONLY ON THE JOB, BUT ALSO TO THE WORKERS & OTHER DRIVERS WHO WOULD SHARE THE ROADS WITH THEM AFTER THEY HAVE WORKED THESE LONGER SHIFTS.

THERE ARE NO DOUBT OTHER OPTIONS WHICH COULD PUT FORTH

SIGNED Carol E. Demoyers
 TESTIFIER

PLEASE SEE OTHER
 SIDE →

REPRESENTING (OPTIONAL)

P.O. Box 33, HEALY, AK. 99743
 ADDRESS/PHONE NUMBER

CORRECTION

THE FOLLOWING DOCUMENT(S)
HAVE BEEN REFILMED TO
ASSURE LEGIBILITY OR PAGINATION



Rev. 6/98

Central Microfilm Services
Department of Education
State of Alaska



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE _____
COMMITTEE NAME

COMMITTEE ON HB-68 DATED 1/27/97
BILL/SUBJECT

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SIGNED Zinn Pecker Jr - Z.P. Pecker over →
TESTIFIER

REPRESENTING (OPTIONAL)

P.O. Box 10955, Fairbanks, AK 99710
ADDRESS/PHONE NUMBER

(68)

Passing HB-68 would only put the working man & women back into the ice age. Twelve hour shifts on straight time is pathetic and an insult to the people of Alaska. From figures & information received from F&Ks. Gold in the past. how are we expected to take this for granted. Fairbanks Gold is not here for the worker, they are only here for themselves. As far as promoting mining goes, turning down HB-68 will not discourage ~~company's~~ companies from investing in Alaska.

Thank You
F. C. [Signature]



ALASKA STATE LEGISLATURE

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THERE ARE NO DOUBT OTHER OPTIONS WHICH COULD PUT FORTH

SIGNED Carol E. Demoyers
 TESTIFIER

PLEASE SEE OTHER
 SIDE →

REPRESENTING (OPTIONAL)

P.O. Box 33 HEALY, AK. 99743
 ADDRESS/PHONE NUMBER

TO THESE WORKERS.

WHILE IT IS STATED THIS LAW WOULD BE ON A "VOLUNTARY FLEXIBLE WORK PLAN" HOWEVER, IT IS OBVIOUS THAT WOULD BE A ONE TIME PLAN, BECAUSE, WERE IT EVER VOTED IN AT A GIVEN JOB SITE IT WOULD NO LONGER BE VOLUNTARY.

I FEEL THE WORKERS AT FORT KNOX MINE HAVE NOT BEEN MADE AWARE OF OR GIVEN ANY OTHER OPTIONS AND FURTHERMORE THAT THEY DO NOT FULLY REALIZE THE RAMIFICATIONS OF WHAT THEY ARE TRYING TO DO.

I FEEL THIS IS AN ISSUE THAT GOES BEYOND JUST THE FORT KNOX MINE & ITS' WORKERS. THIS BILL WILL ALSO IMPACT OTHER MINES WORKERS AS WELL, IRRESPECTIVE OF WHETHER OR NOT IT IS CALLED A "VOLUNTARY FLEXIBLE WORK PLAN." FOR THIS REASON I FEEL THE REMAINDER OF THE ALASKA WORK FORCE SHOULD NOT ONLY BE HEARD BUT LISTENED TO WITH REGARD TO THEIR (OUR) WISHES CONCERNING HB-68 AND ANY OTHER PROPOSED CHANGES TO ANY LABOR LAWS.

INCIDENTALLY, MY HUSBAND IS CURRENTLY EMPLOYEED AT USIBELLI COAL MINE AND PRIOR TO THIS HE ALSO WAS EMPLOYED BY VALLEZ CREEK GOLD MINE. SO I RECOGNIZE THE INDUSTRY WELL AND THE HARD WORK THAT DESERVES TO BE REWARDED AS INTENDED BY THE HARD WON LABOR LAWS CURRENTLY ON THE BOOKS.



ALASKA STATE LEGISLATURE

Labor + Commerce

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Wage + Hour
COMMITTEE NAME

COMMITTEE ON AB 68 DATED 1-27-97
BILL/SUBJECT

I can't believe you'd even consider working
anyone 12 hrs. with no overtime, not even under
emergency conditions.

SIGNED Alice J. Decker
TESTIFIER

REPRESENTING (OPTIONAL)
P.O. Box 10535 (1673 Gold Pkwy) Fbks. AK. 99710
ADDRESS/PHONE NUMBER



Alaska State Legislature

Please enter into the record my testimony to the HOUSE LABOR AND COMMERCE COMMITTEE
committee name

committee on C.S. H.B. 68, dated 1-27-97
bill/subject

I STRONGLY OPPOSE THIS BILL AS A DIRECT ATTACK AGAINST THE RIGHTS OF
WORKING ALASKANS. AND, I URGE THIS COMMITTEE TO NOT ALLOW THIS BILL
TO GO FORWARD.

Signed: RAY CARPENTER
Testifier
TEAMSTERS 959
Representing (Optional)
PO BOX 92146 ANCHORAGE, AK 99509-2146
Address
(907) 274-9259
Phone No.



ALASKA STATE LEGISLATURE

PLEASE ENTER INTO THE RECORD MY TESTIMONY TO THE Labor & Commerce
COMMITTEE NAME

COMMITTEE ON House Bill 68 DATED 1-31-97
BILL/SUBJECT

Working 12 hrs. a day causes lots of fatigue and wear
wear and tear on the Body and mind. Lots of accidents
happen after hrs. beside if you let one company
do this others will try it and over time in the law
after hrs.

SIGNED Scott Carlin
TESTIFIER

REPRESENTING (OPTIONAL)
907-477-9126
ADDRESS/PHONE NUMBER



Alaska State Legislature

FEB 05 1997

Please enter into the record my testimony to the Labor and Commerce
committee name

committee on CSHB 68, dated 1-27-97
bill/subject

Quit trying to screw
the working Man

Signed: Richard Chilson *Rich Chilson*
Testifier

Representing (Optional)

620 E 120th Ave Ak 99515

Address

349-2909

Phone No.