

**ALASKA LEGISLATURE COMMITTEE FILES 1985-1986 86/2**

**3496 HLAB HB 318 - HB 319**

372

(10) transfers from one department to another and from another merit system jurisdiction to the state service;

(11) transfers from one area of the state to another;

(12) the reinstatement of a person who resigns in good standing;

(13) layoffs for reason of lack of money or work, abolition of positions, or material changes in duties or organization; both performance and seniority records shall be considered in the development of layoff orders;

(14) the development, maintenance, and use of employee performance records;

(15) the establishment of disciplinary measures which may include disciplinary suspension without pay;

(16) the procedures for review of disputed personnel actions, for resolving employee and interagency grievances, and for resolving grievances of the general public concerning the operation of the state personnel system;

(17) hours of work for all employees in the state service;

(18) methods and procedures covering overtime work and pay;

(19) the granting of employment preference rights to a veteran not within the area of promotion, when the veteran possesses the necessary qualifications in the job classification applied for under this chapter; in an examination to determine the qualification of applicants for entrance into the classified service under merit system examination, five additional points shall be added to the passing grade of a veteran and ten additional points shall be added to the passing grade of a disabled veteran, but the additional points may be used only the first time the veteran obtains a position in the classified service; if a position in the classified service is eliminated, employees shall be released in accordance with rules which give due effect to all factors; if all job qualifications are equal, the veteran shall be given preference over the nonveteran and the veteran shall be kept on the job; this paragraph may not be interpreted to amend the terms of a collective bargaining agreement; in this paragraph

(A) "veteran" means a person with 181 days or more active service in the armed forces of the United States who has been honorably discharged after having served during any period between April 6, 1917, and December 1, 1919, between September 16, 1940, and December 31, 1947, or between June 27, 1950, and November 7, 1975;

(B) "disabled veteran" means a veteran who is entitled to compensation under laws administered by the United States Veterans' Administration, or a person who was honorably discharged or released from active duty because of a service-connected disability;

(20) the employment of persons in permanent positions on a part-time basis of 15 hours or more a week, including the employment of two persons to fill one permanent full-time position; these employees shall be designated as permanent part-time employees;

(21) the granting of employment preference to severely handicapped persons; this includes the right to provisional appointment without competitive examination for periods up to four months and the granting of eligibility to a severely handicapped person provisionally appointed under the rules who demonstrates ability to perform the job for permanent appointment without competitive examination; provisional employment under this paragraph may not exceed four months during a 12-month period; "severely handicapped" as used in this paragraph means persons certified by the director of the division of vocational rehabilitation to be severely handicapped;

(22) the establishment of programs facilitating the employment of disadvantaged persons;

(23) the delegation, when feasible, of personnel responsibilities and duties to the principal departments of the executive branch;

(24) the establishment of a transition period of up to 12 months for an employee to be reappointed to a classified position if the employee's position is withdrawn from the partially exempt or exempt service and placed in the classified service;

(25) other rules and administrative regulations, not inconsistent with this chapter, that are necessary for its enforcement. (§ 13 ch 144 SLA 1960; am § 1 ch 130 SLA 1961; am § 1 ch 147 SLA 1962; am § 1 ch 117 SLA 1966; am § 1 ch 33 SLA 1967; am § 3 ch 226 SLA 1970; am § 1 ch 39 SLA 1971; am § 3 ch 42 SLA 1971; am § 1 ch 21 SLA 1973; am § 1 ch 27 SLA 1976; am § 1 ch 4 SLA 1978; am § 2 ch 67 SLA 1979; am § 38 ch 94 SLA 1980; am §§ 1, 2 ch 89 SLA 1982; am § 14 ch 112 SLA 1982)

**Revisor's notes.** — AS 39.25.150 was also amended by §§ 1 and 2, ch. 89, SLA 1982. That chapter amended former paragraphs (6) and (9). However, ch. 112, SLA 1982 is given effect here since it was enacted later than ch. 89, SLA 1982, and is a comprehensive repeal and re-enactment of this section.

**Cross references.** — For the pay plan prepared under (2) of this section, see AS 39.27.011.

**Effect of amendments.** — The 1980 amendment substituted "November 7, 1975" for "a date to be determined by the legislature which shall be on or about six

months after the termination of hostilities involving forces of the United States in Viet Nam" near the middle of paragraph (23), and substituted a semicolon for a period at the end of paragraph (23).

The first 1982 amendment added "including the granting of employment preference to local residents in accordance with AS 39.25.181 or under appropriate circumstances" to the end of paragraph (6) and "including the granting of employment preference to local residents in accordance with AS 39.25.181" to the end of paragraph (9).

The second 1982 amendment rewrote this section.

#### NOTES TO DECISIONS

The scope of rules prepared pursuant to AS 39.25.050 is limited severely in this section, leaving the director of personnel very little discretion and virtually no policy-making power.

Kelly v. Zamarello, Sup. Ct. Op. No. 705 (File Nos. 1255-1256), 486 P.2d 906 (1971).

Chapter attempts to ensure most efficient expenditure of public funds.

— This chapter attempts to ensure that taxpayers that in their most Eogenrife, Sup. 1665), 513 P.2d

This section prescribes the the state may for overtime service employe Ct. Op. No. 915 13 (1973).

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The establish hours and provis off for work beyo themselves, give payment for over Sup. Ct. Op. No. P.2d 13 (1973).

Requirement authorization overtime cannot the implied cor Bogenrife, Sup. ( 1665), 513 P.2d 1

Collateral refe pend or lay off pu

— This chapter and the personnel rules attempt to ensure the state and its taxpayers that public funds will be spent in their most efficient manner. *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**This section and personnel rule 7 05 prescribe the only manner in which the state may become obligated to pay for overtime performed by a classified service employee.** *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

A public employee is not entitled to payment for overtime in the absence of a valid contract executed pursuant to statutes or regulations specifically authorizing such compensation in addition to the employee's fixed monthly salary. *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**When employee entitled to compensation for overtime.** — This chapter and the applicable regulations adopted thereunder do not entitle an employee in the classified service, who is paid a fixed monthly salary, to receive any compensation for overtime, either in the form of cash or compensatory leave time unless: He is a member of the class eligible to receive overtime payment under personnel rule 7 05.2; he has worked hours in excess of his scheduled hours; and his appointing authority has authorized in writing payment for such overtime work. Even if these conditions are satisfied, personnel rule 9 04 stipulates that the employee is entitled to overtime pay only at his hourly rate. *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

The establishment of normal working hours and provision for compensatory time off for work beyond those hours do not, of themselves, give the employee a right to payment for overtime. *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**Requirement of an express written authorization for payment for overtime cannot be circumvented by the implied contract theory.** *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**A public employee undertakes to perform the duties of his position, whether these duties, or the hours necessary to perform them, are increased or decreased.** *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

When a public servant is paid by time, for example by the month, rather than by the quantity of work performed, he is expected to perform his duties without extra compensation for overtime or holiday hours worked. This chapter and the personnel regulations are reflective of this widely accepted policy. *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**The regulatory scheme under this section and personnel rule 7 05 centralizes decision-making power with respect to overtime in the appointing authority who presumably has a broad view of the department's needs and is shielded from dangers of favoritism by his distance from the particular employee.** *State v. Bogenrife*, Sup. Ct. Op. No. 918 (File No. 1665), 513 P.2d 13 (1973).

**Right of probationary employee to appeal dismissal.** — The intended scope of AS 39.25.170(a) and its relation to paragraph (7) of this section is of sufficient importance to warrant legislative review in order that any potential ambiguity in the Personnel Act, in regard to the question of whether a probationary employee in the classified service has the right to appeal his dismissal to the personnel board, may be obviated. *Mueller v. Alaska State Bd. of Personnel*, Sup. Ct. Op. No. 396 (File No. 738), 425 P.2d 145 (1967), decided prior to the first 1971 amendment to this section.

Any ambiguity in personnel rule in regard to the right to appeal a dismissal to the personnel board should be resolved in favor of an employee who was promoted from a position in which he had (or subsequently attained) permanent status. *Mueller v. Alaska State Bd. of Personnel*, Sup. Ct. Op. No. 396 (File No. 738), 425 P.2d 145 (1967), decided prior to the first 1971 amendment to this section.

**Collateral references.** — Power to suspend or lay off public officers for a tempo-

rary period without pay as an economy and not as a disciplinary measure, 11 ALR 432.

**Sec. 39.25.153. Departmental personnel officers.** (a) If a principal department of the executive branch has a personnel officer, the personnel officer shall be employed by and located within that department.

(b) Subject to the provisions of (d) of this section, the personnel officers for the Departments of Transportation and Public Facilities, Fish and Game, Education, Labor, and Health and Social Services, have the following powers with respect to the classes of positions unique to their departments:

(1) to assign positions to an existing class in the state classification plan and to the salary range for that class as established by the state pay plan or by a valid agreement entered into in accordance with AS 23.40;

(2) to administer and score examinations and to place successful applicants on departmental eligible lists;

(3) to certify those eligible to the appointing authorities.

(c) The initial determination of classes of positions unique to the departments listed in (b) of this section shall be made by the personnel officer of the department in consultation with the commissioner of the department subject to the approval of the director of personnel in the Department of Administration.

(d) The assumption of a power set out in (b) of this section must be approved by the commissioner of administration and must be in harmony with the merit principle of personnel administration (AS 39.25.010). (§ 14 ch 207 SLA 1975; am § 15 ch 112 SLA 1982)

*Effect of amendments. —* The 1982 amendment rewrote this section.

**Sec. 39.25.155. Vocational substitution program.** (a) It is the purpose of this section to establish a liberal system under which Alaskan residents not employed by the state who do not meet the minimum educational or experience criteria for state employment may demonstrate their abilities and achieve temporary or permanent state employee status. This program is intended for use primarily in remote or underemployed areas where the opportunity to gain required hiring qualifications does not exist, but where there is a local need for employees with certain vocational skills. The provisions of this section apply notwithstanding the provisions of AS 39.25.150(3).

(b) The director of personnel shall establish vocational standards as alternatives for educational or experience levels now required for nonprofessional occupational areas under the state personnel system and incorporate these alternatives into the state classification plan.

(c) Applicants shall be placed on eligible lists for the vocational classification indicated in their applications submitted to the division of personnel in the order of their relative ranking based on an assessment of their technical ability, place of residence and without

written examination

(d) The selected beginning position person the range t

(e) The technical al in the pers

(f) Applications of AS

(g) *Repealed* ch 67 SLA

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Section 160. Prohibiti

**Sec. 39.2** may not ta above the p

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written examination. Aptitude or occupational tests may be given if a position requires a specific ability.

(d) The director of personnel shall establish rates of pay for the selected vocational substitution classifications in relation to the beginning entry classification pay rates. However, vocational substitution personnel may not be classified lower than one pay range below the range to which the classified position is allocated.

(e) The director of personnel shall embody a concept combined of technical ability, place of residence, local hire and area unemployment in the personnel rules to accomplish the intent of this section.

(f) Applicants selected under this section are subject to the provisions of AS 39.25.160.

(g) *[Repealed, § 19 ch 67 SLA 1983.]* (§ 1 ch 14 SLA 1971; am § 19 ch 67 SLA 1983)

**Effect of amendments.** — The 1983 amendment repealed subsection (g).

#### Article 4. Prohibitions.

##### Section

##### 160. Prohibitions generally

**Sec. 39.25.160. Prohibitions generally.** (a) A classified employee may not take an active part in the management of a political party above the precinct level.

(b) A person may not give, render, pay, offer, solicit, or accept money, services, or other valuable thing in connection with securing or making an appointment, promotion, or advantage in a position in the classified service.

(c) A person may not require an assessment, subscription, contribution, or service for a political party from a state employee.

(d) A person may not seek or attempt to use a political party endorsement in connection with an appointment or promotion in the classified service.

(e) An employee in the classified or partially exempt service who seeks nomination or becomes a candidate for state or national elective political office shall immediately resign any position held in the state service. The employee's position becomes vacant on the date the employee files a declaration of candidacy for state or national elective office.

(f) Action affecting the employment status of a state employee or an applicant for state service, including appointment, promotion, demotion, suspension, or removal, may not be taken or withheld on the basis of unlawful discrimination due to race, religion, color, or national origin, age, handicap, sex, marital status, change in marital status, pregnancy, or parenthood. In addition, action affecting the employment

status of an employee in the classified service, including appointment, promotion, demotion, suspension, or removal, may not be taken or withheld for a reason not related to merit.

(g) Action affecting the employment status of an employee in the classified service or an applicant for a position in the classified service, including appointment, promotion, demotion, suspension, or removal, may not be taken or withheld on the basis of unlawful discrimination due to political beliefs.

(h) A person may not knowingly make a false statement, certificate, mark, rating, or report with regard to a test, certification, or appointment made under this chapter or in any manner commit a fraud preventing the impartial execution of this chapter and the personnel rules adopted under this chapter.

(i) A person may not obstruct the right of another person to examination, eligibility, certification, appointment, or promotion under this chapter. (§ 19 ch 144 SLA 1960; am § 38 ch 71 SLA 1972; am § 1 ch 15 SLA 1975; am § 16 ch 112 SLA 1982)

**Effect of amendments.** — The 1982 amendment rewrote this section.

**Article 5. Hearings.**

<p><b>Section</b></p> <p>170. Hearings and appeals upon dismissal, demotion or suspension</p>	<p><b>Section</b></p> <p>175. Subpoena authority</p> <p>176. Effect of failure to respond or obey</p>
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**Sec. 39.25.170. Hearings and appeals upon dismissal, demotion or suspension.** (a) An employee in the classified service who is dismissed, demoted, or suspended for more than 30 working days in a 12-month period shall be notified in writing by the employer of the action and the reason for it and may be heard publicly by the personnel board and may be represented by counsel at the hearing. In order to be heard, the complainant shall request a hearing within 15 days of dismissal, demotion or suspension.

(b) If the board finds that the action complained of was taken for a political, racial or religious reason, or in violation of this chapter or the rules adopted under this chapter, the officer or employee shall be reinstated to the position without loss of pay or leave benefit for the period of dismissal, demotion, or suspension. In all other cases, the board shall report its findings and recommendations to both parties. (§ 16 ch 144 SLA 1960)

**NOTES TO DECISIONS**

"Employee in the classified service," as used in this section, has been administratively construed as referring to employees having a permanent, rather than a probationary status, except in cases where dismissal of a probationary

employee is due to racial discrimination. Ct. Op. No. 465 718 (1968).

An employee is considered in classified service. Titus v. State, Sup. Ct. No. 968, 451 P.2d

**Appeal limited to permanent status.** This section was amended following a hearing held in 1978 following a person occupying a permanent state government position. The decision of the state personnel board regarding the status of a probationary employee, in light of provisions relating to permanent status, is not subject to appeal. The latter may be heard without a hearing or without a hearing. v. State, Sup. Ct. No. 833, 438 P.2d 718

**Provisional status.** Whaley v. State, Sup. Ct. No. 833, 438 P.2d

"Provisional status" is a status that is temporary in nature and is not permanent. v. State, Sup. Ct. No. 833, 438 P.2d 718

**Sec. 39.25.171** at the request of the person (§ 17 ch 112 SLA)

**Revisor's notes.** This section contained sub

**Sec. 39.25.172** person refuses to testify or refuses to testify before the personnel board. (b) Failure to appear at a subpoena of court. (§ 17 ch 112 SLA)



ALASKA STATE LEGISLATURE  
HOUSE OF REPRESENTATIVES  
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RECEIVED OCT 13 1984

October 11, 1984

MEMORANDUM

TO: Representative Mike Szymanski

FROM: Sharman Haley  
Legislative Analyst

RE: Priority Rehire For Disabled State Employees  
Research Request 35-025

You have asked about instituting a policy of preferential rehire for State employees who are forced to leave their jobs due to work-related disabilities. Short summaries of rehire policies in Washington, Oregon, and Idaho as well as the U.S. Postal Service and the Municipality of Anchorage are provided below. A discussion of policy alternatives for amending Alaska law along similar lines follows.

WASHINGTON

An employee of the State of Washington who becomes disabled cannot be terminated for at least sixty days. Supervisors have broad discretion to extend leave without pay to the injured employee and fill the position temporarily until the employee is able to resume his or her duties. If the injured employee is out longer than sixty days and is terminated from his or her position, the employee is eligible to be placed on the Reduction In Force (RIF) list for that job class when he or she is ready to return to work. Persons on the RIF list have the right of first hire when vacancies in that job class appear.

If the disabled employee is not able to resume the duties of his or her former job class and seeks reemployment in an alternate job class, the employee must go through the normal application and testing procedures to be certified to the register for the alternate job class. Once certified, the disabled employee is entitled to hiring preference over applicants on the open competitive register. If the alternate job class constitutes a promotion, the disabled employee has second hire priority after those on the RIF list. If the alternate job class is a demotion or lateral transfer, reemployment preference over open competitive candidates is at the discretion of the hiring authority.

Representative Szymanski  
October 12, 1984  
Page Two

Under Washington law, a person whose disability keeps them out of work for more than 120 days is referred to a vocational rehabilitation counselor for evaluation and vocational rehabilitation planning. A person who is permanently disabled may qualify for the state's equal employment opportunity program for the handicapped. Washington State civil service rules allow handicapped persons to test for any job class for which they meet the minimum qualifications, whether or not that register is open for recruitment. State agencies have the option of using the list of qualified handicapped workers, in preference to the regular register when filling vacancies.

Incentive for state agencies (or any employer) to hire workers with occupational injuries is provided by the Preferred Worker Program, which excludes the worker from the computation of workers' compensation premiums for a period of three years. The benefits due the worker in the event of an injury during the three-year period are covered by the state's Second Injury Fund.

#### OREGON

Of the states contacted, Oregon has the strongest laws for rehiring injured employees. Oregon civil rights law provides that an injured employee has the right to reinstatement on demand in his or her former position, or in any other job, if a position is available and the worker able to perform the duties of the job. In the state system, responsibility for rehiring the injured employee falls on each agency. Oregon statutes also require "reasonable accommodation" for the special needs of handicapped workers. In the state personnel system, this may include some restructuring of the job.

#### IDAHO

Idaho personnel rules provide that when an employee is absent due to injury or illness, the job is held open for the employee and may not be declared vacant for at least six months. If the worker has not returned to work within six months and is terminated, for an additional 12 months the worker is eligible to be placed on the lay-off register for that agency if the doctor has cleared the employee for return to work. If the employee is not able to resume the same job duties, the agency has some discretion to modify work for the employee, but there is no program or policy to further accommodate workers who must change job classes.

Representative Szymanski  
October 11, 1984  
Page Three

#### U.S. POSTAL SERVICE

The U.S. Postal Service goes beyond the requirements of federal law to return injured employees to work. Under federal law, an injured federal employee who is able to return to work within one year has the right to return to the same or an equivalent position in the same agency. If it takes longer than a year to return to work, the employee has the right to priority placement in the same or equivalent position in that or another federal agency. The returning federal employee is credited with wage step increases and other benefits based on length of service for the entire time he or she was out on disability compensation.

A partially or temporarily disabled postal employee is on leave status until the doctor certifies that the employee is able to return to work. The worker is either returned to his or her former job, with some modification of duties if needed, or transferred to an alternate job. In planning a placement, the post office considers the risk of reinjury and the potential compensation costs as well as the skills and abilities of the worker. Only if this assessment indicates that the worker will not be returned to federal service is the employee terminated.

The responsibility for finding or creating a job falls on the local postmaster. To encourage the placement of partially disabled workers, the salary of a partially disabled employee is not paid out of the operating unit's budget, nor are the hours worked by a partially disabled worker counted in computing the operating unit's productivity rating. Thus the operating units are able to show a higher productivity, for which they are rewarded, by utilizing partially disabled workers.

#### ANCHORAGE

The Municipality of Anchorage has implemented a modified work program for municipal employees injured on the job. The stated purposes of the program are to minimize long-term costs to the municipality and to return the employee to good health and productive employment at the earliest opportunity.

Under the modified work program, an injured worker who is able to resume partial duties will be placed in modified work for up to three months while the worker is in transition back to full duties. If rehabilitation requires a complete change in employment, participation in the modified work program may exceed three months. The worker is paid his or her full regular salary during the period of modified work. If the worker's permanent job placement is at a lower salary than his or her old job, two-thirds of the difference is paid to the employee through the city's workers compensation account. Workers whose disability precludes them from placement in a permanent position receive a worker's compensation settlement.

Representative Szymanski  
October 11, 1984  
Page Four

While providing modified work is the responsibility of each municipal agency, a job placement coordinator for the municipality as a whole oversees the development of modified jobs and placements. According to Harry Sjoberg, Risk Manager for the municipality, the city's experience with the program has shown significant reductions in compensation claims and changes in the attitudes of supervisors and injured employees alike. Prior to institution of the modified work program, the prevailing pattern was that supervisors were not inclined to rehire an employee at anything less than 100 percent productivity. Employee morale suffered from prolonged periods off work. Mr. Sjoberg said that now less work time is lost, supervisors show more concern for the circumstances of their injured employees, and rehabilitation is quicker.

#### ALASKA

Under the Alaska personnel rules, leave without pay due to a disability is at the discretion of the supervisor, but in any case may not exceed the employee's length of service or 24 months, whichever is shorter. The supervisor may cancel leave without pay upon notice to the absent employee. If the employee does not report for duty on the specified date, he or she may be terminated immediately.

A disabled classified employee terminated "in good standing" has rehire rights for two years from the date of termination. This means that they will be placed on the transfers and rehires list for that job class, which agencies may use in preference to the regular register when seeking applicants to fill vacancies. A few departments such as Health and Social Services have internal policies requiring agency heads to use the transfer and rehire list first, but most departments leave this to the discretion of the supervisor.

Injured State workers who are unable to resume the duties of their former job have few advantages in seeking other State jobs. They must go through the same process as anyone else of finding job classes for which they qualify, waiting for an open recruitment period for that class, taking applicable tests, getting on the job register, and successfully competing with other applicants. If the worker is fortunate enough to still be on leave and thus retain permanent employee status, he or she may be eligible for noncompetitive appointment at the discretion of the hiring authority.

State law provides that workers absent from work more than 90 days due to an on-the-job injury have a right to vocational rehabilitation evaluation. This includes an assessment of skills and abilities, aid in planning for training and rehabilitation, and job placement assistance.

Representative Szymanski  
October 11, 1984  
Page Five

If the worker qualifies as severely handicapped and is a client of the Division of Vocational Rehabilitation, the worker may be referred to a State job and hired noncompetitively if the hiring authority chooses.

State workers whose occupational injuries disable them from resuming their former job duties qualify for a disability pension under the Public Employees Retirement System. The pension is terminated in one year, however, unless the recipient submits evidence that he or she meets the qualifications for federal Social Security disability income (SSI). Federal standards for SSI are stringent; the worker must be unable to hold any gainful employment, not merely his or her former job.

Policy alternatives to facilitate reemployment of injured State workers in Alaska, patterned after some of the preferential rehire programs in other jurisdictions, are listed below:

#### POLICY OPTIONS

1. Employees could be guaranteed the right to disability leave.
2. Injured workers returning to work could be placed on the lay-off list, which assures them priority placement within their former job class.
3. Injured workers unable to resume the duties of their former job class could be allowed to test for any other job class for which they meet the minimum qualifications, whether or not recruitment is open.
4. Hiring preference in alternate job classes for which the worker qualifies could be granted by making the worker eligible for the lay-off, promotion, or transfer and rehire lists. Eligibility for the lay-off list would guarantee the worker first priority placement, while the promotion and the transfer and rehire lists would give the worker preference only at the option of the hiring authority.
5. A modified work program could provide injured workers job duties tailored to their capabilities during a period of transition back to full duties or to a new job.
6. State agencies could be given incentives to rehire disabled State workers, such as omitting the disabled worker from the calculation of their worker's compensation assessment.
7. State employees injured in the course of their employment could be guaranteed State jobs when doctors certify that the employees

Representative Szymanski  
October 11, 1984  
Page Six

are able to return to work. The employee would be reemployed in their original job class if they were able to perform the duties, in an alternate job class for which they qualify, in an alternate job class for which they may be retrained, or in a modified job tailored to their individual capabilities.

8. The injured worker could also be extended the right to receive pay no less than the pay he or she received prior to injury, regardless of the final job placement.

These policy changes could be effected by amending AS 39.25.150 to direct the Department of Administration to provide for these policies in the personnel rules. Alternatively, reemployment could be mandated for all employers in the state under the workers' compensation or civil rights laws. Copies of the Oregon law and the Postal Service policy manual, both of which are regarded by vocational rehabilitation professionals as model policies, are attached.

Because the State is a self-insurer and is liable for workers' compensation benefits as well as for the disability pension payments, it may be in the State's financial interests as well as the interests of the injured worker to implement a preferential rehire policy and return the worker to a job as quickly as possible. Approximately 1,200 injured State employees file worker's compensation claims per year, of which about 200 to 250 include a claim for wage loss due to being out of work more than three days. Compensation is also paid for loss of earning capacity if the injured worker's prospective employment pays less than his or her former job. Compensation for wage loss is generally calculated at two-thirds of the lost wages, but because workers' compensation is tax exempt, the take home compensation is worth more than two-thirds of net wages lost.

\* \* \* \* \*

I am still expecting some additional information from other states to come in the mail. If upon reviewing the material I find that it provides any significant information on this issue that I have not adequately covered here, I will forward it on to you with a supplemental memo. Meanwhile, I hope that this memorandum provides you with the information that you need.

If you have any further questions please call me.

SH

**659.410 Discrimination against workers applying for workers' compensation benefits prohibited.** It is an unlawful employment practice for an employer to discriminate against a workman with respect to hire or tenure or any term or condition of employment because the workman has applied for benefits or invoked or utilized the procedures provided for in ORS 656.001 to 656.79; and 656.802 to 656.82, or of 659.400 to 659.435 or has given testimony under the provisions of such sections. [1973 c.660 §4]

**659.415 Reinstatement of worker receiving compensable injuries; certificate of physician evidencing ability to work; effect of collective bargaining agreement.** (1) A worker who has sustained a compensable injury shall be reinstated by the worker's employer to the worker's former position of employment upon demand for such reinstatement, provided that the position is available and the worker is not disabled from performing the duties of such position. If the former position is not available, the worker shall be reinstated in any other position which is available and suitable. A certificate by a duly licensed physician that the physician approves the worker's return to the worker's regular employment shall be prima facie evidence that the worker is able to perform such duties.

(2) Such right of reemployment shall be subject to the provisions for seniority rights and other employment restrictions contained in a valid collective bargaining agreement between the employer and a representative of the employer's employees.

(3) Any violation of this section is an unlawful employment practice. [1973 c.660 §5; 1979 c.813 §3; 1981 c.874 §14]

**659.420 Employment of injured worker in other available and suitable work; certificate of physician; effect of collective bargaining agreement.** (1) A worker who has sustained a compensable injury and is disabled from performing the duties of the worker's former regular employment shall, upon demand, be reemployed by the worker's employer at employment which is available and suitable.

(2) A certificate of the worker's attending physician that the worker is able to perform described types of work shall be prima facie evidence of such ability.

(3) Such right of reemployment shall be subject to the provisions for seniority rights and other employment restrictions contained in a valid collective bargaining agreement between

the employer and a representative of the employer's employees.

(4) Any violation of this section is an unlawful employment practice. [1973 c.660 §6; 1979 c.813 §4]

**659.425 Discrimination against mentally or physically impaired persons in employment or public accommodation prohibited; mental disorder treatment not evidence of inability to work or manage property.** (1) For the purpose of ORS 659.400 to 659.435, it is an unlawful employment practice for any employer to refuse to hire, employ or promote, to bar or discharge from employment or to discriminate in compensation or in terms, conditions or privileges of employment because:

(a) An individual has a physical or mental impairment which, with reasonable accommodation by the employer, does not prevent the performance of the work involved;

(b) An individual has a record of a physical or mental impairment; or

(c) An individual is regarded as having a physical or mental impairment.

(2) It is an unlawful employment practice for an employment agency to fail or refuse to refer for employment, or otherwise discriminate against, any individual because that individual is a handicapped person, or to classify or refer for employment any individual because that individual is a handicapped person.

(3) It is an unlawful employment practice for a labor organization, because an individual is a handicapped person, to exclude or to expel from its membership such individual or to discriminate in any way against such individual.

(4) It is an unlawful practice for any place of public accommodation, resort or amusement as defined in ORS 30.675, or any person acting on behalf of such place, to make any distinction, discrimination or restriction because a customer or patron is a handicapped person.

(5) Receipt or alleged receipt of treatment for a mental disorder shall not constitute evidence of a person's inability to perform the duties of a particular job or position, or of a person's inability to acquire, rent or maintain property. [1973 c.660 §7; 1979 c.640 §3]

**659.430 Discrimination against handicapped persons in real property transactions prohibited; advertising discriminatory preference prohibited; assisting discriminatory practices prohibited.** (1) No person because the purchaser, lessee or renter is a handicapped person shall:

LWOP for an initial period of up to 1 year from the date OWCP compensation began.

**.92 Extensions.** If the employee is unable to return to work at the end of the 1 year period on LWOP, the LWOP may be extended for successive additional periods of up to 6 months. Extensions are granted only if it appears that the employee is likely to return to work within the period of the extension.

**.93 Separations.** If it is not likely that the employee will be able to return to work at the end of one year of LWOP or during the authorized extended period, the employee may be separated. Before any employee who is on the rolls of the OWCP can be separated, the postal official must submit a comprehensive report to the General Manager, Employee Relations (Region), with appropriate recommendations and retain the employee on the rolls of the Postal Service pending a decision.

**.94 Deciding Appropriate Action.** In considering the action to take in matters involving extended leave, the installation head sends Form 2573, *Request for OWCP Claim Status*, in duplicate, to the appropriate OWCP district office; and, upon receiving a completed Form 2573 from OWCP, does one of the following:

- a. Extends LWOP for an additional period, at the end of which an additional determination must be made;
- b. Authorizes a fitness-for-duty examination by a medical officer as provided in 547.31, .32, and .33 if OWCP does not respond within a maximum of 60 days or if OWCP's response does not explain the situation; or
- c. Request permission to terminate LWOP as required in .93; and
- d. Terminates LWOP after receiving permission from the General Manager, Employee Relations (Region) as follows:

(1) If the employee has 5 or more years of creditable civilian service, inform the employee of retirement rights. Allow the employee 14 calendar days to file a retirement application under the Civil Service Retirement Act.

(2) If the employee does not file a retirement application within the 14 day period, terminate LWOP and take action to separate the employee as described in 365 and 568.

(3) If the employee has less than 5 years creditable civilian service, terminate LWOP and take action to separate the employee as described in 365.

## 546 Reemployment of Employees Injured On Duty

### 546.1 Law

**.11 General.** The USPS has legal responsibility to employees with job-related disabilities under 5 U.S.C. 8151 and the Office of Personnel Management's (OPM) regulations, as outlined below.

#### .12 Disability Fully Overcome Within 1 Year

**.121 Obligation.** When the injury or disability is fully overcome within one year after the commencement of compensation payments from OWCP, or after compensable disability recurs, the USPS must give an

employee the right to resume employment in the former or equivalent position.

**.122 Rights and Benefits.** Upon reemployment, all rights and benefits which an employee would have had or acquired in the former position, had there been no injury or disability, must be restored.

#### .13 Disability Fully Overcome More Than 1 Year

**.131 Obligation.** When the injury or disability is fully overcome more than one year after compensation began, the USPS must give an employee priority consideration for reemployment into the former position or an equivalent one.

**.132 Reemployment List.** The names of all former employees who fully recover from their compensable disabilities more than one year after compensation begins must be entered on a reemployment list in two groups. *Group one* will include all such former employees who are entitled to 10 point veteran preference. *Group two* will include all other such former employees. Persons in *group one* will be considered for employment before persons in *group two*, and persons in *group two* will be considered before other sources of recruitment, such as transfers from other agencies, reinstatements, or appointments from hiring registers.

**.133 Rights and Benefits.** The same as 546.122.

#### .14 Disability Partially Overcome

**.141 Current Employees.** When an employee has partially overcome a compensable disability, the USPS must make every effort toward assigning the employee to limited duty consistent with the employee's medically defined work limitation tolerances (see 546.32). In assigning such limited duty, the USPS should minimize any adverse or disruptive impact on the employee. The following considerations must be made in effecting such limited duty assignments:

a. To the extent that there is adequate work available within the employee's work limitation tolerances; within the employee's craft; in the work facility to which the employee is regularly assigned; and during the hours when the employee regularly works; that work shall constitute the limited duty to which the employee is assigned.

b. If adequate duties are not available within the employee's work limitation tolerances in the craft and work facility to which the employee is regularly assigned, within the employee's regular hours of duty, other work may be assigned within that facility.

c. If adequate work is not available at the facility within the employee's regular hours of duty, work outside the employee's regular schedule may be assigned as limited duty. However, all reasonable efforts shall be made to assign the employee to limited duty within the employee's craft and to keep the hours of limited duty as close as possible to the employee's regular schedule.

d. An employee may be assigned limited duty outside of the work facility to which the employee is normally assigned only if there is not adequate work available within the employee's work limitation tolerances at the employee's facility. In such instances, every effort will

be made to assign the employee to work within the employee's craft, within the employee's regular schedule, and as near as possible to the regular work facility to which normally assigned.

**.142 Former Employees.** When a former employee has partially recovered from a compensable injury or disability, the USPS must make every effort toward reemployment consistent with medically defined work limitation tolerances. Such an employee may be returned to any position for which qualified, including a lower grade position than that held when compensation began.

**.15 Employee Appeal Rights.** An employee who believes the proper consideration for reemployment was not received may appeal to the Merit Systems Protection Board, under 5 CFR, 353.

#### 546.2 Collective Bargaining Agreements

Reemployment under this section will be in compliance with applicable collective bargaining agreements. Individuals so reemployed will receive all appropriate rights and protection under the applicable collective bargaining agreement.

##### .21 Contractual Considerations

**.211 Scope.** Collective bargaining agreement provisions for filling job vacancies and promotions, and procedures relating to retreat rights due to reassignment, will be complied with before an offer of employment is made to a former postal employee on the OWCP rolls for more than 1 year.

**.212 Reemployment.** A former employee will be offered reemployment in a residual vacancy (a vacancy which has been posted for bid or application and for which there are no successful bidders or applicants), or may work as an unassigned regular or as a part-time flexible. Regional Directors, Employee and Labor Relations (APMG, Employee Relations, for Headquarters and Administrative Support Facilities (ASFs) may waive minimum qualification requirements (including written examinations) in individual cases for former employees injured on duty who are being considered for reemployment when there is evidence (including that submitted by the medical officer) that the employee can be expected to perform satisfactorily in the position within ninety days after assignment.

##### .22 Types of Appointments

**.221 Former career employees** will be reemployed as career full-time or part-time employees.

**.222 Former substitute rural carriers** will be reemployed as substitute rural carriers or in any other position for which they qualify.

**.223 Former casual and temporary employees** will be reemployed as casual or temporary employees. Upon satisfactory demonstration of ability to meet job requirements during two 90-day casual appointments or one 180-day temporary appointment, the employee's

status may be noncompetitively converted to a career appointment (NOA 501).

#### 546.3 OWCP Referrals

**.31 General.** OWCP will make referrals of current and former postal employees who may be candidates for reemployment.

**.32 Work Limitation Tolerances.** The individual's physician of record, or other physician selected by the individual or OWCP, will furnish OWCP with a definitive medical summary, clearly documenting the medical limitations that will have to be accommodated. The OWCP District Medical Director evaluates the work limitation tolerances, submitted by the physician of record, and upon concurrence, refers them to the USPS for consideration.

##### .33 USPS Medical Review

###### **.321 Reemployment Physical Examination**

**a.** The medical officer will evaluate fully all medical records referred to the USPS from the OWCP district offices.

**b.** A complete physical examination, paid for by the USPS, will be required by the appointing officer. The result of the physical examination will be documented on Form 2485, *Certificate of Medical Examination*.

**c.** The medical officer will make a statement of concurrence with the OWCP documented medical limitations, or further restrict the former employee's work limit tolerances. The medical officer can in no way liberalize the medical limitations rendered by the OWCP district offices.

###### **.322 Special Considerations**

**a.** An individual referred for reemployment consideration by OWCP may have some degree of concurrent disability, not caused by or related to the original job injury or disability. The medical officer should examine for any concurrent medical condition that might prevent the individual from performing the duties of the position for which the individual is being considered.

**b.** The medical officer will carefully evaluate all concurrent disabilities and include their potential impact in the recommendation for reemployment to the appointing official.

**c.** All former employees, now permanently, partially disabled, have some type of residual handicap. The medical officer, conducting the physical examination, will be responsible for assigning the correct handicap code as defined in Handbook P-11, *Personnel Operations*, Chapter 6.

#### 546.4 Restoration Rights

**.41 OPM Regulations.** OPM has responsibility for the implementing regulations of 5 USC 8151. These regulations are codified in 5 CFR Part 353. 5 USC 8151(a) provides that an individual, injured or disabled on duty, who resumes employment with the USPS is to be credited with the time during which compensation

was received for purposes of certain rights and benefits based upon length of service.

#### .42 Rights and Benefits upon Partial Recovery

**.421 Seniority.** Individuals, reemployed into bargaining unit positions will be credited with seniority in accordance with the collective bargaining agreement covering the position to which reemployed.

**.422 Probationary Period.** Reemployed individuals who have completed their probationary periods, or would have completed their probationary periods but for their compensable injuries, will not be required to serve a new probationary period.

**.423 Leave Credit.** Former employees who were eligible to accrue leave under ELM 510 will be credited with the total time compensation was received from OWCP for purposes of computing leave rate accrual upon reemployment.

**.424 Retirement.** Former employees who were covered by the Civil Service Retirement Act (see ELM 560) will be credited with the time spent on OWCP compensation in computing retirement credit.

**.425 Salary Determination.** The following salary restoration criteria must be met (*Note:* The term "Grade/Step," as used below, means "Grade/Salary" for individuals in a non-step salary schedule):

*a. Reemployment to the Former Grade/Step.* These individuals reemployed into a position with the same grade/step as held at the time of injury or disability will receive the current salary for that grade/step from the appropriate salary schedule.

*b. Reemployment to a Higher Grade.* Those individuals reemployed to a position with a grade higher than that of the position held at the time of injury or disability will be placed in the higher grade at the current salary for the grade/step held at the time of injury or disability. If that salary is between steps in the higher grade, the individual's salary will be increased to the next higher step.

*c. Reemployment to a Lower Grade/Step.*

*(1) Salary Below Maximum of Lower Grade.* The individual will be placed in any higher step in the lower grade which is less than one full step above the current salary for the grade/step of the position held at the time of injury or disability.

*(2) Salary Above Maximum of Lower Grade.* In those cases where the current salary for the grade/step held at the time of injury or disability exceeds the maximum salary of the lower grade position, the employee will be afforded a saved rate at the higher grade/step salary. These saved rate provisions apply for an indefinite period and are subject to the rules of the salary schedule to which assigned.

*d. Reemployment to a Position in a Different Salary Schedule.* When an individual is reemployed to a position in a salary schedule different from the schedule under which paid at the time of injury or disability, once reemployed, the individual will be treated under the rules applicable to the salary schedule to which reemployed:

*(1)* The individual will be reemployed at the grade appropriate for the position to which reemployed.

*(2)* The individual will be placed in any higher step in the new grade which is less than one full step above the current salary for the grade/step of the position held at the time of injury or disability.

*(3)* If reemployment is to a nonstep schedule, the individual will be placed at a salary equal to the current salary for the grade/step of the position held at the time of injury or disability.

*(4)* If the current salary for the grade/step held at the time of injury or disability exceeds the maximum salary of the new grade, the individual will be given a saved rate. These saved rate provisions apply for an indefinite period and are subject to the rules of the salary schedule to which assigned.

*e. Former Position Under Different Salary Schedule.* Where the position held at the time of injury or disability is no longer under the same salary schedule, the current salary for the former grade/step will be determined by:

*(1)* Regional Compensation Division, for field, district, and regional positions.

*(2)* Office of Compensation, Headquarters, for Headquarters and Headquarters-related positions.

*f. Step Increases.* Upon reemployment, permanently, partially disabled individuals begin a new waiting period for step increases.

**.43 Rights and Benefits Upon Full Recovery.** See 546.122.

### 546.5 Retirement Considerations

**.51 Status.** Pursuant to the Civil Service Retirement Act, a former employee who applied for and received Civil Service disability retirement status will cease to be an annuitant upon reemployment and restoration of that individual's wage earning capacity.

#### .52 Reinstatement of Eligibility

**.521** If an annuitant, reemployed under the procedures in this section, is later found unable to successfully perform in the new position due to the original compensable injury or disability, and is again separated, the employee will be entitled to the restoration of disability retirement status under the Civil Service Retirement Act.

**.522** If an employee becomes disabled for the position due to a new injury or disability after entry into that position, the employee would have a right to apply for a new Civil Service disability retirement status.

**.53 Refunded Retirement Deductions.** A former employee who withdrew retirement deductions based on previous employment, may redeposit the amount refunded, plus interest, after reemployment to a position from which retirement deductions are withheld.

**.54 Notification.** Upon reemployment of a disability annuitant (or in advance, if possible), the appointing official must notify the Office of Personnel Management, Compensation Group, Room 3305, Attention: Annuitant

Services Division, Washington, DC 20415. The notification must include the individual's name, social security number, date of birth, Civil Service Annuity claim number (CSA-Civil Service Account), date of reemployment, Form 2485, Certificate of Medical Examination and whether retirement deductions will be made from the salary for the position to which reemployed.

#### 546.6 Relocation Considerations

**.61 Scope.** In some cases, former employees receiving OWCP compensation may have relocated to other geographic areas. Every effort must be made to reemploy these individuals within their current area of residence by treating them as if they had been employed at that office at the time of injury. Any offer to reemploy in a different location will be considered only after all reasonable attempts have been made to rehire within the area of the former employee's present domicile.

**.62 Expense.** Any relocation and travel expenses will be the responsibility of the former employee. However, under certain mitigating circumstances the SAPMG for E&LR, or the SAPMG's designee, may authorize relocation and travel expenses consistent with the provisions of Handbook M-9, *Travel*.

#### 546.7 Reemployment Procedures

##### .71 Offer of Appointment

**.711 Evaluation.** Upon receipt and evaluation of the OWCP referral containing documented medical limitations, and evaluation of the medical officer's recommendations, the appointing official will determine if a reemployment offer can be made.

**.712 Interview.** During the preemployment interview, the appointing officer will ensure that the individual receives the following information:

a. In-depth analysis of medical limitations and the individual's responsibility to work within the prescribed work limitation tolerances.

b. If applicable the status of injury compensation and disability retirement benefits and future eligibility.

c. A full explanation of all restoration rights and benefits (see 546.4).

d. Full particulars regarding the position, including title, duties, grade, salary, location of work assignment, and all other information required in a preemployment interview. (See Handbook P-11, 264.8 and 265.)

e. Instructions for completion and submission of any required employment forms.

##### .713 Appeal

a. Those employees who fully recover in less than one year from the date on which OWCP compensation began, may appeal to the Merit Systems Protection Board (MSPB) if they believe a proposed offer of reemployment does not meet the requirements of Office of

Personnel Management regulations 5 CFR Part 353. The letter of appeal must be submitted within 20 days after the date of the offer or 20 days after the date of reemployment, whichever is later.

b. Those employees or former employees whose full recovery extends beyond one year, or whose partial recovery falls either within or beyond one year of compensation, may appeal to the Merit Systems Protection Board only when they have requested restoration through formal application to the installation head and restoration has been refused them. An appeal to the denial of restoration must be filed with MSPB within 20 days from the day the denial letter is received. Upon restoration, however, the employees are not given the right to appeal the nature of the restoration.

**.72 Refusal of Reemployment Offer.** When a former employee refuses an offer of suitable employment within the OWCP defined medical limitations, the appointing officer must do the following:

a. Offer the individual an opportunity to sign a declination of employment.

b. Advise the individual that the effect of such refusal may result in the termination or reduction of compensation benefits by the Department of Labor.

c. Notify the OWCP district office by telephone of the declination and reasons given.

d. Within 2 working days, forward a full written summary of the former employee's interview, including the signed declination, and medical evaluations or other pertinent information to the OWCP district office. OWCP has the responsibility to notify the Retirement and Insurance Division, Office of Personnel Management, when disability retirement status is to be evaluated.

**.73 Refusal to Reemploy.** The appointing official may not be able to accommodate the former employee for medical reasons or other considerations. If the former employee will not be reemployed, the appointing officer must:

a. Notify the employee in writing of that fact, with a copy to the OWCP; and

b. Include a paragraph informing the individual of the right to appeal to the Merit Systems Protection Board.

**.74 Processing Personnel Actions.** The reemployment of former employees injured or disabled on duty requires uniform information on Form 50-B, *Request for Personnel Action (Processing Copy for New Hires Only)*, before forwarding to the Employee and Labor Relations Information Center. (See 612.5 Handbook P-11.)

#### 547 Return to Duty

##### 547.1 Therapy Obligations

The installation head must ensure that an employee reports for scheduled therapy treatment. The employee

must be advised that failure to keep appointments with a physician or hospital is a form of absenteeism. Control office/control point personnel will report failures to keep appointments to the OWCP district office.

#### 547.2 Medical Reports

.21 Progress reports received from the attending physician may show the employee is capable of some work during convalescence or after medical treatment has been completed.

.22 If not, this information is requested by the control office/control point from the attending physician or the OWCP district office by use of Form CA-17.

.23 If the attending physician submits a medical report, Form CA-17, indicating that the employee is medically capable of performing some of the normal duties for a limited number of hours, or other work of a different nature than the employee's former assignment, the installation head must make every reasonable effort to place the employee in an appropriate assignment.

#### 547.3 Fitness-For-Duty Determination

.31 **Determining Fitness.** The fact that an injured or ill employee is scheduled for a series of treatments or appointments with a physician or hospital does not, by itself, establish that the employee is not fit-for-duty in the interim. Control personnel will recommend, upon medical justification, to the installation head that any employee being treated by a physician or hospital be required to report to a USPS medical unit (or contract equivalent) for a fitness-for-duty examination. Only an installation head is authorized to approve a fitness-for-duty examination.

.32 **Examination Report.** This physical examination may include the parts of the anatomy being treated, provided the examination in no way disturbs or interferes with the treatment regimen. The results of this examination will be brought to the attention of the OWCP district office for consideration.

.33 **Physician Report Questioned.** If the medical officer questions the medical procedures and/or determination of the employee's attending physician, no administrative action may be taken to change the employee's compensation or employment status until the medical issue is settled.

.34 **Resolving Determination.** The following procedures apply only to fitness-for-duty determinations incident to an on-the-job injury or illness. Fitness-for-duty determinations for other purposes are not covered by this instruction.

a. The physician or hospital must, for each visit of the employee, make a professional statement, using Form CA-17, showing the employee either:

- (1) Fit-for-duty; or
- (2) Fit for limited duty, and the work tolerance limitations due to the injury; or
- (3) Not fit for duty with an expected return-to-duty date.

b. If the physician or hospital is unable to predict an employee's fitness for duty on either a short-term or long-term basis, the control office/control point supervisor may request information from the OWCP by sending Form 2573, Request—OWCP Claim Status, in duplicate, to the OWCP district office. If OWCP does not respond within a maximum of 60 days, or if the OWCP response does not explain the situation, a fitness-for-duty examination may be recommended to the installation head as provided in 547.31, .32, and .33. However, a fitness-for-duty examination can be initiated at any time to determine the duty status of the injured employee.

c. If the results of the fitness-for-duty examination disagree with the findings of the attending physician, the matter, along with justification for the USPS position, is referred by the control office/control point supervisor to the OWCP Deputy Commissioner for resolution.

d. A fitness-for-duty determination is not limited to the employee's regular duties, but should be based on whether the employing installation has any temporary alternative duties available which the employee may safely perform.

HB 318 File Contents

April 15, 1985 Monday

- 1) Bill Summary -- Legislative Reporting Service
- 2) Overview -- R. Poppe, Committee Staff
- 3) Fiscal Note -- Dept. of Labor, 3/28/85
- 4) Position Paper -- Dept. of Labor, 4/2/85
- 5) Memo from Rep. Szymanski to Committee, April 11,85
- 6) Alaska Statutes: AS 39.25.140-160
- 7) House Research Agency Analysis -- October 11, 1984
- 8) SS for HB 318, proposed as CS by sponsor, with explanation of changes

INTRODUCTION OF BILLS (House)(cont'd)

HB 316 (cont'd)

of the public to use and have free access to the navigable or public water of the state.'

Provides Act takes effect immediately.

Introduced March 25 and referred to Resources, Finance.

Professional  
Licensing of  
Social Workers

HOUSE BILL NO. 317, by Reps. Koponen, Larson, Hurley, Goll, Gruenberg, Davis & Pignalberi. Identical to Senate Bill 227, page 426.

Introduced March 25 and referred to Labor & Commerce, Health, Education & Social Services, Finance.

Injured State  
Employees  
(rights of)

HOUSE BILL NO. 318, by Rep. Szymanski. Amends the State Personnel Act (AS 39.25) by adding new sections that would require the Director of Personnel, in consultation with the appropriate departments or agencies, to prepare and maintain a position description for each position in the classified and partially exempt services that will describe the essential functions of the position and the actual skills and abilities required to perform the assigned task. A general requirement for physical abilities may not be imposed on a job classification unless each position within the class requires the use of physical ability.

Would require a state agency to offer an injured employee the employee's former position if the employee is able to perform the assigned tasks. If another employee has attained permanent status in that position, the agency is required, at the request of the injured employee, to offer the injured employee the position as soon as a vacancy occurs, or, immediately offer the injured employee a comparable position in the same agency.

If an employee can no longer perform all of the assigned tasks, the agency is required to rehire the employee after making a reasonable accommodation to the physical and mental limitations of the employee. Allows the agency to refuse to rehire if the accommodation imposes an undue hardship on the operation of the agency's program, or if, after reasonable efforts at accommodation, the employee cannot perform the essential functions in a manner that would not endanger the health and safety of the employee or to others to a greater extent than if a nonhandicapped person performed the job.

Outlines factors to be considered in determining undue hardship. If an agency is unable to rehire the employee, the employee may request reference for another position. The new section applies to all state employees who were injured on-the-job, and were laid off or terminated after the injury and have requested to return to work for the state. Does not provide effective date (takes effect 90 days after Governor signs bill).

Introduced March 25 and referred to Labor & Commerce, Finance.



# Alaska State Legislature

House of Representatives

Representative Mike Szymanski

Finance Committee  
Oil and Gas Committee

11920 Johns Road  
Anchorage, Alaska 99515  
Phone (907) 349-3373

While in Session:  
Pouch V  
State Capitol  
Juneau, Alaska 99811  
(907) 465-4978/4979

April 13, 1985

TO: REPRESENTATIVE MIKE NAVARRE, CHAIRMAN  
HOUSE LABOR AND COMMERCE COMMITTEE

FROM: REPRESENTATIVE MIKE *M. Szymanski* SZYMANSKI

RE: SPONSOR SUBSTITUTE HB 318

The purpose of this memo is to advise you of the differences between the Sponsor Substitute for House Bill 318, introduced this morning, and the original bill. The changes, with one exception, are technical in nature and were recommended by experts in the fields of vocational rehabilitation and personnel management.

However, although the essence of the bill remains the same in both versions, the order of the subsections changed substantially. To aid your committee's discussion, the attached subsectional analysis outlines the intent of each subsection of the Sponsor Substitute.

The one substantive difference between the original bill and the Sponsor Substitute, is found in Sec. 39.25.158 (a). Under the original bill, an injured state worker returning to the work force who is capable of performing the assigned tasks of his/her former position, would be reinstated to that position, unless another employee has attained permanent status in that position. In the Sponsor Substitute, the returning injured employee would be offered his/her former position if the employee can perform the assigned tasks of that position, regardless of whether or not another employee has attained permanent status in that position. This change was recommended and is supported by both the Division of Personnel and the Division of Vocational Rehabilitation.

For further consideration of the content of the legislation, I refer you to the attached subsectional analysis of the Sponsor Substitute.

Thank you.

1 IN THE HOUSE

BY SZYMANSKI

2 SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 318

3 IN THE LEGISLATURE OF THE STATE OF ALASKA

4 FOURTEENTH LEGISLATURE - FIRST SESSION

5 A BILL

6 For an Act entitled: "An Act relating to rights of injured state employ-  
7 ees."

8 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

9 \* Section 1. AS 39.25 is amended by adding new sections to read:

10 Sec. 39.25.157. POSITION DESCRIPTIONS. The division of person-  
11 nel, in consultation with the appropriate department or agency, shall  
12 prepare and maintain a position description for each position in the  
13 classified and partially exempt services. The position description  
14 shall describe the essential functions of the position and the actual  
15 skills and abilities required to perform the tasks assigned to the  
16 position. A general requirement for physical abilities may not be  
17 imposed on a job classification unless each position within the class  
18 requires the use of the physical ability.

19 Sec. 39.25.158. REEMPLOYMENT RIGHTS FOR INJURED STATE EMPLOYEES.

20 (a) A state agency shall offer an injured employee the employee's  
21 former position if the employee is able to perform the tasks assigned  
22 to the position.

23 (b) If the employee is no longer able to perform all of the  
24 tasks assigned to the position the employee held when the employee was  
25 injured but is able to perform the essential functions of the  
26 position, then the agency shall reemploy the employee in the position  
27 after making a reasonable accommodation to the physical and mental  
28 limitations of the employee.

29 (c) If the employee is unable after reasonable accommodation to

1 perform the essential functions of the employee's former position,  
2 then the agency shall offer the employee a position comparable in wage  
3 to the position the employee previously held. If the employee is  
4 unable to perform the essential functions of a comparable position  
5 within the agency, then the employee is entitled to preference for a  
6 comparable position with another agency if the employee is able to  
7 perform the essential functions of that position.

8 (d) If the agency and the state are unable to reemploy the  
9 employee in a position at a wage comparable to the employee's previous  
10 wage, the employee may choose to accept retraining under AS 23.30.041.  
11 After completing the training the employee may request preference for  
12 employment with the agency or with another agency in the state in a  
13 position for which the employee has been retrained.

14 (e) Reasonable accommodation may include imposing work restric-  
15 tions on the tasks performed by the employee, making job or site  
16 modifications necessary to permit the employee to perform the tasks of  
17 the position, removing institutional and architectural barriers, and  
18 providing additional support services.

19 (f) An agency may refuse to reemploy or continue the employment  
20 of a former employee if the accommodation imposes an undue hardship on  
21 the operation of the agency's program or if, after reasonable efforts  
22 at accommodation, the injured employee cannot perform the essential  
23 functions of the position in a manner that would not endanger the  
24 health or safety of:

25 (1) the employee because the job imposes an imminent and  
26 substantial degree of risk to the employee; or

27 (2) others to a greater extent than if a nonhandicapped  
28 person performed the job.

29 (g) Factors to consider in determining undue hardship include

1 the current number of employees in the section or office, number and  
2 type of facilities, size of budget, nature and cost of the accommoda-  
3 tion needed, and the type, composition, and structure of the work  
4 force.

5 (h) Notwithstanding any other provision of law, if an injured  
6 employee requests reemployment under this section and if the employee  
7 is able to perform the essential functions of the position, the state  
8 may not certify any other person for that position except an employee  
9 in layoff status for that job class.

10 (i) This section applies to a permanent, probationary, or provi-  
11 sional employee of an agency who

12 (1) was injured on-the-job;

13 (2) was laid off or terminated after the injury; and

14 (3) has requested to return to work for the state.

15 (j) In this section "agency" includes a department, division,  
16 office, agency, board, commission, authority, or other organizational  
17 unit of the executive, legislative, and judicial branches of state  
18 government including the University of Alaska.

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- 3) Fiscal Note -- Dept. of Labor, 3/28/85
- 4) Position Paper -- Dept. of Labor, 4/2/85
- 5) Memo from Rep. Szymanski to Committee, April 11, 85
- 6) Alaska Statutes: AS 39.25.140-160
- 7) House Research Agency Analysis -- October 11, 1984
- 8) SS for HB 318, proposed as CS by sponsor, with explanation of changes
- 9) Memo from Rep. Szymanski to Committee Re SS, April 13, 85
- 10) Sectional Analysis of SS -- by Sponsor
- 11) State of Alaska Position Description Questionnaire

Cramer  
4/24/85,

Original sponsors: Szymanski, Collins,  
and Rieger

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IN THE HOUSE

BY THE LABOR AND  
COMMERCE COMMITTEE

CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 318 (L&C)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to rights of injured state employ-  
ees."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. AS 39.25 is amended by adding new sections to read:

Sec. 39.25.157. POSITION DESCRIPTIONS. The division of person-  
nel, in consultation with the appropriate department or agency, shall  
require the preparation of and shall maintain a position description  
for each position in the classified and partially exempt services.  
The position description shall describe the essential functions of the  
position and the actual skills and abilities required to perform the  
tasks assigned to the position. A general requirement for physical  
abilities may not be imposed on a job classification unless each  
position within the class requires the use of the physical ability.

Sec. 39.25.158. REEMPLOYMENT RIGHTS FOR INJURED STATE EMPLOYEES.

(a) An injured employee who requests to return to work for the state  
within 90 days after receipt of a release from a physician indicating  
that the employee is able to return to full or modified work is eli-  
gible for reemployment rights under this section.

(b) After an employee requests to return to work, the rehabili-  
tation administrator of the division of workers' compensation or the  
director of vocational rehabilitation in the Department of Education  
shall review the request and certify that the employee is able to  
return to work under (c), (d), (e), or (f) of this section, or defer  
certification until the employee completes retraining under (f) of



1  
2 this section.

3 (c) If the rehabilitation administrator or the director of  
4 vocational rehabilitation certifies that the employee is able to  
5 perform the tasks assigned to the employee's former position, the  
6 agency shall reemploy the employee within 30 days of receipt of the  
7 certification unless the position no longer exists.

8 (d) If the employee is not eligible for reemployment under (c)  
9 of this section but is able to perform the essential functions of the  
10 position, then the agency shall reemploy the employee in the position  
11 after making a reasonable accommodation to the physical and mental  
12 limitations of the employee unless the position no longer exists.  
13 Reasonable accommodation may include imposing work restrictions on the  
14 tasks performed by the employee, making job or site modifications  
15 necessary to permit the employee to perform the tasks of the position,  
16 removing institutional and architectural barriers, and providing  
17 additional support services.

18 (e) If the employee is not eligible for reemployment under (c)  
19 or (d) of this section, then the agency shall offer the employee a  
20 position comparable in wage to the position the employee previously  
21 held. If the employee is unable to perform the essential functions of  
22 a comparable position within the agency, then the employee is entitled  
23 to preference for a comparable position with another agency if the  
24 employee is able to perform the essential functions of that position.

25 (f) If the agency and other agencies in the state are unable to  
26 reemploy the employee in a position at a wage comparable to the  
27 employee's previous wage, the employee may request preference for  
28 employment at a lower wage or accept retraining under AS 23.30.041.  
29 After completing the training the employee may request preference for  
employment with the agency or with another agency in the state in a



1 position for which the employee has been retrained.

2  
3 (g) An agency may refuse to reemploy or continue the employment  
4 of a former employee if the accommodation imposes an undue hardship on  
5 the operation of the agency's program or if, after reasonable efforts  
6 at accommodation, the injured employee cannot perform the essential  
7 functions of the position in a manner that would not endanger the  
8 health or safety of

9 (1) the employee because the job imposes an imminent and  
10 substantial degree of risk to the employee; or

11 (2) others to a greater extent than if a nonhandicapped  
12 person performed the job.

13 (h) Factors an agency may consider in determining undue hardship  
14 under (g) of this section include the current number of employees in  
15 the section or office, number and type of facilities, size of budget,  
16 nature and cost of the accommodation needed, and the type, composi-  
17 tion, and structure of the work force.

18 (i) Notwithstanding any other provision of law, if an injured  
19 employee requests reemployment under (e) or (f) of this section and if  
20 the employee is able to perform the essential functions of the posi-  
21 tion, the state may not hire another person for that position except  
22 an employee in layoff status for that job class.

23 (j) A collective bargaining agreement under AS 23.40.070 -  
24 23.40.260 may not include terms contrary to this section.

25 (k) In this section

26 (1) "agency" includes a department, division, office,  
27 agency, board, commission, authority, or other organizational unit of  
28 the executive, legislative, and judicial branches of state government  
29 including the University of Alaska;

(2) "injured employee" or "employee" means a permanent,



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probationary, or provisional employee of an agency who

(A) was injured on the job;

-(B) whose injury is a compensable injury or condition under AS 23.30; and

(C) who was laid off or terminated after the injury.

\* Sec. 2. Nothing in this Act modifies or terminates the terms of a collective bargaining agreement in existence on the effective date of this Act.



Original sponsors: Szymanski, Collins,  
and Rieger

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IN THE HOUSE

BY THE LABOR AND  
COMMERCE COMMITTEE

CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 318 (L&C)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to rights of injured state employ-  
ees."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. AS 23.40 is amended by adding a new section to read:

Sec. 23.40.075. ITEMS NOT SUBJECT TO BARGAINING. The parties may not negotiate terms contrary to the reemployment rights for injured state employees under AS 39.25.158.

\* Sec. 2. AS 39.25 is amended by adding new sections to read:

Sec. 39.25.157. POSITION DESCRIPTIONS. The division of personnel, in consultation with the appropriate department or agency, shall require the preparation of and shall maintain a position description for each position in the classified and partially exempt services. The position description shall describe the essential functions of the position and the actual skills and abilities required to perform the tasks assigned to the position. A general requirement for physical abilities may not be imposed on a job classification unless each position within the class requires the use of the physical ability.

Sec. 39.25.158. REEMPLOYMENT RIGHTS FOR INJURED STATE EMPLOYEES.

(a) An injured employee is eligible for reemployment rights under this section if the employee requests to return to work for the state within 90 days after receipt of a release from a physician indicating that the employee is able to return to full or modified work.

(b) After an employee requests to return to work, the rehabilitation administrator of the division of workers' compensation or the

1 director of vocational rehabilitation in the Department of Education  
2 shall review the request and certify that the employee is able to  
3 return to work under (c), (d), (e), or (f) of this section, or defer  
4 certification until the employee completes retraining under (f) of  
5 this section.

6 (c) If the rehabilitation administrator or the director of  
7 vocational rehabilitation certifies that the employee is able to  
8 perform the tasks assigned to the employee's former position, the  
9 agency shall reemploy the employee within 30 days after receipt of the  
10 certification unless the position no longer exists. If a permanent,  
11 probationary or provisional employee is currently employed in the  
12 position, the agency shall layoff that person under AS 39.25.150(13).

13 (d) If the employee is not eligible for reemployment under (c)  
14 of this section but is able to perform the essential functions of the  
15 position, then the agency shall reemploy the employee in the position  
16 after making a reasonable accommodation to the physical and mental  
17 limitations of the employee unless the position no longer exists.  
18 Reasonable accommodation may include imposing work restrictions on the  
19 tasks performed by the employee, making job or site modifications  
20 necessary to permit the employee to perform the tasks of the position,  
21 removing institutional and architectural barriers, and providing  
22 additional support services.

23 (e) If the employee is not eligible for reemployment under (c)  
24 or (d) of this section and if the agency has a vacant position for  
25 which the employee is qualified that is comparable in wage to the  
26 position the employee previously held, then the agency shall offer the  
27 employee the position. If the employee is unable to perform the  
28 essential functions of a comparable position within the agency, then  
29 the employee is entitled to reemployment in a comparable position with

1  
2 another agency if the employee is able to perform the essential func-  
3 tions of that position.

4 (f) If the agency and other agencies in the state are unable to  
5 reemploy the employee in a position at a wage comparable to the  
6 employee's previous wage, the employee may request reemployment at a  
7 lower wage or accept retraining under AS 23.30.041. After completing  
8 the training the employee may request reemployment in a position for  
9 which the employee has been retrained in the agency from which the  
10 employee was terminated. If the agency cannot offer reemployment, the  
11 employee may request reemployment in a position for which the employee  
12 has been retrained with another agency.

13 (g) An agency may refuse to reemploy or continue the employment  
14 of a former employee if reasonable accommodation imposes an undue  
15 hardship on the operation of the agency's program or if, after reason-  
16 able efforts at accommodation, the injured employee cannot perform the  
17 essential functions of the position in a manner that would not endan-  
18 ger the health or safety of

19 (1) the employee because the job imposes an imminent and  
20 substantial degree of risk to the employee; or

21 (2) others to a greater extent than if a nonhandicapped  
22 person performed the job.

23 (h) Factors an agency may consider in determining undue hardship  
24 under (g) of this section include the present number of employees in  
25 the section or office, number and type of facilities, size of budget,  
26 nature and cost of the accommodation needed, and the type, composi-  
27 tion, and structure of the work force.

28 (i) Notwithstanding any other provision of law, if an injured  
29 employee requests reemployment under (e) or (f) of this section and if  
the employee is able to perform the essential functions of the

1 position, the state may not hire another person for that position  
2 except an employee in layoff status for that job class.

3 (j) A collective bargaining agreement under AS 23.40.070 -  
4 23.40.260 may not include terms contrary to this section.

5 (k) In this section

6 (1) "agency" includes a department, division, office,  
7 agency, board, commission, authority, or other organizational unit of  
8 the executive, legislative, and judicial branches of state government  
9 including the University of Alaska;

10 (2) "injured employee" or "employee" means a permanent,  
11 probationary, or provisional employee of an agency

12 (A) whose injury is a compensable injury or condition  
13 under AS 23.30; and

14 (B) who was laid off or terminated after the injury.

15 \* Sec. 3. Nothing in this Act modifies or terminates the terms of a  
16 collective bargaining agreement in existence on the effective date of this  
17 Act.  
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HB 318 File Contents

April 15, 1985 Monday

- 1) Bill Summary -- Legislative Reporting Service
  - 2) Overview -- R. Poppe, Committee Staff
  - 3) Fiscal Note -- Dept. of Labor, 3/28/85
  - 4) Position Paper -- Dept. of Labor, 4/2/85
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  - 9) Memo from Rep. Szymanski to Committee Re SS, April 13, 85
  - 10) Sectional Analysis of SS -- by Sponsor
  - 11) State of Alaska Position Description Questionnaire
- 

April 24, 1985 Wednesday Meeting

- 12) Proposed CS for SS for HB 318 -- by Szymanski
  - 13) Sectional Analysis of CS for HB 305 -- Szymanski staff
  - 14) Position Statement on CS for HB 305 (listed as 2nd SS), by Dept. of Labor --April 23, 85
- 

April 26, 1985 Friday Meeting

- 15) Revised CS for HB 318 with 2 additional proposed amendments -- by sponsor Szymanski, (with cover memo to Navarre, April 26, 1985)



Finance Committee  
Oil and Gas Committee

# Alaska State Legislature

House of Representatives

Representative Mike Szymanski

11920 Johns Road  
Anchorage, Alaska 99515  
Phone (907) 349-3373

While in Session:  
Pouch V

State Capitol  
Juneau, Alaska 99811  
(907) 465-4978/4979

April 26, 1985

TO: Representative Mike Navarre  
Chair, House Labor and Commerce Committee

FROM: Representative Mike Szymanski *Mike*

RE: Changes in Second CS HB 318 - Injured State Workers

As discussed in committee on Wednesday, the changes in this version of the Committee Substitute for HB 318 incorporate the suggestions made by Frank Ray, Director of Personnel for the State of Alaska. All of those changes were discussed and approved in committee.

Further, this version has two additional changes.

First, in response to your suggestion, Mr. Chairman, this version modifies Sec. 2(e) so that reemployment rights under this subsection apply only to "vacant" positions. This was a needed technical change.

Secondly, Sec. 2(k)(2)(b) is dropped in this version. Thus the definition of "injured employee" or "employee" now includes any permanent, probationary, or provisional employee of an agency whose injury or condition is compensable under AS 23.30. This change was suggested by the Director of the State Division of Worker's Compensation and is consistent with the intent of the legislation.

Thank you.

Original sponsors: Szymanski, Collins,  
and Rieger

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IN THE HOUSE

BY THE LABOR AND  
COMMERCE COMMITTEE

CS FOR SPONSOR SUBSTITUTE FOR HOUSE BILL NO. 318 (L&C)

IN THE LEGISLATURE OF THE STATE OF ALASKA

FOURTEENTH LEGISLATURE - FIRST SESSION

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this section if the employee requests to return to work for the state  
within 90 days after receipt of a release from a physician indicating  
that the employee is able to return to full or modified work.

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2 director of vocational rehabilitation in the Department of Education  
3 shall review the request and certify that the employee is able to  
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6 this section.

7 (c) If the rehabilitation administrator or the director of  
8 vocational rehabilitation certifies that the employee is able to  
9 perform the tasks assigned to the employee's former position, the  
10 agency shall reemploy the employee within 30 days after receipt of the  
11 certification unless the position no longer exists. If a permanent,  
12 probationary or provisional employee is currently employed in the  
13 position, the agency shall <sup>cause a vacancy under the layoff process</sup> ~~layoff that person under~~ AS 39.25.150(13).  
14

15 (d) If the employee is not eligible for reemployment under (c)  
16 of this section but is able to perform the essential functions of the  
17 position, then the agency shall reemploy the employee in the position  
18 after making a reasonable accommodation to the physical and mental  
19 limitations of the employee unless the position no longer exists.  
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26 or (d) of this section and if the agency has a vacant position for  
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28 position the employee previously held, then the agency shall offer the  
29 employee the position. If the employee is unable to perform the  
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*(for which the employee is qual. f. id)*

1 another agency if the position is vacant and the employee is able to  
2 perform the essential functions of that position.

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4 (f) If the agency and other agencies in the state are unable to  
5 reemploy the employee in a position at a wage comparable to the  
6 employee's previous wage, the employee may request reemployment at a  
7 lower wage or accept retraining under AS 23.30.041. After completing  
8 the training the employee may request reemployment in a position for  
9 which the employee has been retrained in the agency. If the agency  
10 cannot offer reemployment, the employee may request reemployment in a  
11 position for which the employee has been retrained with another  
12 agency.

13 (g) An agency may refuse to reemploy or continue the employment  
14 of a former employee if reasonable accommodation imposes an undue  
15 hardship on the operation of the agency's program or if, after reason-  
16 able efforts at accommodation, the injured employee cannot perform the  
17 essential functions of the position in a manner that would not endan-  
18 ger the health or safety of

19 (1) the employee because the job imposes an imminent and  
20 substantial degree of risk to the employee; or

21 (2) others to a greater extent than if a nonhandicapped  
22 person performed the job.

23 (h) Factors an agency may consider in determining undue hardship  
24 under (g) of this section include the current number of employees in  
25 the section or office, number and type of facilities, size of budget,  
26 nature and cost of the accommodation needed, and the type, composi-  
27 tion, and structure of the work force.

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29 employee requests reemployment under (e) or (f) of this section and if  
the employee is able to perform the essential functions of the

1 position, the state may not hire another person for that position  
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11 probationary, or provisional employee of an agency whose injury is a  
12 compensable injury or condition under AS 23.30.

13 \* Sec. 3. Nothing in this Act modifies or terminates the terms of a  
14 collective bargaining agreement in existence on the effective date of this  
15 Act.  
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# RECORDS CERTIFICATION



I, the undersigned, an employee of the State of Alaska, do hereby certify that the microfilm images on this microform are accurate reproductions of the original records of the State of Alaska as accumulated during the regular course of business, and that it is the established policy and practice of this State to microfilm its records and to dispose of the original records after microfilm reproductions have been made.

  
Signature of Camera Operator

  
Date

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COMMITTEE REPORT

HOUSE

HEALTH, EDUCATION AND SOCIAL SERVICES

(7)

FURTHER: FINANCE

3/25/85

Date: April 11, 1985

The Committee on LABOR & COMMERCE has had HB 319  
"An Act relating to physical agents."

under consideration and recommends:

- do pass  do not pass
- do pass with attached amendments(s)
- replace with CS for HR 319  same title  
 new title
- and recommends to pass
- AND attaches a "Letter of Intent"  New Fiscal Note
- reports it back without recommendation  Zero Fiscal Note Attached
- referred to the \_\_\_\_\_ Committee

MEMBERS SIGNING  
DO PASS

MEMBERS HAVING  
OTHER RECOMMENDATIONS:

[Signature]

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[Signature]

CHAIRMAN

HB 319 File Contents

April 9, 1985 Tuesday

- 1) Bill Summary -- Legislative Reporting Service
- 2) Overview -- R. Poppe, Committee Staff
- 3) Fiscal Note, Analysis, and Position Paper -- Dept. of Labor
- 4) AS 14.60.030-105 "Right to Know" law
- 5) Packet of Materials from Rep. Pourchot -- April 5, 1985  
(sent to members by the sponsor)
  - a. Cover Memo: Pourchot to Committee Members
  - b. 1983-84 TLV Physical Agents Committee report Preface  
(select pages from pp. 66-116.
  - c. Occupational Injury and Illness Information: Alaska 1982  
by Dept. of Labor, select pages from pp. 12-78
  - d. Hot Environments: 1980, US Dept. of Labor, pp. 1-8
  - e. Construction Health Hazards Prevention: Action Tips, A5-6
  - f. Heat Stress: DC 37 Safety and Health Factsheet, 2 pp.
  - g. Noise Control: US Dept. of Labor. (4 pp)
  - h. News Release, U. S Dept. of Labor: Noise Exposure Standards
  - i. Noise: by International Assoc. of Machinists, 7 pp.
  - j. Vibration Syndrome: U.S. Dept. of Health & Human Services  
15 pp.
  - k. Nonionizing Radiation by Intern. Assoc. of Machinists, 2 pp.
  - l. Ionizing Radiation, by Intern. Assoc. of Machinists, 4 pp.
  - m. Miscellaneous newspaper articles + other brief brochures

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April 11, 1985 Thursday

- 6) Proposed CS for HB 319, (3 amendments), by sponsor

To: Mike  
From: Roger

April 8, 1985

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MB 319

I really dont see that there will be much opposition to this bill. If there are any snags, it will most likely come from private industry who are concerned about the added cost. I think that Pourchot has this point covered in his memo and I cover it additionally in mine--it shouldn't cost the employer a nickel.

You might want to establish with a question whether an employer is required to provide this information only if he is asked to by the employees, or whether he is requiried to supply it whether they ask for it or not.

M E M O R A N D U M

To: All Members, Labor and Commerce Committee

From: Roger Poppe, Committee Staff

Date: April 9, 1985

Subject: Overview: HB 319: Worker Right to Know about Physical Agents  
in the Workplace

---

On Tuesday, April 9, 1985, the House Labor and Commerce Committee met in Room 102 of the Capitol Building at 1:15 pm on HB 319.

The issue of workers having the right to know or be informed about hazardous and toxic substances in the work place was enacted into law in 1983 (see item #4 in your file). That legislation was supported by industry, labor, environmental and health groups. This legislation should receive the same general support. Basically, it simply expands the current act to add "physical agents" to the list of hazardous and toxic substances already being covered.

Thus, employers would be required to provide information to employees about the potential hazards of such "physical agents" as the following (which are not currently covered by statute, but should be, because of their potentially harmful effects):

1. Ionizing radiation (x-rays)
2. Heat and Cold Stress
3. Impulsive and Impact Noise
4. Radiofrequency, microwave, ultraviolet, and infrared radiation
5. Lasers
6. Hand-arm (segmented) vibration

The details on each of these potentially harmful physical agents is found in various articles, etc. in your file under #5.

This bill doesn't mean that the employers have to go to the added expense of protecting the employees from these additional hazards, merely that they have to inform them of the potential hazards. Further, employees do not have to go to the added expense of doing the research on these physical agents. Background information has been already prepared by a wide variety of groups, including the American Conference of Industrial Hygienists, OSHA, various labor unions, etc. This information can be made available to the employers through the Dept. of Labor at no extra cost to the employer or to the Department.

The sponsor of the bill will be proposing two minor housekeeping amendments.

Navane

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  - f. Heat Stress: DC 37 Safety and Health Factsheet, 2 pp.
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  - h. News Release, U. S Dept. of Labor: Noise Exposure Standards
  - i. Noise: by International Assoc. of Machinists, 7 pp.
  - j. Vibration Syndrome: U.S. Dept. of Health & Human Services  
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  - k. Nonionizing Radiation by Intern. Assoc. of Machinists, 2 pp.
  - l. Ionizing Radiation, by Intern. Assoc. of Machinists, 4 pp.
  - m. Miscellaneous newspaper articles + other brief brochures
6. Two proposed technical amendments -- by Sponsor Pourchot

AMENDMENT

Offered in the House

To: HB 319

Page 5, after line 1: Insert a new bill section to read:

"Sec. 5. AS 18.60.105 (a)(1) is amended to read:

(1) 'be exposed' means to ingest, inhale, or absorb through the skin or eyes a substance or physical agent, or fumes or other potentially harmful aspect of a substance or physical agent."

Page 5, lines 3-6: Delete all material and insert

"(11) 'physical agent' means 'physical agent' as defined by the department by regulation; the department shall initially define the term to include only physical agents listed in the 1984-1985 edition of 'Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment' published by the American conference of Governmental Industrial Hygienists, and shall amend the definition to include physical agents listed in future additions as they are published; but 'physical agent' does not include an agent, the exposure to which, because of the agent's low dosage, does not pose a health hazard."

Insert a new section of the bill to read:

AS 18.60.105(b) is amended to read:

(3) "health hazard" means a substance or physical agent capable of causing acute or chronic adverse effects to health;

Original sponsors: Pourchot, Gruenberg,  
Koponen, et al

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IN THE HOUSE

BY THE LABOR AND  
COMMERCE COMMITTEE

CS FOR HOUSE BILL NO. 319 (L&C)  
IN THE LEGISLATURE OF THE STATE OF ALASKA  
FOURTEENTH LEGISLATURE - FIRST SESSION

A BILL

For an Act entitled: "An Act relating to physical agents."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

\* Section 1. AS 18.60.030 is amended to read:

Sec. 18.60.030. DUTIES OF DEPARTMENT OF LABOR. The Department  
of Labor shall

(1) study ways and means for prevention of accidents to  
persons on the streets and highways, in and on the water, in aircraft  
usage, in homes, on the farms, at schools, industrial and commercial  
plants, and in public places;

(2) plan and execute safety programs, including educational  
campaigns, designed to reduce accidents in every field of activity;

(3) work in cooperation with official and unofficial orga-  
nizations and instrumentalities in the state which are interested in  
the promotion of safety so that possible resources can be marshalled  
and utilized to reduce the menace of accidental death and injury;

(4) work toward obtaining better observance and enforcement  
of laws governing street and highway traffic, and assist in bringing  
about, wherever feasible, the application of modern engineering mea-  
sures for the prevention of traffic accidents;

(5) confer [ADVISE] with the public agencies responsible  
for safeguarding the people against accidents, and especially with the  
Department of Transportation and Public Facilities, the Department of  
Public Safety, the Department of Education, Department of Natural  
Resources, Department of Health and Social Services, and the heads or

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representatives of federal departments and agencies operating in the state particularly concerned with safety programs and accident prevention;

(6) establish and enforce occupational safety and health standards that prescribe requirements for safe and healthful working conditions for all employment, including state and local government employment, and the requirements are to be at least as effective as those requirements promulgated by the United States Secretary of Labor under sec. 6 of Public Law 91-596;

(7) require an employer to maintain records and submit reports to the department which records and reports are necessary or appropriate for the enforcement of AS 18.60.010 - 18.60.105 and to maintain records and submit reports to the United States Secretary of Labor in the same manner and to the same extent as set out in federal law and regulations;

(8) require an employer to maintain records and submit reports appropriate for use in developing information regarding the causes and prevention of occupational accidents and illnesses;

(9) require an employer to make periodic inspections when necessary to carry out the record and reporting requirements of (7) and (8) of this section;

(10) participate in occupational safety and health programs if it finds they are necessary to meet the occupational health and safety needs of the state;

(11) execute on behalf of the state agreements or contracts necessary or desirable to enable the state to participate in occupational safety and health programs, and to receive and expend funds made available for programs of the state;

(12) annually publish a list of toxic and hazardous substances

1  
2 and physical agents;

3 (13) maintain a current set of OSHA form 20's or equivalent  
4 information for toxic and hazardous substances and for physical  
5 agents, and other information relevant to toxic and hazardous sub-  
stances and physical agents;

6 (14) assist employers, upon request, to develop employee  
7 safety education programs and to identify and obtain information on  
8 toxic and hazardous substances and physical agents [AND DEVELOP EM-  
9 PLOYEE SAFETY EDUCATION PROGRAMS].

10  
11 \* Sec. 2. AS 18.60.066 is amended to read:

12 Sec. 18.60.066. EMPLOYEE SAFETY EDUCATION PROGRAMS. (a) An  
13 employer shall conduct a safety education program for an employee  
14 before the employee performs a new work assignment that may result in  
15 the employee being exposed to a toxic or hazardous substance or a  
16 physical agent for which the employee has not received safety instruc-  
17 tion as provided under (b) of this section.

18 (b) An employee safety instruction program shall inform the  
19 employee of

20 (1) the location, properties, and known or suspected acute  
21 and chronic health effects of the hazardous or toxic substances or  
22 physical agents to which the employee is exposed in the workplace;

23 (2) the nature of the operations that could result in  
24 exposure to hazardous or toxic substances or physical agents [,] as  
25 well as any necessary handling or hygienic practices or precautions;  
26 and

27 (3) the location, purpose, proper use, and limitations of  
28 personal protective equipment used in the workplace.

29 \* Sec. 3. AS 18.60.067(a) is amended to read:

(a) An employer shall make available to an employee on request a

1  
2 copy of the most recent OSHA form 20 or equivalent written information  
3 for a toxic or hazardous substance or for a physical agent to which  
4 the employee may be exposed. If the employer does not have the copy  
5 or information requested, the employer shall request a copy from the  
6 department or the manufacturer of the substance within three state  
7 government working days after receiving the request.

8 \* Sec. 4. AS 18.60.068 is amended to read:

9 Sec. 18.60.068. POSTING OF INFORMATION IN WORKPLACE. (a) The  
10 department shall print and make available to employers posters that  
11 contain notice of the provisions of this chapter relating to toxic and  
12 hazardous substances and physical agents.

13 (b) An employer whose employees are or may be exposed in the  
14 workplace to a toxic or hazardous substance or a physical agent shall  
15 display the following information in a manner designed to notify the  
16 employees:

17 (1) a poster printed by the department under (a) of this  
18 section; and

19 (2) an OSHA form 20 or equivalent information for each  
20 toxic or hazardous substance and for each physical agent to which an  
21 employee may be exposed in the workplace

22 (A) under normal conditions of work; or

23 (B) during a reasonably foreseeable emergency, includ-  
24 ing equipment failure and rupture of containers.

25 (c) Instead of posting the information required under (b)(2) of  
26 this section, an employer may post a list of the chemical name and  
27 product name of each toxic or hazardous substance and each physical  
28 agent to which an employee may be exposed in the workplace, together  
29 with an identification of a location, in or near the workplace and  
accessible to employees, where an employee may inspect the information

1 listed under (b)(2) of this section.

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3 \* Sec. 5. AS 18.60.105(a)(1) is amended to read:

4 (1) "be exposed" means to ingest, inhale, or absorb through  
5 the skin or eyes a substance or physical agent, or fumes or other  
6 potentially harmful aspect of a substance or physical agent;

7 \* Sec. 6. AS 18.60.105(a) is amended by adding a new paragraph to read:

8 (11) "physical agent" means "physical agent" as defined by  
9 the department by regulation; the department shall initially define  
10 the term to include only physical agents listed in the 1984 - 1985  
11 edition of "Threshold Limit Values for Chemical Substances and Phys-  
12 ical Agents in the Work Environment" published by the American Confer-  
13 ence of Governmental Industrial Hygienists, and shall amend the defi-  
14 nition to include physical agents listed in future editions as they  
15 are published; but "physical agent" does not include an agent the  
16 exposure to which, because of the agent's low dosage, does not pose a  
17 health hazard.

18 \* Sec. 7. AS 18.60.105(b) is amended to read:

19 (b) In AS 18.60.030(14), 18.60.065 - 18.60.068, and 18.60.105-  
20 (a)(9)

21 (1) "employee" means a person who works for an employer,  
22 but not in a place used primarily as a personal residence;

23 (2) "employer" means a person, including the state and a  
24 political subdivision of the state, who has one or more employees  
25 working in a place not used primarily as a personal residence;

26 (3) "health hazard" means a substance or physical agent  
27 capable of causing acute or chronic adverse effects to health;

28 (4) "workplace" means a place of employment other than a  
29 place used primarily as a personal residence.

\* Sec. 8. Notwithstanding the amendments to AS 18.60.068 made by sec. 4

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of this Act, the department may continue to use existing posters until the next printing of the posters.

Bill No. House Bill No. 319

Date April 4, 1985

Title "An Act relating to physical agents."

Contact: Richard Arab  
465-4856  
Eileen Plate  
465-2700

Under existing law, employers are required to provide information and training to employees on certain toxic and hazardous substances. House Bill No. 319 seeks to expand the "Right-to-Know" law to include physical agents.

Physical agents are defined as those listed in the "Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment" as published by the American Conference of Governmental Industrial Hygienists. The latest edition of this publication lists the following physical agents:

- Heat Stress
- Ionizing Radiation
- Lasers
- Noise
- Impulse or Impact Noise
- RF/Microwave Radiation
- Ultraviolet Radiation
- Airborne Upper Sonic and Ultrasonic Acoustic Radiation
- Cold Stress
- Hand-Arm (Segmental) Vibration

Exposure to physical agents can result in permanent disabilities, such as deafness. Often employers and employees are not aware of the harmful effects of a particular physical hazard present in the workplace, and the training and information requirements provided in this bill would assist in filling this void. This would, in turn, effect implementation of protective measures by the employer to safeguard employees, as well as provide employees with an understanding of the importance of following safe and healthful work practices.

As part of its Occupational Safety and Health program, the Department of Labor enforces regulations to protect employees from certain physical hazards (ionizing radiation, lasers, noise, RF/microwave radiation, and ultraviolet radiation). The information and training requirements of this bill would, therefore, enhance the Department's efforts to protect Alaska's workers.

The Department would offer one additional amendment to AS 18.60 to incorporate physical agents into the definition of "be exposed" currently set out in AS 18.60.105(a)(1), as follows:

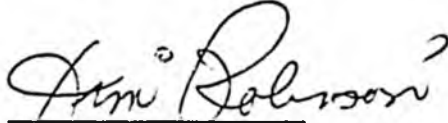
AS 18.60.105(a)(1) is amended to read:

(1) "be exposed" means to ingest, inhale, or absorb through the skin or eyes a substance, or fumes or other potentially harmful aspect of a substance or physical agent;

**POSITION PAPER/Department of Labor**

The Department of Labor supports House Bill No. 319. It will not have a fiscal impact on the Department.

APPROVED:

A handwritten signature in cursive script that reads "Jim Robison". The signature is written in dark ink and is positioned above a horizontal line.

Jim Robison  
Commissioner

# Workers who suffered radiation at Clear look for answers and someone they can trust

Continued from Page A-10

medical records. They were told the base legal department would have to review the reports first.

"They said they mailed them yesterday," Foster said Friday. "They've been mailing them yesterday for two weeks now. We need to get these records so we can get started on some treatments."

Felec conducted its investigation into the accident, which it submitted to the Air Force on Nov. 29.

Foster made an independent investigation. He concluded that the company left out important information about the cause of the accident. He gave his own report, which he initially prepared for the Air Force Inspector General, to the Alaska Department of Labor.

At the heart of the safety system for the Clear tracker radar is a series of key interlocks. If the system was used as it was designed, it would have prevented the accident, Foster said.

Foster and Congressional aide William Sharrow, who is investigating the Clear accident for Alaska Rep. Don Young, said inadequate communication contributed to the accident.

"There's not adequate manning when the government is paying for it," Foster said. "To tell the truth about the accident is to tell the truth about a lot of money not accounted for."

One ITT subsidiary or another has operated and maintained the Ballistic Missile Early Warning System for 12 of the past 22 years. Under its current contract, ITT's Felec subsidiary is paid \$47,753,189 to operate and maintain the BMEWS headquarters at Colorado Springs and BNEWS stations at Clear, Greenland and England.

The Alaska Department of Labor cited Felec for two "serious" occupational safety violations on Dec. 29 and threatened to fine it \$840.

Jorgensen said the labor department and Felec have reached a tentative settlement in the case. Under the agreement, which is not yet in writing, Felec will be allowed to pay a reduced penalty of \$420 without admitting wrongdoing. Jorgensen said he is satisfied with the company's efforts to avoid a repeat of the accident. Foster is not.

Five months after the radar accident, Ed Forsling, 44; John Jessop, 42; Ron Foster, 36; and Richard Eldridge, 40, say some of their initial symptoms — short-term memory loss, vertigo, exhaustion and sleeping problems — have slackened. But they have not gone away.

Foster said that sometime he loses control of his arms, which start "flapping like a chicken." While on the job Wednesday, his legs buckled beneath him. He was sent home on a medical leave.

Linda Jessop, John's wife, said their family life has suffered.

"It hurts watching what's going on with my husband," she said in Fairbanks recently while waiting for her husband to complete an eye examination. "I see the signs and symptoms, and the pain."

Jessop used to be an extremely active man, she said, generally working on welding projects in his own shop on Saturdays and spending all day Sunday with the four children still at home. Now he spends all day Saturday sleeping and only after lying in bed through Sunday morning can he find the energy to spend with his youngsters.

"All of a sudden, we don't do anything anymore. I have to tell the kids, 'Daddy don't feel well.' It's really hard on them because they can't see it. It's hard to explain that someone can be hurt without showing outside symptoms. It's not like the measles or chicken pox, or seeing a Band-aid."

On top of that, Mrs. Jessop said, she has had to cope with anonymous telephone threats.

About a month ago, someone called and asked, "Could



Ron Foster gets an eye lost.

you give me the price of a coffin for a seven-year-old girl!" She couldn't figure out what the caller was talking about and hung up. The next night, the same person called, this time asking, "Could you give me the price of a coffin for a nine-year-old boy?"

Those were the ages and sexes of two of her children. Mrs. Jessop said she went to the FBI and alerted her children's teachers and school driver. She didn't tell her husband at first. He had enough

Neither William Emmons nor Carl Keppler, the two mechanical specialists from Sacramento, could be reached for comment.

Forsling has also been suffering pain, faint spells and numbness to his left side. Both Foster and Jessop said that in addition to headaches, they have trouble seeing backlit objects like television.

Forsling, who never wore glasses before, has been told he needs bifocals. Foster said his eye doctor has seen a rupture inside his eyeball.

Jessop has gone through two eyeglass prescriptions since the accident. On Feb. 14, while undergoing a follow-up eye examination in Fairbanks, Dr. Alfred DeRamus said, "It looks like something is starting to happen in there." Though it was too early to make a definite diagnosis, DeRamus thought the change he was seeing in Jessop's right eye might be the start of a cataract.

Foster said that he, Jessop and Forsling have been press-

ing Felec and its workman's compensation insurance company to send them to non-Air Force physicians who specialize in their injuries.

But the workers got another setback. In a letter dated Feb. 1, the insurance company said that a recommended specialist, Dr. Charles Becker of San Francisco University, "chooses not to become involved in this particular case due to the political nature of the claim."

Dr. Herbert Pollack, a physician who led Project Pandora, a secret government study in the 1960s and 1970s into the effects of the Moscow Signal, downplayed the severity of the Clear accident in a telephone interview at his office in Palm Beach, Fla.

"The amount of damage one can expect in this particular situation is minimum, if any at all," he said.

Others are not so sure.

Dr. Hans-Arne Hansson, a clinical and laboratory researcher at the university in Goteborg, Sweden and a leading expert in microwave radiation, said in a telephone interview that it would be hard to assess the damage to the men because so little is known about microwave exposure. Accidents like the one at Clear

Hansson said.

But research is slowly catching up, Hansson said. Technical improvements in equipment and methods have enabled researchers to detect minute changes in body chemistry caused by microwaves — changes that could have significant impact on a person as time goes on.

Hansson is now doing clinical studies for the Swedish armed forces on workers who have been exposed to radar, but he wouldn't reveal his preliminary findings.

"This is hot stuff," he said. "Swedish doctors are convinced of one thing: In the case of a microwave overexposure, patients should be treated 'in the range of a day or so,'" Hansson said.

If the men at Clear develop cataracts, they can be treated surgically, said Dr. Milton Zaret, an ophthalmologist from Scarsdale, N.Y., who identified a "microwave" cataract when conducting research for the Air Force.

But the cure is never com-

plete. "The eye is really a disabled eye from that point on. You can't focus anymore," Zaret said.

Because additional exposure could cause cumulative and irreversible damage to the workers at Clear, Zaret said, they might be wise to avoid microwave radiation sources, whether at Clear or from leaking microwave ovens, computer video display terminals or even citizen's band radios.

Zaret examined Richard Eldridge in December and found swelling of the eye lens. He said it was too early to predict whether Eldridge would develop cataracts.

Tb: Says that the Clear workers went through before receiving treatment may have had more than medical effects, Zaret said.

"Part of the problem with these fellows now is that they're so suspicious that they wouldn't feel a good doctor-patient relationship with any of the physicians being put forward by the military establishment or some of the (military) sponsored research scientists," Zaret said.

The Clear case has caught the interest of Alaska's congressional delegation. On Jan.

Full-scale investigation of safety procedures at Clear in a letter he sent to Verne Orr, the Air Force secretary.

Young said the Air Force and Felec "did not cooperate in good faith with the affected employees in evaluating and treating any injuries or physical damage that may have incurred."

Young's aide, William Sharrow was unhappy with the public responses of both Felec and the Air Force. "One refers public questions to the other, and the other refuses to answer. It almost smacks of collusion."

K. Cormier, a spokeswoman for the Air Force Space Command in Colorado Springs, Colo., said Friday the Air Force has not yet responded to Young's demands. While a contract compliance team from the Air Force is scheduled to arrive at Clear today, she said, the visit is a routine annual inspection, not an investigation of the accident.

Sens. Ted Stevens and Frank Murkowski of Alaska have asked the Air Force to keep them informed of official

actions in the case.

"In December, Sen. Stevens and Sen. Murkowski both wrote the Air Force and asked that the victims get proper medical attention," said an aide to Stevens. "We got a letter back that was not satisfactory to either office."

Young has also called for an independent evaluation to measure how much radiation the workers were exposed to. He is not alone.

According to state documents, the Alaska Department of Labor requested the U.S. Occupational Safety and Health Administration office in Seattle to provide assistance in a new survey three times since Nov. 1. The request was repeated to Jim Lake, OSHA regional administrator in Seattle, when he visited Juneau Thursday on other matters.

Ray Jorgensen, chief industrial hygienist for the state labor department, said state investigators lack the equipment and experience for a survey. Though OSHA is usually "more than conducive to provide assistance," Jorgensen said, in this case the answer from Lake has so far been negative.

In an internal memo to Lake, Robert Curtis, senior industrial hygienist for

response team in Salt Lake City, suggested Jan. 12 that a second survey be done to alleviate the doubts expressed by the workers. The memo was obtained under the Freedom of Information Act.

In his memo, Curtis reported that Col. Roger Graham of Brooks Air Force Base had said the official Air Force position is to "discourage additional measurements." Curtis said he was told by Dr. John Mitchell, also of Brooks, that the problems of the Clear workers could be attributed to "age and smoking habits."

In an interview, Curtis said his OSHA supervisors in November asked him to prepare to fly to Alaska to conduct a second survey at Clear. But Lake, who has jurisdiction over OSHA activities in Alaska, called "and told us not to come."

Lake said in an interview that he "was still struggling" over whether to order a new survey.

"Hell, I don't know myself what I'm going to do," Lake said. "Based on the Air Force expertise in this area, we've

made up our minds that the Air Force is competent to handle it. It wouldn't have made a difference what kind of exposure (the workers) had because the medical evaluation that was done would take care of any situation. I don't know what we would buy by going back in and doing a re-measurement."

But Foster said Lake is wrong. "It happens everyone is sick from this, and this is going to be with us for the rest of our lives. Every one of our doctors is telling us an accurate survey is important."

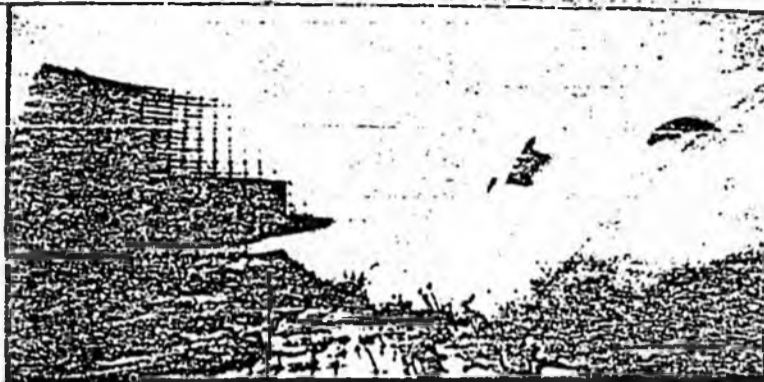
John Jessop, the welder, noticed something very strange while working in an underground utility corridor near the giant detection radar dishes at Clear. The discovery has him nervous.

"I'm no expert, but I know what I've seen," Jessop said. "I've seen some very disturbing, grossly deformed little critters, shrews and red-backed voles. I've seen them with crooked tails, crooked legs, humps on their back, deformities in their heads, and some without even any eyes. They run around out here in back of the screens."

Jessop said he talked about the rodents in the meetings

following the accident. A doctor from Eielson Air Force Base seemed interested at the time, but so far no one has gone to Clear to capture them.

After seeing what microwave radiation may have done to the mice and feeling what it already has done to him, Jessop is wondering what the future holds.



Clear Air Force Station, part of the United States' ballistic missile early warning system.

## After their exposure to microwaves at Clear, workers are looking for help

By RICHARD MAUER  
Daily News reporter  
Copyright © Anchorage Daily News

**C**LEAR — On a normal day, the giant aluminum web dish of the Clear tracking radar is pointed at the heavens, casting two powerful microwave beams skyward. The invisible, 5 million watt searchlight probes space for operating satellites, orbiting junk or ballistic missiles aimed at North America.

But on Sept. 14, the tracker beams were cut off and its motor drives stilled. The only noise within the dome sheltering the tracker dish came from eight men at work.

Richard Eldridge and John Jessop were welding a cracked aluminum tube. Carl Keppler and William Emmons, civil service inspectors from California, inspected the work and checked the alignment of critical parts. Ronald Foster and Ed Forsling, two radar technicians, helped the others. Two electri-

cians were installing floodlights beneath the dish.

Sometime after 3 that afternoon, strange things began to happen.

Eldridge, Jessop and Emmons couldn't understand why it was becoming so uncomfortably warm. The radome temperature had been about 60 when they walked in that morning.

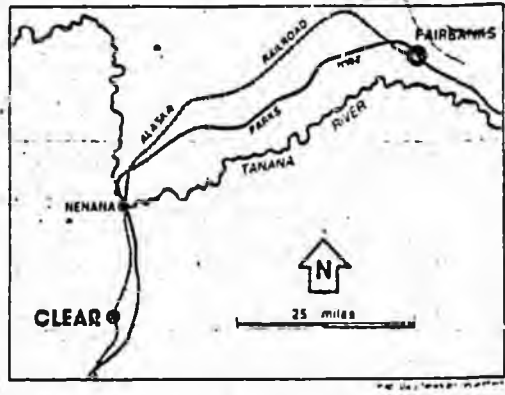
Their scalps were especially annoying, as if they had worn hats all day in the summer sun.

Even odder were the stinging metal filings. The welders prepared the aluminum for welding with a grinding wheel, which threw off hot and biting bits of metal.

As Foster crawled around the tracker radar looking for a hole where a fallen bolt belonged, he also felt the strange warmth.

Keppler left his spot on top of the dish and came over to the others. His flashlight was hot to the touch. The bulb had burned out.

See Page A-10. WORKERS



Map shows location of Clear Air Force Station.

Richard Eldridge, a welder at Clear, and his wife, Kathy, discuss the accident and its aftermath at their home in Fairbanks.

# Radiation victims remain uncertain about the extent of damage and what future holds

Continued from Page A 1

Before it died, the light shined even when the switch was off, he told them.

"Are you kidding me?" Foster said. It sounded like a weird joke.

"Someone asked Emmons, 'Do you have a flashlight?'"

Emmons reached into his shirt pocket and pulled out a penlight.

It was glowing. The switch was off.

Emmons swept his arm around in an arc. The light in his hand shined brightly first, then dimmed as he swung it in front of him. At the end of the arc, it started blinking in a rapid rhythm.

At the same time, Eldridge heard something overhead on the aluminum screen. It was a crackling electrical arc, shooting between the tubular pieces. The blue spark was flashing in time with Emmons' light.

The mystery was over.

"We've got radiation. We've got to get the hell out of here," Eldridge said.

Jessop on this job less than a year, he said.

"John, we've got to get out of here now," Eldridge told him.

The tracker had turned into an enormous, glowing ball.

No one panicked. While the six minutes ticked down, Eldridge asked Jessop the question.

"What's a 40?"

The men, shielded from the radiation by distance and the bottom of the tracker, wondered what the commotion was about.

As the men left the radome with changes in their minds and bodies they don't understand this day, it brought an end to the most serious reported radiation accident at the Clear Air Force Station.

By the way it began, and the subsequent actions of the Air Force and the International Telephone & Telegraph Co. subsidiary that runs the site, have raised serious questions about safety and operations at Clear, a key site in the strategic defense of North America.

Documents submitted to government agencies in connection with the microwave oven accident, reports prepared by ITT and the Air Force, and interviews with Clear employees and others close to the investigation show:

- An ingenious and foolproof radar switch that could have prevented the accident.
- Equipment bypassed as a matter of convenience.
- Monitoring panels and automatic controls that do not match the actual layout of the emitting equipment because of an equipment switch made before the base was opened in 1962. The switch, which was never corrected, contributed to the accident.
- Men who were not fully trained working alone on key control panels, while a critical work station was unmanned at the time of the accident.
- A simulation of the accident by the Air Force to determine the workers' exposure levels. A second working meter was used incorrectly.
- Despite repeated requests by the Alaska Department of Labor and the U.S. Occupational Safety and Health Administration for help in conducting a second, independent exposure simulation, the federal government has failed to respond. Last November, an OSHA radiation specialist in Salt Lake City was told to check his bags for a flight to Alaska, but the man was called off by the regional OSHA administrator in Seattle.
- The men, who continue to suffer from the exposure and whose conditions may deteriorate with time, say they have been treated dishonestly by officials who appear to be more eager to minimize the accident than to provide them with proper medical care. They are especially concerned about their eyes because cataracts have been linked to microwave exposure.
- Of the six, only Eldridge has seen independent doctors who are experts in the field of microwave overexposure; and he was fired by the ITT subsidiary, Felec Services Inc., while undergoing consultations on the East Coast. He said he was forced to remain away from his job longer than he expected because the Air Force wouldn't provide his medical records. It was not until he asked Sen Ted

Stevens, R-Alaska, for assistance that the records were finally sent to his doctors in New York and Massachusetts, he said.

When Dr. Don Justesen read about the Clear accident in Microwave News, a trade publication specializing in the kind of radiation emitted by radio transmitters and electrical devices, he noticed some striking parallels to his observations of laboratory mice and rats.

For the same reason that microwave ovens cook so rapidly — the radiation penetrates the food, warming it inside at the same time the surface is heated — microwaves from any source can be harmful to living organisms.

The great danger in exposure to high levels of radiation is that there is no way to know what is happening, said Justesen, director of the Veterans Administration Behavioral Radiology Laboratories in Kansas City.

The human body is designed to recognize heat that goes from "the outside in" because the nerve sensors that recognize heat are near the skin's surface, Justesen said. Intense microwave radiation, especially at the 420 megahertz frequency used by the Clear tracker, penetrates deep into tissue, Justesen said. Cells begin to die at temperatures several degrees lower than heat that triggers pain, he said.

When microwaves are beamed at rats or mice — animals that surpass most species in their ability to escape noxious situations — "they seem to get confused," Justesen said in a telephone interview. "They don't attribute the warming to external forces."

While it's difficult to translate effects from rats to man, one thing is clear, he said. "You could absorb quite a dollop of energy and even feel thermally discomforted and not know where it's coming from."

Whatever happened to the men at Clear, Justesen said, it would have been important for them to see a physician at once, especially if they complained of being warm or overheated. "The danger, as I see it, is delay," he said.

Four hours passed before the men saw even a nurse, Justesen was told.

"Oh, lord," he said.

When the workers got out of the radome, Ron Foster, the radar technician, asked his lead man, Andrew Souders, if the radar was on. Souders blanched.

A Nov. 29 ITT investigation would level most of the blame on Souders, who had opened the switches that allowed the radiation to enter the tracker and had pushed the button, that, unbeknown to him, had started the radar transmitter.

But employees familiar with the site say the accident occurred because of a compounding series of errors. Souders' actions wouldn't have put the men in jeopardy if other precautions had been followed, they said.

While Foster was talking with Souders, welder Richard Eldridge was calling his boss, Vern Finch.

"We just had a radiation accident," Eldridge told him.

When Finch arrived, the two welders weren't showing any signs of serious medical problems other than feeling warm and a bit out of sorts. He told them to go back up and finish the job. They balked.

"What guarantees do you have that this won't happen again?" Eldridge asked.

"You've got my word," Finch said.

"That's not good enough," said Eldridge.

Foster and Forsling were also told to return to work.

"They didn't treat it like an accident," Foster said later.

The workers finally agreed to go back and pick up their tools and re-build the parts that would allow the tracker to operate normally.

At 6:30 that evening, they were taken to the base nurse, another Felec employee. Their temperatures were still elevated. She measured their other vital signs.

Keppler had large red areas on his upper torso. Eldridge's wrist was burned where it rubbed a metal snap from his denim work shirt. He said later that the nurse failed to note that in her report.

Air Force officials promised the men that they would get expert care from the aerospace medicine center at Brooks Air Force Base in San Antonio, Texas — a promise that wouldn't be fulfilled for nearly a month.

A dispute developed around \$100,000 over

proving there are no effects," he said. He compared the situation to the debate over Agent Orange, the Vietnam war defoliant blamed for numerous ailments by veterans but which the Defense Department maintains was safe.

Koslov said the Clear workers received a strong enough dose of radiation to cause eye damage. It was critical that they be examined immediately to establish medical and psychological baselines from which future changes could be plotted.

"It would appear to me that responsible Air Force management would have been concerned as hell to get as much information as they can and handle it in a responsible manner."

On Sept. 22, eight days after the accident, the Air Force sent a team to Clear to simulate what happened and determine how much radiation hit the men.

Heading the Air Force team was Lt. Col. David Nuss of Elmendorf Air Force Base. He was accompanied by Capt. John Chigg of Eielson Air Force Base in Fairbanks.

Ron Foster, the radar technician, assisted the two, and he immediately became suspicious about the results. In conducting the tests, Nuss used two radiation detection meters. Though both were the same make and model, their readings were substantially different when placed side by side at the base of the tracker.

"Like 50 percent different," Foster said. Weeks later, when the lower-reading meter was sent to the factory, the company reported the meter probe was broken, Foster said.

The team laid the meter probe where they believed each man was working, on the radar dish just beneath the source of radiation. Then they left the dish to avoid being exposed and radioed technician Ed Forsling in the control room, who turned on the power.

The meter had to be exposed for a minimum of six seconds of radiation to achieve an accurate reading, Foster said, but instead they relied on an live-second count. Though Nuss' written report said his key readings were taken with 10-second exposures, Forsling said log entries would prove that the radar ran for only five seconds.

An internal Felec memo written Oct. 14 by the company's radiation protection officer, Cecil Gates, said Nuss used the meter switch position designed for measuring radiation leaks from microwave ovens, not the enormous and complex radiation fields produced by radar.

When Nuss took his readings, the radar emanated 900,000 watts. It produced about 1.5 million watts on Sept. 14, Foster said.

Nuss turned down a request for an interview, directing questions to the Air Force Space Command Headquarters in Colorado Springs, which is responsible for Clear. An Air Force spokeswoman at the Space Command said she couldn't provide answers about the survey over the phone. A series of written questions about the Clear accident mailed to the Space Command Feb. 9 had not been answered by Friday.

In a meeting after his Sept. 22 survey, Nuss presented his results to the workers. They were told not to worry.

"It was a slight exposure, like a minor sunburn. You don't require any medical attention," the men were told, according to Foster.

Nuss said the overexposure lasted eight minutes, ranging from a low of 19 milliwatts per square centimeter for Eldridge to a high of 102 milliwatts for Keppler. The maximum exposure allowed by the Air Force is 10 milliwatts, a standard that is about to be lowered to four milliwatts, according to Dr. John Mitchell, who directs the Air Force radiation research lab at Brooks.

During the Sept. 22 meeting, Foster did some rough calculations and concluded that the exposure was closer to 800 times the standard.

The next Monday, there was a conference call to Brooks. The doctors there would see all six men for intensive "flight physicals," but not for two weeks. Keppler, Eldridge, Emmons and Forsling agreed to go. Jessop and Foster would not. They were getting too suspicious of the Air Force.

Foster and Jessop finally visited Brooks last month, but they have yet to receive their

There seems to be more of an effort

Miller declined to comment for this article. He referred all questions to Robert Laird, industrial relations manager for Felec Services in Colorado Springs, Colo. Laird, who has represented the company in meetings with the Alaska Department of Labor, refused to comment about any aspect of the radiation accident and referred questions to ITT's public relations department in Paramus, N.J. There, John O'Grady, who oversees the public relations department as an ITT vice president and director of administration, also refused to discuss the accident. "We have no comment at all," O'Grady said.

Miller promised to send the badges to a lab for processing. "We'll fly them out and in 24 hours, we'll know the level of radiation," he told Eldridge.

The men spent a restless night. They reported for work the next morning. After lunch, they were taken by van to Fairbanks Memorial Hospital, 80 miles away.

While the doctors there acknowledged their lack of experience in microwave radiation, they diagnosed the men as suffering nothing more than a "mild sunburn," according to the workers. The symptoms the men were complaining about — restlessness, dizziness, disorientation, headaches and pain through their bodies — could be attributed to stress, they said.

While at the hospital, Jessop began feeling wobbly and sick to the stomach. He was hospitalized about a week. Eldridge checked in the next day.

Seven days after the accident, the secretary for the Clear site manager called Eldridge and Jessop at home. The results from the film badges had finally come back.

The men had not been radiated, she said.

"Why the hell did they give them radiation badges?" said Samuel Koslov, former special assistant for science to the assistant secretary of the Navy and now a researcher at Johns Hopkins University in Baltimore. "I would suspect that was really stupid."

Film badges can't detect microwave radiation, Koslov said in a telephone interview.

Though the radiation at Clear failed to darken the film badges as X-rays would have, it could have done something to the men, said Koslov, who based his opinion on reports of the exposure in Microwave News.

"That's a very high exposure, but a fairly short time," he said.

After decades of research into the biological effects of microwaves, scientists are sharply divided.

Some scientists say that even at low-power levels, radio waves at certain frequencies, especially in the microwave range, can change body cells and chemistry in subtle ways and also alter behavior.

Cataracts, or clouding of the eye lenses, are one possible effect, they say. Genetic changes and alterations in the body's disease-fighting immunological system are also possible.

Russian scientists long ago concluded that microwaves change behavior and have set an occupational standard one-thousandth that of the U.S. standard.

The Russian research has led some American scientists to speculate that the "Moscow signal" — a low-power microwave transmission beam at the U.S. Embassy in Moscow for more than a decade — was designed to disrupt the thoughts of U.S. diplomats. That belief was not shared officially by the State Department or the CIA.

Koslov said that despite all the years of U.S. research into microwaves, most of it, paid for by the Pentagon, has been misdirected.

## WORKER RIGHT TO KNOW AMENDMENTS

HB 319 amends the "worker right to know" statutes to include physical agents with other toxic and hazardous substances about which employers must inform their employees.

The existing statute (AS 18.60) directs the Department of Labor to prepare for employers, information data sheets on hazardous and toxic materials to which employees may be exposed in the workplace. Information which is compiled by the Department is transmitted to the workers through the employers, includes: description of the substantiated effects of the substance, known threshold levels where effects occur, activities and situations where the substances are encountered and practices, technology and preventative measures which are available to the workers which will reduce or eliminate the negative impacts of the substance.

These notification and educational efforts, organized by the Department were instituted with the enactment of the right to know legislation (SB 79) in 1983 which was supported by industry, labor, environmental and health groups and interests.

Physical agents, which would be subject to these informational requirements with passage of these amendments, are those identified by the American Conference of Governmental Industrial Hygienists (ACGIH) and include:

- Ionizing radiation (X-ray)
- Heat and Cold Stress
- Impulsive and Impact Noise
- Radiofrequency, microwave, ultraviolet, and infrared radiation
- Lasars
- Hand-arm (segmented) vibration

Physical agents often are not recognized as dangerous substances. With enactment of this bill's amendments industrial accidents will be reduced in number and severity. For example, accidents such as the microwave exposure at Clear Air Force Station may be avoided if workers are better informed of the substances to which they may be exposed and are aware of preventative and safety precautions. Many occupations are not readily associated with exposure to dangerous levels of physical agents. Welders and pipe fitters for example are often exposed to hazardous exposures of ionizing radiation (x-rays) when examining welds and joints.

It is anticipated there will be little or no fiscal impact as a function of these amendments to the right to know statute. The Department of Labor will essentially be editing information from national organizations relating to health and safety in the workplace, including the ACGIH, the Center for Disease Control, and Occupational Safety and Health Administration (OSHA).

A M E N D M E N T

#1

Offered in the HOUSE

By Pourchot

To: HB 319

Page 5, after line 1: Insert a new bill section to read:

"\* Sec. 5. AS 18.60.105(a)(1) is amended to read:

(1) 'be exposed' means to ingest, inhale, or absorb through the skin or eyes a substance or physical agent, or fumes or other potentially harmful aspect of a substance or physical agent."

Renumber remaining sections.

Hein ,

A M E N D M E N T

#2

Offered in the HOUSE

By Pourchot

To: HB 319

Page 5, lines 3 - 6: Delete all material and insert

"(11) 'physical agent' means 'physical agent' as defined by the department by regulation; the department shall initially define the term to include only physical agents listed in the 1984 - 1985 edition of 'Threshold Limit Values for Chemical Substances and Physical Agents in the Work Environment' published by the American Conference of Governmental Industrial Hygienists, and shall amend the definition to include physical agents listed in future editions as they are published; "

# Alaska State Legislature

REPRESENTATIVE  
PAT POURCHOT

HOUSE FINANCE COMMITTEE  
COMMITTEE ON OIL AND GAS



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## House of Representatives MEMORANDUM

DATE: March 28, 1985

TO: Representative Mike Navarre  
Chair, House Labor and Commerce Committee

FROM: Representative Pat Pourchot

SUBJECT: HB 319, Worker Right-to-Know, Physical Agents in the  
Workplace

This bill amends the 1983 "right-to-know" which required employees to provide information and training to employees on hazardous and toxic substances in the workplace. This bill would require the same information and training for certain specifically potentially hazardous "physical agents" such as x-rays, microwaves, and noise.

It is my sense that this is not a controversial measure - we fought the major battles on right-to-know in 1983. No new requirements are included in the bill, only several more health hazards.

Let me emphasize that the burden of providing original information will fall to the Department of Labor and not to individual employers. It is my understanding that the Department is preparing a zero fiscal note, as the information for the needed safety data sheets is largely available and only in need of editing.

I would most appreciate your early consideration of this bill. If I and my staff can help you and the committee in any manner, please let me know.

Thank you for your assistance.

PJP:RJR:jl

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American Conference of Governmental  
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## PREFACE

### PHYSICAL AGENTS

These threshold limit values refer to levels of physical agents and represent conditions under which it is believed that nearly all workers may be repeatedly exposed day after day without adverse effect. Because of wide variations in individual susceptibility, exposure of an occasional individual at, or even below, the threshold limit may not prevent annoyance, aggravation of a pre-existing condition, or physiological damage.

These threshold limits are based on the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of the three.

These limits are intended for use in the practice of industrial hygiene and should be interpreted and applied only by a person trained in this discipline. They are not intended for use, or for modification for use, (1) in the evaluation or control of the levels of physical agents in the community, (2) as proof or disproof of an existing physical disability, or (3) for adoption by countries whose working conditions differ from those in the United States of America.

These values are reviewed annually by the Committee on Threshold Limits for Physical Agents for revisions or additions, as further information becomes available.

*Notice of Intent* — At the beginning of each year, proposed actions of the Committee for the forthcoming year are issued in the form of a "Notice of Intent." This notice provides not only an opportunity for comment, but solicits suggestions of physical agents to be added to the list. The suggestions should be accompanied by substantiating evidence.

*As Legislative Code* — The Conference recognizes that the Threshold Limit Values may be adopted in legislative codes and regulations. If so used, the intent of the concepts contained in the Preface should be maintained and provisions should be made to keep the list current.

**THRESHOLD LIMIT VALUES  
HEAT STRESS**

These Threshold Limit Values refer to heat stress conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse health effects. The TLVs shown in Table 1 are based on the assumption that nearly all acclimatized, fully clothed workers with adequate water and salt intake should be able to function effectively under the given working conditions without exceeding a deep body temperature of 38°C.<sup>11, 21</sup>

Since measurement of deep body temperature is impractical for monitoring the workers' heat load, the measurement of environmental factors is required which most nearly correlate with deep body temperature and other physiological responses to heat. At the present time Wet Bulb Globe Temperature Index (WBGT) is the simplest and most suitable technique to measure the environmental factors. WBGT values are calculated by the following equations:

1. Outdoors with solar load:  
WBGT = 0.7 NWB + 0.2 GT + 0.1 DB
  2. Indoors or Outdoors with no solar load:  
WBGT = 0.7 NWB + 0.3 GT
- where:

WBGT = Wet Bulb Globe Temperature Index  
NWB = Natural Wet-Bulb Temperature  
DB = Dry-Bulb Temperature  
GT = Globe Temperature

The determination of WBGT requires the use of a black globe thermometer, a natural (static) wet-bulb thermometer, and a dry-bulb thermometer.

Higher heat exposures than shown in Table 1 are permissible if the workers have been undergoing medical surveillance and it has been established that they are more tolerant to work in heat than the average worker. Workers should not be permitted to continue their work when their deep body temperature exceeds 38.0°C.

**EVALUATION AND CONTROL**

**I. Measurement of the Environment**

The instruments required are a dry-bulb, a natural wet-bulb, a globe thermometer, and a stand. The

**TABLE 1**  
Permissible Heat Exposure Threshold Limit Values  
(Values are given in °C, WBGT)

Work — Rest Regimen	Work Load		
	Light	Moderate	Heavy
Continuous work	30.0	26.7	25.0
75% Work — 25% Rest, Each hour	30.6	28.0	25.9
50% Work — 50% Rest, Each hour	31.4	29.4	27.9
25% Work — 75% Rest, Each hour	32.2	31.1	30.0

measurement of the environmental factors shall be performed as follows:

A. The range of the dry and the natural wet bulb thermometer shall be -5°C to 50°C with an accuracy of ±0.5°C. The dry bulb thermometer must be shielded from the sun and the other radiant surfaces of the environment without restricting the airflow around the bulb. The wick of the natural wet-bulb thermometer shall be kept wet with distilled water for at least 1/2 hour before the temperature reading is made. It is not enough to immerse the other end of the wick into a reservoir of distilled water and wait until the whole wick becomes wet by capillarity. The wick shall be wetted by direct application of water from a syringe 1/2 hour before each reading. The wick shall extend over the bulb of the thermometer, covering the stem about one additional bulb length. The wick should always be clean and new wicks should be washed before using.

B. A globe thermometer, consisting of a 15 cm. (6-inch) diameter hollow copper sphere painted on the outside with a matte black finish or equivalent, shall be used. The bulb or sensor of a thermometer (range -5°C to 100°C with an accuracy of ±0.5°C) must be fixed in the center of the sphere. The globe thermometer shall be exposed at least 25 minutes before it is read.

counted as rest time when additional rest allowance must be given because of high environmental temperatures.

#### IV. Water and Salt Supplementation

During the hot season or when the worker is exposed to artificially generated heat, drinking water shall be made available to the workers in such a way that they are stimulated to frequently drink small amounts, i.e., one cup every 15-20 minutes (about 150 ml or 1/4 pint).

The water shall be kept reasonably cool (10°-15°C or 50.0°-60.0°F) and shall be placed close to the workplace so that the worker can reach it without abandoning the work area.

The workers should be encouraged to salt their food abundantly during the hot season and particularly during hot spells. If the workers are unacclimatized, salted drinking water shall be made available in a concentration of 0.1% (1g NaCl to 1.0 liter or 1 level tablespoon of salt to 15 quarts of water). The added salt shall be completely dissolved before the water is distributed, and the water shall be kept reasonably cool.

#### V. Other Considerations

A. *Clothing*: The permissible heat exposure TLVs are valid for light summer clothing as customarily worn by workers when working under hot environmental conditions. If special clothing is required for performing a particular job and this clothing is heavier or it impedes sweat evaporation or has higher insulation value, the worker's heat tolerance is reduced, and the permissible heat exposure limits indicated in Table 1 and Figure 1 are not applicable. For each job category where special clothing is required, the permissible heat exposure limit shall be established by an expert.

B. *Acclimatization and Fitness*: Acclimatization to heat involves a series of physiological and psychological adjustments that occur in an individual during his first week of exposure to hot environmental conditions. The recommended heat stress TLVs are valid for acclimated workers who are physically fit. Extra caution must be employed when unacclimated or physically un-fit workers must be exposed to heat stress conditions.

#### References:

1. *Health Factors Involved in Working Under Conditions of Heat Stress*. WHO Technical Report Series No. 412 (1969).

2. Dugas-Dobos, F. M. and A. Hanschel: Development of Permissible Heat Exposure Limits for Occupational Work. *ASHRAE Journal* 15(9):57-62 (Sept. 1973).
3. Minard, D.: *Prevention of Heat Casualties in Marine Corps Recruits, Period of 1955-60, with Comparative Incidence Rates and Climatic Heat Stresses in Other Training Categories*. Research Report No. 4, Contract No. MR 005.01-0001.01, Naval Medical Research Institute, Bethesda, MD (Feb. 21, 1961). Published in *Military Medicine* 126(44):261-272 (April 1961).
4. Minard, D. and R. L. O'Brien: *Heat Casualties in the Navy and Marine Corps 1959-1962 with Appendices on the Field Use of the Wet Bulb-Globe Temperature Index*. Research Report No. 7, Contract No. MR 005.01-0001.01, Naval Medical Research Institute, Bethesda, MD (March 12, 1964).
5. Astrand, Per-Olof and Kjaer Rodahl: *Textbook of Work Physiology*. McGraw-Hill Book Co., New York, San Francisco (1970).
6. *Ergonomics Guide to Assessment of Metabolic and Cardiac Costs of Physical Work*. *Am. Ind. Hyg. Assoc. J.* 32:560 (1971).
7. *Energy Requirements for Physical Work*. Research Progress Report No. 30, Purdue Farm Cardiac Project, Agricultural Experiment Station, West Lafayette, IN (1961).
8. Dumin, J. V. G. A. and R. Passmore: *Energy, Work and Leisure*. Heinemann Educational Books, Ltd., London (1967).
9. Lehmann, G. E., A. Muller and H. Spitzer: *Der Kalorienbedarf bei Gewerblicher Arbeit*. *Arbeitsphysiol.* 14:166 (1950).

#### IONIZING RADIATION

The Committee accepts the philosophy and recommendations of the National Council on Radiation Protection and Measurements (NCRP) for the ionizing radiation TLV. The NCRP is chartered by Congress to, in part, collect, analyze, develop and disseminate information and recommendations about protection against radiation and about radiation measurements, quantities and units, including development of basic concepts in these areas. NCRP Report No. 39 provides basic philosophy and concepts leading to protection criteria established in the same report.<sup>1</sup> Other NCRP reports address specific areas of radiation protection and, collectively, provide an excellent basis for establishing a sound program for radiation control. The Committee recommends the listed references as substantive documentation of a sound basis for ionizing radiation protection. The committee also strongly recommends that all exposures to ionizing radiations be kept as low as reasonably achievable within the stated guidance.

#### References:

1. *Basic Radiation Protection Criteria*. NCRP Report No. 39 (January 15, 1971).

2. *Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radionuclides in Air and in Water for Occupational Exposure*. National Bureau of Standards Handbook 69, (June 5, 1959), with *Addendum 1* (August 1963). Available as NCRP Report No. 22.

The above documents, as well as information on numerous other NCRP Reports addressing specific subjects in ionizing radiation protection are available from: NCRP Publications, PO Box 30175, Washington, DC 20014.

### LASERS

The threshold limit values are for exposure to laser radiation under conditions to which nearly all workers may be exposed without adverse effects. The values should be used as guides in the control of exposures and should not be regarded as fine lines between safe and dangerous levels. They are based on the best available information from experimental studies.

#### Limiting Apertures

The TLVs expressed as radiant exposure or irradiance in this section may be averaged over an aperture of 1 mm except for TLVs for the eye in the spectral range of 400-1400 nm, which should be averaged over a 7 mm limiting aperture (pupil); and except for all TLVs for wavelengths between 0.1-1 mm where the limiting aperture is 10 mm. No modification of the TLVs is permitted for pupil sizes less than 7 mm.

The TLVs for "extended sources" apply to sources which subtend an angle greater than  $\alpha$  (Table 7) which varies with exposure time. This angle is *not* the beam divergence of the source.

#### Correction Factors A and B ( $C_A$ and $C_B$ )

The TLVs for ocular exposure in Tables 4 and 5 are to be used as given for all wavelength ranges. The TLVs for wavelengths between 700 nm and 1049 nm are to be increased by a uniformly extrapolated factor ( $C_1$ ) as shown in Figure 2. Between 1049 nm and 1400 nm, the TLV has been increased by a factor ( $C_1$ ) of five. For certain exposure times at wavelengths between 550 nm and 700 nm, correction factor ( $C_2$ ) must be applied.

The TLVs for skin exposure are given in Table 6. The TLVs are to be increased by a factor ( $C_1$ ) as shown in Figure 2 for wavelengths between 700 nm and 1400 nm. To aid in the determination of TLVs for exposure durations requiring calculations of fractional powers Figures 3, 4, 5 and 6 may be used.

#### Repetitively Pulsed Lasers

Since there are few experimental data for multiple pulses, caution must be used in the evaluation of such exposures. The protection standards for irradiance or radiant exposure in multiple pulse trains have the following limitations:

(1) The exposure from any single pulse in the train is limited to the protection standard for a single comparable pulse.

(2) The average irradiance for a group of pulses is limited to the protection standard as given in Tables 4, 5, or 7 of a single pulse of the same duration as the entire pulse group.

(3) When the Instantaneous Pulse Repetition Frequency (PRF) of any pulses within a train exceeds one, the protection standard applicable to each pulse is reduced as shown in Figure 6 for pulse durations less than  $10^{-3}$  second. For pulses of greater duration, the following formula should be followed:

$$\text{Standard (single pulse in train)} = \frac{\text{Standard (pulse } n\tau)}{n}$$

where:

$n$  = number of pulses in train

$\tau$  = duration of a single pulse in the train

Standard ( $n\tau$ ) = protection standard of one pulse having a duration equal to  $n\tau$  seconds.

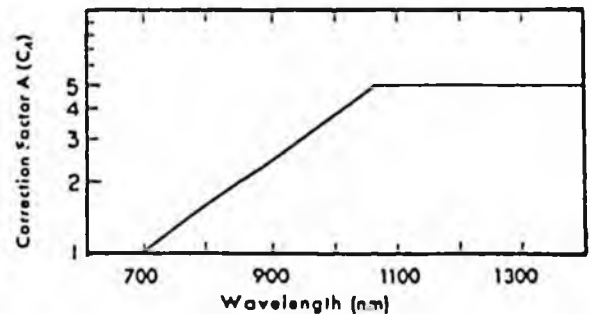


Figure 2 — TLV correction factor for  $\lambda = 700 - 1400$  nm\*

\*For  $\lambda = 700 - 1049$  nm,  $C_1 = 10^{0.0021(\lambda - 700)}$   
 For  $\lambda = 1050 - 1400$  nm,  $C_1 = 5$

## NOISE

These threshold limit values refer to sound pressure levels and durations of exposure that represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect on their ability to hear and understand normal speech. Prior to 1979, the medical profession had defined hearing impairment as an average hearing threshold level in excess of 25 decibels (ANSI-S3.6-1969) at 500, 1000, and 2000 Hz, and the limits which are given have been established to prevent a hearing loss in excess of this level.<sup>10</sup> The values should be used as guides in the control of noise exposure and, due to individual susceptibility, should not be regarded as fine lines between safe and dangerous levels.

It should be recognized that the application of the TLV for noise will not protect all workers from the adverse effects of noise exposure. A hearing conservation program with audiometric testing is necessary when workers are exposed to noise at or above the TLV levels.

### *Continuous or Intermittent*

The sound level shall be determined by a sound level meter, conforming as a minimum to the requirements of the American National Standard Specification for Sound Level Meters, S1.4 (1971) Type 32A, and set to use the A-weighted network with slow meter response. Duration of exposure shall not exceed that shown in Table 8.

These values apply to total duration of exposure per working day regardless of whether this is one continuous exposure or a number of short-term exposures and does include the impact and impulsive type of noise that contributes to the sound level meter reading at slow response.

When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered, rather than the individual effect of each. If the sum of the following fractions:

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \dots + \frac{C_n}{T_n}$$

exceeds unity, then, the mixed exposure should be considered to exceed the threshold limit value,  $C_1$  in-

<sup>10</sup>In 1979, the American Academy of Ophthalmology and Otolaryngology (AAO) included 3000 Hz in their hearing impairment formula.

Table 8  
Threshold Limit Values

Duration per Day Hours	Sound Level dBA†
16	80
8	85
4	90
2	95
1	100
1/2	105
1/4	110
1/8	115*

†Sound level in decibels are measured on a sound level meter, conforming as a minimum to the requirements of the American National Standard Specification for Sound Level Meters, S1.4 (1971) Type S2A, and set to use the A-weighted network with slow meter response.

\*No exposure to continuous or intermittent in excess of 115 dBA

‡indicates the total duration of exposure at a specific noise level, and  $T_1$  indicates the total duration of exposure permitted at that level. All on-the-job noise exposures of 80 dBA or greater shall be used in the above calculations.

## IMPULSIVE OR IMPACT NOISE

It is recommended that exposure to impulsive or impact noise shall not exceed the limits listed in Table 9 or taken from Figure 7. No exposures in excess of 140 decibels peak sound pressure level are permitted. Impulsive or impact noise is considered to be those variations in noise levels that involve maxima at intervals of greater than one per second. Where the intervals are less than one second, it should be considered continuous.

Table 9  
Threshold Limit Values Impulsive or Impact Noise

Sound Level dB**	Permitted Number of Impulses or Impacts per day
140	100
130	1000
120	10,000

\*\*Decibels peak sound pressure level, re 20  $\mu$ Pa

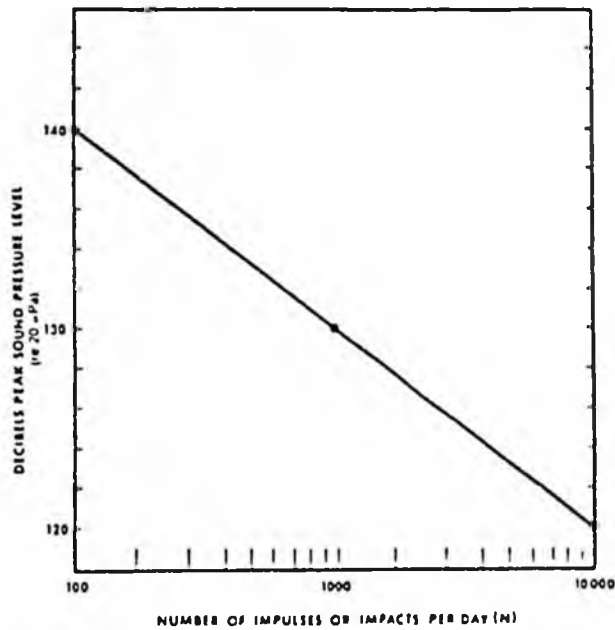


Figure 7 — Threshold Limit Values for Impulse/Impact Noise.

#### RADIOFREQUENCY/MICROWAVE RADIATION

These Threshold Limit Values (TLVs) refer to radiofrequency (RF) and microwave radiation in the frequency range from 10 kHz to 300 GHz, and represent conditions under which it is believed workers may be repeatedly exposed without adverse health effects. The TLVs shown in Table 10 are selected to limit the average whole body specific absorption rate (SAR) to 0.4 W/kg in any six minutes (0.1 hr) period for 3 MHz to 300 GHz, see Figure 8. Between 10 kHz and 3 MHz the average whole body SAR is still limited to 0.4 W/kg, but the plateau at 100 mW/cm<sup>2</sup> was set to protect against shock and burn hazards.

Since it is usually impractical to measure the SAR, the TLVs are expressed in units that are measurable, viz, squares of the electric and magnetic field strengths, averaged over any 0.1 hour period. This

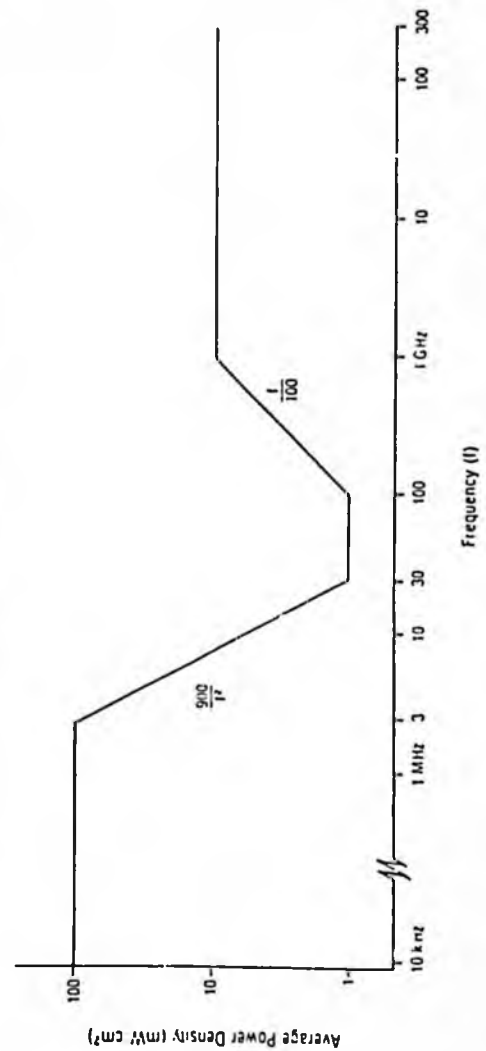


Figure 8 — Threshold Limit Values (TLV) for Radiofrequency/Microwave Radiation in Workplace (Whole Body SAR Less Than 0.4 W/kg).

For example, for frequencies from 3 to 30 MHz, the equivalent power density can be increased by a factor of 10 up to a limit of 100 mW/cm<sup>2</sup>, if it can be assured that exposed individuals are not in contact with the ground plate.

6. At frequencies below 30 MHz, ungrounded objects such as vehicles, fences, etc., can strongly couple to RF fields. For field strengths near the TLV, shock and burn hazards can exist. Care should be taken to eliminate ungrounded objects, to ground such objects, or use insulated gloves when ungrounded objects must be handled.
7. No measurement should be made within 5 cm of any object.
8. All exposures should be limited to a maximum (peak) electric field intensity of 100 kV/m.

#### ULTRAVIOLET RADIATION\*

These threshold limit values refer to ultraviolet radiation in the spectral region between 200 and 400 nm and represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect. These values for exposure of the eye or the skin apply to ultraviolet radiation from arcs, gas, and vapor discharges, fluorescent, and incandescent sources, and solar radiation, but do not apply to ultraviolet lasers.\* These values do not apply to ultraviolet radiation exposure of photosensitive individuals or of individuals concomitantly exposed to photosensitizing agents.† These values should be used as guides in the control of exposure to continuous sources where the exposure duration shall not be less than 0.1 sec.

These values should be used as guides in the control of exposure to ultraviolet sources and should not be regarded as a fine line between safe and dangerous levels.

#### Recommended Values:

The threshold limit value for occupational exposure to ultraviolet radiation incident upon skin or eye where irradiance values are known and exposure time is controlled are as follows:

1. For the near ultraviolet spectral region (320 to 400 nm) total irradiance incident upon the unprotected

\*See Laser TLVs.

skin or eye should not exceed 1 mW/cm<sup>2</sup> for periods greater than 10<sup>3</sup> seconds (approximately 16 minutes) and for exposure times less than 10<sup>3</sup> seconds should not exceed one J/cm<sup>2</sup>.

2. For the actinic ultraviolet spectral region (200 — 315 nm), radiant exposure incident upon the unprotected skin or eye should not exceed the values given in Table 11 within an 8-hour period.
3. To determine the effective irradiance of a broad-band source weighted against the peak of the spectral effectiveness curve (270 nm), the following weighting formula should be used:

$$E_{eff} = \sum E_{\lambda} S_{\lambda} \Delta\lambda$$

where:

- $E_{eff}$  = effective irradiance relative to a monochromatic source at 270 nm in W/cm<sup>2</sup> (J/s/cm<sup>2</sup>)
- $E_{\lambda}$  = spectral irradiance in W/cm<sup>2</sup>/nm
- $S_{\lambda}$  = relative spectral effectiveness (unitless)
- $\Delta\lambda$  = band width in nanometers

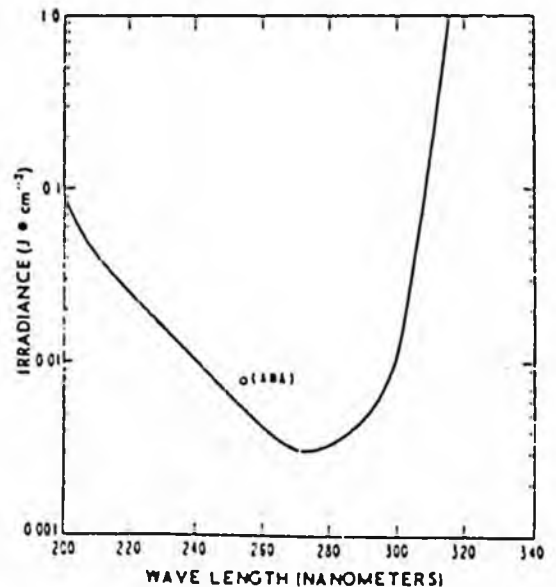


Figure 9 — Threshold Limit Values for Ultraviolet Radiation

TABLE 11  
Relative Spectral Effectiveness  
by Wavelength\*

Wavelength (nm)	TLV (mJ/cm <sup>2</sup> )	Relative Spectral Effectiveness S <sub>λ</sub>
200	100	0.03
210	40	0.075
220	16	0.12
230	16	0.19
240	10	0.30
250	7.0	0.43
254	6.0	0.5
260	4.6	0.65
270	3.0	1.0
280	3.4	0.88
290	4.7	0.64
300	10	0.30
305	50	0.06
310	200	0.015
315	1000	0.003

\*See Laser TLVs.

TABLE 12  
Permissible Ultraviolet Exposures

Duration of Exposure Per Day	Effective Irradiance, E <sub>eff</sub> (μW/cm <sup>2</sup> )
8 hrs. ....	0.1
4 hrs. ....	0.2
2 hrs. ....	0.4
1 hr. ....	0.8
30 min. ....	1.7
15 min. ....	3.3
10 min. ....	5
5 min. ....	10
1 min. ....	50
30 sec. ....	100
10 sec. ....	300
1 sec. ....	3,000
0.5 sec. ....	6,000
0.1 sec. ....	30,000

4. Permissible exposure time in seconds for exposure to actinic ultraviolet radiation incident upon the unprotected skin or eye may be computed by dividing 0.003 J/cm<sup>2</sup> by E<sub>eff</sub> in W/cm<sup>2</sup>. The exposure time may also be determined using Table 12 which provides exposure times corresponding to effective irradiances in μW/cm<sup>2</sup>.
5. All the preceding TLVs for ultraviolet energy apply to sources which subtend an angle less than 80°. Sources which subtend a greater angle need to be measured only over an angle of 80°.

Conditioned (tanned) individuals can tolerate skin exposure in excess of the TLV without erythral effects. However, such conditioning may not protect persons against skin cancer.

Reference:

1. *Sunlight and Man*. Fitzpatrick et al, Eds. Univ. of Tokyo Press, Tokyo, Japan (1974).

NOTICE OF INTENDED CHANGES  
(for 1984-85)

These physical agents, with their corresponding values, comprise those for which either a limit has been proposed for the first time, or for which a change in the "Adopted" listing has been proposed. In both cases, the proposed limits should be considered trial limits that will remain in the listing for a period of at least one year. If after one year no evidence comes to light that questions the appropriateness of the values herein the values will be reconsidered for the "Adopted" list.

NOTICE OF INTENT TO ESTABLISH  
THRESHOLD LIMIT VALUES  
LASERS

It is proposed that the following footnote be added to Table 6 (Threshold Limit Value for Skin Exposure from a Laser Beam).

The IR-B and IR-C exposures to skin surface areas A(cm<sup>2</sup>) exceeding 1000 cm<sup>2</sup>, the TLV is

$$(100,000/A) \cdot (mW/cm^2);$$

for areas greater than 10,000 cm<sup>2</sup>, the TLV is 10 mW/cm<sup>2</sup>.

LIGHT AND NEAR-INFRARED RADIATION

These Threshold Limit Values refer to visible and near-infrared radiation in the wavelength range of 400

$$\sum_{400}^{1400} E_{\lambda} \cdot t \cdot B_{\lambda} \cdot \Delta\lambda \leq 10 \text{ mJ} \cdot \text{cm}^{-2} \quad (t \leq 10^4 \text{ s}) \quad (5a)$$

$$\sum_{400}^{1400} E_{\lambda} \cdot B_{\lambda} \cdot \Delta\lambda \leq 1 \mu\text{W} \cdot \text{cm}^2 \quad (t \geq 10^4 \text{ s}) \quad (5b)$$

For a source where the blue light weighted irradiance  $E$  (blue) exceeds  $1 \mu\text{W} \cdot \text{cm}^{-2}$  is the maximum permissible exposure duration  $t_{max}$  in seconds is:

$$t_{max} = 10 \text{ mJ} \cdot \text{cm}^{-2} E \text{ (blue)} \quad (6)$$

3. *Infrared Radiation:* To avoid possible delayed effects upon the lens of the eye (cataractogenesis), the infrared radiation ( $\lambda > 770 \text{ nm}$ ) should be limited to  $10 \text{ mWcm}^{-2}$ . For an infrared heat lamp or any near-infrared source where a strong visual stimulus is absent, the near infrared (770-1400 nm) radiance as viewed by the eye should be limited to:

$$\sum_{770}^{1400} L_{\lambda} \Delta\lambda \leq 0.6/\alpha \quad (7)^*$$

for extended duration viewing conditions. This limit is based upon a 7 mm pupil diameter.

#### AIRBORNE UPPER SONIC AND ULTRASONIC ACOUSTIC RADIATION

These threshold limit values refer to sound pressure levels that represent conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect. The values listed in Table 14 should be used as guides in the control of noise exposure and, due to individual susceptibility, should not be regarded as fine lines between safe and dangerous levels. The levels for the third octave bands centered below 20 kHz are below those which cause subjective effects. Those levels for 1/3 octaves above 20 kHz are for prevention of possible hearing losses from subharmonics of these frequencies.

\*Formulae (1) and (7) are empirical and are not, strictly speaking, dimensionally correct. To make the formulae dimensionally correct, one would have to insert a dimensional correction factor  $k$  in the right hand numerator in each formula. For formula (1) this would be  $k_1 = 1 \text{ W} \cdot \text{rad} \cdot \text{s}^2/(\text{cm}^2 \cdot \text{sr})$ , and for formula (7)  $k_2 = 1 \text{ W} \cdot \text{rad}/(\text{cm}^2 \cdot \text{sr})$ .

TABLE 14  
Permissible Ultrasound Exposure Levels

Mid-Frequency of Third-Octave Band kHz	One-Third Octave — Band Level in dB re 20 $\mu\text{Pa}$
10	80
12.5	80
16	80
20	105
25	110
31.5	115
40	115
50	115

#### COLD STRESS

These Threshold Limit Values (TLVs) are intended to protect workers from the severest effects of cold stress (hypothermia) and cold injury and to describe exposures to cold working conditions under which it is believed that nearly all workers can be repeatedly exposed without adverse health effects. The TLV objective is to prevent the deep body core temperature from falling below  $36^\circ\text{C}$  and to prevent cold injury to body extremities. Deep body temperature is the core temperature of the body as determined by rectal temperature measurements. For a single, occasional exposure to a cold environment a drop in core temperature of no lower than  $35^\circ\text{C}$  should be permitted. In addition to provisions for total body protection, the TLV objective is to protect all parts of the body with emphasis on hands, feet and head from cold injury.

#### Introduction to Cold Stress

Fatal exposures to cold among workmen have almost always resulted from accidental exposures involving failure to escape from low environmental air temperatures or from immersion in low temperature water. The single most important aspect of life-threatening hypothermia is the fall in the deep core temperature of the body. The clinical presentations of victims of hypothermia are shown in Table 15 (taken from Dembert in AFP, January 1982). Workmen should be protected from exposure to cold so that the deep core temperature does not fall below  $36^\circ\text{C}$ .

TABLE 18  
Wind Chill Cooling Rate Effects\*

Wind Chill Rates (Watts/m <sup>2</sup> /hr)	Comments/Effects
700	Conditions considered comfortable when dressed for skiing.
1200	Conditions no longer pleasant for outdoor activities on overcast days.
1400	Conditions no longer pleasant for outdoor activities on sunny days.
1600	Freezing of exposed skin begins for most people depending on the degree of activity and the amount of sunshine.
2300	Conditions for outdoor travel such as walking become dangerous. Exposed areas of the face freeze in less than 1 minute for the average person.
2700	Exposed flesh will freeze within half a minute for the average person.

\*From Canadian Department of the Environment, Atmospheric Environment Service.

#### Work-Warming Regimen

If work is performed continuously in the cold at an equivalent chill temperature (ECT) or below  $-7^{\circ}\text{C}$  ( $20^{\circ}\text{F}$ ) heated warming shelters (tents, cabins, rest rooms, etc.) shall be made available nearby and the workers should be encouraged to use these shelters at regular intervals, the frequency depending on the severity of the environmental exposure. The onset of heavy shivering, frostnip, the feeling of excessive fatigue, drowsiness, irritability, or euphoria, are indications for immediate return to the shelter. When entering the heated shelter the outerlayer of clothing shall be removed and the remainder of the clothing loosened to permit sweat evaporation or a change of dry work clothing provided. A change of dry work clothing shall be provided as necessary to prevent workers from returning to their work with wet clothing. Dehydration, or the loss of body fluids occurs insidiously in the cold environment and may increase the susceptibility of the worker to cold injury due to a significant change in blood flow to the extremities. Warm sweet drinks and soups should be provided at

the work site to provide caloric intake and fluid volume. The intake of coffee should be limited because of a diuretic and circulatory effect.

For work practices at or below  $-12^{\circ}\text{C}$  ( $10^{\circ}\text{F}$ ) ECT the following shall apply:

1. The worker shall be under constant protective observation (buddy system or supervision).
2. The work rate should not be so high as to cause heavy sweating that will result in wet clothing; if heavy work must be done, rest periods must be taken in heated shelters and opportunity for changing into dry clothing shall be provided.
3. New employees shall not be required to work full-time in cold in the first days until they become accustomed to the working conditions and required protective clothing.
4. The weight and bulkiness of clothing shall be included in estimating the required work performance and weights to be lifted by the worker.
5. The work shall be arranged in such a way that sitting still or standing still for long periods is minimized. Unprotected metal chair seats shall not be used. The worker should be protected from drafts to the greatest extent possible.
6. The workers shall be instructed in safety and health procedures. The training program shall include as a minimum instruction in:
  - a. Proper rewarming procedures and appropriate first aid treatment.
  - b. Proper clothing practices.
  - c. Proper eating and drinking habits.
  - d. Recognition of impending frostbite.
  - e. Recognition signs and symptoms of impending hypothermia or excessive cooling of the body even when shivering does not occur.
  - f. Safe work practices.

#### Special Workplace Recommendations

Special design requirements for refrigerator rooms include the following:

1. In refrigerator rooms, the air velocity should be minimized as much as possible and should not exceed 1 meter/sec (200 fpm) at the job site. This can be achieved by properly designed air distribution systems.

2. Special wind protective clothing shall be provided based upon existing air velocities to which workers are exposed.

Special caution shall be exercised when working with toxic substances and when workers are exposed to vibration. Cold exposure may require reduced exposure limits.

Eye protection for workers employed out-of-doors in a snow and/or ice-covered terrain shall be supplied. Special safety goggles to protect against ultraviolet light and glare (which can produce temporary conjunctivitis and/or temporary loss of vision) and blowing ice crystals are required when there is an expanse of snow coverage causing a potential eye exposure hazard.

Workplace monitoring is required as follows:

1. Suitable thermometry should be arranged at any workplace where the environmental temperature is below 16°C (60°F) to enable overall compliance with the requirements of the TLV to be maintained.
2. Whenever the air temperature at a workplace falls below -1°C (30°F), the dry bulb temperature should be measured and recorded at least every 4 hours.
3. In indoor workplaces, the wind speed should also be recorded at least every 4 hours whenever the rate of air movement exceeds 2 meters per second (5 mph).
4. In outdoor work situations, the windspeed should be measured and recorded together with the air temperature whenever the air temperature is below -1°C (30°F).
5. The equivalent chill temperature shall be obtained from Table 16 in all cases where air movement measurements are required, and shall be recorded with the other data whenever the equivalent chill temperature is below -7°C (20°F).

Employees shall be excluded from work in cold at -1°C (30°F) or below if they are suffering from diseases or taking medication which interferes with normal body temperature regulation or reduces tolerance to work in cold environments. Workers who are routinely exposed to temperatures below -24°C (-10°F) with wind speeds less than five miles per hour, or air temperatures below -18°C (0°F) with wind speeds above five miles per hour should be medically certified as suitable for such exposures.

Trauma sustained in freezing or subzero conditions requires special attention because an injured worker is predisposed to secondary cold injury. Special provisions must be made to prevent hypothermia and secondary freezing of damaged tissues in addition to providing for first aid treatment.

#### HAND-ARM (SEGMENTAL) VIBRATION

These threshold limit values (Table 19) refer to component accelerations levels and durations of exposure that represent conditions under which it is believed that most workers may be exposed repeatedly without progressing beyond Stage 3 of the Taylor-Pelmar Classification System for Vibration-induced White Finger (VWF, also known as Raynaud's Phenomenon of Occupational Origin). Since there is a paucity of dose-response relationships for VWF, these recommendations have been derived from epidemiological data from forestry, mining, and metal working. These values should be used as guides in the control of hand-arm vibration exposure and because of individual susceptibility, should not be regarded as defining a boundary between safe and dangerous levels.

It should be recognized that the application of the TLV alone for hand-arm vibration will not protect all workers from the adverse effects of hand-arm vibration exposure. The use of: 1) antivibration tools, 2) antivibration gloves, 3) proper work practices which keep the worker's hands and remaining body warm and also minimize the vibration coupling between the worker and the vibration tool are necessary to minimize vibration exposure, and 4) a conscientiously applied medical surveillance program are ALL necessary to rid VWF from the workplace.

#### *Continuous, Intermittent, Impulsive, or Impact Hand-arm Vibration*

The measurement of vibration should be performed in accordance with the procedures and instrumentation specified by the Second Draft International Standard ISO/DIS 5349 (1984), *Guide for the Measurement and the Assessment of Human Exposure to Vibration Transmitted to the Hand*, and summarized below:

The acceleration of a vibration handle or work piece should be determined in three mutually orthogonal directions at a point close to where vibration enters the hand. The directions shall preferably be

8. International Organization for Standardization: *Guide for the Measurement and the Assessment of Human Exposure to Vibration Transmitted to the Hand*. Second DIS 5349. International Organization for Standardization, Geneva (in press, 1983).
9. International Organization for Standardization: *Human-Response Vibration Measuring Instrumentation*. Second Draft Proposal DP 8041. ISO/TC 108/SC 3 n 99. International Organization for Standardization, Geneva (unpublished, 1982).

#### PHYSICAL AGENTS UNDER STUDY

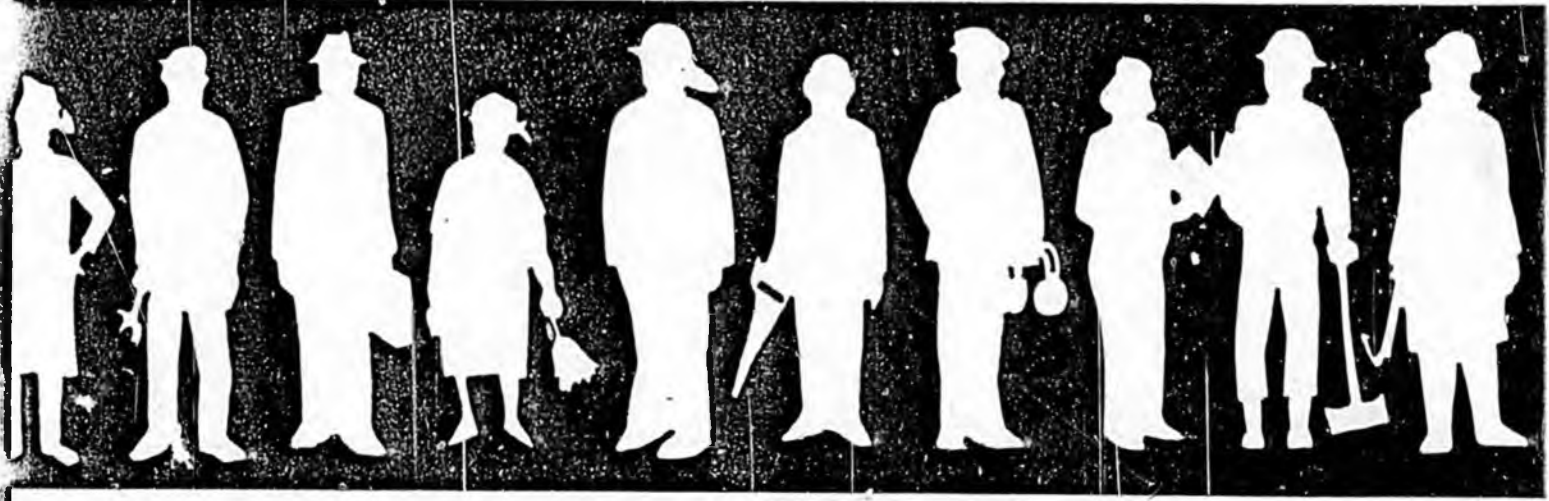
The Physical Agents Committee of ACGIH has examined the current literature and has not found sufficient information to propose a TLV. However, these agents will remain under study during the coming year to examine new evidence indicating the need and feasibility for establishing a proposed TLV. Comments and suggestions, accompanied by substantive documentation are solicited and should be forwarded to the Executive Secretary, ACGIH. Documentation summarizing the current status of the biological effects literature is available on those agents preceded by an asterisk (\*).

1. \**Extremely Low Frequency (ELF) Radiation*. Specifically, that portion of the spectrum from 0 to 300 Hz.
2. *Magnetic Fields*. Both pulsed and \*continuous.
3. *Laser Radiation*. Specifically laser exposures of less than one (1) nanosecond.
4. *Vibration*. Whole-body.
5. *Pressure Variations*.

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WEISS

# Occupational Injury and Illness Information Alaska 1982



State of Alaska, Bill Sheffield, Governor

## Occupational Illnesses

### 1982 Survey Findings

Results from the 1982 survey produced an estimated 235 cases of occupational illnesses. Work related illnesses usually account for under 5% of the total cases. For 1982, the number of illness cases was 2% of all cases, as it was in the prior year. The total number of work illnesses estimated for 1982 was 25% less than the preceding year. This is largely a result of the decline in manufacturing activity, although the estimated cases went down in most industry divisions. Table 1-3 compares the number of cases estimated for 1979 to 1982 by type of illness. The only category to show an increase over 1981 was "Poisoning". This rise is due largely to a single instance in which 15 employees were working in a processing building with very poor ventilation; they became ill, losing consciousness in some cases.

### Industry Distribution

As expected, manufacturing had the majority of illness cases with 40% of the total. This is smaller than the total portion from prior years (52% in 1981, 76% in 1980). As manufacturing activity declined during 1981 and 1982, so did the total estimated illnesses; as a result other industries appear to have a larger share of the total. This can be misleading if one attempts to compare the annual distributions because in many industries, the number of cases has declined over prior years. For 1982, transportation was third in estimated illnesses, due to the incident mentioned before. One company classified in transportation was also operating the processing facility at which the 15 employees became ill from poor ventilation. Therefore, transportation's higher ranking in 1982 is quite unusual. Figure 1-6 illustrates the percent distribution by type of illness case and industry for 1982.

### Lost Workday Cases

In 1982, 44% of the total estimated illness cases (103 cases) resulted in lost workdays. Roughly one third of the time loss cases (37 cases) were in seafood processing. The total estimated number of lost workdays due to work related diseases was 2,290. Less than one fourth of the lost days occurred in the public sector, mainly in local government. The average number of days lost for each time loss illness case was 21 days in the private sector and 28 days in government. All of the lost workdays from occupational diseases in 1982 equal approximately one full year of work for nine employees.

### Use and Weakness of Survey Data

As previously mentioned, the primary purpose of the annual survey is to measure the relationship between exposure (in hours worked) and the occurrence of recordable injuries and illnesses in different industries. The second major product of the annual survey is an estimate of the total number of recordable injury and illness cases. In a survey sample based estimation procedure, events which are frequently occurring can be estimated more accurately than those which are relatively rare in occurrence. For example, the annual survey data led to an estimated 14 fatality cases in 1982, whereas there were 31 actual reported work related deaths, 121% more than estimated. Occupational illness cases, which have historically comprised 5% or less of total cases, are also cases estimated from the annual survey data may differ considerably from other sources such as reported Workers' Compensation cases. The main value of the survey based estimate of illness cases is not how close these estimates approach the "actual" experience. Rather, the value lies in the relationships which exist among the industries and types of illnesses (as expressed in Figure 1-6) and how these relationships change from year to year.

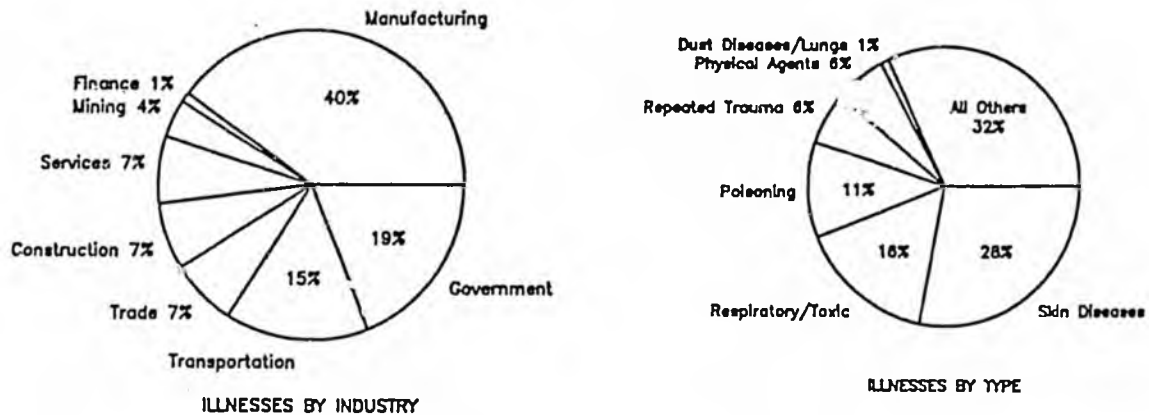
**Table 1-3**  
**Estimated Number of Recordable Occupational Illnesses**  
**By Type of Illness**  
**Alaska**  
**1979-1982**

Type of Illness	1979	1980	1981	1982
Total All Illnesses	413	614	313	235
Occupational Skin Diseases	195	140	108	66
Dust Diseases of the Lungs	4	3	3	2
Respiratory Conditions Due to Toxic Agents	105	111	53	37
Poisoning (Systemic Effects of Toxic Material)	22	14	4	26
Disorders Due to Physical Agents	24	53	18	14
Disorders Associated with Repeated Trauma	17	74	24	15
All Other Occupational Illnesses	46	219	103	75

Some figures in this table were adjusted after rounding so the sum of the detail equals the total.

*reflects national trends*

**Figure 1-6**  
**Percent Distribution of Occupational Illnesses by Type and by Industry**  
**Alaska**  
**1982**



## Public Sector

The annual survey of occupational injuries and illnesses includes state and local government operations. Federal government is excluded from the scope of the survey because it does not fall under the federal or state Occupational Safety and Health legislation. An estimated 2,258 recordable work related injury and illness cases occurred in Alaska's public sector in 1982. This represents a 9% increase over 1981 (2,066 cases). Sixty-seven percent of the public sector cases were in local government, similar to the prior year (66%). The number of cases estimated for local government in 1982 (1,524 cases) is the largest to date and is 12% higher than the prior year. The incidence rate for total cases rose in local government to reach the second highest rate recorded since 1975. In state government, the total case rate declined slightly.

The lost workday case rate for the public sector was identical to the record low recorded in 1981, 2.6 cases per 100 workers. This is because the state government rate declined slightly to match the 1980 low (1.3) while local government increased a similar amount over the record low of the prior year (Table 1-9). The estimated number of time loss cases in the public sector increased 5% over the 1981 level (830 to 869) while non-time loss cases gained by 12%. In state government, estimated time loss cases actually went down (230 to 209) from 1981 to 1982 while local government saw their time loss cases increase from 600 to 667. The total estimated number of lost workdays in government in 1982 was 12,471, a 17% decline from the record number in 1981. The estimated total lost workdays declined in state government by 53% and increased in local government by 9%.

The total estimated lost workdays in the public sector amounted to the equivalent of 52 employee years. The cost for this lost worktime in terms of salary would amount to nearly \$1.5 million (approximately \$308,000 for state government and \$1,156,000 for local government).\*

\* Note: Cost estimates based on average monthly salary figures for 1982 which appear in the Fourth Quarter 1982 issue of the *Statistical Quarterly*.

## Long Term Trends

Completion of the survey of 1982 occupational injuries and illnesses provides eleven years of statistical data that allow examination of long term trends. The incidence rate for occupational injuries and illnesses in private industry has declined appreciably both nationally and in Alaska since 1972 (Figure 7). The U.S. rate of 7.7 cases per 100 workers recorded in 1982 represents a drop of 29.4% from the rate of 10.9 in 1972. However, from 1976 to 1979 the national rate showed a slight but steady increase each year. This trend was reversed during 1980, 1981, and 1982 when the U.S. rate dropped to a new low each year. Over the period 1972 to 1982, Alaska's private sector rate fell from 14.4 to 10.3, a decrease of 28.5%. Alaska's rate declined steadily from 1973 to 1978 and fluctuated between 10.0 and 10.4 in the last 4 years.

### United States

The private sector injury and illness rate described above is the sum of the rates for time loss and non-time loss cases. The decline in the national injury and illness rate from 1972 to 1982 is the result of a 44.7% decrease in the rate for cases without lost worktime. The rate for lost workday cases is 6% higher after eleven years (Table 1-11). The trend of a slow but steady rise in national time loss case rates was reversed from 1980 to 1982 when a 19% drop occurred. Over the period 1972 to 1981 the manufacturing industries experienced the greatest rate of increase in the lost workday case rate. This ceased to be true in 1982 when manufacturing's time loss case rate fell 14% to a ten year low. In general, accident rates can be expected to rise as industry employment levels increase. The only time the U.S. lost workday case rate showed declines were in 1975, 1980, 1981, and 1982 when higher risk industries experienced significant losses in employment levels.

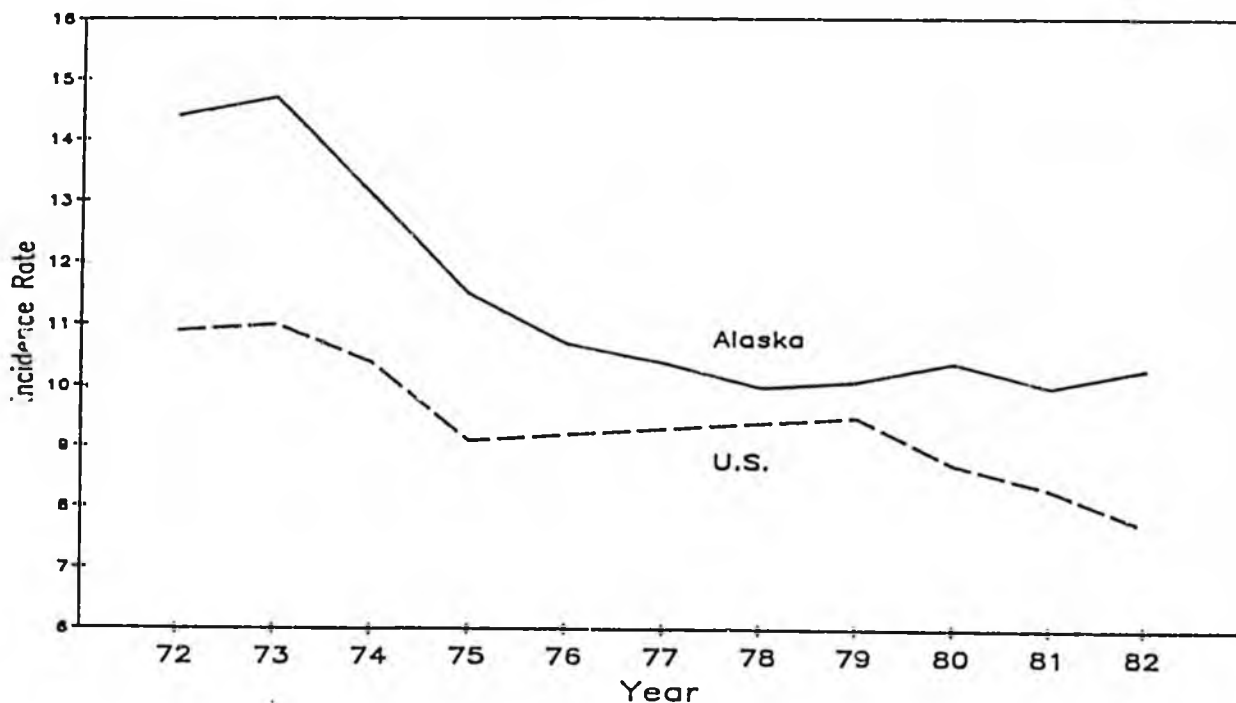
The average number of days of work lost due to a time loss injury has changed slightly since 1972 (Figure 1-5). For the U.S. as a whole the average number of days lost has risen only slightly since 1972. An average of 14 days was recorded in 1972 compared to 17 days in 1982. For the last nine years, the average has been either 16 or 17 days. This fairly stable average has been maintained during a period in which the lost time accident rate has risen.

### Alaska

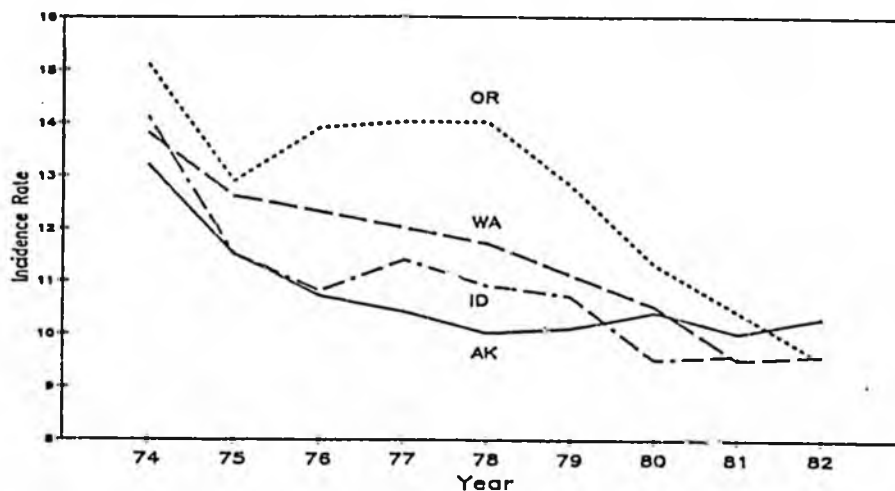
In Alaska the overall decline in the private sector incidence rate has also been greatly determined by the drop in the rate for cases without lost workdays. The rate for non-time loss cases in 1982 was 5.4, a decline of 40.7% from the 1972 rate of 9.1. Unlike the U.S., however, the lost workday case rate has not increased over the eleven year period. From 1977 to 1979 the lost workday case rate held at its lowest recorded level. Following a rise in 1980, the rate dropped to a new all time low in 1981 and recorded its second lowest level in 1982 (Figure 1-5). During the eleven year period in which the time loss case rate has been basically stable, employment in Alaska's private industries more than doubled (125%). Safety program managers would point out that holding down the time loss case rate during a period of significant growth is as much an achievement as decreasing the overall injury and illness rate.

In Alaska, the rise in average number of days lost has been somewhat greater than nationally. The state's private sector average increased from 12 days in 1972 to a level of 17 days where it held for four years. Then in 1982 the average dropped to a six year low of 15 days. The general rise in Alaska's average number of days lost has occurred even though the lost workday case rate has remained stable.

**Figure 1-7**  
**Occupational Injuries and Illnesses**  
**Incidence Rate Trends**  
**Private Sector**  
**Alaska and United States**



**Figure 1-8**  
**Occupational Injury and Illness Incidence Rates**  
**Private Sector**  
**Region X States**



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## Methodology

### Scope of Survey

*The Annual Occupational Injury and Illness Survey* covers employers in Alaska having one or more employees during a given year (self-employed individuals and federal government are excluded)

In 1982, a sample of 1,667 firms representing a universe of about 10,000 firms were mailed survey forms. Two follow-up mailings and many telephone calls were made to obtain as many usable responses as possible. Unusable responses were generally a result of the surveyed firm being out of business, outside the scope of the survey, included in the report of another location, in receipt of duplicate forms, or without an adequate mailing address.

It should be noted that this survey, under the Occupational Safety and Health Act, is a mandatory survey. This means that all those firms receiving questionnaires are required by law to respond. The response rate for the 1982 survey was 98.8%.

**Note:** Data conforming to OSHA definitions for coal and lignite mining (SIC 12), metal and nonmetal mining (SIC 10 and 14), and for railroad transportation (SIC 40) were provided by the Mine Safety and Health Administration, U.S. Department of Labor, and by the Federal Railroad Administration, U.S. Department of Transportation. Data for independent contractors who perform services or construction on mining sites are also included.

### Survey Form

The survey form conveyed information concerning average annual employment, total employee hours worked, nature of business activity, and month of federal or state OSHA compliance inspection. The Occupational Injury and Illness information that employers provided on the form included data on fatalities, lost workday cases, cases without lost workdays, and seven categories of occupational illnesses. See the "Recording and Reporting" section of this publication for a sample of the survey form and instructions.

### Industrial Classification

Firms were classified into industries on the basis of their principal product or activity, as determined by information entered in Section V, Nature of Business, of the survey form. Data for firms making more than one product or engaging in more than one activity were included under the industry indicated by the principal product or activity. Industries were classified according to the 1972 edition of the *Standard Industrial Classification (SIC) Manual*.

### Sample Selection

The majority of the sample was selected using the Department of Labor's employment and earnings report which includes all employers in the state covered by Alaska's unemployment insurance program. Other sources were used to select a sample of banks, schools, agricultural firms, multi-establishment firms, and government agencies.

Industries with higher incidence rates tend to have rates which vary from year to year and were more heavily sampled than industries with lower rates. Since the number of injuries and illnesses also varies with an establishment's employment, the sample was stratified by size of firm.

## Publication Criteria

In order to protect the privacy of individual employers, the publication of some data was suppressed. Also, statistical integrity of detailed industry level information required a minimum employment criteria for publication. Individual industry (2, 3, and 4 digit SIC levels) injury and illness information was presented in this report if the following publication criteria were met:

- a) Annual average industry employment was at or near the level of 1,000 or more and,
- b) There were more than three employers in the industry in which one firm did not account for 50% or more of the industry employment or two firms did not account for 75% or more of the industry employment.

## Estimating Procedures

Occupational injury and illness data from sampled firms are used to produce industry wide information. It would be a time consuming and costly to gather data from each firm in Alaska. It is also unnecessary since a statistically valid sample is a much more cost effective means of generating reliable industry information. In a sample, surveyed firms represent their respective industries. Data obtained from the representative firms for each industry are then expanded or "blown up" to produce industry wide information.

During survey design, individual firms are selected to represent each industry. The portion of the total industry that each firm represents is called the sampling ratio. More specifically, the sampling ratio for a given firm is that portion of the total industry employment the firm represents. The reciprocal of the sampling ratio is called the weighting factor. During sample selection each sample firm is assigned a weighting factor. When data from each sampled firm in an industry are multiplied by its weighting factor, total industry estimates are produced.

Due to time constraints, the survey sample is designed and selected prior to the end of the reference period (calendar year) for which data will pertain. Because of this, industry growth or decline can occur after the time of survey sample selection. Industry estimates (weighted data) will, therefore, represent the industry at the time of sample selection and will not reflect the actual experience of the industry. To adjust for this, industry data are benchmarked against the actual average employment for the year. Benchmark factors are derived by dividing the actual average annual employment by the weighted estimated employment obtained from the sample. The benchmark factor for each industry is applied to the weighted industry data, adjusting for growth or decline in an industry which occurred after sample selection.

The occupational injury and illness information presented in many parts of this report is expressed in terms of incidence rates. The definition of incidence rate is the number of injuries and/or illnesses or lost workdays experienced by the equivalent of 100 full-time employees during one year.

Table 2-1  
 Work Injuries and Illnesses  
 By Nature of Injury or Illness  
 Alaska 1982

SOS Code	Nature of Injury or Illness	Number of Cases	Percent
	Total	10125	100.0
100	Amputation or Enucleation	44	.4
110	Asphyxia, Strangulation, Drowning Suffocation	11	.1
120	Burn (Heat)	203	2.0
130	Burn (Chemical)	60	.6
140	Concussion	55	.5
	Infective or Parasitic Disease	15	.1
150	Infective or Parasitic Disease, UNS	1	.0
154	Conjunctivitis and Ophthalmia	10	.1
157	Tuberculosis	1	.1
159	Other Infective or Parasitic Disease	3	.0
160	Contusion, Crushing, Bruise	1459	14.4
170	Cut, Laceration, Puncture	938	9.3
	Dermatitis	42	.4
180	Dermatitis, UNS	12	.1
181	Contact Dermatitis	10	.1
182	Allergic Dermatitis	10	.1
183	Primary Infections of the Skin	8	.1
184	Skin Conditions	1	.0
189	Skin Condition, not Specified	1	.0
190	Dislocation	110	1.1
200	Electric Shock, Electrocutation	5	.0
210	Fracture	755	7.5
220	Effects of Exposure to Low Temp	25	.3
230	Hearing Loss, or Impairment	13	.1
250	Hernia, Rupture	164	1.6
260	Inflammation or Irritation of Joints, Tendons, or Muscles	166	1.6
	Poisoning, Systemic	75	.7
270	Poisoning, Systemic, UNS	7	.1
271	Due to Toxic Materials	48	.5
273	Upper Respiratory Conditions	3	.0
274	Influenza, Pneumonia, Etc.	14	.1
276	Other Diseases of the Gastrointestinal Tract	3	.0
	Radiation Effects	35	.3
290	Radiation Effects Uns.	1	.0
291	Non-Ionizing Radiation	4	.0
295	Welders Flash	30	.3
300	Scratches, Abrasions	290	2.9
310	Sprains, Strains	4677	46.2
320	Hemorrhoids	5	.1
330	Hepatitis (Serum and Infective)	17	.2
400	Multiple Injuries	655	6.5
500	Effects of Change in Atmospheric Pressure	6	.1
510	Cerebrovascular and Other Conditions of the Circulatory System	5	.0
530	Eye, Other Diseases of the Eye	4	.1
540	Mental Disorders	13	.1
	Nervous System, Conditions of	7	.1
560	Nervous System, Conditions of, Uns.	5	.0
562	Diseases of the Nerves and Peripheral Ganglia	2	.0
	Respiratory System, Conditions of	10	.1
570	Respiratory System, Conditions of, UNS	4	.0
571	Upper Respiratory	3	.0
572	Influenza, Pneumonia, Bronchitis, Asthma	9	.2
* 580	Symptoms and Ill-Defined Conditions	45	.4
900	No Injury or Illness	2	.0
950	Damage to Prosthetic Devices	10	.1
991	Heart Conditions (Includes Heart Attack)	41	.4
995	Other Injury, Nec	12	.1
999	Nonclassifiable	116	1.1

NOTE: Uns = Unspecified, Information not available to classify at a more detailed level.

Nec = Not elsewhere classified.

NOTE: Data includes only those reported cases which occurred during 1982 involving death or one or more lost workdays beyond the day of injury.

SOURCE: Alaska SOS Table IUI.

Table 2-3  
Work Injuries and Illnesses  
by Source of Injury or Illness  
Alaska 1982

SUS Code	Source of Injury or Illness	Number of Cases	Percent
	Total	10125	100.0
	Air Pressure	8	.1
U100	Air Pressure, Uns.	2	.0
U120	Low Pressure	6	.1
	Animals, Insects, Etc.	19	.2
0200	Animals, Insects, Etc. Uns	1	0
0201	Animals	15	.1
0250	Insects	3	.0
	Animal Products	2	.0
0320	Fur, Hair, Etc.	1	.0
0330	Hides, Leather	1	.0
0400	Bodily Motion	683	6.7
	Boilers, Pressure Vessels	81	.8
0501	Boilers	5	.0
0510	Pressurized Containers	38	.4
0530	Pressure Lines	35	.3
0599	Pressure Vessels, Nec	3	.0
	Boxes, Barrels, Containers	1103	10.9
0600	Boxes, Barrels, Containers, Uns	5	.0
0601	Barrels, Kegs, Drums	66	.7
0630	Boxes, Crates, Cartons	493	4.9
0650	Bottles, Jugs, Flasks	11	.1
0660	Bundles, Bales	25	.2
0665	Keels, Rolls	46	.5
0670	Tanks, Bins	24	.2
0699	Containers, Nec	433	4.3
	Buildings and Structures	309	3.1
0700	Buildings and Structures, Uns	2	.0
0701	Buildings	9	.1
0705	Doors, Gates	138	1.4
0708	Windows	15	.1
0730	Grandstands, Stadia	2	.0
0740	Scaffolds, Staging	26	.3
0750	Towers, Poles	18	.2
0755	Walls, Fences	55	.5
0760	Wharfs, Docks	2	.0
0799	Buildings and Structures, Nec	42	.4
	Ceramic Items	4	.0
0801	Brick	2	.0
0810	China	1	.0
0899	Ceramic Items, Nec.	1	.0
	Chemicals, Chemical Compounds	91	.9
0900	Chemicals, Chemical Compounds, Uns	16	.2
0901	Acids	8	.1
0910	Alkalies	16	.2
0915	Aromatic Compounds	1	.0
0930	Carbon Dioxide	1	.0
0935	Carbon Monoxide	7	.1
0950	Halogenated Compounds, Nec	5	.0
0955	Metallic Compounds, Nec	2	.0
0960	Oxides of Nitrogen	2	.0
0965	Paint	5	.0
0999	Chemicals and Compounds, Nec	28	.3
	Clothing	18	.2
1000	Clothing, Uns.	1	.0
1001	Boots, Shoes	8	.1
1010	Gloves	1	.0
1030	Outer Coats	1	.0
1050	Suits, Dresses, Etc.	1	.0
1070	Underwear	1	.0
1099	Apparel, Nec.	5	.0
	Coal and Petroleum Products	33	.3
1100	Coal and Petroleum Products, Uns	1	.0
1120	Crude, Fuel Oil	4	.0
1130	Gasoline, Liquid Hydrocarbon Compounds	1	.0
1140	Hydrocarbon Gas	3	.0
1160	Lubricating Oils, Greases	6	.1
1180	Naptha Solvents	1	.0
1190	Petroleum Asphalts	12	.1
1199	Coal and Petroleum Products, Nec	5	.0