

Approved _____

Date

3/25/88

MINUTES OF THE SENATE COMMITTEE ON FEDERAL AND STATE AFFAIRS

The meeting was called to order by SENATOR EDWARD F. REILLY, JR. at
Chairperson

11:00 a.m. ~~XXXX~~ on March 22, 1988 in room 254-E of the Capitol.

All members were present except:

Senator Anderson was excused.

Committee staff present:

Mary Galligan, Legislative Research
Mary Torrence, Assistant Revisor of Statutes
June Windscheffel, Committee Secretary

Conferees appearing before the committee:

Senator Wint Winter
Mr. Jimmy Grenz, Executive Director, Kansas Racing Commission

Senator Wint Winter was welcomed by the Chairman. The Senator appeared to request introduction of two bills. The first was 7 RS 2618, relating to employment providing for unpaid leave of absence for certain employees who are new parents; and the second request was 7 RS 2742 concerning emission standards for nuclear generating facilities; prescribing duties for the secretary of health and environment relating thereto. (Attachment #1 and Attachment #2) The Chairman said the Committee will take these matters under advisement.

The Chairman directed the Committee to continue on with the balloon version of Substitute for HB2707, which was before the Committee. Senator Bond moved a conceptual amendment be drafted to permit liquor stores in the common areas of hotels. The motion was seconded by Senator Martin. The motion carried.

Senator Daniels moved on p. 2 (e), that this section shall not apply to a person under the age of 16 years. The motion was seconded by Senator Martin. Senator Vidricksen made a motion to amend the bill that any person under the legal age is permitted to consume whatever beverage if furnished by the parents or legal guardian and supervised by the parents or legal guardian on private property. Senator Daniels and Senator Martin agreed to the amendment. The motion carried.

Senator Bond moved the bill as amended be reported out favorably. The motion was seconded by Senator Vidricksen. The motion carried.

The next item on the agenda was HB2772, concerning parimutuel racing; drug testing, licenses, dual facilities. Senator Strick moved a proposed balloon amendment of the bill. The Executive Director of the Kansas Racing Commission, Mr. Jimmy Grenz, was present and was asked about the proposed amendment. Senator Strick withdrew his motion. (Attachment #3)

Senator Bond moved on p. 11, line 415, and p. 16, line 586, to strike 2% and replace it with 5%. This applies to those who apply for dual tracks. The motion was seconded by Senator Morris. The motion carried. Senator Bond stated he had a letter from Director Grenz that the Racing Commission endorses the 5%, so in response to their letter he would make the motion.

Mr. Grenz responded to Committee questions regarding the calculation of 20% racing days to be allocated to horses at a dual track.

The meeting was adjourned at noon.

Jim Winter

To: Ind & State Affs.

Under
Advisement

7 RS 2618

3/22/88

PROPOSED BILL NO. _____

By

AN ACT relating to employment; providing for unpaid leaves of absence for certain employees who are new parents.

Be it enacted by the Legislature of the State of Kansas:

Section 1. As used in this act:

(a) "Employee" means a person who performs services for hire for an employer, for an average of 20 or more hours per week and includes all individuals employed at any site owned or operated by an employer. Employee does not include an independent contractor.

(b) "Employer" means a person or entity that: (1) Before July 1, 1990, employs 50 or more employees on at least one site; and, on and after July 1, 1990, employs 25 or more employees on at least one site. Employer includes an individual, corporation, partnership, association or governmental entity.

Sec. 2. (a) An employer must grant an unpaid leave of absence to an employee in conjunction with the birth of a child of the employee, or the adoption of a child by the employee, if the employee has been employed by the employer for 12 or more months. The length of the leave shall be determined by the employee but may not exceed 10 weeks unless agreed to by the employer.

(b) The leave provided for by this act shall begin at a time requested by the employee. The employer may adopt reasonable policies governing the timing of requests for such leave. The leave may begin not more than six weeks after the birth or adoption.

(c) An employer shall not retaliate against an employee for requesting or obtaining a leave of absence provided for by this section.

Senate FSA
3/22/88
Attachment #1

(d) The employer shall continue to make coverage available to the employee, while on a leave of absence provided for by this act, under any group insurance policy, group health maintenance organization contract or other health care benefit plan for the employee and any dependents of the employee. Nothing in this section shall require the employer to pay the costs of such coverage while the employee is on leave of absence and the employer may charge the employee a fee to recover the administrative costs of making such coverage available, which fee shall not exceed 2% of the costs of such coverage.

Sec. 3. (a) An employee returning from a leave of absence provided for by this act shall be entitled to return to employment in the employee's former position or in a position of comparable duties, number of hours and pay. An employee returning from such a leave of absence of longer than one month must notify a supervisor at least two weeks prior to return from leave. If, during the leave, the employer experiences a layoff and the employee would have lost a position had the employee not been on leave, pursuant to the good faith operation of a bona fide layoff and recall system, including a system under a collective bargaining agreement, the employee is not entitled to reinstatement in the former or comparable position. In such circumstances, the employee retains all rights under the layoff and recall system, including a system under a collective bargaining agreement, as if the employee had not taken the leave.

(b) An employee returning from a leave of absence provided for by this act shall return to work at the same rate of pay the employee had been receiving when the leave commenced, plus any automatic adjustments in the employee's pay scale that occurred during the leave period. The employee returning from such leave shall retain all accrued preleave seniority and benefits of employment and seniority as if there had been no interruption in service and nothing in this act prevents the accrual of benefits or seniority during such leave pursuant to a collective bargaining or other agreement between the employer and employees.

(c) An employee, by agreement with the employer, may return to work parttime during the leave period provided for by this act without forfeiting the right to return to employment at the end of such period as provided in this act.

Sec. 4. (a) The length of leave provided for by this act may be reduced by any period of paid parental, disability or sick leave provided by the employer, so that the total leave does not exceed 10 weeks, unless agreed to by the employer, but nothing in this act shall authorize an employer to replace paid parental, disability or sick leave provided by the employer with the unpaid leave provided for by this act.

(b) Nothing in this act prevents any employer from providing parental leave benefits in addition to those provided for in this act or otherwise affects an employee's rights with respect to any other employment benefit.

Sec. 5. In addition to any remedies otherwise provided by law, any person injured by a violation of this act may bring a civil action to:

(a) Recover any and all damages recoverable at law, together with costs and expenses, including reasonable attorney fees;

(b) recover a civil penalty of not more than \$2,000 for each violation, which penalty shall be paid to the state treasurer, who shall deposit the entire amount in the state treasury and credit it to the state general fund; and

(c) receive injunctive and other equitable relief as determined by the court.

Sec. 6. This act shall take effect and be in force from and after its publication in the statute book.

SENATE BILL NO. _____

By Committee on Federal and State Affairs

AN ACT concerning emission standards for nuclear generating facilities; prescribing duties for the secretary of health and environment relating thereto.

Be it enacted by the Legislature of the State of Kansas:

Section 1. In order to protect human health and safety and, to the greatest degree practicable, prevent injury thereto, the secretary of health and environment shall adopt rules and regulations prescribing maximum practicable permissible emission standards for radioactive gasses and other pollutants produced by the operation of nuclear powered generation facilities, and establishing time frames for compliance with such standards, which shall provide for total compliance with such standards within five years after the effective date of this act.

Sec. 2. The secretary of health and environment, to the fullest extent possible, shall cooperate with the national institute of health in its studies regarding the health consequences of the operation of nuclear powered generation facilities in this state. In addition, the secretary shall conduct similar studies regarding the health consequences of the operation of nuclear powered generation facilities for the following counties: Allen, Anderson, Douglas, Franklin, Greenwood, Lyon, Osage, Shawnee and Woodson.

Sec. 3. This act shall take effect and be in force from and after its publication in the statute book.

Senate FSA

3/22/88

Attachment #2

STATE OF KANSAS



TOPEKA

SENATE CHAMBER

March 17, 1988

COMMITTEE ASSIGNMENTS
CHAIRMAN: ECONOMIC DEVELOPMENT
MEMBER: WAYS AND MEANS
JUDICIARY
LOCAL GOVERNMENT
GOVERNMENTAL ORGANIZATION
JOINT COMMITTEE ON STATE
BUILDING CONSTRUCTION
JOINT COMMITTEE ON SPECIAL
CLAIMS AGAINST THE STATE

WINT WINTER, JR.
SENATOR, SECOND DISTRICT
DOUGLAS COUNTY
737 INDIANA
BOX 1200
LAWRENCE, KANSAS 66044
(913) 843-0811

STATE CAPITOL, ROOM 120-S
TOPEKA, KS 66612-1594
(913) 296-7364

LEGISLATIVE HOTLINE:
1-800-432-3924

Statement to the Senate Committee on Federal and State Affairs

Mr. Chairman, members of the Committee. I've been concerned for some time about the Wolf Creek Power Plant and its effect on public health. In recent months, it's become apparent Wolf Creek poses some very serious health questions for Kansas. (Attachments A & B) In reviewing the situation, I found that Wolf Creek routinely vents radioactive waste into the atmosphere more than three hours a day. Many of the plant's radioactive emissions remain hazardous to people for decades and even longer.

In the last year, authorities in Europe and the United States have become increasingly concerned about public health consequences of the routine operation of nuclear power plants. One recent study indicates an additional 9,000 people in the United States die each year from nuclear plant pollution. Studies also have identified leukemia clusters associated with the Pilgrim nuclear plant in Massachusetts and several plants in the United Kingdom. (Attachment C) Last year, the National Governor's Association's (NGA) Energy Committee approved a Resolution calling for increased state authority over nuclear power issues.

These facts led the National Institute of Health to embark on a joint study of the problem with Swedish health authorities. You may recall a NIH letter concerning the study that Senator Kennedy recently released. In Britain, authorities have recommended reducing public exposure limits by 50 percent. In other words, authorities believe current "allowable limits" for radiation may be much too high. (Attachment D)

There is no doubt that exposure to radioactive gasses leads to increased cancer. The Nuclear Regulatory Commission (NRC) says that exposure to even low levels of radiation increases incidence of leukemia, cancer, thyroid disorders and genetic defects. In their environmental statement, Wolf Creek owners recognize the problem.

Continued ...

3/22/88
Attachment # 2A

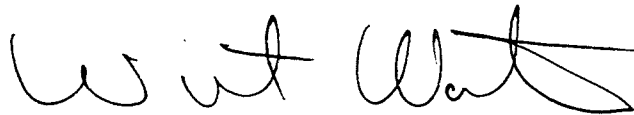
Over the life of Wolf Creek, the plant operators expect the same number of Kansans to die from routine emissions as would die following a major accident. (Attachment E) I would point out Wolf Creek's projections are based on radiation data now being sharply revised. (Attachment F)

The proposed bill addresses this situation very responsibly by requiring the Department of Health and Environment to establish regulations, under the Clean Air Act, to reduce the amount of the plant's radioactive waste going into the Kansas air. It requires that nuclear emissions be made as low as "practicable" as soon as possible, if they aren't already. The bill also requires that emissions from Wolf Creek be lowered as low as "possible" within five years.

Additionally the bill directs Kansas health authorities to participate to the fullest extent in the NIH study and initiate a Kansas study. As the NIH effort probably will be limited to Coffey County, the bill directs health authorities to start compiling and reviewing cancer death statistics for 7 counties around the plant and two counties downwind most of the time. The counties included are: Allen, Anderson, Douglas, Franklin, Greenwood, Lyon, Osage, Shawnee and Woodson.

Mr. Chairman, members of the committee, I think that these questions should be addressed without delay by the Legislature. Kansas has a serious situation on its hands, and we don't need to wait for years and years of additional studies before starting to make Wolf Creek as clean as possible.

Thank you.



Senator Wint Winter, Jr.

Cancer, nuclear plants studied

WASHINGTON (AP) — The National Institutes of Health has quietly initiated a study of cancer deaths among populations near nuclear power plants, according to a letter released Thursday by Sen. Edward M. Kennedy.

The letter, which was sent to the Massachusetts Democrat from Dr. James B. Wyngaarden, director of NIH, said that the studies were started as a result of "leukemia clusters around the Pilgrim power plant in Massachusetts and several plants in the United Kingdom."

The findings, said Wyngaarden, "have led us to initiate a large-scale evaluation of cancer deaths occurring among persons living near the over 100 reactors operating in the United States."

Don Ralbovsky, a NIH spokesman, acknowledged that the letter was sent on Jan. 28, but said Wyngaarden was out of town and others who could comment were not reachable. "We'll just have to stand on the letter," he said.

In the letter, Wyngaarden said the NIH also is collaborating in a Swedish study of 40,000 patients who have received low doses of iodine-131 for medical diagnostic reasons. Iodine-131 is described as "one of the major radioactive isotopes emitted during nuclear power plant operations and from nuclear weapons testing."

"We have also evaluated descriptive mortality data regarding possible cancer risks in the general population living downwind of the Nevada nuclear test site," the letter said. "While many reported associations are unsupported by these data, a small increase in leukemia in southwest Utah cannot be ruled out at this time."

Wyngaarden said results are expected within a year from both the Swedish study and the Utah study.

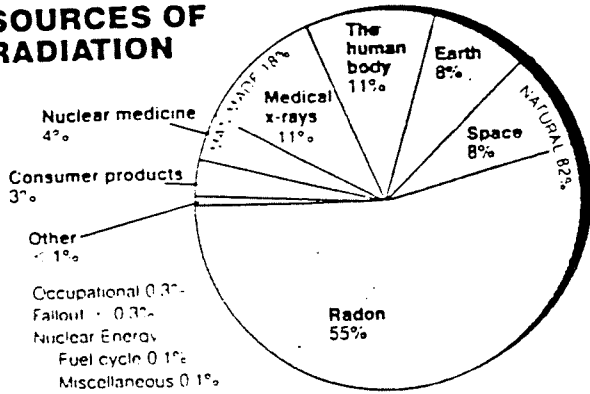
The letter said that the NIH also has "confirmed that leukemia was increased above expectation" among military personnel who participated in at least one nuclear weapon test series.

Wyngaarden said that the most serious impact on health of the Three Mile Island nuclear power plant accident in Pennsylvania "is mental stress to those living near the plant."

He said the March 28, 1979, accident near Middletown, Pa., exposed the 36,000 people living within five miles of the plant to an average dose of two to eight millirems, "or approximately what might be received from natural background radiation within one or two weeks."

"There is no serious possibility that this dosage would result in any deleterious effects that could be detected epidemiologically," the letter said.

SOURCES OF RADIATION



LISA REINHOLD - SHUT

Source: National Council on Radiation Protection and Measurements

'Safe' level of radiation exposure needs to be reevaluated, data show

By Peter N. Spotts
Staff writer of The Christian Science Monitor

Boston

Tighter radiation exposure limits may lie ahead, based on new estimates of the effects of atomic bombs that were dropped on Hiroshima and Nagasaki.

The revisions indicate that survivors received much lower doses of radiation than previously thought. When combined with the survivors' health records since then, the new estimates suggest that it takes less radiation to induce cancer than previously thought.

The resulting radiation risk assessments are under study by groups such as the US National Research Council's Committee on the Biological Effects of Radiation. "We're expecting a moderately large shoe to drop" when studies are completed, says Warren K. Sinclair, president of the US National Council on Radiation Protection and Measurements.

US agencies are likely to wait for the council's results - expected later this year - before deciding if the new risk estimates warrant changes in exposure standards, says Ray Cooper of the council's Board of Radiation Effects Research.

Other countries are moving more quickly. Britain's National Radiological Protection Board recommended last month that the British government reduce by 70 percent the annual maximum legal exposure level for those working with radioactive materials. It also asked that the maximum allowable exposure for the public be halved.

Mr. Cooper says that any change in standards will most likely affect people working directly with radioactive materials or processes. But he says it's possible that if a change is large enough, it could affect a broader segment of society.

zones around nuclear power plants, for example.

Studies of the 90,000 Japanese who survived the atomic bombs arouse such interest because they account for about half the data scientists use to determine effects of radiation on humans, Dr. Sinclair says.

The revised dose estimates come from the US-Japanese Radiation Effects Research Foundation. It found that the Hiroshima bomb's yield was 20 percent higher than the original estimate. The Nagasaki bomb's yield fell nearly 5 percent. Housing provided about twice the shielding allowed for in previous estimates, while the body was found to be a less effective shield for its organs.

As a result of these and other changes, the dose of neutrons from the Hiroshima bomb fell to about 10 percent of its previous level, with the gamma ray dose 2 to 3.5 times higher. For Nagasaki, the neutron dose estimate fell by half; the gamma ray dose was trimmed slightly.

Mr. Cooper says several uncertainties remain as scientists sort through the implications of the new dose estimates.

One involves the relative damage done by neutrons and gamma rays. Animal tests are used to get at this problem. But questions remain on how applicable the results are to humans, he says. "Neutrons are more damaging" he says, but estimates range from 10 to 20 times more. Refining that figure will help pin down the relative risks from neutrons and gamma rays.

Another is the extent to which scientists can extrapolate the risks from high exposures to levels perhaps a million times less. "Most radiation is at pretty low levels," Cooper says. "And the data come from people who received very high doses. Only theory exists for ex-

Wider Testir For Radiation Urged in Study

Better Procedures Also Sought at Atom Plants

By MATTHEW L. WALD

A major study of the monitoring of radiation at nuclear power plants has concluded that better equipment and procedures are needed in the plants and in nearby areas to achieve safe operations and inspire public confidence.

The nationwide study said the changes were needed despite improvements since the Three Mile Island reactor accident in 1979.

The study, compiled over four years at a cost of \$800,000, will be released tomorrow by the Three Mile Island Public Health Fund, a research organization established with money from a settlement with the owner of the nuclear plant after the accident.

The study calls for some unusual steps, including requesting tissue samples from people who live near nuclear plants, both while they are alive and in autopsies, to determine if there is evidence of radioactivity. It also recommends making data from the monitoring of radiation more accessible to laymen, but it did not specify how.

Time, Temperature, Radiation

"I wouldn't rule out a bank sign showing time, temperature, humidity and radiation," said Dr. Jonathan Berger, executive secretary of the fund, who was the editor of the study.

The study concentrated on Three Mile Island Unit 1, the undamaged twin reactor that resumed operation in 1985, but it was designed to be applicable to all plants.

Most of the report, which runs 141 pages, plus references and appendices, concerned more mundane suggestions, such as improved monitoring devices in plants and better integration of the information from in-plant and off-site monitors.

"At T.M.I.-1 and other nuclear energy facilities, sampling problems and poor information coordination hinder accurate in-plant monitoring," the study said.

Change of View Is Sought

Taking a broad view of the issue, the report said, "Both regulators and utility management must change their view of the function of monitoring from the verification of regulated limits to that of a centralized data gathering and reporting safety net." The purpose would be to "continually reduce emissions, provide advance warning of operational weakness, and provide the public with accurate timely data," the report said.

The Nuclear Regulatory Commission required various improvements in radiation monitoring in areas surrounding nuclear plants after the Three Mile Island accident, in which

radioactive liquids and gases escaped through pathways that had no monitors, or through pipes whose monitors were useless because they were designed to measure far smaller quantities. The accident in March 1979 was caused by a combination of equipment failures and operator errors.

Investigators seeking to define the scope of the accident were reduced to such steps as gathering photographic film from the shelves of drugstores at Middletown, Pa., to analyze it for evidence of radiation.

"That this has to be resorted to is preposterous," said Dr. Berger.

The extent of the radiation dose to the public after the accident is still the subject of scientific dispute.

The report noted some improvements in monitoring at plants around the nation but said that one problem encountered in the Three Mile Island accident still exists: Workers might be exposed to unacceptable doses while making radiation measurements.

The study also said that care should be taken to avoid placing monitoring equipment where it would be contaminated in an accident, when it would be most needed.

The study said that its recommendations for improving in-plant monitoring would cost \$7 million to \$9 million and for monitoring in areas near nuclear plants the cost would be about \$1.5 million. Some plants already have some of the equipment recommended in the report.

'A Broad-Brush Treatment'

Douglas H. Bedell, a spokesman for General Public Utilities, which owns the Three Mile Island plant, said the company had not seen the final version of the report but that a recent draft was "a rather broad brush treatment of the intricacies of radiological monitoring and lacked close familiarity with T.M.I.'s monitoring systems, which are highly effective."

In addition, General Public Utilities provided letters taking issue with the report from two researchers hired by the fund whose work formed a major component of the study. One, David M. Walker, of the Source Technologies Corporation of Marietta, Ga., said that material he provided was "being used out of context to imply conclusions and recommendations which differ from those of the authors."

But, according to Dr. Berger, the fund's scientific advisers differed with the researchers on some points. As an example, Dr. Berger cited a pipe rupture at a nuclear plant in Virginia late last year, after the study's researchers completed their work. Dr. Berger said the rupture had persuaded the scientific advisers that plant operators could have diagnosed the problem faster if they had radiation monitoring equipment not called for by the researchers.

The report also took note of the problem of public confidence.

Copies of the report are available from the Three Mile Island Public Health Fund, 1622 Locust Street, Philadelphia, Pa., 19103. The report is free to residents of the Harrisburg, Pa., area and to educational and nonprofit institutions; the cost for others is \$15.

NY Times
1/10/88
p 10

Study reveals more cancer deaths near nuclear plants

By Larry Tye
Globe Staff

OCT 8 87

Boston Globe

People living near nuclear plants in England and Wales died more often than their countrymen from three types of cancers, according to a study published today that is fueling the debate over the safety of Pilgrim and other nuclear plants in New England.

The British study, probably the most exhaustive ever on the link between nuclear power and cancer, did not establish that radiation from the reactors caused the disease. But the authors said that is an explanation worth exploring.

Earlier this year, Massachusetts health officials reported similar elevations in cancer levels in Plymouth and four other towns near the Pilgrim plant. They are exploring several possible explanations, including radiation from Pilgrim, a nearby toxic dump and pesticides sprayed on cranberry bogs.

Concern over nuclear safety also is being fanned by a recent study at the University of New Hampshire showing that certain radioactive elements released during routine operations of New England nuclear plants probably are building up in the environment.

"This is the type of information we do want to review and see whether it's appropriate and gives us new leads," said Tito Cascieria, who is directing the Massachusetts Department of Public Health's

review of disease levels in the Plymouth area.

John Fidler, a spokesman for Pilgrim's owners, said his firm will review any new information "but we believe there is no connection between Pilgrim Station and the increase of cancer."

The British study, published in the science journal *Nature*, analyzed disease data compiled by the government census bureau for territories where at least one-third of the population lives within 10 miles of a nuclear power or defense plant. Authors compared those statistics, collected for the years 1959 to 1980, with similar data compiled for areas far from nuclear plants.

Death rates were not elevated

for lung, bone and 20 other types of cancer, the study found. "That dispels concerns raised in some quarters that living next to nuclear installations leads to all kinds of cancer," David Forman, the lead author, said in a telephone interview.

But mortality rates were higher than expected for leukemia in people under 25, and for two other types of cancer for people over 25 - Hodgkin's disease, which affects the lymph tissues, and multiple myeloma, which affects bone marrow. In some areas near nuclear plants, death rates from a common type of leukemia were twice as high as in the rest of the country.

Those findings "certainly do give us concern," although the number of people who died from cancer was small, said Forman, a researcher with the private Imperial Cancer Research Fund. While previous studies have looked at the same issues, he added, "in terms of quantity of statistics analyzed, ours wins hands down."

Unusual finding

One unusual finding was that elevated mortality levels from multiple myeloma were highest in coastal regions near nuclear plants, but dropped as one went inland and closer to the plants. Health experts in Massachusetts have suggested that radiation from Pilgrim and other plants could be trapped by coastal winds, a theory Forman said "is quite possible."

Most health experts have dismissed the idea that low levels of radiation released by nuclear plants are dangerous.

But Dr. Alice Stewart, a British researcher who spoke Tuesday at the Harvard School of Public Health, has argued for years that the health effects are far worse than described in the *Nature* study. In most cases where nuclear plants release low levels of radiation, "there is every reason to suspect health troubles," she said in an interview.

Some of the British nuclear plants studied were known to have large releases of radiation, but US reactors such as Pilgrim generally have met the Nuclear Regulatory Commission's annual emissions limits. However, Richard England, a University of New Hampshire economist, said his recent study suggests those limits cannot assure the plants are safe.

there never was another Chernobyl, there still could be a public health risk associated with normal operation of these plants.'

- Richard England, UNH

England compiled NRC reports on radioactive emissions from Pilgrim and six other reactors from 1973 to 1984. Using accepted scientific information on how long radioactive elements persist, he estimated how much of the emissions must still be in the food chain or elsewhere in the environment.

Tritium and cesium 135 have been building up steadily while other potentially dangerous radioactive materials also are accumulating, he said. Those findings suggest that "in addition to the risks of major accidents, the NRC also should be concerned about radioactive releases from routine operations of all nuclear plants," England said.

"If there never was another Chernobyl, there still could be a public health risk associated with normal operation of these plants," he added.

Meanwhile, the state Department of Public Health is tracing the backgrounds of people who had or have leukemia and other radiation-sensitive cancers in Plymouth, Duxbury, Marshfield, Kingston and Scituate, where disease levels have been higher than expected in recent years. That review should be complete next year.

Cascieria said the department also is working with the Harvard School of Public Health on a study "right at the frontier of science" to test whether radiation could be building up along the coast near Pilgrim and other plants. That theory was suggested earlier this year by Dr. Sidney Cobb of South Easton.

Boston Edison Co., Pilgrim's owner, is exploring whether to run still another study on its current and past workers to see whether they suffered elevated levels of cancers, said Fidler, the company's spokesman.

Wolf Creek Generating Station

Docket No: 50-482
Facility Operating License No: NPF-42

SEMIANNUAL RADIOLOGICAL EFFLUENT RELEASE REPORT

Report No: 5

Reporting Period: January 1, 1987 through June 30, 1987

SECTION I

Year 1987

REPORT OF RADIOACTIVE EFFLUENTS: LIQUID

	Unit	Quarter 1	Quarter 2
E. Volume of waste released	liters	2.37E+06	2.51E+06
F. Volume of dilution water used	liters	9.84E+09	1.30E+10

Page 1 of 19

5. Batch Releases

There were twenty eight (28) gaseous batch releases during the report period. The longest gaseous batch release took 10.9 hours, the shortest occurred over a fifty-five (55) minute interval. The average release took 3.1 hours with a total gaseous batch release time of 88 hours.

There were 150 liquid batch releases during the report period. The longest liquid batch release took 208 minutes while the shortest took only 41 minutes. The average release time for the liquid batch releases was 83.1 minutes. Total release time for all 150 liquid batch releases was 207.8 hours.

WOLF CREEK
FINAL ENVIRONMENTAL STATEMENT (19)

frequency, i.e., events that can reasonably be expected to occur during any year of operation, (b) infrequent accidents, i.e., events that might occur once during the lifetime of the plant, and (c) limiting faults, i.e., accidents not expected to occur but that have the potential for significant releases of radioactivity. The radiological consequences of incidents in the first category, also called anticipated operational occurrences, are discussed in Section 5.9.3. Some of the initiating events postulated in the second and third categories for the Wolf Creek Unit 1 plant are shown in Table 5.7. These events are designated design-basis accidents in that specific design and operating features as described above in Section 5.9.4.4(1) are provided to limit their potential radiological consequences. Approximate radiation doses that might be received by a person at the boundary of the plant exclusion area, which is about 1200 m (3937 ft) distant from the reactor, during the first two hours of the accident are also shown in the table. The results shown in the table reflect the expectation that engineered safety and operating features designed to mitigate the consequences of the postulated accidents would function as intended. An important implication of this expectation is that the releases considered are limited to noble gases and radioiodines and that any other radioactive materials, e.g., in particulate form, are not expected to be released. The results are also quasi-probabilistic in nature in the sense that the meteorological dispersion conditions are taken to be neither the best nor the worst for the site, but rather at an average value determined by actual site measurements. In order to contrast the results of these calculations with those using more pessimistic, or conservative, assumptions described below, the doses shown in Table 5.7 are sometimes referred to as "realistic" doses.

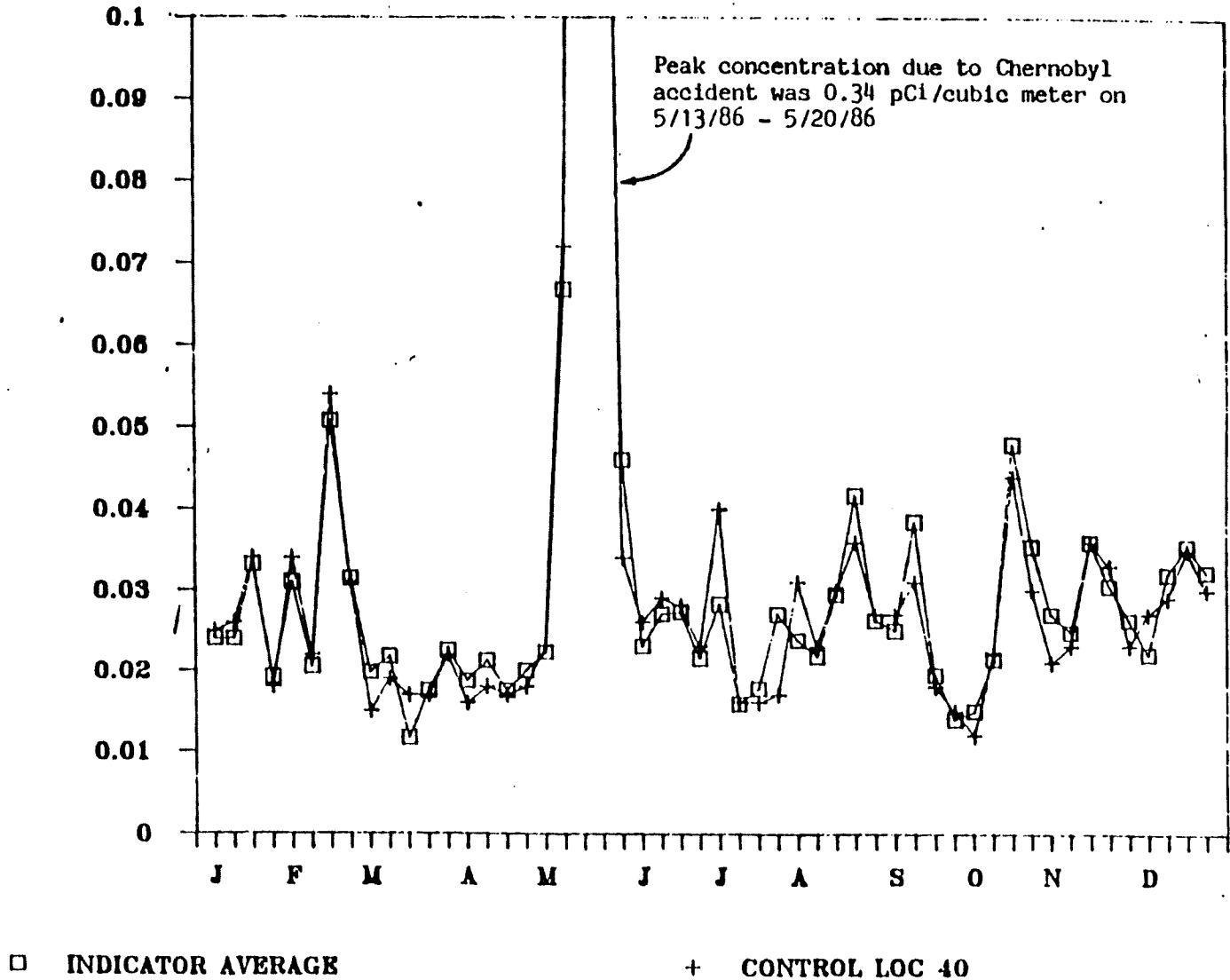
Calculated population exposures for these events range from a small fraction of a person-rem to about 6 person-rem for the population within 80 km (50 mi) of the Wolf Creek Unit 1 plant. These calculations for both individual and population exposures indicate that the risk of incurring any adverse health effects as a consequence of these events is exceedingly small. By comparison with the estimates of radiological impact for normal operations shown in Section 5.9.3, the staff also concludes that radiation exposures from design-basis accidents are roughly comparable to the exposures to individuals and the population from normal station operations over the expected lifetime of the plant.

The staff has also carried out calculations to estimate the potential upper bounds for individual exposures from the same initiating accidents in Table 5.7 for the purpose of implementing the provisions of 10 CFR Part 100, "Reactor Site Criteria." For these calculations, much more pessimistic (conservative or worst-case) assumptions are made as to the course taken by the accident and the prevailing conditions. These assumptions include much larger amounts of radioactive material released by the initiating events, additional single failures in equipment, operation of ESFs in a degraded mode,* and very poor meteorological dispersion conditions. The results of these calculations show that for these events the limiting whole-body exposures are not expected to exceed 3 rems and most would not exceed 1 rem to any individual at the site

*The containment structure, however, is assumed to prevent leakage in excess of that which can be demonstrated by testing, as provided in 10 CFR Section 100.11(a).

1986 GROSS BETA AIR CONCENTRATIONS

1986 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
 WOLF CREEK GENERATING STATION
 PCU/CU. METER
 Page 45 of 50



Senator Strick
amendment.

Senate FSA
3/22/88
Attachment #3

0120 (1) The applicant shall be a bona fide, nonprofit organization
0121 which, if applicable, meets the requirements of subsection (d);

0122 (2) the applicant shall have, either by itself or through con-
0123 tractual relationships with other persons or businesses approved
0124 by the commission, the financial capability, manpower and
0125 technical expertise, as determined by the commission, to prop-
0126 erly conduct horse races or greyhound races, or both, and, if
0127 applicable, to operate a parimutuel wagering system;

0128 (3) if the applicant is proposing to construct a racetrack facil-
0129 ity, the applicant shall submit detailed plans for the construction
0130 of such facility, including the means and source of financing such
0131 construction and operation, sufficient to convince the commis-
0132 sion that such plans are feasible;

0133 (4) submit for commission approval a written copy of each
0134 contract and agreement which the applicant proposes to enter
0135 into, including all those listed in subsection (n), which contracts
0136 and agreements shall conform to the restrictions placed thereon
0137 by subsections (n), (o) and (p);

0138 (5) the applicant shall propose to conduct races within only
0139 one county, and in such county the majority of the qualified
0140 electors have approved either: (A) The constitutional amend-
0141 ment permitting the conduct of horse and dog races and parimu-
0142 tuel wagering thereon; or (B) a proposition permitting horse and
0143 dog races and parimutuel wagering thereon within the bounda-
0144 ries of such county;

0145 (6) no director, officer, employee or agent of the applicant
0146 shall have been convicted of any of the following in any court of
0147 any state or of the United States: (A) Fixing of horse or grey-
0148 hound races; (B) illegal gambling activity; (C) illegal sale or
0149 possession of any controlled substance; (D) operation of any
0150 illegal business; (E) repeated acts of violence; or (F) any felony;
0151 and

0152 (7) no director or officer of the applicant shall be addicted to,
0153 and a user of, alcohol or a controlled substance.

0154 (d) To qualify for an organization license to conduct horse or
0155 greyhound races, a nonprofit organization, other than a county
0156 fair association, for a nonprofit organization conducting races only

, a nonprofit corporation established by a
political subdivision of the state

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Attachment #3

0157 on the state fair grounds, shall;

0158 (1) Distribute all of its net earnings from the conduct of horse
0159 greyhound races, other than that portion of the net earnings
0160 which is necessary to satisfy the debt service obligations, not
0161 otherwise deducted from net earnings, of an organization li-
0162 censee owning the racetrack facility or that portion of the net
0163 earnings which is set aside as reasonable reserves for future
0164 improvement, maintenance and repair of the racetrack facility
0165 owned by the organization licensee, only to organizations, other
0166 than itself, which: (A) Have been exempted from the payment of
0167 federal income taxes pursuant to section 501(c)(3) of the federal
0168 internal revenue code of 1986, as in effect July 1, 1987, (B) are
0169 domiciled in this state and (C) expend the moneys so distributed
0170 only within this state;

0171 (2) distribute not more than 25% of such net earnings to any
0172 one such organization in any calendar year;

0173 (3) not engage in, and have no officer, director or member
0174 who engages in, any prohibited transaction, as defined by sec-
0175 tion 503(b) of the federal internal revenue code of 1986, as in
0176 effect July 1, 1987; and

0177 (4) have no officer, director or member who is not a bona fide
0178 resident of this state.

0179 (e) Within 30 days after the date specified for filing, the
0180 commission shall examine each application for an organization
0181 license for compliance with the provisions of this act and rules
0182 and regulations of the commission. If any application does not
0183 comply with the provisions of this act or rules and regulations of
0184 the commission, the application may be rejected or the commis-
0185 sion may direct the applicant to comply with the provisions of
0186 this act or rules and regulations of the commission within a
0187 reasonable time, as determined by the commission. Denial of an
0188 organization license by the commission shall be in accordance
0189 with the Kansas administrative procedure act. Upon proof by the
0190 applicant of compliance, the commission may reconsider the
0191 application. If an application is found to be in compliance and
0192 the commission finds that the issuance of the license would be
0193 in the best interests of horse and greyhound racing within

(d) To qualify for an organization license to conduct horse or greyhound races, a nonprofit corporation established by a political subdivision shall:

(1) Use all of its net earnings for governmental purposes;

(2) not engage in, and have no officer, director or member who engages in, any prohibited transaction, as defined by section 503(b) of the federal internal revenue code of 1986, as in effect July 1, 1987; and

(3) have no officer, director or member who is not a bona fide resident of this state.

reletter remaining subsections accordingly