ALASKA LEGISLATURE COMMITTEE FILES 1987-1988 8672
4581 HHES HCR 4 - HJR 35

Probation officers are clearly the front line offense to fighting juvenile crime. They initiate intervention services, and they are the key to all levels of intervention efforts. In order to use Youth Services resources most efficiently, there must be a high level of community based probation services to protect the public.

There is serious concern that in reverting back to 1980 levels of service to deal with 1986 caseloads, juvenile crime will start to rise and reverse the downward trend of the last 5 years. It is believed that the reduction in juvenile crime during this period has been largely attributable to increased and improved youth probation services. With reduced levels of services, intervention will not occur with the degree of certainty or timeliness which is essential to effectiveness. Many youth will either slip through the cracks or reoffend before action can be taken.

The average statewide caseload is currently 72% above the nationally recognized standard. Inability to provide adequate probation services will ultimately result in increasing pressures on the already overcrowded youth facilities. This will create additional costs to the public in the form of increased enforcement, increased court processing, and ultimately greater numbers of persons entering the adult prison system.

The second impact of resource reductions is on the youth facilities. As noted, as late as six years ago, there was a single facility to meet all statewide needs. The system growth of 38 beds has somewhat addressed this deficit in services. However, the current need for detention and treatment beds still far exceeds the existing capacity. This has resulted in ongoing court oversight of conditions in the McLaughlin Youth Center, and grand jury investigation of

conditions at the Fairbanks Youth Facility. There is imminent potential for class action litigation similar to the Cleary Prisoner Rights suit in the adult corrections system.

In order to address this serious deficit, the division developed a comprehensive plan which calls for the regionalization of treatment services. As part of this plan the 20 bed Bethel Youth Facility was constructed as was a 20 bed expansion to the Fairbanks Youth Facility. Both of these projects were originally funded this year for seven months only. The funding for Bethel was for the detention component only -- as funds for the treatment program were not included. However, budget cuts necessitated not opening Bethel at all. Current year budget reductions have also resulted in the Nome Facility being reduced to detention services only. Increased costs largely associated with overcrowding have greatly limited our ability to operate within the reduced appropriations for McLaughlin and Fairbanks.

The Governor's FY 88 budget fully funds the Fairbanks Youth Facility -- both the existing operation and the new wing. It also partially restores funds for McLaughlin which were deleted this year. Funding is not included for Bethel or Nome Treatment program. It is our expectation that there will continue to be court oversight because of the overcrowding problem. Court intervention could result in expensive remedies, as could class action litigation.

An addition concern is that services in rural areas will be minimal, and rural youth will be underserved. In some areas, particularly the Western Region, youth will continue to be detained in adult lock ups and jails without statutorily required sight or sound separation from adult prisoners. This deficiency

oners. This deficiency will result in the state losing a quarter of a million dollars annually of Federal Juvenile Justice and Delinquency Prevention funds starting next year.

Departmental Interface

DFYS interfaces with other divisions within DHSS plus with other departments in order to provide the necessary services to parents and children.

- o A single parent may need financial assistance which could be available through a referral to the Division of Public Assistance. A family in a rural community needs periodic assistance in caring for a handicapped child. In such situations, the itinerant public health nurse and the social worker often coordinate a visitation plan to ensure support, guidance, and monitoring for the child.

- o Food stamps, alcohol abuse counseling, and medical assistance are also services which need to be utilized by many of DFYS's clients.

- o The division also works closely with schools in planning for children. A major project, the Alaska Youth Initiative, is a cooperative effort between the Division of Family and Youth Services, Mental Health, and the Department of Education to [illegible] service for those children who have serious treatment needs

We are also involved in a special project the Alaska Youth Initiative, with the Department of Education and the Division of Mental Health. The purpose of this project is to develop shared funding and coordinated services for

Alaska's most disturbed youth by establishment of the Alaskan Youth Initiative (AYI). AYI is a demonstration program to return to Alaska disturbed youth presently in out-of-state placements and to encourage both state and local level multi-agency development and funding of appropriate individualized care programs for these youth. Further out-of-state placement will be discouraged unless necessary. To accomplish this, a limited number of in-state youth who are of similar level of disturbance to those presently in out-of-state placement will be accepted into the AYI. Individualized care programs will be developed for these youth through the same procedures used in developing programs for youth who are in out-of-state placements.

There are a number of serious issues facing the division today, and I would like to briefly familiarize you with these items:

1. There is a lack of foster care resources to keep up with the demand for placements.

   As I noted earlier, the number of facilities licensed by the division has decreased in a time when people resources are essential -- because they provide the least restrictive setting for a child who much to located somewhere other than his/her own home. The division is presently unable to provide either the quantity or quality of training and support necessary for foster parents to work as part of the treatment team in assisting a child to work through the abuse and/or neglect and to develop as a positive human being.

   The child who is removed form his/her home today is quite different than the child who went into placement 10 - 15 years ago. Today's

child may have been more seriously abused or neglected, and quite often will need intensive supervision and treatment.

(Historical perspective -- foster care nationally was discussed)

Additionally, the monetary stipend to foster parents have not been consistent with the challenge a particular child might bring. Several years ago, augmented foster care was developed as an incentive for foster parents who would take delinquent children. However, the abused and neglected children from the family services section of the division are often equally difficult to care for.

Liability insurance is another serious issue.

The issue of potential property losses to foster parents has been problematic to the department' recruitment and retention efforts and clearly of concern to some foster parents. Mechanisms used by the department to reimburse foster parents for losses suffered as a result of the conduct of children placed in their care have had neither statutory basis nor dedicated funding. These mechanisms have thus been functionally unsatisfactory and, because of funding limitations, potentially insufficient to deal satisfactorily with even a single large property loss (such as destruction of a foster family home by an intentionally set fire).

Unfortunately, the cost is high. The division of Risk Management within the Department of Administration suggested that coverage of the potential property losses of the roughly one thousand licensed foster

parents would cost between $750,000 and $1 million annually. This figure is an estimate of premium costs for providing coverage to the structures of foster parent homes only. The estimate is based on an assumed average on typical home value and an average premium costs among various locations within the state. The figure does not include an estimate of the costs of providing coverage for foster parents' personal property or vehicles. Nor does the figure include estimated costs of assessing or establishing values of the property covered or updating these values on a continuing basis as new foster homes are licensed or foster parent drop out of the program. Costs of providing coverage for property "under the lawful control" of foster parents caused by children in care were not considered due to the difficultly of estimating the potential value of such property.

(Use private insurance carrier -- history.)

If we are to use this most valuable resource (foster care), then the system will have to be re-structured so that adequate support is afforded to all members of the treatment team, staff, foster parents, biological parents, and other resource providers.

2. The role of the CPS (investigator) has become more difficult as we prosecute more cases the lines have often become vague between the investigative and the treatment nature of the services we provide.

3. There is a lack of evaluation and treatment resources in the provider community for pre-school children (especially for children under 3 years of age.

4. There has been a continual rise in caseloads, and while you have heard that the Division of Family and Youth Services is understaffed, and that is true when compared to national caseload standards, additional staff is not the only answer.

More resources need to be available within the Department of Health and Social Services so that children and families who require some type of health and social service assistance, but are not an identified part of the population DFYS is mandated to serve, will be provided assistance through other resources.

For a number of children and families, where there is no abuse and neglect, DFYS is still the only resource: an example may be parents who need treatment resources for their child and do not have the ability to pay for these resources.

5. There are generally insufficient treatment resources to handle the volume of referrals. In a time when we are facing a lessening of resources, it is essential that we keep in mind the continuum of services that a child and family may need in order to make the changes that are necessary.

6. Out-of-state institutional placements are still necessary for a small number of Alaska children, for whom sufficient resources to meet their needs do not exist in Alaska. Outside placement present a number of problems: expense -- coordination with the child's family -- and adequate monitoring of the outside facilities is difficult with reduced resources.

7. Juvenile waiver for juveniles continues to be an issue. With regard to the waiver, there continues to be concern when a juvenile is waived to adult status, as to where he or she serves their time/in an adult or juvenile facility . . .

8. I C W A: Requirements and need to implement it is good social work.

9. Runaway Youth: their numbers continue to increase and the ability of the system to respond to their needs and to those of their parents in inadequate. As noted in a recent task force report on runaway youth, the present runaway problem did not develop overnight. It is in many ways a product of an evolutionary process in the juvenile justice system.

In Anchorage alone, it is estimated that at least 6,000 youth are significantly at risk of becoming runaway, castaway, or homeless youth each year. For the system, the consequences of not adequately addressing the problem are:

Increased numbers of runaways.
Increased family stress.
Increased child prostitution.
Increased sexually transmitted diseases in juveniles.
Increased exploitation of juveniles.
Increase in truancy and school suspensions.
Decreased ability of youth to become employed.
Increased demand for mental health, public safety, medical care, and vocational services.

For the Parent:

A growing concern about the whereabouts and safety of their child.

What has worked in other states ??? In many areas, the availability of safe shelters where children could seek counseling in a safe environment has been successful.

At this point, the Division of Family and Youth Services does not have the detention capacity to implement short term detention sentences for youth who commit minor offenses. This would be particularly problematic outside of major population centers where no juvenile detention facilities exist and juveniles are detained in adult jails, some of which do not provide sight and sound separation of juveniles from adult prisoners as required by law.

HCR

20

HOUSE COMMITTEE REPORT

(7)

Date referred: 4/10/87 FURTHER REFERRALS: Finance

DATE: 4/27/87

The Health, Education and Social Services Committee has considered HCR 20

Relating to an Interim Commission on the Status of Health Care and the Health Care Industry in Alaska.

RECOMMENDS:

[ ] replace with ______________ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[✓] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the ______________ Committee

ADOPTS: [ ] __________letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[ ] zero fiscal note

[✓] zero with analysis

[ ] same as previous fiscal note published ______________

[ ] same as previous zero fiscal note published ______________

SIGNING DO PASS:

[signatures]

SIGNING OTHER RECOMMENDATIONS:

[signature] No Rec

[signature]

Bruce Hanley No Rec

[signature] No Rec

[signature]

Chairman's signature

HCR 20 Relating to an Interim Commission on the Status of Health Care and the Health Care Industry in Alaska.

FILE CONTENTS

1) Copy of HCR 20

2) Letter, 4/21/87, Governor Cowper to Mark Boyer

Letter, 4/22/87, Health Association of Alaska to Reps. Koponen and Ellis

Amendments proposed by Health Association of Alaska

3) Position paper, Department of Health and Social Services

4) Zero fiscal note, DHSS, 4/23/87

5) House HESS Minutes, 4/24/87

6) House HESS Minutes, 4/27/87

STEVE COWPER
GOVERNOR

APR 21 1987

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 21, 1987

The Honorable Mark Boyer
House of Representatives
P.O. Box V
Juneau, AK 99811

Dear Representative Boyer:

I am pleased that you have taken the lead on this administration's commitment to review the status and cost of health care in Alaska. It is clear that the cost of medical care is colliding with a shrinking state budget and the downturn in Alaska's economy. The commission proposed by your resolution will take us in the right direction.

The expense of health care in Alaska, including so-called ancillary services, jumped more than 15 percent between 1984 and 1986. The cost of medical care here has been increasing at a rate 10 percent above inflation, while the price tag for acute care and residence in longterm facilities has grown even faster.

Costs have climbed at the same time many more Alaskans need the state's help in meeting medical bills. When people lose their jobs in a flagging economy, one of the most serious problems for families is the loss of health insurance. The state's medically indigent caseload expanded by nearly 15 percent between 1984 and 1986. And demand is growing. Meanwhile, the state's resources to assist those in need are limited. The general relief medical program, only available to Alaskans with the most meager incomes, was reduced by 40 percent last year and funding for the catastrophic illness assistance program was eliminated.

The issue is not just the price of health care, but how to balance cost with access. Alaskan's small population, spread amongst tiny, remote towns makes access to health care complicated and expensive. Health care providers must be able to operate in the black. If they cannot recover their costs, then a facility may be forced to close, thus reducing health care opportunities.

Considering these facts, it makes a lot of sense to review all aspects of Alaska's health care picture and place it in perspective. We need to find out why medical attention in Alaska costs what it does, and what we can do about it. At the same time, we need to make sure that the health care industry is in good enough condition to provide the level of care we feel is basic. We need to make sure that all Alaskans have access to fundamental health care.

Sincerely,

Steve Cowper
Governor

health
association
of alaska

319 Seward St., Juneau, Alaska 99801 • (907) 586-1790
REPRESENTING ACUTE, LONG TERM AND OUTPATIENT FACILITIES

April 22, 1987

The Honorable Niilo Koponen
The Honorable Johnny Ellis
Alaska House of Representatives
Box V
Juneau, AK 99811

RE: HCR 20

Dear Representatives Koponen and Ellis:

The Health Association of Alaska supports the concept of HCR20, but seeks to amend some of its provisions. Specifically, we maintain that the bill directs a commission to do something which may be mutually exclusive, e.g., to reduce the cost of health while increasing the effectiveness of healthcare delivery systems. Secondly we would like to see the membership of the proposed commission clearly designed to include health care professionals as well as members of the legislature, state government and the general public. Enclosed is a copy of our amendments.

I have discussed our proposal with the sponsor, Representative Mark Boyer, and the measure's proponent, DHSS Commissioner Myra Munson. Mr. Boyer has agreed to consider our position, but I have not had an opportunity to visit with him since our last meeting of April 16. Commissioner Munson agrees with our position with respect to the charge to the commission (amendment numbers one (1) and four (4), but does not concur in our proposal to name three (3) positions among the eleven (11) member commission.

We consider our requests to be very reasonable and hope that you and members of your committee will agree. We look forward to testifying on Friday, April 24. If you have any questions prior to that time, please let me know. Thank you.

Sincerely,

Dale C. Shirk
Executive Director

cc: Respresentative Mark Boyer
House HESS Committee Members

health
association
of alaska

319 Seward St., Juneau, Alaska 99801 • (907) 586-1790
REPRESENTING ACUTE, LONG TERM AND OUTPATIENT FACILITIES

Proposed amendments to HCR 20

1. Change page 2, lines 11 and 12 to read:

health care and medical costs, and to make recommendations regarding [for legislation or regulations necessary to reduce] the cost of health care and [to increase]

2. Change page 2, line 19 to read:

and three [six] members of the public knowledgeable in or experienced with the

3. Change page 2, line 20 to read:

provision of health care services in the state, and three individuals who are actively engaged in the provision of health care in the private sector who shall be one licensed physician, one hospital administrator and one nursing home administrator, to constitute the interim

4. Change page 2, line 25 to read:

its findings and recommendations [proposals for legislation or regulations] to the Governor

POSITION PAPER

HCR 20

"Relating to an Interim Commission on the Status of Health Care and the Health Care Industry in Alaska."

I. Purpose of HCR 20:

HCR 20 requests the Governor to appoint an eleven member commission to comprehensively examine health care in Alaska, including issues relating to cost containment, accessibility and quality of care, with particular focus on the indigent. The commission, to be comprised of the commissioner of the Department of Health and Social Services, Legislators and members of the public, is charged with submitting a report of their findings and recommendations to the Legislature and the Governor by January 15, 1988.

II. Discussion:

During this period of economic crisis for the state, it is crucial that there be an analysis of existing health care expenditures so that policy decisions can be made balancing cost factors with access to care.

Health care costs in Alaska have traditionally been significantly higher than the costs of comparable services in the nation. In addition, while health care costs nationally have decreased in growth rate in recent years, Alaska has not experienced a similar reduction. The cost of medical care in Alaska has grown at a rate 10 per cent above inflation, with the costs for acute and long term care showing an even greater increase. While it is essential that the health care industry remain vital in order to provide access to health care for all Alaskans, the state must insure judicious spending patterns in a declining economy.

Acceptable levels of access to health care must also be defined, with particular concern for rural areas and the indigent population. In the past year, the Catastrophic Illness Assistance Program was eliminated and the General Relief Medical Assistance Program was reduced by 42%. In a period when a majority of states are exploring options for providing indigent care, reducing uncompensated care and providing health insurance options for the uninsured, Alaska is in the reverse position of eliminating long standing programs with a history of improving the health status of Alaskans.

III. Recommendation:

The Department regards the purpose of HCR 20 as exceptionally beneficial to Alaska. A study of this nature is beyond the scope and resources of the Department, and the types of policy recommendations called for in the resolution are more appropriately made at the Legislative level.

POSITION PAPER/Department of Health & Social Services

The Department endorses and strongly recommends passage of HCR 20.

Recommended by: Kim Busch
Kim Busch, Acting Director
Division of Medical Assistance

Date: 4/23/87

Approved by: Myra M. Munson
Myra M. Munson, Commissioner
Department of Health and
Social Services

Date: 4-23-87

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST: HCR 20

Bill Version : HCR 20
Publish Date :

Revision Date:
Title : Relating to an Interim Commission on the status of Health Care in Alaska
Sponsor : Boyer, Davidson, Frank & Kononen
Requestor :

Agency Affected : Health & Social Services
BRU : Medical Assistance Administration
Components : Central Administration

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		0	0	0	0	0
CAPITAL		0	0	0	0	0
REVENUE		0	0	0	0	0

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL		0	0	0	0	0

POSITIONS:

FULL-TIME		0	0	0	0	0
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Please see attached.

Prepared by : Randall P. Burns
Phone : 465-3030
Division : Office of the Commissioner
Date : 4/23/87

Approved by Commissioner : Myra M. Munson
Date : 4/23/87
Agency : Department of Health & Social Services

Distribution (by preparer):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

The department expects that the cost of the Commission will total approximately $115,000. The proposed House Budget includes funds to cover these costs.

Medical Assistance Administration

$80.0 G.F.
$35.0 Gifts

The general funds will be used for three primary purposes:

a) travel for the eleven member commission (approximately $56,000 for 8 meetings) in Fairbanks, Anchorage, and Juneau;

b) specialized research to help commission members gather statewide or national data necessary to make recommendations for policy makers in this complex area; and

c) report preparation, printing and distribution of information gathered and analyzed. The recommendations made will be of value to health care professionals and public policy makers for years to come. Therefore, it is important to write, edit and professionally report the commission's activities and findings.

The department has also solicited private funds to help offset the cost of this effort to the State. Donations of up to $35,000 could be received for this effort. These funds would be used to offset the costs for meeting space, travel for commission members and report preparation. If any or all of these funds become a reality, previously budgeted general funds will be reprogrammed to beef up specialized research efforts.

HCR 20

AMENDMENT

Page 2, line 11:

Delete the word "for"

and insert "regarding"

Page 2, line 12:

Delete the word "to"

STATE OF ALASKA
THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

HHESS	4-24-87	8:30 a.m.
HHESS	4-27-87	8:30 a.m.

HCR

53

HOUSE COMMITTEE REPORT

(7)

Date referred: 3/24/88 FURTHER REFERRALS: Finance

DATE: April 19, 1988

The Health, Education and Social Services Committee has considered HCR 53

Relating to the implementation of local hire through improved cooperation between employers and schools.

RECOMMENDS:

[ ] replace with ______________ [ ] the same title [ ] a new title

[ ] attached amendment(s)

- [X] do pass
- [ ] do not pass
- [ ] no recommendation
- [ ] individual recommendations
- [ ] additional referral to the ______________ Committee

ADOPTS: [ ] __________ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[X] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published ______________

[ ] same as previous zero fiscal note published ______________

SIGNING DO PASS:

SIGNING OTHER RECOMMENDATIONS:

No Rec

No Rec

Chairman's signature

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION : HCR 53
PUBLISH DATE : _____

FISCAL NOTE

REQUEST:

Revision Date: _____
Title : . . local hire through improved cooperation between employers & Schools
Sponsor : House Rules
Requestor : House HESS

Agency Affected : Education
BRU : Executive Administration
Components : _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL		30.0				
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		30.0				
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		30.0				
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

This represents the cost of convening the groups necessary, writing the summaries of group activities, working with education and employer representatives to arrive at solutions, and formulating specific recommendations.

Prepared by : Steve Hole
Division : Commissioner's Office
Phone : 465-2800
Date : 4-14-88

Approved by Commissioner : William F. Demmert
Agency : Department of Education
Date : 4-14-88

Distribution (by preparer) :
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

1

Local Hire And Economic Development Through Improvement Of School/Business Partnerships

Present Situation

Like many other states, Alaska generally offers young people inadequate transition between school and work. Young people who attempt to go from high school to work too often fail to find jobs because they either lack training or basic employability skills.

As the National Commission on Excellence in Education put it: "More and more young people emerge from high school ready neither for college nor for work. This predicament becomes more acute as the knowledge base continues its rapid expansion, the number of traditional jobs shrink, and new jobs demand greater sophistication and preparation."

As Kay R. Whitmore, President and Executive Officer for Eastman Kodak Company said: "The bottom line here...we need to show our troubled teenagers that there is a payoff for staying in school. That means not only improved guidance counseling and the establishment of mentoring programs...It means developing meaningful work experiences for these youngsters in close conjunction with their school curriculum."

While schools generally offer vocational programs that provide students with skills, such as welding, small engine repair and wood working, studies show that employers much prefer young workers with adequate basic skills in communications, computation, and social and interpersonal areas. In other words, employers would rather the public schools provide them with workers they can train, who can learn the job they were hired for, and who get along well with coworkers and customers. Part of the problem is that employers do not communicate their needs to public schools, and public schools do not seek the advice of employers.

Compounding this problem is a lack of coordination between public schools and the university system.

The Goal

SCR 57 creates a formal process that provides a direct line of communication between employers and schools to (1) produce a list of skills, attitudes, information and abilities that major Alaska employers believe high school graduates need to land and keep a job; (2) develop a course of actions that schools, businesses and perhaps government should take independently and collectively to assure that all students acquire these skills, attitudes, information and abilities; and (3) make recommendations on how to restructure public schools so that they provide minority, poor and other "high risk" students, with the necessary understanding and motivation to graduate from public schools with skills they need to lead a successful life.

On a broader level, SCR 57 aims to build an education system responsive to the larger economic goals of the state: a stable economy; a capable and steady Alaskan work force; workers capable of dealing with Pacific Rim clients; and a concerted statewide effort to give job preference to Alaskans specifically trained for the Alaska work force.

The Five Phase Process

A five-phase process will include the following actions:

1. The blue ribbon task force composed of chief executive officers will convene to explore new approaches to better prepare students to succeed in the work place. This meeting is designed to build CEO commitment toward the project.

2. A group of personnel managers and job supervisors of larger companies (each of whom represents a task force member) and owners of smaller companies will meet to identify the skills that Alaska high school graduates need to make them employable for Alaska's businesses. This group will (1) identify the type of work force businesses need to successfully compete in the marketplace; (2) identify ways in which public schools and higher education, in partnership with business, can accommodate the ideas developed by the task force; and (3) identify ways to break the cycle of failure of minority, poor and other high risk students, and to make them contributing members of the economy.

3. A group of educators will convene to respond to the findings from the meeting of personnel managers and assess how to restructure schools to meet the economic needs of Alaska. This could be done by a variety of methods, such as retooling curriculums.

4. Educators and employers will meet to negotiate an agreement and methods for implementation.

5. A written report of the agreement and details of employer needs and actions necessary to implement will be presented to the Legislature.

STATE OF ALASKA
THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

HHESS 4-19-88 8:30 a.m.

HCR

55

HOUSE COMMITTEE REPORT

(7)

4/13
Rules

Date referred: 4/6/88

FURTHER REFERRALS:

DATE: 4-12-88

The Health, Education and Social Services Committee has considered HCR 55

Recognizing April as National Alcohol Awareness Month.

RECOMMENDS:

[ ] replace with _____ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[X] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the _____ Committee

ADOPTS: [ ] _____ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[X] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published _____

[ ] same as previous zero fiscal note published _____

SIGNING DO PASS:

SIGNING OTHER RECOMMENDATIONS:

Co Chairman's signature

POSITION PAPER/Department of Health & Social Services

POSITION PAPER

FOR

HOUSE CONCURRENT RESOLUTION NO. 55

"Relating to recognizing April as National Alcohol Awareness Month."

The Department of Health and Social Services is pleased to support HCR55 because of the tremendous negative impact alcohol abuse and alcoholism have had on the Alaskan people. Statewide statistics which provide the numbers of alcohol related accidents, deaths, injuries, and diseases depict a health crisis of monumental proportions. They do not, however, reveal the deep personal tragedies suffered by victims of this disease and their families. One of the problems associated with alcohol abuse and alcoholism is denial that there is a problem. This can occur with the individual, the family or among a larger group within the community. HCR55 will impact alcohol abuse by increasing public awareness of alcohol related problems. It will also encourage individuals to recognize rather than deny the existence of severe alcohol problems, and will promote local support of prevention, intervention and treatment activities throughout the state.

Myra M. Munson
Commissioner April 12, 1988

Matthew C. Felix
Coordinator

STATE OF ALASKA
1988 LEGISLATIVE SESSION

BILL VERSION: HCR 55
PUBLISH DATE: _____

FISCAL NOTE

REQUEST: _____

Revision Date: _____
Title: "Relating to recognizing April as National Alcohol Awareness Mon+h."
Sponsor: Hlth., Ed., & Soc.Svcs. Committee
Requestor: N/A

Agency Affected: Health & Social Services
BRU: Alcoholism & Drug Abuse

Components: _____

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 88	FY 89	FY 90	FY 91	FY 92	FY 93
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-
CAPITAL	-0-	-0-	-0-	-0-	-0-	-0-
REVENUE	-0-	-0-	-0-	-0-	-0-	-0-

FUNDING: (Thousands of Dollars)

GENERAL FUND						
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary)

Prepared by: Matthew Felix by David Pierce — Phone: 586-6201
Division: Alcoholism and Drug Abuse — Date: 4/11/88

Approved by Commissioner: Myra M Munson — Date: 4-12-88
Agency: _____

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)

HJR

2

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907·465·3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

HHESS	2-19-87	8:30 a.m.
HHESS	2-20-87	4:30 pm.

HOUSE COMMITTEE REPORT

(7)

Date referred: 1/19/87

FURTHER REFERRALS: Judiciary
Finance

DATE: February 20, 1987

The Health, Education and Social Services Committee has considered HJR 2

Proposing amendments to the Constitution of the State of Alaska creating a university fund.

RECOMMENDS:

[ ] replace with ______________ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[ ] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the ______________ Committee

ADOPTS: [ ] __________ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[ ] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published ______________

[ ] same as previous zero fiscal note published ______________

SIGNING DO PASS:

Alyce Hanley

Niilo Koponen

SIGNING OTHER RECOMMENDATIONS:

[signature] no rec.

[signature] No Rec

[signature] No Rec

[signature] Ellis No Rec.

Niilo Koponen

Co-Chairman's signature

John Ellis

Alaska State Legislature

POUCH V
JUNEAU, ALASKA 99811
(907) 465-4931

DISTRICT 10
BOX 111038
ANCHORAGE, ALASKA 99511
(907) 349-2192

CHAIRMAN
Special Committee on
Telecommunications

MEMBER
Labor and Commerce
State Affairs
Finance—Subcommittee Administration

Representative H. A. "Red" Boucher

MEMORANDUM

February 16, 1987

TO: Representative Koponen, Co-Chairman
Representative Ellis, Co-Chairman
Health, Education and Social Services Committee

FROM: Representative Boucher

SUBJECT: Background on House Joint Resolution 2

This resolution provides the amendments to the Constitution of the State of Alaska necessary to create a university fund.

Section 1 of the resolution amends the Dedicated Funds provision, Article IX, Section 7, Constitution of the State of Alaska. That section currently prohibits the proceeds of any state tax or license to be dedicated to any special purpose except as provided in Section 15, the Alaska Permanent Fund. Section 1 of HJR 2 would also exempt the proposed University Fund (Section 17, discussed below) from the restriction of the Dedicated Funds provision.

Section 2 of the resolution amends Article IX of the Constitution of the State of Alaska to create the University Fund through the addition of a new Section 17. This section provides that at least 5% of all mineral revenues received by the state shall be placed in a university fund. The principal of that fund is to be used only for income-producing investments specifically designated by law. All income from the university fund shall be transferred to the Board of Regents of the University of Alaska to be used for the state university.

Section 3 of the resolution provides that the Constitutional amendments it proposes shall be placed before the voters at the next general election.

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST

Bill Version: HB 42/HJR 2
Publish Date:

Revision Date:
Title: Creating the University Fund

Agency Affected: Revenue
BRU:

Sponsor: Boucher
Requestor:

Components:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
OPERATING						
PERSONAL SERVICES	-	-	-	-	-	-
TRAVEL	-	-	-	-	-	-
CONTRACTUAL	-	-	-	-	-	-
SUPPLIES	-	-	-	-	-	-
EQUIPMENT	-	-	-	-	-	-
LANDS & STRUCTURES	-	-	-	-	-	-
GRANTS, CLAIMS	-	-	-	-	-	-
MISCELLANEOUS	-	-	-	-	-	-
TOTAL OPERATING	-	-	-	-	-	-
CAPITAL	-	-	-	-	-	-
REVENUE	-	-	-	-	-	-

FUNDING: (Millions of Dollars)

GENERAL FUND	-	-	(16.3)	(34.1)	(33.2)	(33.5)
UNIV. FUND PRIN. BALANCE	-	-	15.8	48.9	81.1	113.6
UNIV. FUND INCOME	-	-	.5	1.9	3.9	5.8
TOTAL	-	-	-	-	-	-

POSITIONS:

FULL-TIME	-	-	-	-	-	-
PART-TIME	-	-	-	-	-	-
TEMPORARY	-	-	-	-	-	-

ANALYSIS: Attach a separate page if necessary

See attached.

Prepared By: Robert Elliott RE
Phone: 465-2173
Division: Research/Revenue
Date: 2/13/87

Approved by Commissioner:
Date: 2/17/87
Agency:

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

Continuation of Fiscal Note Analysis

For Bill/Resolution No. HB 42/HJR 2

Analysis:

Figures are based on estimated mineral revenues for January 1987 Revenue Sources, and assume a six percent nominal interest rate and voter approval of the Constitutional Amendment. University Fund Income represents amount transferred to the Board of Regents at the end of each fiscal year. The above decrease in General Fund revenues includes not only the loss of mineral revenues but the subsequent decrease in General Fund investment earnings. Estimated revenues from proposed bonus sales were not included since bids are impossible to anticipate prior to sales.

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

Bill Version: HB 42/HJR 2
REQUEST
Publish Date:

Revision Date:
Agency Affected: Permanent Fund Corp.
Title: University Fund
BRU:

Sponsor: Rep. Boucher
Components:
Requestor:

EXPENDITURES/REVENUES: (Thousands of Dollars)

	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
OPERATING						
PERSONAL SERVICES		241.2	255.7	271.0	287.3	304.5
TRAVEL		31.0	32.9	34.8	36.9	39.1
CONTRACTUAL		192.8	204.4	216.6	229.6	243.4
SUPPLIES		3.2	3.4	3.6	3.8	4.0
EQUIPMENT	-	17.2	-	-	-	-
LANDS & STRUCTURES	-	-	-	-	-	-
GRANTS, CLAIMS	-	-	-	-	-	-
MISCELLANEOUS	-	-	-	-	-	-
TOTAL OPERATING	-	485.4	496.4	526.0	557.6	591.0
CAPITAL	-	-	-	-	-	-
REVENUE	-	-	-	-	-	-

FUNDING: (Thousands of Dollars)

GENERAL FUND	-	-	-	-	-	-
FEDERAL FUNDS	-	-	-	-	-	-
OTHER	-	-	-	-	-	-
TOTAL	-	-	-	-	-	-

POSITIONS:

FULL-TIME	-	5	-	-	-	-
PART-TIME	-	-	-	-	-	-
TEMPORARY	-	-	-	-	-	-

ANALYSIS: Attach a separate page if necessary

* According to constitutional provision Article 9, Section 15 funds cannot be comingled with Permanent Fund Assets.

Prepared By: ~~Royce Weller~~ FOR P.F.C. Phone: 465-2300
Division: Revenue/Commissioner's Office Date: 2/18/87

Approved by Commissioner: Hugh Malone Date: 2/18/87
Agency: Department of Revenue

Distribution (by Agency preparing fiscal note):
Legislative Finance
Legislative Sponsor
Requestor
Office of Management and Budget
Impacted Agency(ies)
Senate Secretary

NOTE: THIS FISCAL NOTE IS BASED ON INFORMATION SUPPLIED BY THE PERMANENT FUND CORPORATION.

Alaska State Legislature
House of Representatives
COMMITTEE ON HEALTH, EDUCATION AND SOCIAL SERVICES

GUEST SIGN IN SHEET

JOINT MEETING OF SENATE AND HOUSE HESS COMMITTEES

Date: 2/20/87 Subject of Meeting Mental Health Trust Lands, HJR 2, HB 42 (House Only)

Name	Address / Representing	Phone	Do you want to Testify?
Karen Perdue	Box H-01 DHSS	3030	NO
Dee W Rogers	179 Evergreen - Int MH Commission	586-1202	Yes
Anthony Braden	POB 7005 Anch AK 99510 DNR	762-4344	NO

HJR

24

Introduction

The Alaska State Plan for Vocational Education, Executive Summary represents a significant departure from previous state plans. This summary of the state plan includes a condensed version of the planning required by the Carl D. Perkins Vocational Education Act.

The Office of Adult and Vocational Education developed the plan using Alaskan goals for vocational education developed during a series of joint meetings conducted in FY 83 by the Alaska Vocational Education Planning Council, the Alaska State Advisory Council on Career and Vocational Education and the Alaska Department of Education. These goals, adopted by the State Board for Vocational Education, provided the impetus for the development of this plan.

The Carl D. Perkins Vocational Education Act of 1984 (Public Law 98-524) is also new. The Act creates a new focus for the federal appropriations to vocational education. The major purposes of this Act are:

1. Improving access and quality for traditionally underserved populations.

2. Expansion, improvement and modernization of programs in accordance with changing labor market needs.

3. Inservice for teachers, administrators and counselors.

4. Development of curriculum related to business and industry needs.

5. Strengthening vocational education and employment linkages.

6. Improving the effectiveness of consumer and homemaking education.

The federal purposes coincide with Alaska's overall mission to improve the quality of career and vocational education. The plan is in effect for three years, FY 86, 87, 88. While the goals, objectives and activities reflect all sources of funds, the state's program improvement activities will be supported primarily through the federal act.

From: "A New Direction: Preparing Alaskans to Revitalize Alaska's Economy"

By: Governor's Council on Vocational and Career Education.March, 1987

tutions have strong representation from the private sector. Or putting it more simply, public education would benefit by having employers—representatives from business, labor and industry—on its educational governing boards.

NOTE: If a separate system of community colleges and vocational/technical centers is created, it is imperative the Governor appoint to the governing board of the new system representatives of business, industry and labor who are knowledgeable about the integral role vocational education plays in economic development.

That the Governor encourage and the Fifteenth Alaska State Legislature support development and implementation of programs addressing the vocational needs of the incarcerated.

h has been le to equip s with the ills to seek nployment on release.

Rationale: While the State of Alaska currently spends a considerable amount of money each fiscal year to house and care for the incarcerated, not much has been done to date to equip inmates with the vocational skills to seek gainful employment upon release. The Governor's Council holds a belief that undeveloped human resources, including those of Alaska's inmates, generally lead to a greater burden on a state's social services network through expensive treatment programs, welfare assistance, aide to dependent children, medical assistance and various support programs. To decrease recidivism and dependency on Alaska's social services network the Governor's Council believes it would be in the best interest of the state to develop and implement programs to address the vocational needs of the incarcerated.

This opportunity for inmates need not be expensive or burdensome to the state.

Currently the state pays $82.50/day to house an inmate in a correctional facility. Yet it only costs $45.00 for one day's furlough keep. If the Department of Corrections would fully utilize its furlough capabilities, soon-to-be-released inmates could take advantage of already existing vocational programs and facilities to gain vocational skills allowing them to become employed upon release. Obvious advantages for the state include: decreased corrections expenditures; a good-faith effort to decrease recidivism; fewer inmates in Alaska's overcrowded correctional facilities; and elimination of unnecessary capital expenditures to build and equip vocational facilities in each correctional center.

That the Governor and the Fifteenth Alaska State Legislature encourage Alaska's Congressional Delegation to support federal funding for vocational education and job training.

Rationale: Under acceptance by the state of the Carl Perkins Vocational Education Act, Alaska receives federal funds to "expand, improve, modernize and develop quality vocational education programs that will improve productivity and promote economic growth." Among other requirements, the Act specifically requires the state to serve underserved populations (the handicapped, disadvantaged, men or women entering non-traditional occupations, single parents or homemakers, limited English speakers and criminal offenders) and assure their access to vocational education programs.

In the current fiscal year Alaska is receiving $1.7 million in vocational education dollars from the federal government. In action last session Congress allotted $2.4 million to Alaska for Fiscal Year 1988.

Just recently President Reagan and Secretary of Education Bennett transmitted to Congress a budget calling for a fifty percent rescission of FY 1988 vocational education dollars, and total elimination of federal vocational education funding for Fiscal Year 1989.

Federa educati been a progra and pl since

Federal vocational education dollars have been a catalyst for program development and planning in Alaska since 1968. In fact, the only source of revenue for program improvement and innovation of vocational education programs comes from those provided under the Carl Perkins Act.

With this background, the Governor's Council recommends the Governor and Fifteenth Alaska State Legislature encourage Alaska's Congressional Delegation to oppose the Administration's proposed rescission of vocational education funds and join in strongly supporting federal funding for vocational education and job training.

That the Governor designate and the Fifteenth Alaska State Legislature support the JTPA / Education Coordinating Committee as the State Apprenticeship/Vocational Education Steering Committee.

Rationale: Under mandate of the Carl Perkins Vocational Education Act the U.S. Secretaries of Labor and Education, in an attempt to plan for greater coordination between vocational education and apprenticeship training programs, developed and appointed the National Apprenticeship/Vocational Education Coordinating Steering Committee.

In turn, the Secretaries have called upon the Nation's Governors to establish similar committees to be responsible for promoting linkages between the vocational education and apprenticeship training in each state.

The JTPA/Education Coordinating Committee, which is approved by the Alaska State Board of Education and funded through federal

—file/political/bill file/EF
Copy Mailed

STEVE COWPER, GOVERNOR

DEPARTMENT OF EDUCATION

OFFICE OF ADULT AND VOCATIONAL EDUCATION

GOLDBELT PLACE
801 WEST 10TH STREET
P.O BOX F
JUNEAU, ALASKA 99811
PHONE: (907) 465-4685

March 27, 1987

The Honorable Mark Boyer
Alaska State Legislature
P.O. Box V
Juneau, AK 99811

Dear Representative Boyer:

We want to thank you in advance for considering a resolution in support of federal funds for vocational education.

National statistics indicate that out of 100 students entering first grade, 72 or less than three-fourths graduate from high school. Of that number 43 will enter post secondary education and training. Only 22 will graduate from a two or four year institution four and a half years after entrance. The neglected majority are those folks we feel federal vocational funds can, and do help.

Federal funds have provided the catalyst for a number of vocational programs within Alaska. We are pleased you support a need to train for building a strong economic component of our society. If we can help by providing vocational information, please let us know.

Sincerely,

Karen Ryals
for the
Office of Adult and
Vocational Education

05-E33LH

The growing need for vocational education in America

Saturday, September 13, 1986, The Anchorage Times

Training tomorrow's work force today

Opinion

by D.L. Cuddy

The much publicized document, "A Nation At Risk," raised a number questions regarding what American education should be and how we should measure its success or lack thereof. One area of education where someone can clearly see if useful knowledge and skills are being acquired is vocational education.

Why is vocational education of critical importance to our nation today? Analyses of educational statistics show that of 100 students entering first grade, 72 will graduate from high school, but only 43 will enter postsecondary education and training, and only 22 will graduate from a two or four-year institution four-and-a-half years after entrance.

In the past, many individuals considered vocational education as simply "shop," where students might learn the rudiments of carpentry or mechanics. However, the United States has passed from the agricultural, through the industrial, into a new techological age in which vocational education is becoming more sophisticated in attempting to educate a skilled workforce imperative to the nation's economic future. In an address to the Vocational-Industrial Clubs of America Skill Olympics, President Reagan said: "America has no higher stake than in the quality of your education . . . We should see that all our young people get a good grounding in English and math, literature, history, science and the other basics . . . (but) we must also recognize that our vocational classrooms are just as important as any other."

If the United States is to have an adequate supply off skilled workers in the future, increased emphasis must be placed on vocational education. The U.S. Department of Labor estimates there will be 31,000 skilled labor openings per year for machinists until 1990, but only 2,300 new workers will qualify per year. Furthermore, evidence indicates that there will be an increasing demand for word processing operators, yet most public school systems are still teaching only typing, shorthand, and hand bookkeeping as commercial subjects.

There does not have to be a choice between the educational "basics" and vocational education, because in the words of the National Council on Vocational Education, "Only students who can read write, compute, and communicate can achieve competency in modern vocational-technical programs." However, mastery of the basics in today's world should come in the elementary and middle school years, so that students who do not desire to remain in school through college can begin preparing themselves in high school, if not sooner, for the workplace.

Most individuals today are employed by small businesses, which simply do not have the resources for remedial education for new employees or for in-hour retraining of older employees, which is another important area.

What employers would most like to see are more school-to-work transition programs, such as job placement assistance, career counseling, cooperative career information activities with business, and counselling about vocational-technical program alternatives to college degree programs.

However, since knowledgeable sources have determined that approximately 80 percent of the jobs in America do not require a college education, it seems all the more evident that vocational programs should be available to all students who need and desire them.

D.L. Cuddy, Ph.D., is a senior associate with the National Council on Educational Research.

Opportunities abound for Alaskans to learn the skills needed for jobs

Opinion

by Rosie Peterson

Vocational education programs prepare people for jobs. It provides Alaskans with opportunities to not only gain economic independence and growth, but also contributes to their own well-being and that of society.

Think of America as she was building: A great nation created by carpenters, farmers, blacksmiths, railroaders, sea captains, spinners and weavers. Our best architects used the hammer; our first diplomat experimented with electricity and the printing press. Pioneers moving westward built homes and shops wherever they stopped. Then came the machinists, steelworkers, autoworkers and entrepreneurs of every stripe.

Today, the kinds of people who built this country are often both out of fashion and out of work. America has passed from the agricultural, through the industrial, into a new technological age. The new technologies and methodologies require a higher level of education than we thought necessary in the past. This educated, skilled workforce is imperative to the nation's social and economic future.

Many good things are happening in vocational education across Alaska:

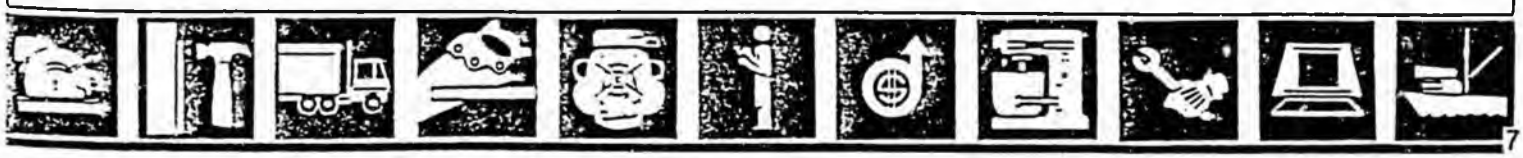
- The Alaska Voational Technical Center at Seward has placed over 80 percent of its program graduates in jobs;
- The Anchorage School District and Anchorage Community College teamed 230 employers with vocational educators which yielded major changes in course content, more efficient use of equipment and facilities, innovative staff development activities and agreements in 10 vocational program areas;
- The State Board of Education adopted regulations which call for program standards for secondary vocational education;
- The Center for Women and Men at Anchorage Community College launched the "No Limits Program" to introduce women and minorities to vocational/technical training opportunities existing in Alaska;
- The United States Congress asserted its strong support for vocational education by reauthorizing federal legislation which calls ffor stronger partnerships between training programs and business and industry;
- The Yukon-Koyukuk School District continues to support its communications/reprographics program which, since its inception in 1981, has brought over 250 rural students to Nenana for two weeks of graphics, printing and urban survival skills; and
- The Alaska State Legislature recently enacted a public school foundation program which emphasizes funding for secondary vocational education programs.

But there is more yet to be achieved:

- A stable funding formula for secondary vocational education which realizes the costs associated with vocational programs;
- Greater cooperation between secondary, postsecondary and private training programs;
- Closer cooperatoin between academic and vocational/technical education — educational reform does not require sacrificing one phase of education to emphasize another;
- Stronger links between vocational programs and the employing community;
- A statewide policy on economic development and employment and training.

The development of human resources must be a top priority as the state devises strategies to improve its economy. We are entering a new age where high technology, and new applications of technology to productdion and services will change the way we live, work and learn.

Rosie Peterson is executive director of the Governor's Council on Vocational and Career Education, a five-year member of the Juneau Board of Education and is a former Anchorage school teacher.



Legislative Brief

Guidance and Counseling Now that budget figures are beginning to emerge from Congress, it is apparent that federal vocational education funding will not be eliminated after all. Throughout the next month as the budget resolution for fiscal 1988 is being formed, it will be important to focus on obtaining funding for those programs in Title III of the Carl Perkins Vocational Education Act that have never received money.

Guidance and Counseling, Title III-D of the Perkins Act, has a $1 million authorization but has never received any of that money. In its budget testimony scheduled for April, the American Vocational Association will ask Congress to appropriate $1 million for Guidance and Counseling in fiscal year 1988 (see table on back).

VOCATIONAL EDUCATION FUNDING RECOMMENDATIONS—FISCAL YEAR 1988

	FY 1987 Appropriation	FY 1987 Administration Revised Request	FY 1988 Administration Request	FY 1988 AVA Recommendations (Current services)**
Vocational Education (Perkins Act)				
A. State Programs:				
(1) Basic Grants (Title II)	$815,190,500	$419,500,000	-0-	$856,700,000
(2) Community-based Organizations (Title III-A)	6,000,000	-0-	-0-	6,300,000
(3) Consumer & Homemaking (Title III-B)	31,633,000	-0-	-0-	33,200,000
(4) Guidance & Counseling (Title III-D)	-0-	-0-	-0-	1,000,000
(5) State Councils (Section 112)	7,500,000	7,000,000	-0-	7,900,000
B. National Programs	11,500,000		-0-	11,500,000
(1) Indian/Hawaiian Natives		6,500,000	-0-	
(2) Research (Title IV-A)		6,000,000	-0-	
(3) Demonstrations (Title IV-B)		-0-	-0-	
(4) Data Systems (Title IV-C)		3,500,000	-0-	
C. Bilingual Vocational Training (Title IV-E)	3,686,000	-0-	-0-	3,800,000
D. Permanent Appropriation (Smith-Hughes Act)	7,148,000	7,100,000	-0-	7,100,000
TOTAL.	$882,157,500	$449,600,000	-0-	$928,000,000

** Figures represent the fiscal 1907 funding level plus a 5.1 percent increase, which represents the most recent rise in the Consumer Price Index.

Published by the Council of Vocational Educators

asvca ALASKA STATE VOCATIONAL ASSN.

R E S O L U T I O N

FEDERAL VOCATIONAL EDUCATION FUNDING

WHEREAS, the Vocational Education Act of 1963 and subsequent admendments including the Carl D. Perkins Vocational Act of 1984 has provided the Stat_ of Alaska a framework for vocational education; and,

WHEREAS, the federal vocational education funds has provided leadership and financial support for vocational education programs in Alaska; and,

WHEREAS, the federal vocational education appropriations have provided the financial support of vocational education teacher inservice, counselor inservice, administrator inservice; and,

WHEREAS, the federal vocational education appropriation has provided for new program development, program improvement and program expansion in Alaska; and,

WHEREAS, the federal vocational education appropriations has provided setasides for special purposes such as equity and consumer homemaking eductaion; and,

WHEREAS, vocational education prepares youth and adults for jobs for Alaska; and,

WHEREAS, the majority of jobs available in Alaska require vocational education;

THEREFORE BE IT RESOLVED, that the Alaska State Vocational Association supports the continued receipt of federal vocational education funds.

HJR 24 - Encouraging federal funding for vocational education and job training.

Contents

HOUSE COMMITTEE REPORT

(7)

Date referred: 3/25/87 FURTHER REFERRALS:

DATE: 4/15/87

The Health, Education and Social Services Committee has considered HJR 24

Encouraging federal funding for vocational education and job training.

RECOMMENDS:

[ ] replace with ______________ [ ] the same title

[ ] attached amendment(s) [ ] a new title

[✓] do pass

[ ] do not pass

[ ] no recommendation

[ ] individual recommendations

[ ] additional referral to the ______________ Committee

ADOPTS: [ ] __________ letter of intent

ATTACHES NEW FISCAL NOTE(s):

[ ] fiscal impact

[✓] zero fiscal note

[ ] zero with analysis

[ ] same as previous fiscal note published ______________

[ ] same as previous zero fiscal note published ______________

SIGNING DO PASS:

SIGNING OTHER RECOMMENDATIONS:

Chairman's signature

STATE OF ALASKA 1987 LEGISLATIVE SESSION
FISCAL NOTE

REQUEST:

Bill Version : H.B.-24
Publish Date :

Revision Date:
Title : ...federal funding for vocational education...
Sponsor : Representative Bower, et al
Requestor : House RES

Agency Affected : Education
BRU :

Components :

EXPENDITURES/REVENUES: (Thousands of Dollars)

OPERATING	FY 87	FY 88	FY 89	FY 90	FY 91	FY 92
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING		0	0	0	0	0
CAPITAL						
REVENUE						

FUNDING: (Thousands of Dollars)

GENERAL FUND		0	0	0	0	0
FEDERAL FUNDS						
OTHER						
TOTAL						

POSITIONS:

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS : (Attach a separate page if necessary)

Prepared by : Steve Hole
Division : Commissioner's Office
Phone : 465-2800
Date : April 14, 1987

Approved by Commissioner : William G. Demmert
Agency : Education
Date : April 14, 1987

Distribution (by preparer):
- Legislative Finance
- Legislative Sponsor
- Requestor
- Office of Management and Budget
- Impacted Agency(ies)
- Senate Secretary

Official Business

COMMITTEE:
House HESS Committee

DATE: April 15, 1987

SIGN-IN

Subject of meeting:
HJR 24 - Federal funds for job training
HB 248 - Adult Basic Education
HB 204 - State Aid for School Construction
HB 249 - Refinancing of University Housing

NAME	ADDRESS	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY? & Which Bill
F. MCMULLEN	249 COLLEGE LANE, SOLDOTNA 99669	262-4587	KENAI PENIN. BOROUGH	—
ROSIE PETERSON	205 N. FRANKLIN #2	6-1736	GOV. COUNCIL	HJR 24
Armand Lequin	8204 Birch Lane	9-1958	AK State Vo Ass	HJR 24
Bruce Johnson	10014 CRAZY HORSE JUNEAU	6-2303	JUNEAU SCHOOLS	HJR 24
Jolene Henderson	218 Front St. Juneau, AK	586-6806	Adult Education	HB 248
★ Dorothy A. James	Box 1608, Palmer AK	745-9682	Task Force	HB 204
Roy Dubel	P.O. Box 1397 Kodiak AK	486-3244	City of Kodiak	HB 204
Stan thompson	PO Box 850 SOLDOTNA	262-4411	Kenai Boro	HB 204

Official Business

COMMITTEE:
House HESS Committee

DATE: April 15, 1987

SIGN-IN

Subject of meeting:
HJR 24 - Federal funds for job training
HB 248 - Adult Basic Education
HB 204 - State Aid for School Construction
HB 249 - Refinancing of University Housing

NAME	ADDRESS	PHONE	REPRESENTING	DO YOU WANT TO TESTIFY? & Which Bill
Milt Barker	Box SB Juneau 99811	465-2350	DOR	Yes HB 204
Don Kubley	Box 210207 Auke Bay	789-5251	Ketchikan, Gateway Boroughs Haines, Skagway	Yes HB 201

STATE OF ALASKA
THE LEGISLATURE

POUCH Y - STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

HHESS 4-15-87 8:30 a.m.

HJR

35

STATE OF ALASKA
THE LEGISLATURE

POUCH Y · STATE CAPITOL
JUNEAU, ALASKA 99811
907-465-3800

LEGISLATIVE AFFAIRS AGENCY

LEGISLATIVE REFERENCE LIBRARY

May, 1988

Copies of minutes listed below were originally included in this file. The minutes are available on the STAIRS database CMPR. In order to save space copies of minutes have not been left in the files.

Mary Van Nimwegen

H HESS 5-12-87 8:30 a.m.

STEVE COWPER
GOVERNOR

STATE OF ALASKA
OFFICE OF THE GOVERNOR
JUNEAU

April 2, 1987

Honorable George P. Shultz
Secretary of State
U.S . Department of State
2201 C. Street, N.W.
Washington, D.C. 20520

Dear Secretary Shultz:

As you know, the United States and Japan have recently completed negotiation of a nuclear cooperation agreement which may result in the designation of an Alaska airport as an intermediate stopover point for the shipment of plutonium from Europe to Japan. This agreement could have tremendous consequences for the health and safety of Alaskans, as well as for the state's environment. Based on the information which I have received from my staff, the press, and other sources, I have concluded that there are a number of critical unanswered questions regarding this agreement. Therefore, I am writing to request that the Departments of State and Energy prepare an Environmental Impact Statement (EIS) which would address these questions before you conclude the executive decision making process and submit the agreement to the Congress for review. My concerns and the legal basis for this request are outlined below.

The National Environmental Policy Act (NEPA) requires that the Federal government prepare a detailed statement on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment. This requirement serves two purposes: protection of the environment, and protection of the integrity of the decision making process to ensure that there is an opportunity adequately to review the environmental consequences of a Federal act. Both of these purposes are best served by the preparation of an EIS to accompany the submission of the agreement to Congress.

First, there is no question that a decision to ship plutonium through an Alaskan airport is a major Federal action which could affect the human environment. In this regard, the Nuclear Regulatory Commission (NRC) prepared a site specific analysis of shipping radioactive fuels through New York City. This document analyzed a range of scenarios, including an accident which resulted in thousands of latent cancer fatalities and billions of dollars in economic loss.

In addition, the United States District Court for Western Washington held in September, 1986 that the shipment of such fuels from a foreign country to the United States is covered by NEPA. In that case, the court directed the Department of Energy to prepare an EIS. Finally, regulations promulgated by the Council of Environmental Quality and by the Departments of State and Energy recognize that international agreements with significant domestic environmental consequences are "proposals for legislation" under NEPA.

Second, a systematic presentation of the alternatives to the President and Congress, as contemplated by NEPA, is especially important in this case, given the number of possible scenarios and the different risks involved in each. For example, the agreement does not specify what safety standards the casks which will be used for the shipments must meet. Both the International Atomic Energy Agency (JAEA) and the Nuclear Regulatory Commission have standards for testing the ability of the shipment casks to withstand a crash. However, the international standards are less stringent than those used by the NRC. An EIS is necessary to assess the environmental and health risks which would result from using either of these or some other set of standards.

Similarly, it is unclear whether it will be possible to build a cask which can survive an airplane crash and which is large enough to ship the quantities of fuel contemplated in the agreement. An EIS is needed to evaluate the alternatives which will be used in the event that a safe cask cannot be developed.

In 1980, the Department of Energy prepared an analysis of the storage and shipment of foreign power reactor fuel. With regard to shipment, the analysis listed the following factors which should be covered by an EIS: demography along the transportation routes, emergency response capabilities, weather patterns along the routes, and location of drinking water and food sources for the surrounding population. No information regarding these factors has been presented so far. Without this type of analysis, the President and Congress will be unable to make a reasoned decision regarding the agreement.

In my opinion, it is not sufficient to prepare an EIS at the time when a stopover site is actually designated. (From our discussions with Federal officials, it is by no means clear that an EIS is contemplated even at this point.) For one thing, relevant NEPA case law indicates that a statement should be prepared at the earliest reasonable junction in a Federal decision making process which involves several sequential but related steps. For another, once the President and the Congress have approved the thirty year blanket acceptance embodied in the cooperative agreement, it is difficult to perceive how a truly objective analysis of

possible airport sites, safety measures, and other relevant considerations could occur. In other words, execution of the agreement will generate a momentum that will make stringent protective measures or outright negative decision making far more difficult and less acceptable in the international relations context.

To conclude, I believe that this agreement represents a major Federal action which could significantly affect the human environment in Alaska. Final action by the President and the submission of the agreement to Congress prior to preparing an EIS could foreclose opportunities for decision makers, as well as the public, to consider the full range of alternatives for accommodating Japan's needs for recycled plutonium. For these reasons, I respectfully request that the Departments of State and Energy prepare an EIS prior to concluding their review of the Agreement and its submission to Congress.

Sincerely,

S/S Steve Cowper

Steve Cowper
Governor

cc: Senator Ted Stevens
Senator Frank Murkowski
Senator John Glenn
Congressman Don Young

(b) The legislature shall designate by law the land in the state on which a nuclear fuel production, nuclear utilization, nuclear reprocessing, or nuclear waste disposal facility may be located. In designating the land in the state on which a nuclear fuel production, nuclear utilization, nuclear reprocessing, or nuclear waste disposal facility may be located, the legislature shall act to protect the public health and safety.

(c) The Department of Environmental Conservation shall adopt regulations governing the issuance of permits required by (a) of this section. However, a permit may not be issued until

(1) *[Repealed, § 1 ch 93 SLA 1981.]*

(2) the municipality with jurisdiction over the proposed facility site has approved the permit; and

(3) *[Repealed, § 1 ch 93 SLA 1981.]*

(4) the governor has approved the permit. (§ 8 ch 172 SLA 1978; am § 1 ch 93 SLA 1981)

Cross references. — For radiation protection, see AS 18.60.475.

Sec. 18.45.027. Transportation of nuclear waste material. (a) The transportation of high level nuclear waste material, except for purposes of disposal outside the state. is prohibited.

(b) For purposes of this section, "high level nuclear waste material"

(1) means

(A) used nuclear reactor fuel;

(B) waste produced during the reprocessing of used nuclear reactor fuel; and

(C) elements having an atomic number greater than 92 and containing 10 or more nanocuries per gram;

(2) does not include radioactive materials used in medicine, education, or scientific research that are stored or disposed of in conformity with procedures established by the Department of Environmental Conservation by regulation adopted under AS 46.03.250(3). (§ 2 ch 93 SLA 1981)

Sec. 18.45.030. Conduct of studies concerning changes in laws and regulations with a view to atomic industrial development. The following departments and agencies of the state are directed to initiate and to pursue continuing studies as to the need for changes in the laws and regulations administered by it that would arise from the presence within the state of special nuclear, by-product, and radioactive materials, from the operation of production or utilization facilities, and from the generation of radiation, and, on the basis of these studies, to make the recommendations for the enactment of

Anch. Daily News
5/16/87
Front Page

Accord queried

Nuke-fuel deal raises concern

By DAVID HULEN
Daily News reporter

The U.S. Defense Department is reportedly balking at a proposed nuclear cooperation agreement between the United States and Japan that could eventually mean regular jumbo jet flights hauling highly toxic, weapons-grade plutonium in and out of Anchorage.

A nuclear industry newsletter, Nuclear Fuel, reported last week that Defense Secretary Caspar Weinberger has signed papers raising "a number of concerns" about the agreement and is recommending that President Ronald Reagan not approve it.

The draft agreement, negotiated earlier this year, would give the Japanese blanket 30-year approval to ship plutonium from French and British reprocessing plants to Japan. Once there, the material would be used for fuel in Japan's burgeoning nuclear power program.

The 178-page agreement is circulating among several federal departments and agencies for review and has not been made public. But the proposal has been stirring controversy for several weeks in Alaska, Washington and Canada, where questions are being raised about whether large quantities of plutonium can be moved safely around the world.

No specific routes are outlined in the agreement, officials familiar with it have said. But officials in the State

See Back Page, PLUTONIUM

PLUTONIUM: Defense agency questions deal

Continued from Page A-1

Department, which negotiated the pact, have said Japan is considering moving the plutonium in special Boeing 747 cargo jets using polar routes over Canada and Alaska with a likely refueling stop in Anchorage.

The shipments could start in the early 1990s, and because of the large amount of plutonium involved, probably would continue regularly for several years, according to some people familiar with the proposal.

Plutonium is a by-product of uranium fuel used in nuclear reactors. It raises more concerns than other radioactive substances because it can be used to make weapons and because it is one of the deadliest and longest-lived materials on Earth. Microscopic amounts have been found to cause cancer when ingested, and as little as 20 pounds is necessary to make a bomb.

If approved, the Japanese shipments would be the first regular, international plutonium transfers ever allowed.

Because of security and safety concerns, there has been only one large-scale international plutonium delivery from Europe to Japan, aboard a ship in 1984. The vessel carried 557 pounds of plutonium and a crew of more than 40 armed guards, and was tracked by surveillance satellites and escorted by warships as it made its way across the Atlantic and Pacific, according to news reports at the time. After the much-publicized, 41-day voyage, both the U.S. and Japan agreed that future shipments would be by air.

The U.S. has control over the plutonium because it originated from American-made uranium fuel.

It's unclear whether the Defense Department's objections involve transportation aspects of the agreement. A Pentagon spokesman said such comments on proposed international agreements are considered classified. The newsletter did not report specific comments, only that the department was concerned about, among other things, allowing Japan long-term access to the plutonium.

Questions about the plan have been raised by the Nuclear Control Institute, a Washington-based group concerned with nuclear weapons proliferation. The group argued in a lengthy report that the agreement is premature because no country has developed containers capable of safely shipping plutonium, and that flights would be vulnerable to terrorist attacks, crashes and other problems.

After the group's report came out, Alaska Gov. Steve Cowper sent a letter to Secretary of State George Schultz, saying the flights have "tremendous consequences for the health and safety of Alaskans, as well as for the state's environment ... there are a number of critical unanswered questions."

Cowper wants the federal government to do an Environmental Impact Statement outlining hazards and alternatives before the agreement is submitted to Congress by the president. Such a study could take a year to complete.

Schultz sent Cowper a response this week, saying federal agencies were trying to decide whether further environmental study was necessary. He stressed that shipments through Alaska were not a certainty under the agreement.

"It requires only that the aircraft returning plutonium from Europe to Japan must take a polar route or another route that avoids civil disorder and natural disasters," Schultz's letter says.

"It is true, as reported, that Japan is considering a route that would include a refueling stop in Alaska. At present, however, no transportation plan has been prepared, and I have been informed that it could be some time before specific proposals are made since a transport cask is still under development and must pass a a series of rigorous tests to gain approval."

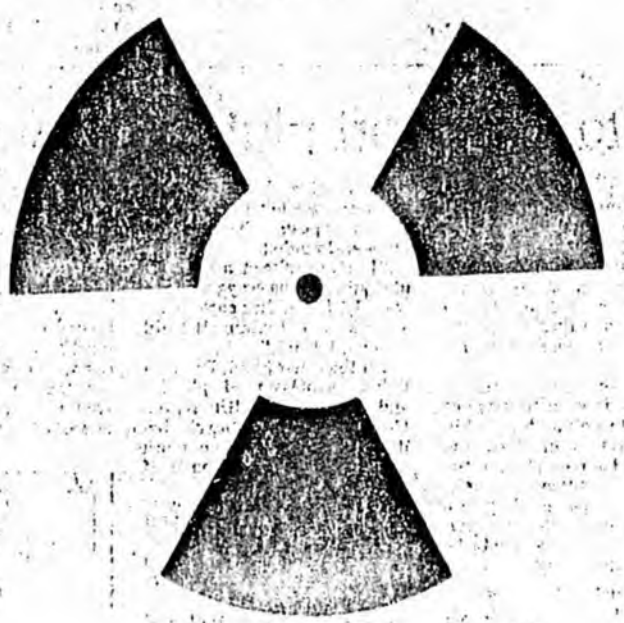
Schultz says Japan would have to meet several conditions before being allowed to ship the plutonium, including: "transfer exclusively by air (to minimize time spent in international transport)," use of a cask certified to withstand a crash, armed guards, advanced communications and contingency plans.

"I fully share your concerns for the health and safety of Alaskans and for Alaska's natural environment and want to assure you that all appropriate steps will be taken to ensure that the implementation of the new U.S.-Japan agreement will cause no injury to either one," the letter says.

Critics of the plan say they doubt if a crash-proof cask will ever be developed.

Cowper's office, meanwhile, maintains that details of how the plutonium will be shipped need to be worked out before the agreement is ratified. But given the current timetable, that seems unlikely. C comments are received from various agencies, Reagan will decide, probably later this spring, whether to approve the agreement. If he does, the accord will go to the U.S. Senate, which will then have 90 days to reject it. The agreement becomes public when approved by the president.

HJR 35



DEADLY CARGO

How safe would it be to fly plutonium over Anchorage skies?

How safe would it be to fly plutonium over Anchorage skies?

By DEBBIE McKINNEY
Daily News reporter

Alaskans go about their day, oblivious to the rumble of a Boeing 747 approaching from the north, 32,000 feet over their heads. Inside the jet, quarantined deep within 5,000-pound steel cylinders, is a substance that looks as innocuous as sand.

But this flight is guarded by armed men and monitored by satellite. So formidable is this cargo that public knowledge of it could threaten national security.

Inside the cylinders is one of the most powerful and deadly elements on Earth: plutonium oxide. A particle too small to see could cause terminal cancer if inhaled. And the plane roaring overhead contains 600 pounds of such particles.

The jet cruises over Big Lake, dropping to 2,000 feet on approach to Anchorage International Airport. Then the unthinkable happens. A small plane obscured by clouds slams into the jet's side, ripping through the fuselage.

Startled by the explosion, people below squint toward the sky as fiery debris plunges toward the ground. Then it starts raining sand. Those who watch haven't a clue what it is or how it will change their lives.

□

This scenario is not beyond the realm of possibility. According to the Federal Aviation Administration, there have been 158 midair collisions in the United States in the past 6½ years. Eight of them occurred in Alaska.

What such a crash would mean is just one of many questions yet to be answered by those considering routing plutonium through the state.

An agreement being negotiated between the United States and Japan would give a 30-year blanket approval for jumbo jets carrying U.S.-supplied plutonium to fly from reprocessing plants in Europe to Japan. Although a route has yet to be chosen, one option being considered includes refueling stops in Alaska, most likely Anchorage.

The transporting of plutonium by air was stopped in 1975 after about a half-dozen such flights passed through Kennedy International Airport in New York. Dr. Marvin Resnikoff, at the time a physics professor at State University of New York in Buffalo and among those who urged Congress to stop the shipments, calculated that 2.8 pounds of plutonium released in a crash could cause as many as 500,000 people to develop lung cancer. If winds were high and the plutonium widely scattered, he testified, 100,000 people eventually would die.

The U.S. State Department is reluctant to discuss details of the proposed agreement. One spokesman says information is vague because details have not been worked out. But the plan, only one component of a major nuclear cooperation agreement, is expected to be signed by President Reagan within weeks. If subsequently approved by Congress, plutonium shipments could resume as soon as 1990.

Gov. Steve Cowper, state Sen. Rick Uehling and other Alaskans are finding this prospect unsettling for one main reason: Containers large enough to make these shipments economical, yet strong enough to survive a midair collision, do not exist. Although the government insists no shipments will be made until such a cask is designed, state officials want assurance before the agreement is signed.

The Nuclear Control Institute, a Washington, D.C.-based non-proliferation group, was the first to raise questions regarding the safety of the proposed flights. Its board of directors includes a former chief of naval development, a Pulitzer Prize-winning writer on modern warfare, and a former member of the federal Nuclear Regulatory Commission. The group doubts that plutonium can be transported safely by air in quantities suggested by the agreement.

If the plan is approved, the institute estimates 45 metric tons of plutonium would be shipped to Japan by the year 2000, as many as two flights each month. The casks being developed weigh 5,000 pounds and hold about 15 pounds of plutonium each. According to NRC data, a 747 cargo plane could carry up to 40 such casks for a total of 600 pounds of plutonium per flight.

Among the institute's concerns is the spread of nuclear material. If Japan were to rebuild its military, it would have the plutonium to devel-

See Page J-2, DEADLY

HOW PLUTONIUM AFFECTS YOUR BODY

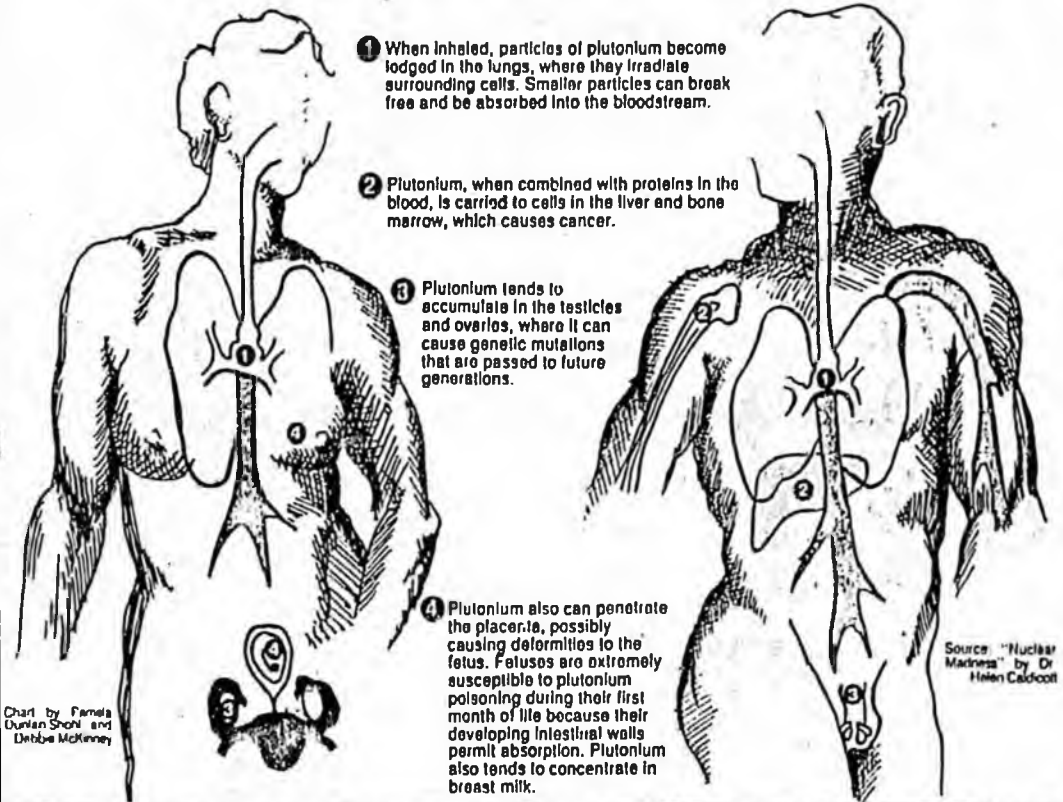


Chart by Pamela Dunlap Shohl and Debbie McKinney

Element presents two-edged sword

By DEBBIE McKINNEY
Daily News reporter

Pluto, mythical god of the underworld and ruler of the dead, was worshipped by ancient Greeks and Romans. But he was also feared. Subjects turned their faces away while sacrificing black sheep upon his altar.

Like the god from which its name is derived, the element plutonium is a dichotomy, with the capacity to promote life — and destroy it. At least 1,500 Americans owe longer lives to plutonium-powered pacemakers in their chests. These heart-stimulating devices contain less than one-hundredth of an ounce of plutonium. Even so, wearers are asked to notify the Nuclear Regulatory Commission when they leave the country.

Dr. Helen Caldicott, in her book "Nuclear Madness," describes how plutonium affects the body.

Plutonium molecules are large and therefore not easily absorbed directly into the body through the skin or gastrointestinal tract. But when inhaled, particles become lodged in the lungs, where they bathe surrounding tissues with alpha radiation. Smaller particles may break loose and be absorbed through the lungs into the bloodstream. Because plutonium has properties similar to iron, it combines with proteins in the blood and is carried to cells in the liver and bone marrow, where it irradiates surrounding cells.

The human body is made up of more than 10 trillion cells, which take in nutrients, excrete wastes, produces proteins and reproduce themselves. Radiation inflicts damage by ionizing, or altering, the electrical charge of the atoms and molecules that comprise these cells.

In controlled doses, radiation is used to kill cancerous cells, explains Dr. Darwin Zellmer, chief of medical physics at Providence Hospital. Radiation at large, however, can cause one of several things to happen. The radiation may pass through a cell without causing damage. It may cause

See Page J-2, EFFECTS

Today box is located on Page 2

DEADLY CARGO: Plans to transport plutonium raise questions

Continued from Page J-1

op nuclear weapons, the institute says. The group also fears that terrorists could sabotage or steal the shipments en route. A crude bomb can be fashioned from as little as 13 pounds of plutonium oxide.

"Anyone who thinks terrorists aren't cunning and ruthless enough to pull off a nuclear attack has forgotten the Munich Olympics, the showdown at Entebbe and the shooting of the pope," Rep. Richard A. Gephardt (D-Mo.) told members of the Nuclear Control Institute-sponsored conference on international terrorism.

"Transportation is the most vulnerable activity in the nuclear fuel cycle," a spokesman for the State Department admits. But the government will take "extraordinary measures" to ensure the safety of these shipments, he says.

"I think the likelihood of terrorist action is very low ... and the likelihood that it would succeed is zero."

Although the form in which the plutonium would be shipped — plutonium oxide — could reach critical mass and create an atomic explosion if huge quantities were compressed, the chance of that happening during a midair collision is extremely remote. Alan Kuperman, a researcher for the Institute, says a crash releasing plutonium into the environment is much more likely.

Plutonium in its oxide form doesn't burn. But it has the consistency of fine sand, which can be dispersed by high winds. Because the oxide is relatively heavy, the State Department says no more than 25 acres — the equivalent of six city blocks — would be contaminated in the event of a ground crash. However, if the oxide were released at high altitude in a midair collision, contamination could be much more widespread.

Since plutonium is highly radioactive, an accident could be particularly nasty. Plutonium has a half-life of 24,400 years. If a spill were to occur today, its radioactivity would be reduced only by half sometime by the late 24th century A.D.

Dr. Rodman Wilson, the Municipality of Anchorage's top health official, is greatly concerned about the proposed shipments. "I strongly disapprove of that kind of transport through Alaska," he says. "So far as I know, plutonium is the most dangerous toxic substance ever discovered or invented by man. There is no minimum safe level. Every atom is destructive. If there was a spill at Elmendorf or Anchorage International, it might close the airport forever."

Plutonium's primary use is in making nuclear bombs. It was first synthesized in America in 1940. The fission of 6 kilograms leveled Nagasaki, Japan, killing 36,000 people and injuring 40,000 others at the end of World War II.

A less explosive form of plutonium is used to produce power. Plutonium fuels only a few reactors in Germany, France and Japan. Most of the world's 374 commercial nuclear plants are powered by uranium because it's cheaper, much less toxic and cannot be used to make weapons.

Plutonium can be one of most carcinogenic substances on Earth when inhaled. A dose the size of a speck of dust can start a tumor capable of killing in a matter of months. Some scientists say an invisible particle weighing as little as one-millionth of a gram is enough to cause cancer.

Scientist Harry Daghlian is said to be plutonium's first American victim. On Aug. 21, 1945, two weeks after Nagasaki, a plutonium experiment at Los Alamos National Laboratory in New Mexico went awry, dousing Daghlian with a fierce dose of radiation. A month later he was dead.

Dr. Glenn Shaw is a professor of physics at the University of Alaska-Fairbanks who monitored radiation levels in Alaska after the Chernobyl disaster. People's fears of plutonium exposure, he believes, are well-founded.

"I've never seen a hunk of plutonium," he says. "And, frankly, I wouldn't care to see a hunk of plutonium. If I did see one, I'd run."

On the other hand, Bernard Cohen, professor of physics and radiation health at the University of Pittsburgh, believes plutonium is no more dangerous than caffeine — if swallowed.

If swallowed, only one part per 10,000 is likely to get through the gastrointestinal tract into the bloodstream, Cohen says. While some scientists would argue that one part is enough to set a mutation cycle in motion, Cohen is willing to eat the stuff to prove his point. He's had a long-standing offer to eat plutonium for a television audience and has told consumer activist Ralph Nader that he would eat as much plutonium as Nader would drink caffeine. Cohen has not, however, offered to breathe it.

"Anybody who wants to get people upset about plutonium has an ax to grind," Cohen says. "The important thing about plutonium is that it could provide all the electrical power this world would need for the next billion years. It would be the answer to our energy problems forever."

But critics say the risks of nuclear power outweigh the benefits. The disasters at Chernobyl and Three Mile Island, they say, have proven the impossible can happen.

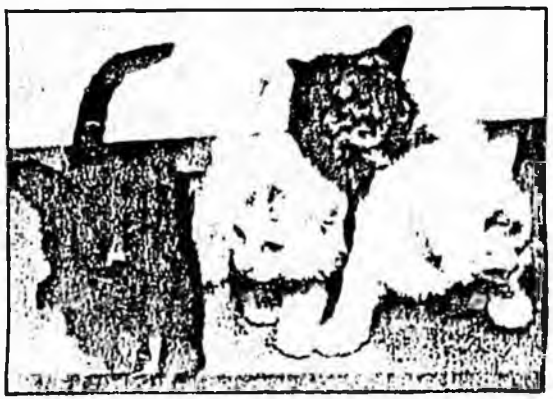
In the 1960s, two U.S. military planes carrying nuclear warheads crashed. In both cases, the detonators — but not the bombs — blew up, spewing plutonium over large, mostly unpopulated areas.

In 1966, when a B-52 bomber and a tanker collided over Palomares, Spain, more than 1,400 tons of soil and vegetation were contaminated. Clean-up cost $500 million.

In the winter of 1968, another B-52 bomber crashed near Thule, Greenland. It took 1,400 Americans and 100

See Page J-4, DEADLY

Adopt a Pet



These little kittens are available for adoption! They are all 10 weeks old, 2 are female (tortoise color, and gray/white) and 2 are male (black/brown and white). Adoption fees are $70 each, with $50 refunded after shots & neutering.

To adopt a pet - Come to the Animal Control Center at 3600 Tudor Road. 12:00pm-6:30pm, M-F; 12:00pm-4:00pm, S-S. Adoption fee is $15 plus shots and neutering costs. A refundable deposit is held until animals have been licensed and spayed.

EFFECTS: A little plutonium goes a long way

Continued from Page J-1

damage, but the cell may be able to recover before it divides. The radition may kill the cell. Or, the cell may be damaged in such a way that the damage is repeated when it divides. Such mutations, Zellmer says, result in malignancy.

The affects of radiation are cumulative. The risk of developing cancer may depend on how many other carcinogens a person is exposed to. The greater the exposure, the more difficult it is for cellular repair systems to keep damage under control.

"It's like ... playing darts," Zellmer says. "The more you're exposed — the more darts you throw — the more likely you're going to hit a bull's-eye."

DEADLY CARGO

Continued from Page J-2

Danes four months in the arctic darkness to retrieve radioactive debris and remove 1.4 million gallons of contaminated snow, ice and water. Clean-up that time cost $300 million.

"The potential exists that aircraft would crash within our jurisdiction," says Jack Cervantes, director of emergency management for the municipality of Anchorage. "Depending on what type of containers they come up with, we could have to deal with a hazardous waste materials spill of catastrophic proportions."

In 1984, a DC-10 cargo plane crashed and burned after running into a commuter plane at Anchorage International Airport. In 1975, the fuselage of a Japan Air Lines 747 was cracked after the plane was blown off an icy runway at Anchorage International by a gust of wind.

Low-level radioactive materials, such as X-ray supplies and other pharmaceuticals, are flown through Anchorage all the time, Cervantes says. In fact, many planes carry low-level uranium as ballast in their wings and tail sections.

A city response team within the Anchorage Fire Department is trained to deal with low-level contamination. But the strongest radioactive material the team has worked with, Cervantes says, is cobalt 60, used in condensers to measure soil compaction. "(Plutonium) is something that's 100 times more powerful than what we're used to dealing with."

The municipality and the local military bases have a mutual-aid agreement, meaning they can call upon each other for help in emergencies. A spokesman for Elmendorf Air Force Base says military teams are trained to respond to high-level radioactive spills. But if the government decides to ship plutonium through Anchorage, Cervantes wants the city's response team to be prepared, as well. He says he'll request special training and equipment if and when the time comes.

Japan has been shipping its spent reactor fuel to Europe for reprocessing for years — but by sea, not by air. Spent fuel rods are literally too hot to handle and cannot be used to make weapons. It's the return trip carrying reprocessed, high-grade plutonium that's causing all the commotion.

Reprocessing is a clean-up procedure in which plutonium and uranium are separated from other highly radioactive fission by-products. Construction of the United State's only commercial reprocessing plant in Barnwell, S.C., was halted in 1984 when the government determined reprocessing for civilian use was uneconomical and unsafe. Spent fuel from domestic reactors is stored on-site instead.

The last time a large amount of plutonium was transported from reprocessing plants in Europe to Japan was in 1984. The shipment of 557 pounds of plutonium left the French port of Cherbourg at night and was escorted through the English Channel by three British warships. Once on the open sea, the Japanese ship was under constant satellite surveillance, with 10 U.S. warships and 40 armed men standing by as it crossed the Atlantic. The U.S. Coast Guard accompanied it through the Panama Canal. Then, three U.S. warships, the Coast Guard and Japanese patrol boats intermittently escorted the vessel until it reached Tokyo Bay.

The voyage took 41 days. After that, the United States and Japan agreed that future shipments would be made by air in order to reduce the amount of time the shipment would be vulnerable.

The Scheuer Amendment of 1975, sponsored by Congressman James H. Scheuer (D-N.Y.), prohibited the NRC from licensing air transport of plutonium until a cask capable of remaining intact in a midair collision could be certified.

Since then, crash-proof casks capable of carrying only small amounts of plutonium have been certified. Now, at least three companies are trying to design casks large enough to make plutonium shipments on the scale needed for overseas transport. One such cask was tested at Sandia National Laboratory last summer using standards set by the NRC. According to Alan Kuperman of the Nuclear Control Institute, the cask was propelled by rocket into a concrete and steel wall at 288 mph — the maximum cruising speed for airplanes flying under 10,000 feet. The cask failed.

Some engineers doubt a large, crash-proof cask can ever be built. Since Japan must import about 90 percent of its energy needs, the institute and others are worried that economic and diplomatic pressures may whittle away at loopholes in the Scheuer Amendment, allowing the casks to slip by NRC certification, and instead be approved by the International Atomic Energy Agency, a United Nations-related agency created in 1956 that sets minimum safety standards for international transport. IAEA standards are dramatically lower; the casks need only survive a 30-mph impact.

A State Department spokesman says the suggestion that casks would have to satisfy only IAEA standards "is absolutely false." If the

See Page J-5, DEADLY

DEADLY CARGO

Continued from Page J-4

casks did not meet NRC standards, he says, "the shipments would not be made."

The issue of shipping plutonium, in some ways, parallels the issue of nuclear waste. The problem of how to dispose of high-level nuclear waste was unsolved at the time a commitment was made to develop a nuclear power industry.

The first large-scale nuclear power plant in the United States was built outside of Pittsburgh in 1957. Since then, the industry has proposed injecting nuclear waste into the sea floor, depositing it on polar ice caps and shooting it into outer space. All methods have serious environmental complications. As nuclear wastes pile up in temporary dump sites across the country, the search continues for a state willing to open the first permanent dump for high-level nuclear waste.

To those who oppose the shipments, it makes more sense to address all the issues before the agreement is signed. But the agreement, a State Department official explains, amounts to two or three pages of a 200-page document covering a wide range of foreign policy topics.

Although the agreement says nothing specific about the proposed flights stopping in Alaska, the tremendous weight of the casks would make refueling necessary. The polar route offers the shortest distance between Europe and Japan. If this route is chosen, Canada, the Soviet Union and Alaska are the only possible pit stops along the way. According to the State Department spokesman, if refueling is necessary, Alaska is the most logical place to do it.

Nobody can or will say whether plutonium shipments eventually will pass through Alaska. At a press conference earlier this month, Sen. Frank Murkowski said government officials are considering alternative routes and ways to avoid refueling stops altogether.

Murkowski answered reporters' questions regarding the shipments while fondling a paperweight-sized cylinder of deactivated, vitrified nuclear waste — a souvenir from the nuclear reprocessing plants he recently toured in Europe. The cylinder represented the waste produced after supplying an average French family with power from 1956 to the year 2000, he noted.

In the meantime, state Sen. Rick Uehling has introduced a resolution opposing shipments being routed through the state. Copies have been sent to President Reagan, Secretary of Defense Caspar Weinberger and the Nuclear Regulatory Commission.

In addition, Gov. Steve Cowper has asked the federal government to prepare an environmental impact statement before proceeding any further in negotiations with Japan. The National Environmental Policy Act requires preparation of an EIS for major federal action significantly affecting the quality of the human environment.

"This agreement could have tremendous consequences for the health and safety of Alaskans, as well as for the state environment," Cowper wrote in his letter to Secretary of State George Shultz. "... I have concluded that there are a number of critical unanswered questions regarding this agreement."

As far as Cowper is concerned, preparing an EIS after the fact just won't do. Once the president and Congress have approved the 30-year agreement, "it is difficult to perceive how a truly objective analysis of possible airport sites, safety measures and other relevant considerations could occur."

Cowper has yet to hear from the State Department regarding his request.

U.S. Negotiates a 30-Year Draft Accord Approving Japan's Plutonium Shipments

By Robert E. Taylor
Staff Reporter of The Wall Street Journal

WASHINGTON—With Japan planning to step up international shipments of bomb-grade plutonium, the Reagan administration is moving toward ending case-by-case approval of such shipments.

The administration has negotiated a draft 30-year agreement with Japan that would give blanket U.S. approval of all Japanese shipments of such plutonium, administration officials said.

The agreement also covers shipments of spent nuclear fuel from Japan's electricity generating plants to Europe for reprocessing into a form of plutonium that can be returned to Japan for use in a new type of nuclear reactor.

Currently, the U.S. must separately approve each Japanese shipment of plutonium made from U.S.-supplied fuel or fuel from U.S.-made plants.

Reagan Pledge

The draft agreement, circulating for comment within the Reagan administration and the Japanese government, would carry out a pledge by President Reagan to give Europe and Japan a more predictable supply of plutonium reprocessed from nuclear reactors' spent fuel, according to the officials, who declined to be identified.

The draft agreement stems from the administration's belief that it cannot stop the spread of civilian uses of plutonium, so it should focus on improving security arrangements.

But the Nuclear Control Institute, a Washington group dedicated to reducing nuclear weapons proliferation, argues that the agreement should be delayed because the U.S. and Japan haven't demonstrated that they have found a safe way to ship large amounts of plutonium. The agreement, which still must be submitted to Congress, can be blocked only if both houses reject it. The Institute concedes this is unlikely.

"There are many technical issues to be resolved," the Institute said in a report to be released today. The report calls it "premature" for the administration to "negotiate away U.S. authority over" the shipments.

Air Shipments

The report predicts air shipments of the material as often as twice a month from Europe to Japan, starting in the next few years. The group cites estimates that about 45 metric tons of plutonium will be produced for Japan in European reprocessing plants by the year 2000.

It says flights are expected to cross Canada and refuel in Alaska, which would require approval by the U.S. Transportation Department. Brian Smith, energy counselor in the Canadian Embassy in Washington, said Canada has discussed the prospect with Japan and the U.S., but won't assess the issue until a specific proposal is made.

Japan, France, West Germany and Britain have or are building plants to reprocess spent nuclear reactor fuel to produce plutonium, which then is used in specially designed reactors. Plutonium arouses far more concern than other radioactive materials because only 11 to 18 pounds of it are needed to make a bomb the size of the one dropped on Nagasaki, Japan, during World War II. It also is long-lived and is among the most toxic materials on Earth.

The U.S. forged agreements with European countries in the 1950s and with Japan in 1968 while it had a monopoly on nuclear fuel. The agreements give the U.S. extensive control of any reprocessing and shipment, but the pressure is rising to relax those controls.

Concern Voiced

In an interview, Nuclear Control Institute president Paul Leventhal expressed concern that no plutonium cask large enough for bulk air shipments has passed stringent crash tests mandated by the U.S. Nuclear Regulatory Commission.

The NRC has certified a cask capable of carrying about 4.5 pounds of plutonium, but only for single-cask flights. Several nations are working to develop clusters of crash-proof casks, each of which would carry about 15 pounds of plutonium. Joe Stiegler, manager of nuclear transportation system development at the Sandia National Laboratory, confirmed that one cask developed by Battelle Memorial Institute's Columbus, Ohio, lab had failed the tough NRC crash test.

Mr. Leventhal argued that it may be impossible to design a large cask capable of passing the NRC test. He also doubted that international safeguards can keep plutonium out of the hands of terrorists or prevent high levels of radioactivity at accident sites.

The only large plutonium shipment so far from Europe to Japan was by boat in 1984, escorted by French and U.S. war ships. The cumbersome effort forced Japan to look to the air for the future. In the meantime, reprocessed fuel from Japan has been stored in France.

Large-Scale Shipments

Mr. Leventhal's group hopes to prevent large-scale international shipments of plutonium. But the Reagan administration contends that Europe and Japan already are well on their way toward launching a plutonium reprocessing industry and developing sources of fuel independent of the U.S.

The U.S. "is simply not in a position to dictate or prescribe a policy on reprocessing or plutonium use" by advanced nuclear nations, Richard Kennedy, U.S. nonproliferation ambassador, told the Senate Governmental Affairs Committee recently. "Our only realistic course," he said, "is to work with these select countries to help improve safeguards and controls."

Anchorage Daily News March 13, 1987 Page A-1

Nuclear cooperation agreement may bring plutonium through Anchorage

By DAVID HULEN
Daily News reporter

Jumbo jets carrying highly toxic, bomb-grade plutonium may regularly fly in and out of Anchorage within several years under a nuclear cooperation agreement being negotiated by the United States and Japan, according to a Washington, D.C., group following the talks.

If approved by both governments, the agreement would permit shipments of nuclear fuel between European reprocessing factories and Japanese nuclear plants. The possibility of refueling stops in Alaska is causing concern among members of Alaska's congressional delegation and officials in state government.

Officials in the U.S. State Department are reluctant to discuss what would happen under the agreement until it is approved by President Ronald Reagan. Once signed, the deal will be sent to Congress for consideration.

But a report last week by the Nuclear Control Institute, a group concerned with nuclear weapons proliferation, said the agreement, if ratified, would mean flights as often as twice a month from France and Great Britain to Japan, with refueling stops in An-

See Back Page, PLUTONIUM

PLUTONIUM: Anchorage may one day be on flight plan

Continued from Page A-1

chorage. The group predicts that as much as 40 metric tons of plutonium would be shipped from Europe to Japan over several years, starting in the early 1990s.

The institute argues that the agreement is premature because neither the U.S. nor Japan has developed a safe way to transport large amounts of the material.

Plutonium is a by-product of uranium fuel used in nuclear power plants. It is considered one of the most long-lived and toxic materials on Earth, and is the primary ingredient in nuclear explosives. Microscopic amounts of plutonium have been found to cause cancer and other health problems when ingested, and a bomb can be made from as little as 33 pounds of it.

Japan now sends much of the spent fuel from its electric-generating nuclear plants to a reprocessing factory in France, where plutonium is extracted from other wastes. Japan would like to ship the plutonium — oxidized into a powder — from France back to Japan, where it would be combined with uranium oxide to produce fresh fuel, officials have said. Great Britain also is building a plant expected to reprocess spent Japanese reactor fuel into plutonium.

Currently, the U.S. must separately approve each Japanese shipment of plutonium made from U.S.-supplied fuel or fuel from U.S.-made plants. Because of security and safety concerns, there has only been one large-scale plutonium delivery from Europe to Japan, aboard a ship in 1984. The vessel, carrying 557 pounds of plutonium, had a crew of more than 40 armed guards and was accompanied by U.S. warships and tracked by spy satellites as it made its way across the Atlantic and Pacific oceans, according to news reports at the time.

The new agreement would give a 30-year, blanket U.S. approval of certain plutonium shipments, with stipulations over how the material can be moved, according to officials involved in the discussions. The idea is to give Japan a more predictable supply of plutonium. European countries already can ship U.S.-originated plutonium without U.S. approval.

John Moseman, legislative director for Sen. Frank Murkowski, R-Alaska, said officials from the State Department told him Thursday that specifics about how the material would be shipped will not be finalized until after the agreement is ratified. But they said the plutonium likely would be shipped "by the shortest route possible away from populated areas," which would apparently be over Canada and Alaska, he said.

Paul Leventhal, director of the nuclear institute, said his group understands that tentative plans call for the material to be shipped in Boeing 747 cargo jets, with refueling stops in Anchorage. It has not been decided whether Anchorage International Airport or Elmendorf Air Force Base would be used, he said. The institute learned of the plans from officials involved in the negotiations and others familiar with the proposal, Leventhal said.

Some flights travel nonstop between Europe and Japan using polar routes, but the weight of the heavy metal casks used to ship the material would make refueling necessary, Leventhal said. There are few, if any, other airports on the route capable of handling refueling of a jumbo jet aside from those in Alaska, he said.

In its report, Leventhal's group raises questions about the safety of the casks now available, and it contends there is little evidence that safe containers can be developed that could survive a plane crash without releasing high levels of radioactivity into the environment. The group also says the shipments would boost the chance of terrorists getting control of materials to make nuclear weapons.

The U.S. Nuclear Regulatory Commission has certified a cask capable of carrying about five pounds of plutonium, but only on single-cask flights. The report says at least three countries are working to develop larger casks to make shipments of plutonium more economical. The only such cask tested under the NRC crash standards failed a test last summer, although it is unclear whether the shipments would have to meet U.S. standards or less-stringent international guidelines, the report says.

The new casks being developed would weigh about 5,000 pounds each and hold about 15 pounds of plutonium oxide. Citing NRC data, the report says a 747 cargo plane would be capable of holding about 40 casks, containing a total of between 500 and 600 pounds of plutonium — the same amount that was carried under such tight security on the ocean freighter three years ago.

The material would be shipped as a powder, which is far less flammable than when plutonium is in its metallic form, and also is more difficult to use in a nuclear explosive device, according to the report. But plutonium oxide also may present a greater health risk when being transported because it could be more easily dispersed into the air if it left its casks, the group contends.

Officials in the State Department, and an official in the Japanese embassy in Washington, all of whom declined to be identified, disputed that detailed plans for plutonium shipments have been developed, and stressed in telephone interviews that it would be years after the agreement is approved before the flights would occur.

Murkowski's aide, Moseman, said the State Department officials assured him that a series of safeguards would have to be met for the flights to ever occur.

Once submitted to Congress by the president, the agreement can be blocked only if rejected by Congress within 90 days, and Leventhal conceded that's not likely. He suggested that an environmental impact statement on the project be required before the agreement is sent to Congress.

Nadine Winters, an aide to Alaska Gov. Steve Cowper, said state officials were trying to learn more about the agreement and were scheduled to speak with State Department officials within the next several days. But she said it was unclear what jurisdiction, if any, state government would have over such shipments. U.S. Rep. Don Young and Sen. Ted Stevens also have asked for more information after learning of the agreement this week, aides said.

"This is nasty stuff," said Winters. "The state hasn't been consulted. It is a few years in the future, apparently, but we're definitely concerned." Young's spokesman, Chuck Davis, said the congressman "would certainly oppose" the flights landing in Alaska if casks fell short of NRC safety standards.

Why Recycle Plutonium?

DAVID ALBRIGHT AND HAROLD FEIVESON

IN 1984, 250 KILOGRAMS OF PLUTONIUM OXIDE, SEPARATED in France from spent fuel from Japanese reactors, was returned to Japan by cargo ship. The ship carried only the plutonium; it made no intermediate stops; it was escorted partway by French and U.S. warships; and it was continuously tracked by satellite by officials in Japan (*1*).

If the nuclear industries of Europe and Japan continue with their plans to use plutonium in commercial reactors, they will, by the end of the century, have separated and placed into commerce more than 300,000 kilograms of plutonium (*2*) (Fig. 1). (For comparison, the Nagasaki bomb contained 6 kilograms of plutonium.) The extraordinary security measures applied to the French-Japanese shipment to protect the plutonium from theft and sabotage would need to be made routine on a vast scale.

This prospect derives from the decisions of several major countries, including France, Great Britain, the Federal Republic of Germany, Japan, Belgium, Switzerland, and Italy, to separate chemically the plutonium and uranium from the highly radioactive fission products contained in the spent fuel from their commercial reactors (a procedure called "reprocessing") and to recycle this plutonium and uranium into reactor fuel for breeder reactors and light water reactors. Such recycling differs from the "once-through" fuel cycle in use today in that material usable in weapons is not isolated in the latter process.

Barring a sharp turnaround in current programs, by the year 2000 or even earlier, more than 25,000 kilograms of separated plutonium may be placed in routine commerce annually (Fig. 2). Four countries—France, Great Britain, Germany, and Japan—will together separate most of this plutonium. Much will be separated from domestic fuel, but France and Britain also plan to reprocess fuel from West Germany, Japan, Belgium, Italy, the Netherlands, Spain, and Switzerland. Most of this plutonium, along with the nuclear waste, will eventually be returned to the country of origin.

After reprocessing, separated plutonium oxide will travel by truck, or a combination of truck and ship or plane in shipments across water, to fuel fabrication facilities in France, Great Britain, West Germany, Belgium, and Japan. If, on average, each shipment contains 100 kilograms of plutonium, more than 250 shipments of plutonium oxide annually will be required to transport the plutonium to these facilities. Slightly more than half of these shipments will be transported intracountry; the rest will travel from French and British reprocessing plants to other European countries and Japan.

At the fuel fabrication facilities, approximately two-thirds of the plutonium oxide will be blended with uranium oxide and fabricated into mixed-oxide (MOX) fuel elements and assemblies for light water reactors. Several hundred shipments of MOX fuel will be required each year to supply reactors in France, Germany, Japan, and elsewhere. The remaining separated plutonium will be fabricated into fuel elements for prototype breeder reactors in Britain, France, Germany, Japan, and Italy, and two Japanese heavy water reactors. The delivery of these fuel elements to the reactors will require an additional 100 shipments per year.

Neither the isotopic composition of the reactor grade plutonium nor its chemical form affords significant protection. Nuclear weapons designers have stated repeatedly that, despite its relatively high content of plutonium-240, reactor grade plutonium can be used directly in nuclear explosives. Similarly, plutonium oxide, the most common form of plutonium that leaves civilian reprocessing plants or that could be retrieved from unirradiated MOX fuels, could be used in nuclear explosives without reduction of the oxide to the metal. To guard against diversion of the material to weapons by terrorists, separated plutonium and fresh MOX fuel will have to be treated as virtually equivalent to weapon-grade plutonium (*3*). Given the scope of the commerce in separated plutonium, it is clear that stringent protection systems will be required.

Virtually any country engaged in plutonium recycling would have available large quantities of readily accessible fissile material. If a country had produced all the components of nuclear weapons other than the fissile material cores, it could reduce the time between a decision to build nuclear weapons and the achievement, on a potentially large scale, from years to weeks. Such "latent proliferation" would make it easy for governments to hide a nuclear weapons program within an ambitious civilian program.

Reprocessing and recycling are concentrated in countries that have nuclear weapons or support the Non-Proliferation Treaty. However, the emergence of a commercial market in MOX fuels, even if initially restricted to Europe and Japan, would allow other countries, some with dubious commitment to nonproliferation, to gain access to weapons-usable material. The emergence of a plutonium market would also make it extremely awkward for nuclear suppliers in the United States, Europe, and Japan to deny reprocessing and fabrication facilities able to produce such material relatively quickly to other countries.

One source of interest in reprocessing has been the view that reprocessing could improve the efficiency of radioactive waste disposal. This, combined with the willingness of France and Great Britain to reprocess foreign fuel, offered a politically attractive way for some countries to postpone dealing with their own waste disposal problems. However, the fission product contents of spent fuel and high-level waste from reprocessing are essentially identical, and the heat outputs per metric ton of original uranium are similar. Although reprocessing would separate much of the plutonium and perhaps some of the actinides from the spent fuel, significant amounts of plutonium and actinides would still end up in the reprocessing wastes. As a result, final disposal of unreprocessed spent fuel does not appear to represent a significantly greater

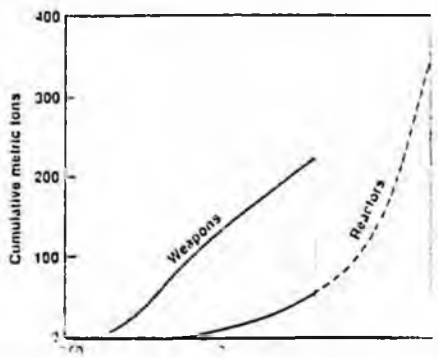


Fig. 1. The growing amount of separated civilian plutonium in noncommunist countries intended as fuel in civilian power reactors compared with the amount of plutonium in the nuclear weapons arsenals of the United States, the Soviet Union, France, and the United King-

D. Albright is at the Federation of American Scientists, Washington, DC 20002, and H. Feiveson is at the Center for Energy and Environmental Studies, Princeton

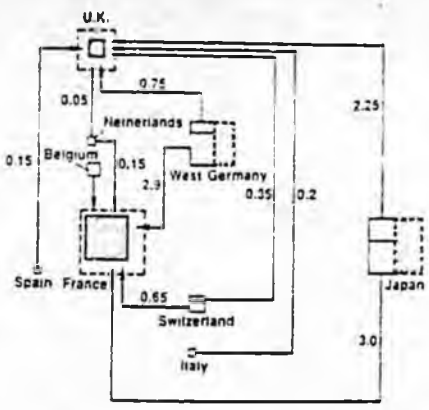


Fig. 2. Annual amount of plutonium to be separated from light water reactor spent fuel at the end of the century. Most of the separated plutonium will eventually be sent back to the originating country. A total of about 27 metric tons of plutonium per year is based on projected reprocessing capacities at the end of the century and already negotiated reprocessing contracts. The area of each country's square is proportional to the total plutonium that would be separated annually from spent fuel produced in the country plus, in the case of France and the United Kingdom, sent to it from abroad. The area of each dashed-outlined square or rectangle is proportional to the total plutonium that would be separated in the country's reprocessing plants. The shaded areas are proportional to the plutonium that would be separated from domestic fuel. The arrows represent international transfers of spent fuel to be reprocessed (in terms of contained plutonium).

environmental hazard than disposal of high-level wastes from reprocessing. Three countries with major nuclear programs—the United States, Canada, and Sweden—have decided to place their spent fuel in long-term storage without reprocessing (*4*, *5*).

Although the waste disposal rationale for reprocessing appears to have weakened, a second motivation remains strong—that the energy content of the plutonium contained in the spent fuel must be captured. Until recently, the nuclear industries in the industrialized countries expected that this recycled plutonium would be used for the initial loadings of prototype and commercial plutonium breeder reactors. However, because of greatly reduced demand for electricity, the higher costs of breeder reactors compared to light water reactors, and larger than expected uranium resources, breeder reactor programs worldwide have slowed dramatically.

Breeder programs can thus absorb only a small portion of the plutonium scheduled or planned to be separated in this century. Unless current reprocessing programs are curtailed, there will be a surplus of separated plutonium of at least 100 metric tons by 1995 and 200 metric tons by the year 2000.

As the commercial viability of the breeder recedes and stockpiles of separated plutonium grow, the nuclear industries in Europe and Japan have initiated programs to use plutonium fuels in current light water reactors. Recycling would in practice reduce uranium feed and enrichment requirements by about one-quarter—the savings depending on the price of uranium and enrichment. At current uranium and enrichment prices, fuel cycles that use recycled uranium and plutonium would cost about 1 mill/kWh more than the normal once-through cycle. The price of uranium would have to more than triple from its present value of less than $80 per kilogram before the savings in uranium costs made up for the extra costs of reprocessing, of plutonium storage, and of MOX fabrication (*6*). Even if the costs of reprocessing are disregarded, the economic benefits of plutonium and uranium recycle are marginal or nonexistent.

Despite the poor economics, the nuclear industries in Europe and Japan often cite national energy independence as a reason to push ahead with reprocessing and thermal recycle. This goal draws mainly upon the persistent vulnerability of these areas to oil import disruptions. However, the uranium savings that could be gained by the recycling in light water reactors of all the plutonium and uranium planned for separation in this century would be only about 100,000 metric tons. For most countries, thermal recycling would lessen their dependence on foreign uranium only at the price of an increased dependence on a steady and assured flow of plutonium separated in foreign reprocessing plants. It would also make them dependent on the integrity of international safeguards and physical security arrangements to prevent the theft or diversion of the separated plutonium.

Countries concerned about the security of their uranium supply may, instead, find it cost-effective to reduce the consumption of uranium by higher burnup of reactor fuel or more complete recovery of uranium-235 from natural uranium at enrichment plants. In addition, uranium costs so little per unit energy-equivalent that it can be readily and economically stockpiled to provide a buffer against a supply disruption.

Reprocessing and recycling on the scale now envisioned would create a challenge of nightmarish proportions for those seeking to prevent diversion of plutonium to weapons. The reasons for European and Japanese interest in recycling are complex—for example, interest in Germany and Japan in postponing domestic debates on waste disposal and the drive in France to stay at the forefront of nuclear technology. But there do not appear to be any clear economic motives. Indeed, with the price of uranium low, and expected to remain so for several years at least, recycling appears to be an economically poor proposition.

It may not be too late for the international community to persuade the countries embarking on these critical activities to abandon plans for plutonium recycling and to defer indefinitely commercial reprocessing not devoted directly to research and development on breeder reactors.

REFERENCES AND NOTES

1. S. Spector, *The New Nuclear Nations* (Vintage, New York, 1984), pp. 237–238.
2. D. Albright and H. Feiveson, "Plutonium recycle and the problem of nuclear proliferation" (Research Report 206, Center for Energy and Environmental Studies, Princeton University, April 1986).
3. J. Mark, T. Taylor, E. Eyster, W. Maraman, J. Wechsler, "Can terrorists build nuclear weapons?" (paper prepared for the International Task Force on Prevention of Nuclear Terrorism, Nuclear Control Institute, Washington, DC, 24 May 1986).
4. Nuclear Energy Agency, *The Economics of the Nuclear Fuel Cycle* (Organization for European Cooperation and Development, Paris, 1985), appendixes 2, 3, and 10.
5. "Final report of the project group on alternative entsorgung" (KWA 2190/1, Karlsruhe Nuclear Research Center, Karlsruhe, Federal Republic of Germany, 1984).
6. The critical assumptions are: enrichment costs, $130 per kilogram separative work unit; uranium-oxide fabrication costs, $190 per kilogram of uranium (kg-U); MOX fabrication cost, $760 per kilogram of heavy metal (kg-HM); reprocessing costs including vitrification, $750/kg-HM; disposal costs of reprocessing wastes, $150/kg-HM; and spent fuel disposal costs, $350/kg-HM. The fuel cycle costs of a light water reactor on a once-through fuel cycle can be approximated by $4.3 + 0.03x$ mill/kWh, where x is the price of uranium in dollars per kilogram. The fuel cycle costs for a recycling reactor would be $5.6 + 0.024x$ mill/kWh. At a uranium price of $83/kg-U, recycling would cost about 1 mill/kWh more than a once-through system (*4*, pp. 15 and 60).
7. We wish to acknowledge the contributions of R. Socolow, F. von Hippel, and R. Williams.

Nuclear Proliferation: Studies and Strategies for Stopping the Spread of the Bomb

NUCLEAR CONTROL INSTITUTE
1000 Connecticut Avenue, N.W., Suite 406, Washington, D.C. 20036 (202) 822-8444

SPECIAL REPORT

AIR TRANSPORT OF PLUTONIUM OBTAINED BY THE JAPANESE FROM NUCLEAR FUEL SUPPLIED BY THE UNITED STATES

Paul Leventhal, Milton Hoenig and Alan Kuperman

March 3, 1987

Paul Leventhal is president of the Nuclear Control Institute. Milton Hoenig is the scientific director. Alan Kuperman is a research associate. The report was jointly researched, and was written by Mr. Kuperman.
The Nuclear Control Institute is non-partisan and non-profit and conducts independent research on problems relevant to the spread of nuclear weapons.

SPECIAL REPORT

AIR TRANSPORT OF PLUTONIUM OBTAINED BY THE JAPANESE FROM NUCLEAR FUEL SUPPLIED BY THE UNITED STATES

Paul Leventhal, Milton Hoenig and Alan Kuperman

I. Overview of the Problem

President Reagan may soon approve and submit to Congress a new nuclear cooperation agreement that his Administration has negotiated with Japan. The agreement would give Japan advance approval to reprocess, over the next 30 years, U.S.-supplied and -controlled nuclear fuel after it is removed from Japanese power reactors. The reprocessing of the spent fuel would result in chemical separation of plutonium for use as a fuel in Japan's nuclear power program.

If the new agreement is approved by the President and is not rejected by Congress, the Japanese will have a blanket authorization to separate all the U.S.-controlled plutonium produced in Japanese reactors. This plutonium will make up most of the 85 metric tons [187,000 pounds] of plutonium that will be produced in Japanese spent fuel by the year 2000.

Plutonium is a man-made element that is created as a waste byproduct of reactor operation. It is highly toxic, and it can be used in nuclear weapons. Laboratory experiments show that microgram quantities can cause cancer. Five to eight kilograms [11 to 18 pounds] is sufficient for use in a "primitive" fission bomb of the type that destroyed Nagasaki. (The United States now has about 100 metric tons [220,000 lbs.] of plutonium in its stockpile of nuclear weapons.)

More than half of the 85 metric tons would be separated by reprocessors in Europe, and then transported back to Japan. The first such shipment was made by ship from France to Japan in 1984. The five-week voyage involved such large risks and required such massive military escort and surveillance activities, that both the United States and Japan agreed that future shipments should be made by air.

Present plans call for air shipments of plutonium to cross over Canada, land for refueling in Alaska, and then proceed to Japan. There are a number of problems with the execution of these plans:

1. Commercial air shipment of multi-ton quantities of plutonium is unprecedented. A few flights of no more than 100 pounds each had come into the United States before enactment of the Scheuer Amendment (P.L. 94-79) in 1975. This law barred the Nuclear Regulatory Commission from licensing "any shipments by air transport of plutonium in any form, whether exports, imports or domestic shipments" until the NRC certified a cask capable of surviving "the crash and explosion of a high-flying aircraft."