

NIOSH

PROGRAM PLAN  
by program areas

Fiscal Year 1982

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Institute for Occupational Safety and Health

PROGRAM OF THE NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH

\* \* \* \* \*

Program Plan by Program Area for FY 1982

**DHHS (NIOSH) Publication No. 82-108**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Public Health Service  
Centers for Disease Control  
National Institute for Occupational Safety and Health

December 1981



TABLE OF CONTENTS

	<u>Page</u>
Preface . . . . .	i
Foreword . . . . .	iii
Keys to Coding . . . . .	vi
Summary of Resources by Program Goals . . . . .	ix
Summary of Resources by Divisions . . . . .	x
Summary of Resources by Divisions for FY 1982 (Chart) . . . . .	xi
NIOSH Appropriations (Chart) . . . . .	xii
 <u>NIOSH Program Goals and Program Areas</u>	
IDENTIFY OCCUPATIONAL SAFETY AND HEALTH PROBLEMS . . . . .	1
Surveillance . . . . .	3
Health Hazard Evaluations . . . . .	22
EVALUATE OCCUPATIONAL SAFETY AND HEALTH PROBLEMS . . . . .	34
Reproductive Effects . . . . .	36
Neurotoxic Effects . . . . .	52
Injury/Trauma . . . . .	61
Lung Disorders . . . . .	75
Cutaneous Disorders . . . . .	104
Cardiovascular Disorders . . . . .	109
Cancer . . . . .	114
Stress-Related Disorders . . . . .	138
Physical Agents . . . . .	146
CONTROL OCCUPATIONAL SAFETY AND HEALTH PROBLEMS . . . . .	157
Respirators . . . . .	160
Control Systems . . . . .	168
Other Personal Protective Equipment . . . . .	178
Sampling/Analysis . . . . .	183
Instrument/Methods Development . . . . .	188
DISSEMINATE OCCUPATIONAL SAFETY AND HEALTH	
FINDINGS AND RECOMMENDATIONS . . . . .	194
Information Dissemination/Document Development . . . . .	196
Work Force Development . . . . .	216
ADMINISTER INSTITUTE PROGRAMS . . . . .	225
ALL OTHER PROGRAM AREAS . . . . .	245



## PREFACE

"In the future the worksite should draw more and more attention as the most logical setting for our prevention efforts."

Richard S. Schweiker  
Secretary of Health and Human Services  
Conference on Alcohol, Drug Abuse, and Mental  
Health Promotion/Prevention at the Workplace  
June 17, 1981

A striking similarity in the names of the National Institute for Occupational Safety and Health and its parent agency, the Centers for Disease Control (CDC), is the simple preposition "for." This preposition implies that CDC and NIOSH not only study public health problems, but also do something about these problems. The policy of the U.S. Public Health Service (PHS) and the Department of Health and Human Services is to prevent disease and injury through health protection, health promotion and the delivery of appropriate preventive health services. Among other activities, CDC and NIOSH protect the public health by recommending sound policies for intervention. To assure that these recommendations are scientifically sound in the area of occupational safety and health, NIOSH conducts a program of directed research. NIOSH has an overall management strategy for protecting worker safety and health which incorporates four points.

First, NIOSH planning addresses the "1990 Objectives for the Nation." These objectives of the PHS were developed by the public health community. In addition, the NIOSH plan will incorporate the objectives of the PHS National Toxicology Program. The objectives for occupational safety and health specify areas in which deaths, injuries, and illness can be reduced and eventually eliminated.

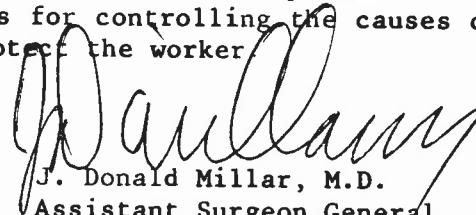
Second, NIOSH plans are integrated with the CDC's strategy for preventing premature mortality, reducing unnecessary morbidity and improving the quality of life. In addressing occupational disease and injury, NIOSH will seek to work with the public health structure of the Nation, as CDC has done to combat preventable disease. This structure includes State and local health departments, schools of public health and medicine, occupational safety and health professionals, and private and public health practitioners, voluntary agencies and other health workers.

Third, NIOSH planning reflects requests to us from client agencies in the Department of Labor: the Occupational Safety and Health Administration, the Mine Safety and Health Administration, and the Employment Standards Administration. The organization that compiles these requests from our clients is called the NIOSH Planning Group.

Fourth, the strategies of NIOSH are organized into five major tactical programs with corresponding goals, constituting a system for defining and solving occupational safety and health problems. These programs enable NIOSH to --

1. Identify occupational safety and health problems so as to detect and define epidemiologically significant changes in the status of occupational safety and health.
2. Evaluate occupational safety and health problems and occupational hazards so as to understand their causes and to detect their vulnerabilities to prevention.
3. Control occupational safety and health problems through discovering, assessing, and improving measures to reduce occupational hazards especially through control technology, protective equipment, work practices, and hazard-detection devices.
4. Disseminate scientific findings and appropriate recommendations to all organizations and individuals with the need to know to assist them to act to reduce occupationally related health problems; training and developing personnel for the field are essential elements of this program.
5. Administer these programs in a sense of total commitment to the highest principles of public stewardship.

Thus our strategy to prevent work-related illness and injury is based on the policies of the Department, PHS, and CDC with the awareness of the needs of client agencies; provides a framework in which problems are identified and understood; assesses methods for controlling the causes of problems; and disseminates the results to those capable of acting to protect the worker.



J. Donald Millar, M.D.  
Assistant Surgeon General  
Director, National Institute for  
Occupational Safety and Health

## FOREWORD

The National Institute for Occupational Safety and Health's major responsibility is to conduct research necessary to ensure, insofar as possible, that no worker will suffer impaired health and functional capacity or diminished life expectancy as a result of his or her work experience. NIOSH's current responsibilities were established by the following legislative authorities:

1. Occupational Safety and Health Act of 1970 (Public Law 91-596) which created NIOSH in the Department of Health and Human Services as the research agency for occupational safety and health in the Nation's workplaces, and the Occupational Safety and Health Administration in the Department of Labor to establish and enforce related standards.
2. Federal Mine Safety and Health Amendments Act of 1977 (Public Law 95-164) which amended the Federal Coal Mine Health and Safety Act of 1969 (Public Law 91-173), in effect merging the 1969 Act and the Federal Metal and Nonmetallic Mine Safety Act of 1966 (Public Law 89-577). The 1969 Act created the Mine Safety and Health Administration in DOL and gave the Public Health Service authority to develop standards for the mining industry. Under the mandate to PHS, NIOSH conducts coal mine health research, recommends health and safety standards, and ensures availability of medical examinations for underground miners. The major purpose of the 1977 amendments was to direct the Secretary of Health and Human Services and the Secretary of Labor to develop and promulgate improved mandatory health or safety standards to protect the health and safety of the Nation's coal or other miners.
3. Comprehensive Health Planning and Public Health Service Amendment Act of 1966 (Public Law 89-749), Title III, Part A--Research and Investigation, which includes authorization of the Surgeon General to make and enforce such regulations as are necessary to prevent the introduction, transmission, or spread of communicable diseases from foreign countries into the States or possessions, or from one State or possession to another.

NIOSH also has responsibilities established through other legislative authorities:

1. Toxic Substances Control Act of 1976 (Public Law 94-469) whereby NIOSH serves on the Interagency Testing Committee, which recommends chemicals for testing, and on the Interagency Toxic Substances Data Committee, and advises the Environmental Protection Agency regarding epidemiologic studies to be undertaken.



2. Health Professions Educational Assistance Act of 1976 (Public Law 94-484) through which NIOSH provides technical assistance to the Health Resources Administration in DHHS for their occupational health training and education centers.
3. Outer Continental Shelf Lands Act Amendments of 1977 (Public Law 95-372) through which NIOSH, with the Secretary of Commerce and in cooperation with the Secretary of Transportation regarding U.S. Coast Guard operations, conducts studies of underwater diving techniques and equipment suitable for protecting human safety.
4. Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (Public Law 96-510)--the Superfund Act--through which NIOSH, in conjunction with OSHA, EPA, and DOT, is directed to study and modify the National Contingency Plan to provide for the protection of the safety and health of employees involved in response actions. Such actions, by definition, include investigation and cleanup operations at uncontrolled hazardous waste sites, and emergency response to spills, leaks, etc.

This document outlines NIOSH's Program Plan for inhouse and extramural projects for Fiscal Year 1982--October 1, 1981, through September 30, 1982. This plan will serve as a tool for ongoing internal planning and control by the Institute management. To ensure that NIOSH responds promptly and appropriately to emerging problems, modifications will be made in individual projects as necessary.

NIOSH has sustained substantial cuts in resources in FY 1982 and, within those restrictions, special effort will be made to continue to protect the highest-priority Program Areas. The amount of appropriated funds dropped from \$80.4 million in FY 1980 to \$67.8 million in FY 1981, and to \$58.8 million in FY 1982, with the NIOSH training program incurring the most severe reductions. The highest-priority Program Areas for FY 1982 are reproductive effects, surveillance, neurotoxic effects, respirators, control systems, injury and trauma, information dissemination and document development, and stress. The full list of 20 NIOSH Program Areas is displayed in the Keys to Coding, as are the four major components of the program structure--to identify, evaluate, and control occupational safety and health problems, and to disseminate research findings and recommendations.

Continuing grants awarded for FY 1982 have been identified individually, for the first time, in the NIOSH annual Program Plan to make this information available to the document's readers simultaneously with that on the other NIOSH activities.

Emphasis will be placed on continuing efforts to identify the needs of users of NIOSH's research findings. For example, the Program Plan for FY 1982 includes specific research project proposals to meet requests from the Department of Labor's NIOSH Planning Group which identified the research needs of the Occupational Safety and Health Administration, Mining Safety and Health Administration, and Employment Standards Administration. Similarly, continuing efforts will be made to identify needs of other users of NIOSH's programs and products--individual workers, organized labor and management, the general population, other Federal agencies, and State and local governments.

Dissemination of information on NIOSH's research and surveillance findings--as early as and to the broadest extent possible--also will continue to have a high priority to ensure nationwide awareness of hazards experienced by workers in the Nation's workplaces. The general public--an undertapped, potentially highly influential supportive force in efforts to protect the safety and health of the Nation's workers--will be a major target in NIOSH's FY 1982 information dissemination efforts.

We will want to continue to improve our Annual Program Plan in both content and presentation and in usefulness to readers both within and outside the Institute. Your suggestions for change toward improvement would be appreciated. Such suggestions, and any questions regarding this document, should be addressed to Melvin L. Myers, Director, Office of Program Planning and Evaluation, NIOSH, CDC, Building 3, Room 117, 1600 Clifton Road, Atlanta, GA 30333.

KEYS TO CODING

Program Areas (PROG) - Columns 96 and 124

IDENTIFY OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

- B -- Surveillance
- V -- Health Hazard Evaluations

EVALUATE OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

- A -- Reproductive Effects
- C -- Neurotoxic Effects
- F -- Injury/Trauma
- I -- Lung Disorders
- J -- Cutaneous Disorders
- L -- Cardiovascular Disorders
- M -- Cancer
- O -- Stress-Related Disorders
- Q -- Physical Agents

CONTROL OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

- D -- Respirators
- E -- Control Systems
- G -- Other Personal Protective Equipment
- N -- Sampling/Analysis
- U -- Instrument/Methods Development

DISSEMINATE OCCUPATIONAL SAFETY AND HEALTH FINDINGS AND RECOMMENDATIONS

- H -- Information Dissemination/Document Development
- K -- Work Force Development

W - ADMINISTER INSTITUTE PROGRAMS

X - ALL OTHER PROGRAM AREAS

Operation Mechanism (MECH) - Column 98

- a -- Contract Only
- b -- Contract and Inhouse
- c -- Inhouse Only
- d -- Interagency Agreement
- e -- Grant
- f -- Cooperative Agreement
- g -- Other Combinations

Source of Funding (FUND) -- Column 100

- a -- Base Program
- b -- Coal Mining
- c -- Environmental Protection Agency
- d -- Metal and Nonmetal Mining
- e -- National Cancer Institute
- f -- National Occupational Hazards Survey
- y -- Other

Offices/Division and Branches -- Columns 119 and 120

- A - Division of Biomedical and Behavioral Science
  - a - Applied Psychology and Ergonomics
  - c - Experimental Toxicology
  - d - Technical Support
  - e - Physical Agents Effects
- B - Division of Physical Sciences and Engineering
  - a - Engineering Control Technology
  - b - Measurements Research Support
  - c - Methods Research
  - d - Monitoring and Control Research
- C - Division of Respiratory Disease Studies
  - a - Epidemiological Investigations
  - b - Environmental Investigations
  - c - Clinical Investigations
  - d - Laboratory Investigations
  - e - Examination Processing
- D - Division of Surveillance, Hazard Evaluations, and Field Studies
  - a - Hazard Evaluations and Technical Assistance
  - b - Industrywide Studies
  - c - Surveillance
  - d - Support Services
- E - Division of Safety Research
  - a - Safety Surveillance
  - b - Accident and Injury Epidemiology
  - c - Standards and Consultation
  - d - Testing and Certification
- F - Office of Extramural Coordination and Special Projects
  - a - Grants Administration and Review
  - b - Regional Operations
- G - Division of Standards Development and Technology Transfer
  - a - Program Management
  - b - Document Development
  - c - Priorities and Research Analysis
  - d - Technical Information
- H - Division of Training and Manpower Development
  - a - Direct Training
  - b - Curriculum Development
  - c - Educational Resource Development
- I - Office of Administrative and Management Services
  - a - Administrative Services
  - b - Financial Management
  - c - Management Systems
  - d - Procurement and Grants Management
- J - Office of the Director
- K - Office of Program Planning and Evaluation
  - a - Planning and Program Development
  - b - Evaluation and Control
  - c - Policy Analysis

Research Areas

Primary, Col. 121; Secondary, Col. 122; Tertiary, Col. 123

N = NIOSH Planning Group in the Department of Labor

EXPOSURE-SPECIFIC STUDIES

- a - Radiation
- d - Biohazards
- e - Pesticides
- f - Heat, Cold, Noise,  
Vibrations, and Pressure
- g - Fibers
- h - Solvents
- i - Energy
- j - Cotton Dust
- k - Asbestos
- m - Coal Dust
- n - Silica
- p - Lead
- q - Arsenic
- r - Zinc
- s - Falls from Elevations
- t - Caught In, Under, or Between
- u - Hazardous Wastes
- y - Other

NIOSH  
 Summary of Resources by Program Goals  
 Fiscal year 1982  
 (funds are in thousands of dollars)

	<u>Person Years</u>	<u>Non-Personnel Funds</u>	<u>Total Funds*</u>
Identify Occupational Safety and Health Problems	229.4	6803.2	12958.4
Evaluate Occupational Safety and Health Problems	203.0	11451.6	16982.1
Control Occupational Safety and Health Problems	127.8	4577.4	8202.5
Disseminate Occupational Safety and Health Findings and Recommendations	94.7	10425.5	12874.4
Administer Institute Programs	231.9	8705.3	14767.0
All Other Program Areas	<u>44.5</u>	<u>4699.3</u>	<u>5771.0</u>
TOTALS	931.3	\$46662.3	\$71555.4

\*The total funds for planning purposes include funds appropriated by the Congress, funds transferred from other agencies for research, reimbursements for services, and overallocation of funds in anticipation of cancellation of projects during the year.

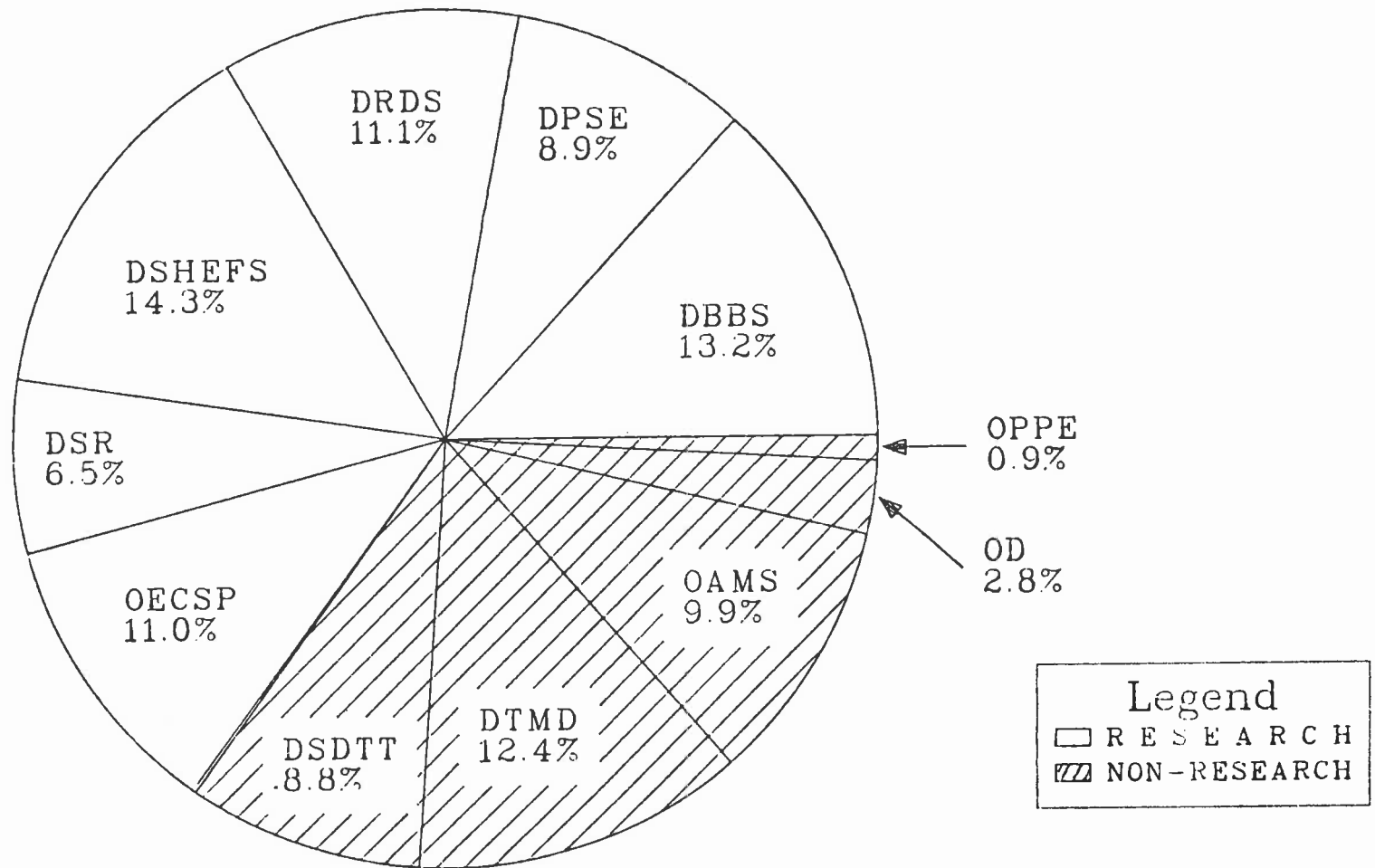
NIOSH  
 Summary of Resources by Divisions  
 Fiscal Year 1982  
 (funds are in thousands of dollars)

<u>Research Divisions</u>	<u>Person Years</u>	<u>Non-Personnel Funds</u>	<u>Total Funds*</u>
Division of Biomedical and Behavioral Science	108.8	6229.5	9191.8
Division of Physical Sciences and Engineering	98.2	3426.2	6233.2
Division of Respiratory Disease Studies	133.3	3962.4	7665.2
Division of Surveillance, Hazard Evaluations, and Field Studies	194.5	5082.0	9989.7
Division of Safety Research	72.7	2514.9	4538.9
Office of Extramural Coordination and Special Projects	56.0	6040.0	7684.0
 <u>Non-Research Divisions</u>			
Division of Standards Development and Technology Transfer	84.8	3889.8	6136.8
Division of Training and Manpower Development	31.7	7694.0	8487.3
Office of Administrative and Management Services	92.5	6717.3	9050.4
Office of the Director	41.8	880.0	1924.8
Office of Program Planning and Evaluation	<u>17.0</u>	<u>226.2</u>	<u>653.3</u>
TOTALS	931.3	\$46662.3	\$71555.4

\*The total funds for planning purposes include funds appropriated by the Congress, funds transferred from other agencies for research, reimbursements for services, and overallocation of funds in anticipation of cancellation of projects during the year.

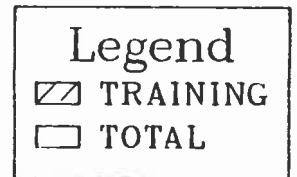
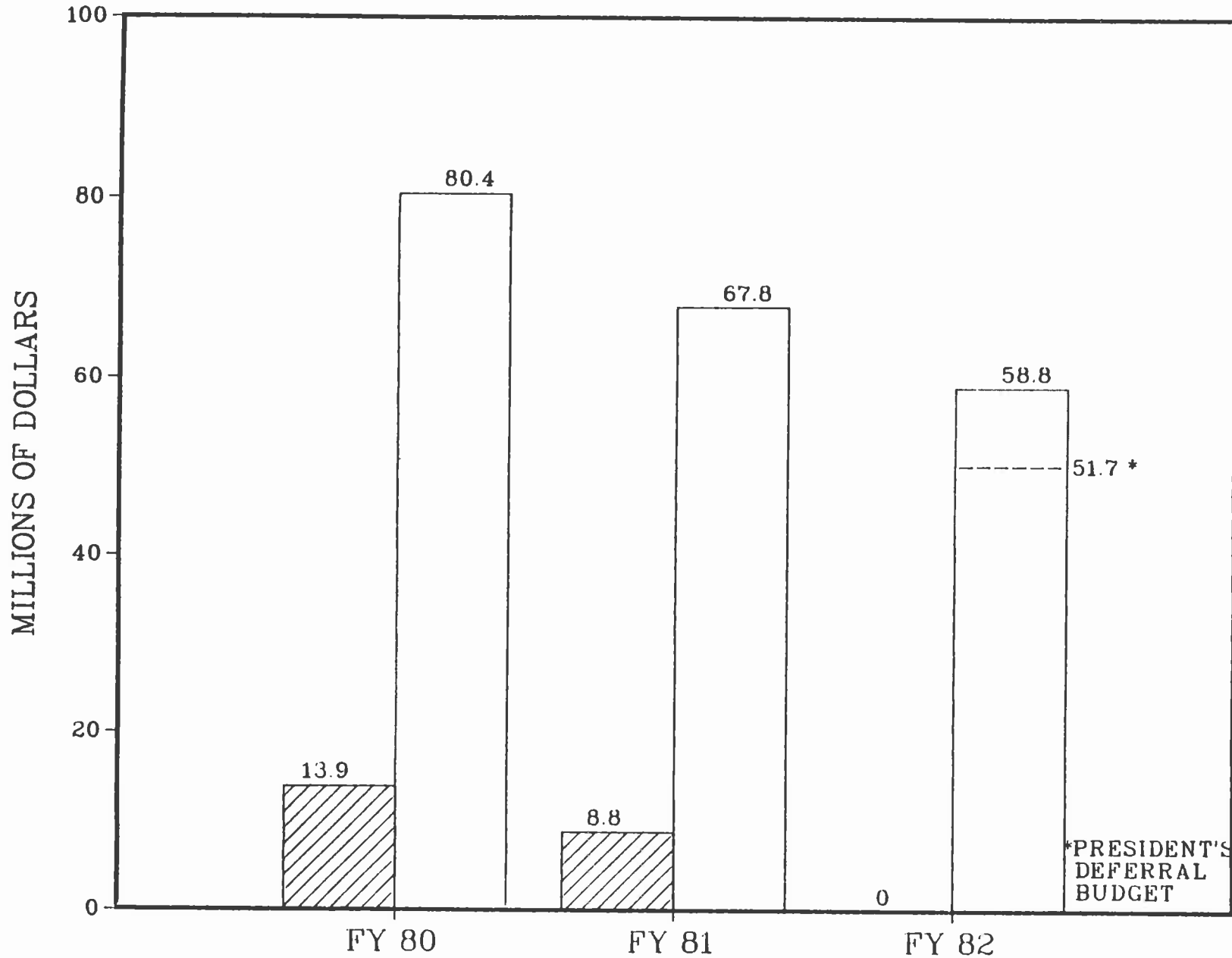
# SUMMARY OF RESOURCES BY DIVISION FOR FY 1982

## TOTAL FUNDS





# NIOSH APPROPRIATIONS



\*PRESIDENT'S  
DEFERRAL  
BUDGET

# NIOSH PROGRAM GOALS AND PROGRAM AREAS

## IDENTIFY OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

NIOSH's goal, to identify occupational safety and health problems, is the foundation of the NIOSH policy to prevent occupationally induced illnesses, injuries, and deaths. Under this goal NIOSH defines the state of occupational safety and health through the disciplines of medicine, industrial hygiene and safety, and statistics. NIOSH investigators derive priorities for research and public health action and measure progress in preventing impairments. Facts are generated from national safety and health data bases and from requests by workers and employers for health hazard evaluations. Scientific hypotheses are generated from these facts. The following long-range objectives for the Nation are considered under this goal:

1. By 1985, an ongoing occupational health hazard/illness/injury coding system and a survey and surveillance capability should be developed, including identification of workplace hazards and related health effects such as cancer, coronary heart disease, and reproductive effects. This system also should include adequate measurements of the severity of work-related disabling injuries.
2. By 1985, at least one question about lifetime work history and known exposures to hazardous substances should be added to all appropriate existing health data reporting systems (e.g., cancer registries, hospital discharge abstracts, and death certificates).
3. By 1990, the number of health hazard evaluations being performed annually should increase to 1,500. (In 1979, NIOSH performed about 150 health hazard evaluations.)

And the following FY 1982 objectives requested by the Department of Labor's NIOSH Planning Group also are considered under this goal:

### First-Order Priority

1. Institute a surveillance program to provide the Mine Safety and Health Administration with the identity of and information on toxic substances and harmful physical agents present in mines.

2. Identify for the Employment Standards Administration three key occupations and industries (e.g., construction, eating and drinking places, laundries, hospitals) that employ significant numbers of youth and in which dangerous exposures (e.g., chemicals, radiation) are likely to occur.

Second-Order Priority

3. Review and evaluate with ESA the existing and proposed medical records system used by workers' compensation programs.

## SURVEILLANCE

NIOSH has responsibility for developing national surveillance systems that identify workplace hazards and work-related injuries, disease, disability, or death.

To identify hazards in general industry, a second National Occupational Hazard Survey (NOHS-II) was initiated in 1980. For a period of about 2 years, specially trained surveyors will visit a probability sample of about 5,000 U.S. workplaces. They will record the potential exposures to chemical and physical agents that they observe. A similar mining environmental surveillance program is being developed. The results from NOHS-II and the mining hazard surveillance program will provide decision makers with an updated profile of potential workplace hazards seen in a cross section of U.S. industries, mines, mills, and occupations.

To obtain information about work-related injury and illness effects, national data sets from other agencies are being adapted by NIOSH for use in occupational health and injury surveillance. These sources include the Bureau of Labor Statistics data bases, the National Center for Health Statistics Health Interview Survey, the Social Security Administration's Continuous Disability History Sample, State workers' compensation programs, and State vital statistics record systems. For example, (1) four surveillance cooperative agreements (Maine, New York, Rhode Island, and Utah) were funded; (2) NCHS, the Bureau of Census, and NIOSH are cooperating in the development and adaptation of vital statistics records for occupational health studies; (3) eight States pilot-tested a Bureau of Census-designed occupation/industry coding-training module that will be offered to all States during FY 1982; (4) worker compensation data are being programed for easy analysis of injury statistics; (5) hospital records on injured workers who obtained emergency treatment are being obtained and analyzed in conjunction with the Consumer Products Safety Commission's National Electronic Injury Surveillance System; and (6) injury incidence rates based on 1980 census figures are being computed to help pinpoint high-risk occupations.

### Division of Respiratory Disease Studies

The Division's environmental surveillance efforts are directed toward fulfillment of the mining surveillance mandate given the Institute in the Federal Mine Safety and Health Act of 1977 (Public Law 95-164). The Act specifically directs the Secretary to determine, for each toxic material or harmful physical agent that is used or found in a mine, the potential toxicity of the material for the concentrations in which it is used or found. Responsibility for this aspect of the surveillance program was given to DRDS, which is conducting the National Occupational Hazards Survey of Mining.

The NOHSM will (1) inventory substances brought into the mines and used in extraction and processing of ores, (2) sample materials that naturally occur in the mines, (3) collect information about occupational health surveillance programs available to miners, and (4) collect other information that describes the mines covered by the survey. After obtaining this information NIOSH will determine the toxicity of the substances and physical agents so found, and project the exposures within the entire mining industry.

Accomplishments to date include the development of the sampling protocol, an appropriate questionnaire, and a training program for surveyors, and the partial completion of the survey projection programs. The sample of survey sites and the projection flow chart have now been developed by a NIOSH contractor. NIOSH staff will supply a computer code for the projection of national statistics. Future work includes submission of the survey package to the Office of Management and Budget for Federal Reports Act clearance, determination of the proper implementation method for the survey (i.e., inhouse personnel, contracted work, or interagency agreement), and the actual performance of the survey. The actual survey work is scheduled to be initiated when the general industry survey field work has been accomplished by DSHEFS. Institute resources are not sufficient to accomplish two such field-intensive studies at the same time.

During FY 1982, DRDS will:

1. Continue preparation and testing of protocol for NOHSM, based upon reduced resource allocations. Investigations will test various methods of administering the questionnaire, inventorying substances, and obtaining environmental samples.
2. Conduct targeted environmental investigations of potential health hazards in mining as suggested by MSHA and BOM, and/or reports in the literature.
3. Consolidate environmental data available from other sources.
4. Identify high-risk cohorts suitable for health surveillance.

#### Division of Surveillance, Hazard Evaluations, and Field Studies

The DSHEFS surveillance program includes the collection of data on potential occupational health hazards and illnesses, the analysis of this information, and the dissemination of these results to

decision makers. To identify workplace hazards, a NIOSH data base, NOHS-II, has been developed. For illness-effects surveillance, existing national health and demographic data bases have been adapted to meet DSHEFS' needs. A summary of the FY 1981 activities and their continuance into FY 1982 is as follows:

1. DSHEFS initiated the field phase of NOHS-II on November 3, 1980. By the end of FY 1981 approximately 1,500 worksites employing nearly 500,000 workers will have been surveyed, with a 98 percent response rate. The goal is to complete the field phase of NOHS-II in FY 1983, and to begin the analytical phase of this survey. In part this analysis will involve the identification and classification of chemical ingredients found in approximately 90,000 trade-name products used in U.S. workplaces. Without this trade-name product ingredient resolution, NIOSH decision makers will not have estimates of the number of workers potentially exposed to specified hazards found in the wide array of U.S. industries and occupations.
2. The development of an illness-effects surveillance base as derived from national, State, and other health data systems is continuing and involves:
  - o The renewal and expansion of the scope of interagency agreements with NCHS, SSA, and BLS.
  - o The expansion of the program of surveillance cooperative agreements between NIOSH and States (SCANS) from four to at least eight States by 1983.
  - o Defining a list of International Classification of Disease rubrics that describe occupationally related Sentinel Health Events.
  - o Developing methods for making annual estimates of the number of occupationally related deaths and diseases.
  - o Adapting computer-generated mapping techniques for displaying potential workplace hazards, illness effects, and associations between hazards and illnesses.
  - o Completing six Surveillance Reports based on disease patterns observed for workers in selected industries (e.g., accidents among loggers).

3. In order to disseminate the results of surveillance activities more effectively, a new series of NIOSH publications called Surveillance Reports (as mentioned above) will be emphasized. Studies from DSR and DSHEFS will appear in this series and, with the assistance of DSDTT, distribution will be targetted to the appropriate decision makers in government, industry, labor, and academia.

#### Division of Safety Research

DSR's efforts in the surveillance program area are organized primarily in the Safety Surveillance Branch, but also include research projects aimed at assessment of exposure to risks in various work settings.

Surveillance in general in DSR is intended to assess the numbers, rates, and impacts of occupational injuries and fatalities in the Nation. This is done through access to established injury-reporting systems and through development of specific data sources for special project needs. The information obtained is used for identifying injury patterns, high-risk occupations, industries, and operations; for setting research priorities, and defining precise areas for further research; for supporting recommendations for changing safety standards; and for monitoring changes to evaluate specific preventive efforts. The data sources used for these efforts include:

1. Workers' compensation data from over 30 States for 1977 through 1979 provide basic frequency and severity measures and injury characteristics on 4.5 million cases. Computer access to these data makes possible morbidity studies and identification of problems. Surveillance reports based on these files will be produced in FY 1982.
2. DSR collaborates with BLS and OSHA in conducting Work Injury Report Surveys, which are special-topic mail surveys of injured workers. Data from these surveys represent an important step in providing detailed case series for indepth analysis of problems and formulation of specific hypotheses.
3. In collaboration with the Consumer Product Safety Commission, DSR receives daily reports of work-related injuries that are treated at hospital emergency rooms. A sample of such hospitals participate in CPSC's NEISS which permits national estimates of emergency-room-treated job injuries. Since this system provides daily reports, it is being used to detect sudden changes in accident trends, and as a source of data for followup investigations.

4. In addition, other data sources are being considered for future projects: Death certificate files from State agencies, OSHA fatality investigation abstracts, occupational injury incidence rates using workers' compensation and census employment data, and special surveys of workers exposed to selected hazards (e.g., chemicals requiring protective clothing). Insurance industry data also will be explored for their surveillance potential.



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
*****SURVEILLANCE*****												
DIVISION OF RESPIRATORY DISEASE STUDIES												
1. Health Effects Target Surveillance (Costello J 304-599-7476)(VKL-aDp-184)(1.5/25.0/70.0) (1.0/15.0/149.0)(100/VCa-Bmm-184)	81	84					B	b	d			
.1 Contact state health departments and other agencies to locate existing data sources (1Q81)												B 9 (B)
.2 Investigate record systems to determine suitability for research purposes (2Q81)												B 10
.3 Develop preliminary protocols for pilot studies in target areas (2Q81)												B 11
.4 Discuss pilot epidemiological studies with appropriate personnel in states identifies as fruitful sources of data (initially Vermont and North Carolina) (3Q81)												C B 12
.5 Develop detailed study protocols with assistance from state personnel (4Q81)												CammyB 14
.6 Complete data collection in Vermont and North Carolina				o								CammyB 15
.7 Analyze data					o		o					CammyB 16
.8 Make recommendations for full-scale research projects, as appropriate								o				CammyB 17
.9 Complete final report on pilot studies (3Q83)									o			CammyB 18
.10 Continue with investigation of newly identified target sources (3,4Q83)												CammyB 19
2. Epidemiological/Surveillance Methods Study (Attfield M 304-599-7501)(VKL-IDX-197)(100/VCa-Byy-197)	81	82					B	c	b			CammyB 20
.1 Complete and report comparison of various computer programs designed for mortality analysis												CammyB 21
.2 Second interim report on industrial hygiene study				o								CammyB 22
.3 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS									o			CammyB 23
												CammyB 24
												CammyB 25
												CammyB 26
												CammyB 27
												CammyB 28
												CammyB 29
												CammyB 30
												CammyB 31
												CammyB 32
												CammyB 33
												CammyB 34
												CammyB 35
												CammyB 36
												CayyyB 39
												CayyyB 40
												CayyyB 41
												CayyyB 42
												CayyyB 43
												CayyyB 44
												CayyyB 45
												CayyyB 46
												CayyyB 47

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000	
3. Analysis of Receiving Center Data (Althouse R 304-599-7501) (VKL-aDp-178)(100/VCa-Bmm-178)	80	82						B c b				CammiB 50
.1 Complete file, process data, technical report Round 3 (1Q81)												CammiB 51
.2 Select individuals from high/low dust environments. Randomize films, send out for reading			o									CammiB 52
.3 Build computer file as x-ray data is returned				o								CammiB 53
.4 Dose-response analysis for mines and miners complete					o							CammiB 54
.5 General correlations based on average dust levels per mine with prevalence data for all mines						o						CammiB 55
.6 Complete analysis							o					CammiB 56
.7 Submit final report and abstract to Director, NIOSH and copy of report and abstract to DTS								o				CammiB 57
									o			CammiB 58
												CammiB 59
												CammiB 60
												CammiB 61
												CammiB 62
												CammiB 63
												CammiB 64
4. Mining Environmental Data Analysis Library (Dieffenbach A 304 599-7361) (100/VCb-Bty-167)	82	C						B c d				CbtyyB 67
.1 Purchase terminal			o									CbtyyB 68
.2 Program NIOSH computer to handle MSHA Metal/Non-metal Data Tapes												CbtyyB 69
.a Use MSHA computer system for retrieval until NIOSH system is fully operational (No. indicates expected retrievals)(cumulative)			5	10	15	20						CbtyyB 70
.b Achieve retrieval of information from NIOSH computer system					o							CbtyyB 71
.c Use NIOSH computer system for data analysis							o					CbtyyB 72
.3 Program NIOSH Computer to Handle MSHA Coal Data Tapes			o									CbtyyB 73
.a Obtain tapes				o								CbtyyB 74
.b Start programming for data retrieval					o							CbtyyB 75
.c Achieve retrieval and analysis (FY83)												CbtyyB 76
.4 Program NIOSH Computer to Handle State Environmental Data						o						CbtyyB 77
.a Code pyrophyllite and kaolin data												CbtyyB 78
.b Achieve retrieval and analysis of pyrophyllite and kaolin data							o					CbtyyB 79
.c Explore other data sources			1	2	3							CbtyyB 80
												CbtyyB 81
												CbtyyB 82
												CbtyyB 83
												CbtyyB 84
												CbtyyB 85
												CbtyyB 86
												CbtyyB 87
												CbtyyB 88
												CbtyyB 89

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000	
5. Environmental Surveillance of Third Round NSCW (Wheeler W 304-599-7421) (VKP-apD-158)(0.6/10.0/33.0) (100/VCb-Bmi-158)	80	83					B c b					CbminB 92
.1 Complete field survey (Cumulative)			3	4	5	7						CbminB 93
.2 Complete mid-survey analysis of existing data, and submit interim report to Director, DRDS				2								CbminB 94
.3 Complete individual mine survey reports (Cumulative)				4	5							CbminB 95
.4 Complete individual mine survey reports (1Q83)												CbminB 96
.5 Complete computer coding of all study data (2Q83)												CbminB 97
.6 Complete draft final report and submit for review (3Q83)												CbminB 98
.7 Complete final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)												CbminB 99
												CbminB 100
												CbminB 101
												CbminB 102
												CbminB 103
												CbminB 104
												CbminB 105







PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	FY	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF
									\$1000	\$1000
14. Lead Surveillance (Joyce Salg 513-684-3284) (0.5/45.0/60.0)(100/VMO-Bpp-616)	81		83							
A. Complete OMB package (2Q81).									DcPPP	246
B. Obtain OMB clearance through BLS.									DcPPP	249
C. Initiate survey.				o					DcPPP	250
D. Complete survey.					o				DcPPP	251
E. Complete data processing and editing.						o			DcPPP	252
F. Complete preliminary analysis, prepare final report and/or additional milestones as necessary (4Q83).							o		DcPPP	253
									DcPPP	254
									DcPPP	255
									DcPPP	256
									DcPPP	257
									DcPPP	258
15. Registration of Disease and Exposure Cohorts (Ed Dacey 513-684-3284) (0.2/20.0/25.0)(100/VMO-Byy-625)	79		C						DcYYY	261
A. Award Beryllium Case Registry Renewal-210-79-0067 (3Q81).									DcYYY	262
B. Edit and update existing files.									DcYYY	263
C. Submit RFC to OAMS for BCR contract (210-82 )				o	o	o	o		DcYYY	264
D. Complete draft report on BCR file update.				o					DcYYY	265
E. Award BCR contract.						o			DcYYY	266
F. Complete update report on file status of all cohorts and submit recommendations for future activities.							o		DcYYY	267
									DcYYY	268
									DcYYY	269
									DcYYY	270
									DcYYY	271
									DcYYY	272
16. State Mortality Module (Bill Crouse 513-684-3284) (5.0/250.0/390.0)(100/VMO-Byy-624)	80		C						DcYYY	275
A. Award cooperative agreements (4Q80).									DcYYY	276
B. Receive program descriptions on final protocol from the four grantees (2Q81).									DcYYY	277
C. Submit RFC or request to renew cooperative agreements.				o					DcYYY	278
D. Complete site visit to each existing grantee.				o					DcYYY	279
E. Obtain data tapes from grantees.							o		DcYYY	280
F. Award continuation contract or grant.							o		DcYYY	281
									DcYYY	282
									DcYYY	283
									DcYYY	284
									DcYYY	285
									DcYYY	286
									DcYYY	287
									DcYYY	288
									DcYYY	289

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q					NPF	TF
												\$1000	\$1000
17. Disability Surveillance of Occupation and Industry (Tom Fischbach 513-684-3284) (2.4/35.0/100.0)(100/VM0-Byy-629)  A. Complete development of NIOSH - SSA IA (2Q81). B. Submit renewal of IA (81-50) to OPPE. C. Award IA. D. Complete reports on strategy and procedures to identify occupation/industries for intensive study. E. Complete Report on Occupational Characteristics of Disabled Workers, 1975-1976 and submit abstract to Director, NIOSH and copy to DTS. F. Complete Report on Estimates of Occupation-Related Disability, 1969-1976 and submit abstract to Director, NIOSH and copy to DTS.	81		C						B	g	a	DcyyyB	292
												DcyyyB	293
												DcyyyB	294
												DcyyyB	295
												DcyyyB	296
												DcyyyB	297
												DcyyyB	298
												DcyyyB	299
												DcyyyB	300
												DcyyyB	301
												DcyyyB	302
												DcyyyB	303
												DcyyyB	304
												DcyyyB	305
												DcyyyB	306
												DcyyyB	307
	18. Mortality Surveillance of Occupation and Industry (Bill Crouse 513-684-3284) (3.5/410.0/500.0)(100/VM0-Byy-633)  A. Complete Bureau of Census/NCHS IA (2Q81). B. Submit renewal for IA with Census (81-42) and NCHS (81-07) C. Award IA's. D. Complete review of pre-test. E. Complete evaluation of implementation strategies. F. Initiate coding of industry and occupations from death certificates by the states (2Q83).	81		C						B	g	a	DcyyyB
												DcyyyB	311
												DcyyyB	312
												DcyyyB	313
												DcyyyB	314
												DcyyyB	315
												DcyyyB	316
												DcyyyB	317
												DcyyyB	318
												DcyyyB	319
												DcyyyB	320
												DcyyyB	321
												DcyyyB	324
												DcyyyB	325
												DcyyyB	326
												DcyyyB	327
19. Occupational Mortality In Washington State (Ed Dacey 513-684-3284) (100/VM0-Byy-642)  A. Complete coding and editing of data (2Q81). B. Receive sample data file from contractor. C. Receive final report from contractor. D. Complete final report and submit abstract to Director, NIOSH and copy to DTS.		81		82						B	b	a	DcyyyB
												DcyyyB	329
												DcyyyB	330
												DcyyyB	331
												DcyyyB	332
												DcyyyB	333
												DcyyyB	332
												DcyyyB	333
												DcyyyB	332
												DcyyyB	333



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF \$1000	TF \$1000
DIVISION OF SAFETY RESEARCH												
20. Industrial Change Surveillance (Gustin 923-7576) (VLB-abN-816)(100/VEa-BNy-816)	81	82					B	c	a			
.1 Identify data sources for potential analysis (1Q81)											E	B 336
.2 Analyze and evaluate data sources for their usefulness in defining problems (3Q81).											E	B 337
.3 Prepare plans for using data and analyses in injury surveillance system (3Q81)											EaNyyB	338
.4 Evaluate each source for injury rate predictive value (4Q81)											EaNyyB	339
.5 Prepare interim planning report to Director, DSR, with recommendations for Division programs (4Q81)											EaNyyB	340
.6 Test five data sources against NEISS and other surveillance data for statistical associations			1	3	4	5					EaNyyB	341
.7 Prepare project evaluation report for Director, DSR											EaNyyB	342
.8 Submit article on results for publication in journal											EaNyyB	343
											EaNyyB	344
											EaNyyB	345
											EaNyyB	346
											EaNyyB	347
											EaNyyB	348
											EaNyyB	349
											EaNyyB	350
											EaNyyB	351
											EaNyyB	352
											EaNyyB	353
											EaNyyB	354

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES			
		1Q	2Q	3Q	4Q		NPF	TF		
								PY	\$1000 \$1000	
21. General Surveillance and Analysis (Gustin 923-7576) (VLB-abN-806)(1.0/80.0/110.0)(1.00/VEa-BNy-806)	77	C					B c a			EaNyyB 357
.1 BLS Supplementary Data Tapes										EaNyyB 358
a. Report on status to Director, DSR			o	o	o	o				EaNyyB 359
b. Submit annual tables by program areas				o						EaNyyB 360
.2 FRASE Data Base										EaNyyB 361
a. Report to Director, DSR, on status				o		o				EaNyyB 362
b. Update data base with epi project reports					o					EaNyyB 363
.3 Milwaukee Industrial Clinic Back Injury Data										EaNyyB 364
a. Prepare purchase order (3Q81)										EaNyyB 365
b. Receive evaluation of data elements			o							EaNyyB 366
c. Submit report to Director, DSR			o							EaNyyB 367
.4 High Risk Injury Pattern Analysis										EaNyyB 368
a. Develop & approve calculation methods			o							EaNyyB 369
b. Complete tables & analysis				o						EaNyyB 370
c. Submit report to Director, DSR						o				EaNyyB 371
.5 Accident Investigation Reports Analysis										EaNyyB 372
a. Prepare purchase order (2Q81)										EaNyyB 373
b. Receive and review draft report						o				EaNyyB 374
c. Receive final report, copy to Director, DSR						o				EaNyyB 375
.6 Punch Press Injury Investigation Data										EaNyyB 376
a. Prepare purchase order (2Q81)										EaNyyB 377
b. Receive and review draft report			o							EaNyyB 378
c. Receive final report, copy to Director, DSR				o						EaNyyB 379
.7 Offshore Oil & Gas Well Drilling										EaNyyB 380
a. Submit strategy plan to Branch Chief (2Q81)										EaNyyB 381
b. Attend 1 ADC Safety Congress (3Q81)										EaNyyB 382
c. Conduct orientation for DSR personnel (3Q81)										EaNyyB 383
d. Submit job description/task analysis for offshore oil workers to Branch Chief			o							EaNyyB 384
e. Complete analysis of safety/health data						o				EaNyyB 385
f. Submit report and abstract to Director, DSR (1Q83)							o			EaNyyB 386
.8 Feasibility of establishing new National Data System in conjunction with existing mechanism										EaNyyB 387
a. Issue sources sought for development					o					EaNyyB 388
b. Evaluate & report to Director, DSR, on potential sources						o				EaNyyB 389
										EaNyyB 390
										EaNyyB 391
										EaNyyB 392
										EaNyyB 393

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F			RESOURCES		
				1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
				G	H	D	PY	\$1000	\$1000				
DIVISION OF STANDARDS DEVELOPMENT AND TECHNOLOGY TRANSFER													G B 396
22. Priorities and Research Analysis (D. West-513/684-8302) (VII-pyy-743,745,746,736,737,738,739 & 087)(100/VII-Byy-087)	70	C						B	g	a			G B 397
.1 Recruit personnel				o	o								GcyyyB 398
.2 Current Awareness													GcyyyB 399
a. Data input and system improvement				o	o	o	o						GcyyyB 400
b. Interagency Agreement-Incremental Funding (TIRC-50k)					o								GcyyyB 401
.3 Priorities													GcyyyB 402
a. Cycle for planning FY83													GcyyyB 403
.01 Present contract for profiles expires; 40 profiles received													GcyyyB 404
.02 Analyze profiles for future action; develop preliminary recommendations for document and research priorities (lists and PRSs)						o	o						GcyyyB 405
.03 Submit draft lists & PRSs to Division							o						GcyyyB 406
.04 Submit final lists & PRSs to Division (for use by Div. and for forwarding to OPPE)									o				GcyyyB 407
b. Cycle for planning FY84													GcyyyB 408
.01 Submit RFC for new contract for profiles (400k)							o						GcyyyB 409
.02 Award new contract (for profiles due Feb. 83); requires completion of refined list of subjects for consideration										o			GcyyyB 410
c. Emerging Problems Priorities (TIRC 76k)										o			GcyyyB 411
.4 Research Analysis (RA)													GcyyyB 412
a. General													GcyyyB 413
.01 RA on notable items entering CA data base				o	o	o	o						GcyyyB 414
.02 Track emerging problems for recommending Division or Institute action.				o	o	o	o						GcyyyB 415
.03 Prepare RA reports, upon requests from Division or Institute Director (e.g. 5 RA reports)				o	o	o	o						GcyyyB 416
.04 IA Incremental Funding (TIRC 64k)							o						GcyyyB 417
b. Quantitative Risk Assessment (QRA)													GcyyyB 418
.01 Comparative Risk Assessment Manual													GcyyyB 419
a. Submit RFC									o				GcyyyB 420
b. Award contract										o			GcyyyB 421
.02 Risk Estimation Computer Software													GcyyyB 422
a. Submit RFC											o		GcyyyB 423
b. Award contract												o	GcyyyB 424
.03 Risk Assessment methodology for Reversible Toxic Effects													GcyyyB 425
a. Submit RFC												o	GcyyyB 426
b. Award contract													GcyyyB 427
.04 Consultant Services (14k)													GcyyyB 428
.5 Current Research File (CRF) Maintenance													GcyyyB 429

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
a. (Second year renewal of contract on a funds available basis)											GcyyyB	442
.01 Submit RFC					o						GcyyyB	443
.02 Award contract						o					GcyyyB	444
b. Acquisition of reports			1.5k	3k	4.5k	6k					GcyyyB	445
c. Data extraction & update			1.2k	2.4k	3.6k	4.8k					GcyyyB	446
d. Obtain and Input Executive Summaries of NIOSH projects											GcyyyB	447
.01 Obtain Executive Summaries of NIOSH Projects				o							GcyyyB	448
.02 Input Executive Summaries of NIOSH Projects					o						GcyyyB	449
.03 Review Executive Summaries of NIOSH Projects through Divisions					o						GcyyyB	450
.04 Submit Executive Summaries of NIOSH Projects to SSIE						o					GcyyyB	451
e. Interface with other NIOSH components											GcyyyB	452
.01 Provide output in formats for program analysis			2	4	6	8					GcyyyB	453
.02 Provide OPPE formats with executive summaries			1	2	3	4					GcyyyB	454
.03 Provide PRAB with research analysis topic searches			4	8	12	16					GcyyyB	455
g. Use of CRF											GcyyyB	456
.01 Internal searches			45	90	135	180					GcyyyB	457
.02 External searches			60	120	180	240					GcyyyB	458
.6 Document Information Directory System (DIDS)											GcyyyB	459
a. Acquisition of NIOSH documents			150	300	450	600					GcyyyB	460
b. Data extraction and update			150	300	450	600					GcyyyB	461
c. Input NIOSH authored presentations			100	200	300	400					GcyyyB	462
d. Interface with other NIOSH components											GcyyyB	463
.01 DIDS customized subfiles with special index terms											GcyyyB	464
a. DSHEFS-IWS			o	o	o	o					GcyyyB	465
b. DTMD				o							GcyyyB	466
.02 Submit plan to NIOSH Director for identification & input of congressional and regulatory testimony				o	o						GcyyyB	467
e. Output searches			180	360	540	720					GcyyyB	468
.7 Information systems support activities											GcyyyB	469
a. TRAINS											GcyyyB	470
.01 Update file			o	o	o	o					GcyyyB	471
.02 Revise software			o	o	o	o					GcyyyB	472
b. Mailing List											GcyyyB	473

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES	
		1Q	2Q	3Q	4Q		NPF	TF
							PY	\$1000
.01 Revise software		o					GcyyyB	488
.02 Update list		o	o	o	o		GcyyyB	489
c. Other NIOSH Divisions							GcyyyB	490
.01 Mailing list analysis		1	2	3	4		GcyyyB	491
.02 File development		1	2	3	4		GcyyyB	492
.8 Input NIOSH projects to SSIE				o			GcyyyB	493
.9 Interagency Agreements (Reimbursables)							GcyyyB	494
a. Submit IA for OSHA, BIA, MSHA, & EPA to OPPE		o					GcyyyB	495
.10 NIOSHTIC Contract and System Maintenance							GcyyyB	496
a. Renewal of main contract							GcyyyB	497
.01 Submit RFC & 2.75 to OPPE			o				GcyyyB	498
.02 Award contract					o		GcyyyB	499
b. Review Contract Deliverables							GcyyyB	500
.01 Abstract data entry		3k	6k	9k	12k		GcyyyB	501
.02 Microfiche and hard copy		3k	6k	9k	12k		GcyyyB	502
c. Increase number of NIOSHTIC records		81k	84k	87k	90k		GcyyyB	503
d. Retrospective cleanup of NIOSHTIC anomalies							GcyyyB	504
.01 Verify and correct misc. NIOSH document citations		30	60	90	120		GcyyyB	505
.02 Identify & remove duplicates		8k	8k	8k	6k		GcyyyB	506
.11 NIOSHTIC Interface with NIOSH Programs							GcyyyB	507
a. Provide literature search topics to contractor based on priorities & CIB topics		6		16			GcyyyB	508
b. Submit NIOSH documents to NTIS & NIOSHTIC & supply NTIS account numbers & NIOSHTIC number to DIDS		90	180	270	360		GcyyyB	509
c. NIOSHTIC Review Panel							GcyyyB	510
.01 Establish panel		o	o	o	o		GcyyyB	511
.02 Quarterly meeting		o	o	o	o		GcyyyB	512
.12 NIOSHTIC Use							GcyyyB	513
a. Provide update tapes to NTIS			o	o	o		GcyyyB	514
b. Information exchange with Canadian Center for Occupational Health & Safety		o	o	o	o		GcyyyB	515
.13 Main RTECS contract (Tracor Jitco)							GcyyyB	516
a. Reports		o	o	o	o		GcyyyB	517
b. Quarterly microfiche		o	o	o	o		GcyyyB	518
c. Total number of substances		50k	52k	53k	55k		GcyyyB	519
d. Total number of synonyms		135k	138k	141k	143k		GcyyyB	520
							GcyyyB	521
							GcyyyB	522
							GcyyyB	523
							GcyyyB	524
							GcyyyB	525
							GcyyyB	526
							GcyyyB	527
							GcyyyB	528
							GcyyyB	529
							GcyyyB	530
							GcyyyB	531
							GcyyyB	532
							GcyyyB	533

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				O C N	P M F R E U G H D	RESOURCES					
		I	C	1Q	2Q			3Q	4Q	PY	NPF	TF	
											\$1000	\$1000	
e. Total data lines input			18k	36k	54k	72k						GeyyyB	534
.14 Second year renewal of main RTECS contract												GeyyyB	535
a. Submit RFC					o							GeyyyB	536
b. Award contract						o						GeyyyB	537
.15 Toxic Effects Code Contract (Univ. of California, San Francisco)												GeyyyB	538
												GeyyyB	539
												GeyyyB	940
a. Data lines received from contractor			.4k	.9k	2.0k	3.0k						GeyyyB	541
b. Submit no-cost extension			o									GeyyyB	542
c. Award extension			o									GeyyyB	543
.16 RTECS Interface with other NIOSH components												GeyyyB	544
a. Editorial Review Board Meeting			o	o	o	o						GeyyyB	545
b. Provide data for NOHS analysis			o	o	o	o						GeyyyB	546
												GeyyyB	547
c. Process PRAB special file data			1.5k	3k	4.5k	6k						GeyyyB	548
												GeyyyB	549
d. Input DPSE analytical methods			5	10	15	20						GeyyyB	550
.17 Measure of external RTECS usage												GeyyyB	551
												GeyyyB	552
a. Quarterly microfiche subscription increase			1k			1.2k						GeyyyB	553
												GeyyyB	554
b. NLM search hours/month			300	600	900	1.2k						GeyyyB	555
												GeyyyB	556
c. CIS search hours/month			120	240	360	480						GeyyyB	557
												GeyyyB	558
d. GPO sales of book							6k					GeyyyB	559
.18 NLM Interagency Agreement Renewal					o							GeyyyB	560
.19 (Production of 1981 RTECS on a funds available basis)												GeyyyB	561
a. Submit tape to GPO VIDEOCOMP						o						GeyyyB	562
												GeyyyB	563

## HEALTH HAZARD EVALUATIONS

The purpose of this activity in NIOSH is to conduct the health hazard evaluation programs mandated by the Occupational Safety and Health and the Federal Mine Safety and Health Acts. These programs respond to requests for assistance from employers, employees and their authorized representatives, other Federal agencies, and State and local agencies to determine the toxic effects of chemical, biological, or physical agents that are used or found in the workplace. To accomplish this assistance, cross-sectional medical and industrial hygiene investigations are conducted at the workplace of concern. These investigations evaluate the substances, processes, work practices, etc. found in the workplace, and come to conclusions about related health effects based on the most recent published criteria (i.e., OSHA and MSHA standards, NIOSH recommendations for standards, and Threshold Limit Values published by the American Conference of Governmental Industrial Hygienists). Recommendations for improved work practices, control techniques, and industrial hygiene procedures are then made to the employer to reduce the risk of adverse health effects on the employees.

During FY 1981, over 500 requests for assistance were received. Over 275 final reports were issued and approximately 200 requests were closed out by letter (often after a site visit). For FY 1982, a moderate increase in the number of both requests and completions is expected. Increased dissemination of these results is planned. In addition, requests will be stimulated in several areas of specific importance and interest to the Institute. Building on efforts initiated in FY 1981, DSHEFS, DRDS, OECSP, DBBS, and DPSE will place major emphasis on increasing the efficiency of the HHE programs through streamlining procedures, better segmenting of incoming requests, and more effective management.

### Division of Surveillance, Hazard Evaluations, and Field Studies

DSHEFS' HHE program has as its goal to (1) increase the responsiveness to requests, (2) continue to decrease the average time to complete an investigation, (3) increase the number of completed investigations to 500 per annum, (4) increase the number of HHEs resulting in followup research efforts by NIOSH, and (5) expand the number of subsequent dissemination efforts resulting from HHEs.

During FY 1981, over 450 HHE (general industry) requests were received. Over 230 final reports were issued, and an additional 150 requests were closed out by letter (often after a site visit). Dissemination efforts increased, including two quarterly summaries of HHE reports, ten articles in CDC's Morbidity and Mortality Weekly Report and publication of the general results of HHEs in two professional/trade journals.

For FY 1982, DSHEFS expects to receive approximately 500 new requests. These requests should continue to derive proportionately from the same sources as FY 1981: approximately 50 percent from employees or unions, 25 percent from employers (mainly small businesses), and 25 percent from other governmental agencies. Nearly 250 final reports will be issued, and another 250 requests will be completed by letter (often after an initial site visit). In addition:

1. Continued efforts will be made to improve the efficiency of the program. This will be done by better segmenting (triaging) of incoming requests to concentrate efforts on more important requests (i.e., new agents, multiple exposures, undocumented health effects). These continued efforts should lead to both greater productivity and decreased time to complete reports.
2. The effort to improve the dissemination of HHE results also will continue. This effort will include publication of CDC's MMWR articles and technical papers, and efforts to widely disseminate selected HHE results. Particular attention will be given to employers and workers in specific industries where it may be important to be aware of new HHE findings.
3. In FY 1982, the effectiveness of regional decentralization should be able to be evaluated and then a plan for any expansion of the concept can be developed, if appropriate.
4. Special areas of emphasis in the HHE program also will be developed in FY 1982. These will include hazardous wastes, reproductive hazards, and ergonomic hazards. There also will be an increased effort to uncover problems in these areas and others which are suitable for more complete followup evaluations by other NIOSH research programs.
5. A concerted effort will be made to strengthen the linkages between the HHE program and the related counterparts in universities and State health departments. Building on experience gained through cooperative agreements in FY 1981 in working with New Jersey, the University of North Carolina, and Harvard University, practical mechanisms will be developed to (a) improve communications regarding ongoing program activities of mutual interest, (b) develop capabilities to conduct HHEs at the State and academic levels, (c) jointly conduct investigations when appropriate, and (d) improve the dissemination of results of investigations.



### Division of Biomedical and Behavioral Sciences

DBBS performs HHEs on factors identified with physical agents, job stress, and ergonomics problems associated with work environments or conditions. Expertise within DBBS is strongly associated with these factors in terms of intramural and extramural research consultation and field experience. In FY 1981 approximately 35 HHEs related to physical agents were performed, and six HHEs bearing on ergonomic factors were conducted. Continuation of this effort in FY 1982 and 1983 is planned.

### Division of Respiratory Disease Studies

Under the provisions of Section 501(a)(11) of the Federal Mine Safety and Health Act of 1977 (Public Law 95-164), NIOSH has the responsibility to conduct HHEs in mines upon request from miners and mine operators. This program responds to health concerns of the approximately 500,000 miners in coal and metal and non-metal mines. In addition to assessing health hazards at actual mine sites, the personnel in the HHE program assess hazards in preparation plants, mills, maintenance facilities, laboratories, and waste treatment plants associated with the mine site. The program also provides technical assistance to other Federal agencies and State and local agencies with interests in mining operations.

The HHE program identifies potential health hazards at a particular mine site. Once a study is completed the results are distributed so that other mines with similar potential hazards are made aware of the particular problems. Internally, the HHE program acts as a passive surveillance program which provides information to active mine surveillance and to research programs for future areas of emphasis.

In FY 1980, the third year of operation, the program handled 64 requests requiring at least a walk-through survey and in many cases an indepth study. In FY 1981, due to budget considerations, 50 such requests were projected; by the end of the third quarter, 35 requests had been received. Similar levels of activity are anticipated by FY 1983. In addition to surveys, the HHE program also provides technical information to individuals who write or call regarding particular interests in mining-related exposures or health problems.

The HHE program also conducts hazard evaluations related to respiratory diseases in general industry under the authority of the Occupational Safety and Health Act of 1970 (Public Law 91-173). These requests come to DRDS via the Hazard Evaluation and Technical Assistance Branch, DSHEFS.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES			
		1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000		
*****HEALTH HAZARD EVALUATIONS*****										V	567	
										V	568	
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE										A	569	
										A	570	
1. Behavioral-Ergonomic Support for HHEs (A. Cohen, 684-8292) (VOB-fAE-273)(100/VOB-Vyy-273)	81	C						V	c	a	A	572
											A	573
											A	574
.1 Response to TAs on Biomechanical Issues											A	575
											A	576
a. Perform consultation			1	2	3	4					A	577
											A	578
b. Perform site visits			0	1	2	3					A	579
											A	580
c. Submit report to DSHEFS			0	1	2	3					A	581
.2 Response to TAs on Job Stres Issues											A	582
											A	583
a. Perform consultation			1	2	3	4					A	584
											A	585
b. Perform site visits			0	1	2	2					A	586
											A	587
c. Submit reports to DSHEFS			0	1	2	2					A	588
.3 Response to HHEs on Neurobehavioral Issues											A	589
											A	590
a. Perform consultation			0	1	2	2					A	591
											A	592
b. Perform site visits			o	o	o	o					A	593
											A	594
c. Submit report to DSHEFS			0	0	1	1					A	595
.4 Submit progress report to Director, DBBS			o	o	o	o					A	596
.5 Submit final report to Director, DBBS											A	597
.6 Submit abstract to Director, NIOSH											A	598
											A	599

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
				1Q	2Q	3Q	4Q			NPF	TF
										\$1000	\$1000
2. Clinical Chemistry Service & Research - HHEs (L. Lowry 684-8338) (100/VOT-Vyy-378)	82		C					V c a			
.1 Develop hazard data sheets (H.D.S.) as needed				o							AdyyyV 602
.2 Submit H.D.S. to Director, DBBS				o							AdyyyV 603
.3 Submit H.D.S. to all project staff				o							AdyyyV 604
.4 Submit progress report to Director, DBBS				o	o	o	o				AdyyyV 605
.5 Complete SOPs for common methods				o							AdyyyV 606
.6 Per quarter, complete 85% of HHE or TA samples				o	o	o	o				AdyyyV 607
.7 Develop Biological Monitoring Methods				o							AdyyyV 608
a. Organic solvents				o		o					AdyyyV 609
b. Other methods as requested				o	o		o				AdyyyV 610
.8 Provide HHE consultation				o	o	o	o				AdyyyV 611
.9 Submit final project report to Director, DBBS							o				AdyyyV 612
.10 Submit abstract to Director, NIOSH							o				AdyyyV 613
											AdyyyV 614
											AdyyyV 615
											AdyyyV 616
											AdyyyV 617
3. Health Hazard Evaluations of Physical Agents (W Murray 684-8482) (100/VOG-Vaf-354)	82		C					V c a			AeafyV 620
.1 Respond to HHE/TA requests				3	6	9	12				AeafyV 621
.2 Submit progress report to Director, DBBS				o	o	o	o				AeafyV 622
.3 Submit final report to Director, DBBS							o				AeafyV 623
.4 Submit abstract to Director, NIOSH							o				AeafyV 624
											AeafyV 625
											AeafyV 626
											AeafyV 627
											B V 629
											B V 630
DIVISION OF PHYSICAL SCIENCES AND ENGINEERING											
4 HHE Analytical Support (John L. Holtz 684-4218) (VQK-uXX-425)(7.8/225/471)(100/VQK-Vyh-425)	82		C					V b a			BbyhyV 632
.1 Analyze routine samples from HHE and TA surveys (DSHEFS)				2.5k	5.0k	7.5k	10k				BbyhyV 633
.2 Analyze non-routine samples from HHE and TA surveys (DSHEFS)				500	1.0k	1.5k	2.0k				BbyhyV 634
.3 Analyze samples submitted from Regions				150	300	450	600				BbyhyV 635
.4 Procure Short Term Method Development Contract											BbyhyV 636
a. Submit RFC to OAMS				o							BbyhyV 637
b. Award Contract					o						BbyhyV 638
.5 Analyze samples from General Industry HHE's (DRDS)				150	300	450	600				BbyhyV 639
.6 Provide analyses of samples from mining HHE's				250	500	750	1.0k				BbyhyV 640
.7 Short-term method development for HHE/TA surveys				4	8	12	16				BbyhyV 641
.8 Maintain an average turnaround time of 30 working days for in-house HHE and TA sample analyses.				30	30	30	30				BbyhyV 642
											BbyhyV 643
											BbyhyV 644
											BbyhyV 645
											BbyhyV 646

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F			RESOURCES						
		I	C	1Q	2Q	3Q	4Q	O C N		PY	\$1000	\$1000			
								G	H				D		
<b>DIVISION OF RESPIRATORY DISEASE STUDIES</b>															
5. Mining Health Hazard Evaluation/Technical Assistance (Engelberg A 304-599-7203) (VKP-fpD-153)(100/VCo-Vdn-153)	81	C						V	b	b			C	V	649
.1 FY'81 HE/TA Requests Received: 38 (4Q81)													CodnyV	651	
.2 FY'81 HE/TA Final Reports: 22 (4Q81)													CodnyV	652	
.3 Active Pre '82 Requests			40	30	20	10							CodnyV	653	
.4 New HE/TA Requests			10	20	30	40							CodnyV	654	
.5 HE/TA's Completed			10	20	30	40							CodnyV	655	
.6 Active Requests			40	40	40	40							CodnyV	656	
													CodnyV	657	
													CodnyV	658	
													CodnyV	659	
													CodnyV	660	
													CodnyV	661	
													CodnyV	662	
													CodnyV	663	
.7 Field Surveys Conducted			12	24	36	48							CodnyV	664	
													CodnyV	665	
a. DRDS			11	22	33	44							CodnyV	666	
													CodnyV	667	
b. Regions			45	91	132	182							CodnyV	668	
													CodnyV	669	
c. Other			11	21	31	42							CodnyV	670	
													CodnyV	671	
													CodnyV	672	
.8 HE/TA's Completed: Type of Report			10	20	30	40							CodnyV	673	
													CodnyV	674	
a. Full Reports			7	13	19	38							CodnyV	675	
													CodnyV	676	
b. Without Reports (Letter/Other)			3	7	11	12							CodnyV	677	
													CodnyV	678	
c. Other Close Outs													CodnyV	679	
													CodnyV	680	
.9 HE/TA's Completed: Investigators			10	21	32	40							CodnyV	681	
													CodnyV	682	
a. DRDS			9	18	28	37							CodnyV	683	
													CodnyV	684	
b. Regions			0	1	2	2							CodnyV	685	
													CodnyV	686	
c. Medical Services/Cooperative Agreement Reports			1	2	2	2							CodnyV	687	
													CodnyV	688	
.10 Median Response Time (Mos.)													CodnyV	689	
													CodnyV	690	
Full Reports			8	8	8	8							CodnyV	691	
													CodnyV	692	
Letter Reports			4	4	4	4							CodnyV	693	
													CodnyV	694	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES		
		1Q	2Q	3Q	4Q		NPF	TF	
							PY	\$1000	\$1000
.11 % Investigations over 5 months old with required Interim Reports prepared this Quarter		70%	75%	80%	85%				CcdnyV 695
									CcdnyV 696
									CcdnyV 697
.12 Other Requests Serviced		40	80	120	160				CcdnyV 698
									CcdnyV 699
.13 Initiate Institute Studies from HE/TA's					2				CcdnyV 700
									CcdnyV 701
.14 Final reports transmitted to requestor and/or interested parties, and NIOSH distribution		o	o	o	o				CcdnyV 702
									CcdnyV 703
.15 Criteria Document Assistance									CcdnyV 704
a. Complete Input and Review of In-house Criteria Documents		o	o	o	o				CcdnyV 705
									CcdnyV 706
b. Complete Review of Contract Criteria Documents		o	o	o	o				CcdnyV 707
									CcdnyV 708
c. Complete Support to OSHA and Hearings and Other Congressional Hearings		o	o	o	o				CcdnyV 709
									CcdnyV 710

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES		D V		
		1Q	2Q	3Q	4Q			NPF	TF			
								\$1000	\$1000			
<b>DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES</b>												
6. Health Hazard Evaluations and Technical Assistance (Jim Malius 513-684-2176) (71.5/2,000.0/3,700.0)(100/VMC-Vyy-688)(100/VMR-Wyy-680)	80	C										
A. FY'81 HE/TA requests received through 3Q81- 365.												DayyyV 715
B. FY'81 completed HE/TA's through 3Q81 - 283.												DayyyV 716
C. Active pre'82 requests.			325	250	175	100						DayyyV 717
D. New HE/TA requests.			125	250	375	500						DayyyV 718
E. HE/TA's completed.			125	250	375	500						DayyyV 719
F. Active requests.			400	400	400	400						DayyyV 720
G. Initial surveys conducted			100	200	300	400						DayyyV 721
1. HETAB			45	90	135	180						DayyyV 722
2. Regions			45	90	135	180						DayyyV 723
3. Other			10	20	30	40						DayyyV 724
H. Follow-up surveys conducted.			65	130	195	260						DayyyV 725
1. HETAB			35	70	105	140						DayyyV 726
2. Regions			25	50	75	100						DayyyV 727
3. Other			5	10	15	20						DayyyV 728
I. HE/TA's completed: type of report			125	250	375	500						DayyyV 729
1. Full reports			65	130	195	260						DayyyV 730
2. Letter reports			35	70	105	140						DayyyV 731
3. Other close outs			25	50	75	100						DayyyV 732
J. HE/TA's completed: investigators			125	250	375	500						DayyyV 733
1. HETAB			70	140	210	280						DayyyV 734
2. Regions			50	100	150	200						DayyyV 735

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES		
		1Q	2Q	3Q	4Q		PY	NPF \$1000	TF \$1000
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS								F V 838	
8. Regional Office Services (Bursenos, 443-3136) (VCH-fXy-876) (1.0/0.015/0.04) (100/VCH-Wyy-876) (VCI-fXy-882) (36.0/0.300/1,500.0) (100/VCI-Vyy-882)	71 C					V c a		F V 839	
.1 Conduct HHE/TA's in determining toxic effects of substances used in the workplace per Section 20(a)(6) of the OSH Act.								FbyyyV 840	
a. FY 81 Carryover Requests:								FbyyyV 841	
.01 Expected carryover requests		170						FbyyyV 842	
.02 Complete remaining initial surveys		25	50					FbyyyV 843	
.03 Conduct follow-up environmental surveys		30	60	90				FbyyyV 844	
.04 Submit draft final report to DSHEFS		30	70	100				FbyyyV 845	
.05 Close-out letters		o	o	o	o			FbyyyV 846	
b. FY 82 Requests								FbyyyV 847	
.01 HHE/TA requests assigned		40	80	120	160			FbyyyV 848	
.02 Conduct initial surveys		30	60	90	120			FbyyyV 849	
.03 Conduct follow-up environmental surveys		20	40	60	90			FbyyyV 850	
.04 Submit draft final report to DSHEFS			30	50	70			FbyyyV 851	
.05 Close-out letters		o	o	o	o			FbyyyV 852	
.2 Provide consultation and assistance to and in behalf of Testing and Certification Branch, DSR in the area of Personal Protective Equipment								FbyyyV 853	
a. Conduct field investigations of complaints related to personal protective equipment at the request of Field Investigations Group		6	14	20	26			FbyyyV 854	
b. Identify users and sites for testing field effectiveness of PPE in the Regions		o	o	o	o			FbyyyV 855	
c. Transmit findings of potential PPE problems discovered in field by users to NIOSH Headquarters, DSR and TCB		o	o	o	o			FbyyyV 856	
d. Establish and obtain equipment for a field audit program				o				FbyyyV 857	
.3 Provide consultation and technical assistance in the Regions as well as to NIOSH Headquarters in the area of hazardous wastes disposal								FbyyyV 858	
a. Serve as member on and/or provide technical assistance to regional response teams		o	o	o	o			FbyyyV 859	
b. Provide on-site technical assistance and advice regarding worker exposure to hazardous and toxic wastes via NIOSH HHE/TA program and NIOSH responsibilities in the interagency agreement on management of toxic and hazardous wastes		o	o	o	o			FbyyyV 860	
.4 Conduct investigations of workplace hazards and provide industrial hygiene and safety consultative services, self-initiated and upon request (DSHEFS assigned TA's excluded)		50	100	150	200			FbyyyV 861	
.5 State Occupational Safety and Health Program Activities								FbyyyV 862	
								FbyyyV 863	
								FbyyyV 864	
								FbyyyV 865	
								FbyyyV 866	
								FbyyyV 867	
								FbyyyV 868	
								FbyyyV 869	
								FbyyyV 870	
								FbyyyV 871	
								FbyyyV 872	
								FbyyyV 873	
								FbyyyV 874	
								FbyyyV 875	
								FbyyyV 876	
								FbyyyV 877	
								FbyyyV 878	
								FbyyyV 879	
								FbyyyV 880	
								FbyyyV 881	
								FbyyyV 882	
								FbyyyV 883	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
a. Monitor and/or review the administrative and technical adequacy of State 23(g) grants and make appropriate recommendations to OSHA						22					FbyyyV	884
											FbyyyV	885
											FbyyyV	886
b. Assist States in further development of their occupational safety and health enforcement and/or consultation program(s) by providing technical expertise and information, site visits with programmatic reviews and assistance in defining and fulfilling staff training needs			o	o	o	o					FbyyyV	887
											FbyyyV	888
											FbyyyV	889
											FbyyyV	890
											FbyyyV	891
											FbyyyV	892
c. Identify gaps in State occupational safety and health programs which could be addressed by NIOSH and provide written recommendations to appropriate Institute activity for consideration in their program planning			o	o	o	o					FbyyyV	893
											FbyyyV	894
											FbyyyV	895
											FbyyyV	896
d. Provide consultation and technical assistance to States or other political subdivisions with "Right to Know" legislation or proposed legislation			o	o	o	o					FbyyyV	897
											FbyyyV	898
											FbyyyV	899
.6 Support and promote organized activities within the Region and Nationally impacting on workplace hazards by:											FbyyyV	900
a. Participating in appropriate committees, task forces, workshops, etc.			o	o	o	o					FbyyyV	901
											FbyyyV	902
											FbyyyV	903
b. Serving as resource persons to such organizations as NHSC, HSA's, professional organizations, universities, safety councils, Labor/Management Committees, etc.			o	o	o	o					FbyyyV	904
											FbyyyV	905
											FbyyyV	906
.7 Site-visit each ERC for program monitoring; site-visit or consult with other appropriate institutions within the regions for stimulation or monitoring research or training grants			10	20	30	40					FbyyyV	907
											FbyyyV	908
											FbyyyV	909
											FbyyyV	910
.8 Provide lectures, seminars, or training sessions within the regions to increase responsiveness to and awareness of occupational safety and health problems			25	50	75	100					FbyyyV	911
											FbyyyV	912
											FbyyyV	913
.9 Consult with MSHA, DOL, with respect to granting of waivers for provision of sanitary facilities and grant such approvals required by Subpart E and F of the Mandatory Health Standards for Surface Coal Mines			o	o	o	o					FbyyyV	914
											FbyyyV	915
											FbyyyV	916
											FbyyyV	917
10 Plan and conduct two regional program planning meetings			1		2						FbyyyV	918
11 Work with OPPE to develop a mechanism for Regional involvement in NIOSH planning process			o								FbyyyV	919
											FbyyyV	920
12 Develop white paper on proposed designation of regional staff to serve as liaison with each NIOSH Office and Division				o							FbyyyV	921
											FbyyyV	922
											FbyyyV	923
13 Visit each regional office annually to review regional program activities and problems			3	5	7	10					FbyyyV	924
											FbyyyV	925
14 Hold monthly Regional conference calls, including participation of Director, NIOSH and appropriate Offices/Divisions			3	6	9	12					FbyyyV	926
											FbyyyV	927
15 Prepare and submit to CDC Institute guidelines for RHA's annual workplans						o					FbyyyV	928
											FbyyyV	929



## EVALUATE OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

NIOSH's goal, to evaluate occupational safety and health problems, is the core of NIOSH's scientific research. Under this goal NIOSH tests scientific hypotheses through the disciplines of epidemiology, toxicology, and kinesiology. NIOSH scientists ascertain and measure precisely the cause-and-effect relationship(s) of identified occupational safety and health hazards and the significance of each hazard. As associations of occupational safety and health problems are made to causes, intervention strategies can be implemented to prevent the problems. The following long-range objectives for the Nation are considered under this goal:

1. By 1985, a program should be developed to (a) follow up individual findings from health hazard evaluations, from reports from unions and management and from other existing surveillance sources of clinical and epidemiologic data, and (b) use the findings to determine the etiology, natural history, and mechanisms of suspected occupational disease and injury.
2. By 1990, the number of industrywide studies being performed annually should increase to 150. (In 1979, NIOSH performed about 15 industrywide studies.)

And the following FY 1982 objectives requested by DOL's NIOSH Planning Group also are considered under this goal:

### First-Order Priority

1. Provide information, to MSHA, to develop heat-stress limits in mines.
2. Provide information, to MSHA, to develop multiphase exposure limits for each compound of vanadium.
3. Investigate the problems of repetitive motion injuries for the Occupational Safety and Health Administration.

### Second-Order Priority

4. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for lead sulfides vs. lead oxides.
5. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for arsenic sulfides vs. arsenic oxides.

6. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for the synergistic effects of coal mine respirable dust and diesel exhausts.
7. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for dust and quartz.

Third-Order Priority

8. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for nitrogen oxides.
9. Provide information, to MSHA, that is necessary for developing multiphase exposure limits for carbon oxides.

## REPRODUCTIVE EFFECTS

Recent research data have highlighted the fact that the occupational setting can be the source of reproductive effects as well as the more commonly acknowledged deleterious effects such as lung dysfunction, cancer, dermatitis, etc. This research includes information on effects such as male sterility in dibromochloropropane workers, impotence in workers exposed to a neurotoxin, increased birth defects among children born to women pharmaceutical workers, and excessive spontaneous abortions among medical laboratory and office workers and hospital and dental personnel exposed to anesthetic gases. These startling facts have shown the need for better means to identify and evaluate hazardous chemicals and populations at risk, and to determine whether an occupational cluster of adverse reproductive effects is actually a result of occupation. To accomplish this, a formal reproductive effects initiative was established within NIOSH in FY 1980. This initiative is being implemented through laboratory and epidemiologic studies and will rely on improved methods for mutagenicity and teratogenicity testing and better epidemiologic tools which have been developed in the last 3 years. Completion of NIOSH's second National Occupational Hazard Survey (NOHS-II) also should enable NIOSH to identify most workers at risk once a hazard is identified. In addition, both surveillance and health hazard evaluation activities will complement laboratory methods used to identify hazards.

### Division of Biomedical and Behavioral Sciences

DBBS's reproductive hazards program includes identification and assessment of chemicals that prevent or inhibit reproduction through effects on adults of either sex, interfere with normal development, are expressed either in utero or postnatally, or cause genetic disease. A total of 33 chemicals have been tested. Significant findings include the demonstration of adverse effects from glycol ethers on the reproductive systems of both male and female rats. Methods involving the use of drosophila for short-term teratogenesis screening are being developed. Laboratory studies of the effects of radiofrequency and microwave radiation have demonstrated that teratogenic effects in rats include facial aplasia and microencephaly. In FY 1982 efforts will continue that will:

1. Broaden the base of the reproductive toxicology program to develop a coordinated effort in reproductive physiology, teratogenesis, and mutagenesis.

2. Establish a comprehensive research program to address each of the three general classes of reproductive effects (fertility impairment, abnormal development, and genetic disease) and how they relate one to another.
3. Take a lead role in developing and applying laboratory methods for evaluating the potential of mutagenic industrial chemicals to adversely affect subsequent generations.

#### Division of Respiratory Disease Studies

This Division's mutagenic monitoring of selected workplace environments and worker groups serves several purposes: the detection of mutagens in the workplace; the determination of whether mutagenic compounds found in the workplace are sufficient to cause genetic damage to the workers; establishing the relationship between the level of workplace mutagens, genetic damage, and health hazards; and identifying worker population groups for epidemiologic and surveillance studies. The results of mutagenic monitoring might be used as an environmental or biological dosimeter for adverse health effects. Activities in this area include:

1. The development of suitable mutagenic monitoring systems for the workplace environment.
2. Development and/or validation of in vitro assay systems to study the mutagenic activity of workplace chemical complexes and mixtures.
3. Performance, validation, or improvement of human mutagenic monitoring systems which include urine analysis and cytogenetic and gene mutation assays.
4. Performance of in vitro mutagenesis studies for health hazard evaluations and other related projects within the Institute, and identification of occupational groups for mutagenic monitorings and epidemiologic studies.

#### Division of Surveillance, Hazard Evaluations, and Field Studies

DSHEFS performs two types of studies to examine the adverse reproductive effects that may be caused by occupational exposures to certain biological, chemical, and physical agents. These effects may be manifested as infertility, spontaneous abortion, fetal death, low birth weight, altered sex ratio, birth defects, developmental deficits, and childhood cancer.

The two epidemiologic approaches employed by DSHEFS are case-control studies of reproductive failure and parental exposure cohort studies.

Surveillance studies utilize existing data to establish associations between reproductive failures and parental employment, and usually use the case-control design. The DSHEFS FY 1982 surveillance reproductive initiative program consists of five projects that were initiated in FYs 1980 and 1981:

1. An interagency agreement with NCHS is being utilized to collect data from their 1980 National Natality and Fetal Death follow-back study.
2. Surveillance cooperative agreements with New York and Utah are being utilized to analyze State data on the possible association between parental employment and fetal death.
3. A case comparison study of parental employment and fetal outcome is being conducted utilizing data from New York City.
4. A study of parental employment and spontaneous abortion is being conducted using the extensive data set compiled by the Research Foundation for Mental Hygiene, Inc. (Columbia University).
5. Identification of groups of workers potentially exposed to teratogens in the workplace as sensed by means of the 1972-74 NOHS-I is being accomplished through linkage with NIOSH's Registry of Toxic Effects of Chemical Substances.

Those reproductive hazards investigations that fall into DSHEFS' industrywide studies program are generally conducted using the parental exposure cohort concept. The study designs and analytical tools necessary to conduct these investigations have been developed over the last few years. This effort has yielded a detailed reproductive history questionnaire which has been tested in the field, the development of computer-based masterfile formats, and analytical programs. The data for several field studies (wives of male lead workers, wives of male workers exposed to carbon disulfide, and female pharmaceutical workers) have been collected and computerized. The analysis and final reports for these studies will be completed in FY 1982.

The results generated from these studies will add significantly to our understanding of the effects on the reproductive system (male and female) from certain occupational exposures and, depending on the results, these studies may provide important information to help set standards and protect the health of the workers.

The rapid relay of toxicology data from DBBS has provided important information for expeditiously proceeding with a reproductive study of glycol ethers, which will be initiated fully in FY 1982. Contacts with other agencies that are now developing data are expected to produce similar benefits.

A new unit within DSHEFS has been established to focus on reproductive effects research in FY 1982. This unit will begin setting priorities, assessing the feasibility of conducting additional field studies, and expanding into other study designs. In addition to the glycol ethers project mentioned above, two other research projects will continue into FY 1982:

1. A cytogenetic study of workers in the pharmaceutical industry and workers exposed to low-level ionizing radiation.
2. A reproductive study of females exposed to polychlorinated biphenyls, which will evaluate neonatal deaths, miscarriages, stillborns, congenital defects, and low birth weight.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
*****REPRODUCTIVE EFFECTS*****												A 933
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE												A 934
1. Behavioral Teratology of Cellosolves (K. Nelson, 684-8383) (VOB-cCh-278)(1.0/7.6/35.0)(100/VOB-Ahy-278)	81	83					A	c	a			A 935
.1 Complete peer review (2Q81)												A 936
.2 Submit final protocol to Director, DBBS (2Q81)												AahyyA 938
.3 Submit Hazard Data Sheet to staff (3Q81)												AahyyA 939
.4 Initiate cellosolve exposures (2Q81)												AahyyA 940
.5 Submit progress report to Director, DBBS												AahyyA 941
.6 Complete cellosolve exposures												AahyyA 942
a. 2-methoxyethanol (3Q81)												AahyyA 943
b. 2-butoxyethanol (4Q81)												AahyyA 944
c. 2-ethoxy-ethoxy ethanol												AahyyA 945
d. 2-ethoxyethanol acetate												AahyyA 946
.7 Initiate behavioral testing												AahyyA 947
.8 Initiate neurochemical analyses												AahyyA 948
.9 Complete neurochemical analyses												AahyyA 949
.10 Submit teratology report to Director, DBBS												AahyyA 950
.11 Complete behavioral testing (3Q83)												AahyyA 951
.12 Submit final project report to Director, DBBS (4Q83)												AahyyA 952
.13 Submit abstract to Director, NIOSH (4Q83)												AahyyA 953
.14 Submit project records to Q.A. Unit, DBBS (4Q83)												AahyyA 954
												AahyyA 955
												AahyyA 956
												AahyyA 957
												AahyyA 958
												AahyyA 959

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M T R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF \$1000	TF \$1000	
2. Development of Teratogen Screening Methods (R. Schuler 684-8357) (V00-cAh-340)(0.1/2.5/5.5)(100/V00-Ahy-340)	81	83					A b a			AchyyA 962
.1 Consult Information Office (1Q81)										AchyyA 963
.2 Complete project peer review (1Q81)										AchyyA 964
.3 In-house studies										AchyyA 965
A. Mouse Teratology Screening Technique										AchyyA 966
a. Initiate positive control study (1Q81)										AchyyA 967
b. Complete positive control study (3Q81)										AchyyA 968
.4 Contract Teratology Studies (Four)										AchyyA 969
a. Initiate testing of chemicals (each contract)			o							AchyyA 970
b. Complete site visit				o						AchyyA 971
c. Review progress reports			o	o	o	o				AchyyA 972
d. Complete test					o					AchyyA 973
e. Receive final reports						o				AchyyA 974
f. Submit report to Director, DBBS							o			AchyyA 975
.5 Contract Teratology Screening										AchyyA 976
a. Submit RFCs to OAMS				o						AchyyA 977
b. Award contracts (3)					o					AchyyA 978
c. Initiate testing						o				AchyyA 979
d. Perform site visit (1Q83)										AchyyA 980
e. Review progress reports (1Q83)(2Q83)(3Q83)										AchyyA 981
f. Receive final reports (4Q83)										AchyyA 982
g. Submit report to Director, DBBS (4Q83)										AchyyA 983
.6 Submit progress report to Director, DBBS			o	o	o	o				AchyyA 984
.7 Submit final project report to Director, DBBS (4Q83)										AchyyA 985
.8 Submit abstract to Director, NIOSH (4Q83)										AchyyA 986
.9 Submit project records to Q.A. Unit, DBBS (4Q83)										AchyyA 987
										AchyyA 988
										AchyyA 989
										AchyyA 990



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF \$1000	TF \$1000
3. Development of Sperm Analysis Methods (B. Hardin, 684-8394) (V00-cCy-342)(1.4/60.7/100.7)(100/V00-Ayy-342)	81	83					A	b	a			
.1 Consult Information Office (1Q81)											AcyyyA	993
.2 Complete NIEHS site visit (2Q81)											AcyyyA	994
.3 Award FFS for sperm head morphology assay (2Q81)											AcyyyA	995
.4 Receive analysis of slides											AcyyyA	996
a. Propylene oxide (2Q81)											AcyyyA	997
b. Ethoxyethanol (2Q81)											AcyyyA	998
c. Ethylene oxide (2Q81)											AcyyyA	999
.5 Submit progress reports to Director, DBBS			o	o	o	o					AcyyyA	1000
.6 Complete training and familiarization with videographic and hamster ova systems			o								AcyyyA	1001
.7 Begin testing known antifertility agents			o								AcyyyA	1002
.8 Complete review of literature on biochemical markers			o								AcyyyA	1003
.9 Complete peer review				o							AcyyyA	1004
.10 Complete report on potential of videographic techniques						o					AcyyyA	1005
.11 Apply semen analysis methods in NIOSH field studies (1Q83)											AcyyyA	1006
.12 Submit final report to Director, DBBS (4Q83)											AcyyyA	1007
.13 Submit abstract to Director, NIOSH (4Q83)											AcyyyA	1008
.14 Submit project records to Q. A. Unit, DBBS (4Q83)											AcyyyA	1009
4. Teratogen Screening Using Drosophila (R. Schuler, 684-8357) (V00-cCy-344)(0.6/262.0/280.0)(100/V00-Ayy-344)	81	83					A	c	a			
.1 Hazard Data Sheet (H.D.S)											AcyyyA	1010
a. Develop H.D.S. (1,2,3,4Q81)											AcyyyA	1011
b. Submit H.D.S. to Director (1,2,3,4Q81)											AcyyyA	1012
c. Submit H.D.S. to all project staff (1,2,3,4Q81)											AcyyyA	1013
.2 Submit progress report to Director, DBBS			o	o	o	o					AcyyyA	1014
.3 Initiate development of Drosophila teratogen screening methodology (1Q81)											AcyyyA	1017
.4 Complete development of screening methodology (4Q81)											AcyyyA	1018
.5 Initiate validation testing			o								AcyyyA	1019
.6 Complete validation testing						o					AcyyyA	1020
.7 Develop RFC					o						AcyyyA	1021
.8 Complete peer review								o			AcyyyA	1022
.9 Submit RFC to Director, DBBS								o			AcyyyA	1023
.10 Submit RFC to OAMS								o			AcyyyA	1024
.11 Award Contract (1Q83)											AcyyyA	1025
.12 Submit final report to Director, DBBS (4Q83)											AcyyyA	1026
.13 Submit abstract to Director, NIOSH (4Q83)											AcyyyA	1027
.14 Submit project records to Q.A. Unit, DBBS (4Q83)											AcyyyA	1028

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
5. Male Reproduction: Glycol Ethers (B. Hardin 684-8394) (0.3/6.5/15.0)(100/V00-Ahy-309)	82	83					A	a	a			
.1 Submit draft protocol to Director, DBBS			o									AchyyA 1041
.2 Complete peer review			o									AchyyA 1042
.3 Submit progress report to Director, DBBS			o	o	o	o						AchyyA 1043
.4 Drosophila Tests												AchyyA 1044
a. Submit RFC to OAMS				o								AchyyA 1045
b. Award Contract					o							AchyyA 1046
c. Perform site visit (3Q83)						o						AchyyA 1047
d. Initiate exposures						o						AchyyA 1048
e. Complete exposures (2Q83)												AchyyA 1049
f. Receive draft final report (3Q83)												AchyyA 1050
g. Submit final report to Director, DBBS (3Q83)												AchyyA 1051
h. Submit abstract to Director, NIOSH (3Q83)												AchyyA 1052
.5 Mammalian Test												AchyyA 1053
a. Submit RFC to OAMS				o								AchyyA 1054
b. Award contract					o							AchyyA 1055
c. Complete site visit (4Q83)						o						AchyyA 1056
d. Initiate exposures						o						AchyyA 1057
e. Complete exposures (3Q83)												AchyyA 1058
f. Receive draft final report (4Q83)												AchyyA 1059
g. Submit final report to Director, DBBS (4Q83)												AchyyA 1060
h. Submit abstract to Director, NIOSH (4Q83)												AchyyA 1061
.6 Submit final project report to Director, DBBS (4Q83)												AchyyA 1062
.7 Submit abstract to Director, NIOSH (4Q83)												AchyyA 1063
.8 Submit project records to Q. A. Unit, DBBS (4Q83)												AchyyA 1064

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	O	C	N	PY	NPF	TF
														\$1000	\$1000
6. Teratogenic Assessment: Glycol Ethers (B. Hardin 684-8394) (0.2/222.4/228.4)(100/V00-Ahy-313)	82	83								A	b	a			
.1 Complete peer review				o										AchyyA	1071
.2 Submit final study protocol to Director, DBBS				o										AchyyA	1072
.3 Submit progress report to Director, DBBS				o	o	o	o							AchyyA	1073
.4 Teratogenic Assessment of 3 Glycol Ethers				o										AchyyA	1074
a. Submit RFC to OAMS				o										AchyyA	1075
b. Award Contract						o								AchyyA	1076
c. Complete site visit (1Q83)(3Q83)								o						AchyyA	1077
d. Initiate animal exposures								o						AchyyA	1078
e. Complete animal exposures (3Q83)														AchyyA	1079
f. Receive draft final report (3Q83)														AchyyA	1080
g. Submit final report to Director, DBBS (4Q83)														AchyyA	1081
h. Submit abstract to Director, NIOSH (4Q83)														AchyyA	1082
.5 Teratogenic Assessment of Ethylene Oxide, Propylene Oxide, and Butyl Acetate														AchyyA	1083
a. Award contract (260-80-0013)(4Q80)														AchyyA	1084
b. Initiate animal exposures (1Q81)														AchyyA	1085
c. Submit contract modification to OAMS				o										AchyyA	1086
d. Complete site visits (4Q80)(2Q81)(4Q81)					o									AchyyA	1087
e. Award modification				o										AchyyA	1088
f. Complete animal exposures				o										AchyyA	1089
g. Receive draft final report						o								AchyyA	1090
h. Submit final report to Director, DBBS						o								AchyyA	1091
i. Submit abstract to Director, NIOSH								o						AchyyA	1092
.6 Submit final project report to Director, DBBS (4Q83)														AchyyA	1093
.7 Submit abstract to Director, NIOSH (4Q83)														AchyyA	1094
.8 Submit project records to Q. A. Unit, DBBS (4Q83)														AchyyA	1095
														AchyyA	1096
														AchyyA	1097
														AchyyA	1098
														AchyyA	1099
														AchyyA	1100

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	P	M	F	RESOURCES	
				1Q	2Q	3Q	4Q							NPF	TF
				G	H	D	PY							\$1000	\$1000
7. Toxicity of Aliphatic and Aromatic Amines (H. Plotnick 684-8496) (VOO-cXt-337)(0.1/1.5/4.5)(100/VOO-Ahy-337)	81	84									A	a	a		
.1 Develop RFC (1Q81)														AchyyA	1103
.2 Complete peer review (1Q81)														AchyyA	1104
.3 Submit RFC to Director, DBBS (1Q81)														AchyyA	1105
.4 Submit RFC to OAMS (1Q81)														AchyyA	1106
.5 Award contract (4Q81)														AchyyA	1107
.6 Submit progress report to Director, DBBS														AchyyA	1108
.7 Initiate LC50 studies														AchyyA	1109
.8 Make site visit to contractor (1Q83)														AchyyA	1110
.9 Complete LC50 studies														AchyyA	1111
.10 Initiate subchronic studies														AchyyA	1112
.11 Complete 6-month exposure (1Q83)														AchyyA	1113
.12 Complete histopathologic evaluation (3Q83)														AchyyA	1114
.13 Review draft final report from contractor (4Q83)														AchyyA	1115
.14 Submit final report to Director, DBBS (1Q84)														AchyyA	1116
.15 Submit abstract to Director, NIOSH (1Q84)														AchyyA	1117
.16 Submit project records to Q.A. Unit, DBBS (1Q84)														AchyyA	1118
														AchyyA	1119
														AchyyA	1120
														AchyyA	1121
														AchyyA	1122

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
	I	C	1Q	2Q	3Q	4Q			NPF	TF
									\$1000	\$1000
8. Biotransformation of Priority Chemicals (H. Plotnick, 684-8496) (V00-cXh-333)(2.0/94.0/150.0)(0.2/5.0/11.0)(100/V00-Ahy-333)	80	84					A c a			AchyyA 1125
.1 Submit progress report to Director, DBBS			o	o	o	o				AchyyA 1126
.2 Submit project protocol to Director, DBBS (3Q81)										AchyyA 1127
.3 2-Ethoxyethanol Studies										AchyyA 1128
a. Initiate pilot biotransformation study (3Q81)										AchyyA 1129
b. Complete pilot biotransformation study (4Q81)										AchyyA 1130
c. Initiate biotransformation study			o							AchyyA 1131
d. Complete biotransformation study						o				AchyyA 1132
e. Submit report to Director, DBBS (1Q83)										AchyyA 1133
.4 2-Methoxyethanol Studies										AchyyA 1134
a. Initiate biotransformation study			o							AchyyA 1135
b. Complete biotransformation study						o				AchyyA 1136
c. Submit report to Director, DBBS (1Q83)										AchyyA 1137
.5 Bis(2-methoxyethyl)ether Studies										AchyyA 1138
a. Initiate biotransformation study			o							AchyyA 1139
b. Complete biotransformation study						o				AchyyA 1140
c. Submit report to Director, DBBS (1Q83)										AchyyA 1141
.6 Consultative Services										AchyyA 1142
a. Consult on structure/activity relationships			o	o	o	o				AchyyA 1143
b. Present short course on S/A relationships				o						AchyyA 1144
.7 Submit manuscript for publication (1Q83)										AchyyA 1145
.8 FY 83 studies of new chemical class										AchyyA 1146
a. Initiate biotransformation study (1Q83)										AchyyA 1147
b. Complete biotransformation study (4Q83)										AchyyA 1148
c. Submit report to Director, DBBS (1Q84)										AchyyA 1149
.9 Submit final project report to Director, DBBS (1Q84)										AchyyA 1150
.10 Submit abstract to Director, NIOSH (1Q84)										AchyyA 1151
.11 Submit project records to Q.A. Unit, DBBS (1Q84)										AchyyA 1152
										AchyyA 1153
										AchyyA 1154
										AchyyA 1155

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000			
9. Reproduction and Low Frequency RF Radiation (J. Lary, 684-8482) (2.8/16.0/100.0)(2.8/16.0/100.0)(2.0/14.0/69.0) (100/VOG-Aaf-368)	82	85						A	c	a			AeafyA 1158	
													AeafyA 1159	
													AeafyA 1160	
													AeafyA 1161	
.1 Induction Heater Survey													AeafyA 1162	
a. Identify manufacturers of induction heaters			o										AeafyA 1163	
b. Contact users and arrange walk-through surveys				o									AeafyA 1164	
c. Estimate population exposed				o									AeafyA 1165	
d. Determine instrument needs					o								AeafyA 1166	
e. Initiate surveys of induction heaters					o								AeafyA 1167	
f. Complete surveys of induction heaters						o							AeafyA 1168	
g. Submit report to Director, DBBS							o						AeafyA 1169	
.2 Reproduction Study													AeafyA 1170	
a. Initiate literature review								o					AeafyA 1171	
b. Complete literature review								o					AeafyA 1172	
c. Contact information office about Peer Review notice								o					AeafyA 1173	
d. Initiate writeup of project protocol								o					AeafyA 1174	
e. Complete writeup of project protocol (1Q83)													AeafyA 1175	
f. Complete peer review (2Q83)													AeafyA 1176	
g. Submit final project protocol to Director, DBBS (2Q83)													AeafyA 1177	
h. Prepare SOPs for RF reproduction research (3Q83)													AeafyA 1178	
i. Initiate RF male reproduction study (3Q83)													AeafyA 1179	
j. Complete RF male reproduction study (3Q84)													AeafyA 1180	
k. Initiate RF female reproduction study (3Q84)													AeafyA 1181	
l. Complete RF female reproduction study (2Q85)													AeafyA 1182	
m. Submit final project report to Director, DBBS (2Q85)													AeafyA 1183	
n. Submit abstract of final report to Director, NIOSH (2Q85)													AeafyA 1184	
o. Submit project records to Q.A. Unit, DBBS (2Q85)													AeafyA 1185	
.3 Submit progress report to Director, DBBS			o	o	o	o							AeafyA 1186	
													AeafyA 1187	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF
								\$1000	\$1000
<b>DIVISION OF RESPIRATORY DISEASE STUDIES</b>									
10. InVitro Mutagenesis Studies (Ong T 304-599-7516)(VKC-cCB-118) (100/VCd-Adu-118)	81	82					A b a		
.1 Complete validation of arabinose assay system with environmental samples				o				C A	1190
.2 Complete evaluation of arabinose assay system for the detection of mutagens in urine samples					o			C A	1191
.3 Complete evaluation of storage effect on the recovery of mutagens from urine samples						o		CdduyA	1192
.4 Complete development of new tester strains for insitu mutagenesis testings								CdduyA	1193
.5 Recovery of different chemicals from urine samples study completed								CdduyA	1194
.6 Complete the final report and submit abstract to the Director, NIOSH, with copy of report and abstract to DTS								CdduyA	1195
								CdduyA	1196
								CdduyA	1197
								CdduyA	1198
								CdduyA	1199
								CdduyA	1200
								CdduyA	1201
								CdduyA	1202
								CdduyA	1203
								CdduyA	1204
								CdduyA	1205
								CdduyA	1206
								CdduyA	1207
								CdduyA	1208
11. Mutagenic Monitoring for High Risk Workers (Ong T 304-599-7516) (VKC-ciB-112)(0.5/118.0/145.0) (0.5/15.0/32.0)(100/VCd-Aid-112)	80	84					A b b		
.1 OMB approval received								Cdi duA	1211
.2 Walk-thru survey completed								Cdi duA	1212
.3 Complete selection of workers and control group for testing								Cdi duA	1213
.4 Complete air samplings and bioassays for the extracts of air particles (1Q83)								Cdi duA	1214
.5 Complete administration of Medical History Questionnaire and collection of blood and urine specimens for the first experiment (1Q83)								Cdi duA	1215
.6 Complete urine and cytogenetic analysis for the first experiment (3Q83)								Cdi duA	1216
.7 Complete collection of blood and urine specimens for the second experiment (3Q83)								Cdi duA	1217
.8 Complete urine and cytogenetic analysis for the second experiment (4Q83)								Cdi duA	1218
.9 Complete necessary repeat experiments (1Q84)								Cdi duA	1219
.10 Review final draft report (2Q84)								Cdi duA	1220
.11 Receive completed final report (3Q84)								Cdi duA	1221
.12 Submit final report and abstract to the Director, NIOSH with copy of report and abstract to DTS (4Q84)								Cdi duA	1222
								Cdi duA	1223
								Cdi duA	1224
								Cdi duA	1225
								Cdi duA	1226
								Cdi duA	1227
								Cdi duA	1228
								Cdi duA	1229
								Cdi duA	1230
								Cdi duA	1231
								Cdi duA	1232
								Cdi duA	1233
								Cdi duA	1234

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF
								\$1000	\$1000
<b>DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES</b>									
12. Industrywide Study of Reproductive Effects of Glycol Ethers (Howard Ludwig - 513-684-3255) (1.6/140.0/180.0)(100/VMH-Ahy-578)	82	83					A c a		
A. Complete tripartite review.			o						
B. Initiate walk-through surveys.				o					
C. Complete walk-through surveys.					o				
D. Complete industrial hygiene reports					o				
E. Determine if epi/medical study is feasible.						o			
F. Finalize protocol and establish milestones for future fiscal years (2Q83).									
13. Cytogenetic Epidemiologic Studies (Sandy Leffingwell - 513-684-2145) (0.8/165.0/180.0)(0.8/165.0/180.0)(100/VMH-Aay-565)	80	84					A b a		
A. Cytotoxic Drugs									
1. Complete sample collection (2Q81).									
2. Determine need for additional studies.				o					
3. Complete walk-through surveys, if needed.					o				
4. Establish milestones for next fiscal year.						o			
B. Portsmouth Naval Shipyard									
1. Complete protocol (3Q81).									
2. Submit RFC to OAMS for laboratory evaluations (210-82- ).			o						
3. Complete arrangements with Navy.				o					
4. Award contract.						o			
5. Establish milestones for next fiscal year.						o			
C. Other Studies									
1. Select agent(s).				o					
2. Initiate cohort search.					o				
3. Complete SPRG review.						o			
4. Set milestones for remainder of project (2Q83).									

D A 1237  
D A 1238  
DbhyyA 1239  
DbhyyA 1240  
DbhyyA 1241  
DbhyyA 1242  
DbhyyA 1243  
DbhyyA 1244  
DbhyyA 1245  
DbhyyA 1246  
DbhyyA 1247  
DbhyyA 1248  
DbhyyA 1249  
DbhyyA 1250  
DbayyA 1253  
DbayyA 1254  
DbayyA 1255  
DbayyA 1256  
DbayyA 1257  
DbayyA 1258  
DbayyA 1259  
DbayyA 1260  
DbayyA 1261  
DbayyA 1262  
DbayyA 1263  
DbayyA 1264  
DbayyA 1265  
DbayyA 1266  
DbayyA 1267  
DbayyA 1268  
DbayyA 1269  
DbayyA 1270  
DbayyA 1271  
DbayyA 1272  
DbayyA 1273  
DbayyA 1274  
DbayyA 1275  
DbayyA 1276



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O C N	PY	NPF	TF
			G	H	D	\$1000	\$1000			
14. Medical, Reproductive and Industrial Hygiene Study of Exposure to Carbon Disulfide (Sherry Selevan - 513-684-2145) (100/VMH-Ahy-569)	79	82					A c a			
A. Complete coding of pregnancy outcome questionnaires (3Q79).									DbhyyA	1279
B. Complete subject notification (3Q80).									DbhyyA	1280
C. Complete industrial hygiene reports (3Q81).									DbhyyA	1281
D. Initiate final draft on reproductive and medical studies.			o						DbhyyA	1282
E. Complete data analysis.				o					DbhyyA	1283
F. Complete final report and submit abstract to Director, NIOSH and copy to DTS.					o				DbhyyA	1284
									DbhyyA	1285
									DbhyyA	1286
									DbhyyA	1287
									DbhyyA	1288
									DbhyyA	1289
									DbhyyA	1290
15. The Effect of Polychlorinated Biphenyls on Reproductive Outcome (NCI)(Mike Rosenberg - 513-684-3593) (0.1/7.0/10.0)(VMH-Ayy-606)	81	84					A b e		DbyyyA	1293
A. Award contract 210-81-5102 (4Q81).									DbyyyA	1294
B. Complete confirmation of cohort and categorization by exposure.			o						DbyyyA	1295
C. Initiate case location and interviews.				o					DbyyyA	1296
D. Complete 25% of interviews and confirm adverse outcomes.					o				DbyyyA	1297
E. Complete 40% of interviews and confirm adverse outcomes.						o			DbyyyA	1298
F. Complete interviews and confirm adverse outcomes (3Q83).									DbyyyA	1299
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (1Q84).									DbyyyA	1300
									DbyyyA	1301
									DbyyyA	1302
									DbyyyA	1303
									DbyyyA	1304
									DbyyyA	1305
									DbyyyA	1306
16. Fetal Mortality Study (Nina Lalich - 513-684-3284) (0.2/20.0/25.0)(100/VMO-Ayy-618)	77	83					A g a		DcyyyA	1309
A. Continue IA with NCHS (1Q78).									DcyyyA	1310
B. Select and develop suitable analyses techniques (3Q79).									DcyyyA	1311
C. Evaluate pre-test (1Q80).									DcyyyA	1312
D. Complete case identification (3Q81).									DcyyyA	1313
E. Complete IA modification and submit to OPPE (IA78-10).			o						DcyyyA	1314
F. Complete follow-up for non-respondents.				o					DcyyyA	1315
G. Complete data editing from mother's questionnaire.					o				DcyyyA	1316
H. Complete data editing from hospital, physician and x-ray technician questionnaires.						o			DcyyyA	1317
I. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q83).									DcyyyA	1318
									DcyyyA	1319
									DcyyyA	1320
									DcyyyA	1321
									DcyyyA	1322
									DcyyyA	1323

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q					NPF	TF
												\$1000	\$1000
17. Case Comparison Study of Parental Employment and Fetal Outcome (Joyce Salg - 513-684-3284) (100/VMO-Ayy-626)  A. Award Contract 210-81-5004 (3Q81). B. Select sample of live birth and fetal death certificates. C. Complete abstraction, coding and verification. D. Receive computer tape and documentation from contractor. E. Complete final report and submit abstract to Director, NIOSH and copy to DTS.	81	82										DcyyyA	1326
												DcyyyA	1327
												DcyyyA	1328
												DcyyyA	1329
												DcyyyA	1330
												DcyyyA	1331
												DcyyyA	1332
												DcyyyA	1333
												DcyyyA	1334
												DcyyyA	1335
												DcyyyA	1336
												DcyyyA	1339
												DcyyyA	1340
18. Surveillance of Parental Employment and Spontaneous Abortion (Joyce Salg 513-684-3284) (0.1/7.0/10.0)(100/VMO-Ayy-643)  A. Award contract 210-81-5002 (3Q81). B. Complete data editing. C. Complete statistical analyses. D. Complete draft final report. E. Obtain final report from contractor. F. Complete final report and submit abstract to Director, NIOSH and copy to DTS (1Q83).	81	83										DcyyyA	1341
												DcyyyA	1342
												DcyyyA	1343
												DcyyyA	1344
												DcyyyA	1345
												DcyyyA	1346
												DcyyyA	1347
												DcyyyA	1348
												DcyyyA	1349
												DcyyyA	1350
												F A	1352
												F A	1353
												FayyyA	1354
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS  19. Research and Demonstration Grants - Reproductive (Moshell, 443-4493) (VCE-tXy-889)(0/0.5/0.5)(100/VCE-Ayy-899)	71	C										FayyyA	1355
												FayyyA	1356
												FayyyA	1357
												FayyyA	1358
												FayyyA	1358

## NEUROTOXIC EFFECTS

Major episodes of neurotoxicity produced by occupational exposures (such as kepone, leptophos, polybrominated biphenyls) have dramatized the dangers of neurotoxic effects, but a far greater impact is seen in diverse exposures throughout industries where there are many minor episodes involving a much larger total number of workers (e.g., through use of solvents, pesticides, heavy metals). Industrial neurotoxins may produce effects ranging from mild to severe and include motor changes (inability to walk, tremors, loss of fine coordination), sensory changes (loss or diminution in vision, hearing, touch), and cognitive changes (loss of alertness, judgmental lapses, personality changes). Such effects are particularly serious because of the critical nature of the nervous system, the relative lack of excess capacity to replace lost tissue, and the irreversibility of such effects. These neurotoxic effects represent not only major health problems but, prior to detection and treatment, they also may be a primary cause of workplace and off-the-job accidents. Further, it may be that the more insidious problems induced by chronic exposures lie undetected because the neurotoxicity is associated with advancing age rather than the cumulative effects of lifelong occupational exposure.

### Division of Biomedical and Behavioral Sciences

DBBS research in neurobehavioral toxicology is directed toward the identification of chemical hazards, development and application of tests to uncover and characterize such effects, and reevaluation and development of standards based on neurotoxic endpoints. One study established an interaction between an industrial solvent, 2-ethoxyethanol, and ethanol, an interaction which affects offspring of pregnant rats exposed only during pregnancy. The results suggest that workplace exposures may interact with substances ingested outside regular work hours. Other studies have demonstrated adverse neurobehavioral effects of such chemicals as ethylene oxide and propylene oxide and the methyl halides.

In FY 1982, test batteries for workplace screening and evaluation of behavioral performance, psychological state, and neurophysiological functions that may be adversely affected by chemical exposures will be developed:

1. To assess the reliability and validity of such batteries, cross sectors of worker groups who have known exposures to certain chemicals and others without such a history will be evaluated on these tests.

2. Compounds representative of major chemical classes and found in many work settings will be brought into the laboratory for evaluation of their singular and interactive effects, using the same test batteries. Chemicals representative of fumigation and spray paint operations will be tested for neurobehavioral effects.
3. Worksite studies on fumigators and spray painters will be performed to evaluate the degree of neurologic impairment associated with workers' exposure conditions.

Division of Surveillance, Hazard Evaluations, and Field Studies

DSHEFS is considering several future epidemiologic studies to examine the neurotoxic effects of certain chemicals on exposed workers. Currently, this effort involves the identification of worker populations where there are exposures to chemicals that have been shown to be neurotoxic in laboratory animals, such as the class of hexanes. This effort is being conducted in collaboration with DBBS. As an ongoing effort, neurotoxic effects are being evaluated as one part of a cross-sectional medical study of workers exposed to carbon disulfide.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES				
		1Q	2Q	3Q	4Q	PY	NPF	TF					
							\$1000	\$1000					
*****NEUROTOXIC EFFECTS*****											C	1361	
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE											A	C	1362
1. Test of Environmental Toxins on Behavior of Mice (706)-- 4/30/83--\$74,002--W. Anger											A	C	1363
2. Occupational Hazards of Acrylamide and Hexane (851)-- 4/30/83--\$94,839--W. Anger											A	C	1364
3. Chronobiology and Occupational Health Hazards (952)-- 11/30/84--\$80,106--M. Colligan											A	C	1365
4. New Behavioral Tests for Occupational Solvent (973)-- 11/30/84--\$80,106--M. Colligan											A	C	1366
5. Lead Exposure: Electrophysiologic/Psychologic Effects (984)-- 3/31/83--\$116,7750--V. Putz											A	C	1367
6. Potentiation of Haloaklane Renal Injury by Ketones (986)-- 3/31/84--\$52,398--T. Lewis--Digestive											A	C	1368
											A	C	1369
											A	C	1370
											A	C	1371
											A	C	1372
											A	C	1373
											A	C	1374
											A	C	1375
											A	C	1376
											A	C	1377
											A	C	1378
											A	C	1379
											A	C	1380
											A	C	1381
											A	C	1382

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES		
	I	C	1Q	2Q	3Q	4Q		PY	NPF	TF
								\$1000	\$1000	
7. Indices of Neurotoxic Effects in Workers (K. Anger, 684-8383) (1.5/53.5/100.5)(1.5/165.5/212.5)(1.0/10.5/43.0) (1.0/1.0/33.5)(100/VOB-Chp-293) (100/VOB-Chp-294)	82	86					C f a			
.1 Submit progress report to Director, DBBS				o	o	o		AahpeC	1384	
.2 Conference: Human Neurotoxicity Test Methods				o				AahpeC	1385	
a. Receive IA from EPA				o				AahpeC	1386	
b. Complete conference plan				o				AahpeC	1387	
c. Hold conference						o		AahpeC	1388	
d. Submit proceedings to Director, DBBS (2Q83)								AahpeC	1389	
e. Publish proceedings (4Q83)								AahpeC	1390	
.3 Lab and Field Studies				o				AahpeC	1391	
a. Submit cooperative agreement to OAMS					o			AahpeC	1392	
b. Award cooperative agreement								AahpeC	1393	
c. Submit draft protocol to Director, DBBS						o		AahpeC	1394	
d. Hold peer review						o		AahpeC	1395	
e. Submit project protocol to HSRB (1Q83)								AahpeC	1396	
f. Submit project protocol to OMB (1Q83)								AahpeC	1397	
g. Receive HSRB clearance (1Q83)								AahpeC	1398	
h. Receive OMB clearance (3Q83)								AahpeC	1399	
i. Identify industries using neurotoxic chemicals (1Q83)								AahpeC	1400	
j. Instrument test batteries (2Q83)								AahpeC	1401	
k. Initiate laboratory tests of Cincinnati workers (3Q83)								AahpeC	1402	
l. Conduct field tests for neurotoxin A (4Q83)								AahpeC	1403	
m. Conduct field tests for neurotoxin B (2Q84)								AahpeC	1404	
n. Conduct field tests for neurotoxin C (4Q84)								AahpeC	1405	
o. Submit report on neurotoxin A to Director, DBBS (3Q84)								AahpeC	1406	
p. Award second cooperative agreement (2Q84)								AahpeC	1407	
q. Complete laboratory study of Cincinnati workers (1Q85)								AahpeC	1408	
r. Conduct field tests for neurotoxin D (1Q85)								AahpeC	1409	
s. Conduct field tests for neurotoxin E (3Q85)								AahpeC	1410	
t. Conduct field tests for neurotoxin F (4Q85)								AahpeC	1411	
u. Submit report on neurotoxins B, C to Director, DBBS (3Q85)								AahpeC	1412	
v. Submit report on neurotoxins D,E,F to Dir., DBBS (4Q86)								AahpeC	1413	
.4 Submit final project report to Director, DBBS (4Q86)								AahpeC	1414	
.5 Submit abstract to Director, NIOSH (4Q86)								AahpeC	1415	
.6 Submit project records to Q.A. Unit, DBBS (4Q86)								AahpeC	1416	
								AahpeC	1417	
								AahpeC	1418	
								AahpeC	1419	
								AahpeC	1420	
								AahpeC	1421	
								AahpeC	1422	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	
										\$1000	\$1000
8. Neurobehavioral Methods for Toxic Agents (D. Chrislip 684-8383) (VOB-cAE-270)(2.0/22.2/70.0)(100/VOB-Chy-270)	79	83					C	b	a		
.1 Complete peer review (2Q80)										AahyyC	1425
.2 Submit progress report to Director, DBBS										AahyyC	1426
.3 Methods Development - NCTR										AahyyC	1427
a. Execute IA-year 1 (4Q81)			o	o	o	o				AahyyC	1428
b. Execute IA-year 2										AahyyC	1429
c. Review progress reports				o						AahyyC	1430
d. Perform site visit				o						AahyyC	1431
e. Receive draft report on interlab comparisons (3Q83)				o						AahyyC	1432
f. Submit report to Director, DBBS (4Q83)				o						AahyyC	1433
.4 Individual Agent Screening										AahyyC	1434
a. Receive protocol approval by Director, DBBS (3Q80)										AahyyC	1435
b. Initiate TOCP and lithium exposures (3Q80)										AahyyC	1436
c. Complete development of new neuromotor tests (4Q80)										AahyyC	1437
d. Perform serial neurobehavioral tests (1,2,3,4Q81)			o	o	o	o				AahyyC	1438
e. Initiate A1 administrations				o						AahyyC	1439
f. Perform serial neurobehavioral tests				o	o	o				AahyyC	1440
g. Complete TOCP and lithium testing (3Q83)										AahyyC	1441
h. Complete A1 testing (4Q83)										AahyyC	1442
.5 Submit final project report to Director, DBBS (4Q83)										AahyyC	1443
.6 Submit abstract to Director, NIOSH (4Q83)										AahyyC	1444
.7 Submit project records to Q.A. Unit, DBBS (4Q83)										AahyyC	1445
										AahyyC	1446
										AahyyC	1447
										AahyyC	1448
										AahyyC	1449

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
9. Neurobehavioral Effects of Spray Paint Agents (V. Putz 684-8383) (VOB-cAh-272)(2.0/50.0/87.5)(100/VOB-Chy-272)	79	83					C	b	a			
.1 Complete peer review (3Q79)										AahyyC	1452	
.2 Instrument new cognitive tests (4Q79)										AahyyC	1453	
.3 Acute Laboratory Studies										AahyyC	1454	
a. Complete toluene exposures (3Q80)										AahyyC	1455	
b. Complete MEK exposures (2Q81)										AahyyC	1456	
c. Initiate new lab construction (3Q81)										AahyyC	1457	
d. Complete MEK and toluene combined exposures (4Q81)										AahyyC	1458	
e. Complete new lab					o					AahyyC	1459	
f. Initiate acetone exposures						o				AahyyC	1460	
g. Submit MEK & toluene report to Director, DBBS							o			AahyyC	1461	
h. Complete acetone exposures							o			AahyyC	1462	
i. Initiate MIBK exposures (1Q83)										AahyyC	1463	
j. Complete MIBK exposures (2Q83)										AahyyC	1464	
k. Initiate MIBK & Acetone exposures (2Q83)										AahyyC	1465	
l. Complete combined exposures (3Q83)										AahyyC	1466	
m. Submit report on MIBK & acetone to Director, DBBS (4Q83)										AahyyC	1467	
.4 Worksite Study										AahyyC	1468	
a. Award contract (4Q80)										AahyyC	1469	
b. Complete worker testing (4Q81)										AahyyC	1470	
c. Submit final report to Director, DBBS								o		AahyyC	1471	
d. Submit abstract to Director, NIOSH								o		AahyyC	1472	
.5 Submit progress report to Director, DBBS			o	o	o	o				AahyyC	1473	
.6 Submit final project report to Director, DBBS (4Q83)										AahyyC	1474	
.7 Submit abstract to Director, NIOSH (4Q83)										AahyyC	1475	
.8 Submit project records to Q.A. Unit, DBBS (4Q83)										AahyyC	1476	
										AahyyC	1477	
										AahyyC	1478	
										AahyyC	1479	
										AahyyC	1480	



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q					NPF	TF
				O	C	N	P					M	F
10. Neurotoxicity Evaluations of Fumigators (K. Anger 684-8383) (VOB-bAe-287)(1.2/110.0/150.0)(100/VOB-Ceh-287)	81	83						C	b	a		AaehyC	1483
.1 Complete peer review (2Q81)												AaehyC	1484
.2 Submit progress report to Director, DBBS				o	o	o	o					AaehyC	1485
.3 Methyl Bromide Worksite Study												AaehyC	1486
a. Submit study protocol to Director, DBBS (3Q81)												AaehyC	1487
b. Receive HSRB approval and OMB exemption (4Q81)												AaehyC	1488
c. Initiate testing of structural fumigators						o						AaehyC	1489
d. Complete worker testing							o					AaehyC	1490
e. Submit report on structural fumigators to Director, DBBS								o				AaehyC	1491
f. Initiate testing of soil fumigators (2Q83)												AaehyC	1492
g. Complete testing of soil fumigators (3Q83)												AaehyC	1493
h. Submit report on soil fumigators to Director, DBBS (4Q83)												AaehyC	1494
.4 Carbon Tetrachloride/CS2 Worksite Study												AaehyC	1495
a. Submit RFC to Director, DBBS and OAMS (4Q81)												AaehyC	1496
b. Award feasibility evaluation contract					o							AaehyC	1497
c. Submit feasibility contract report to Director, DBBS								o				AaehyC	1498
d. Submit study protocol to Director, DBBS								o				AaehyC	1499
e. Submit protocol to HSRB								o				AaehyC	1500
f. Receive HSRB approval								o				AaehyC	1501
g. Initiate testing of commodity fumigators (1Q83)									o			AaehyC	1502
h. Complete testing of 300 commodity fumigators (3Q83)												AaehyC	1503
i. Submit report on commodity fumigators to Director, DBBS (4Q83)												AaehyC	1504
.5 Submit final project report to Director, DBBS (4Q83)												AaehyC	1505
.6 Submit abstract to Director, NIOSH (4Q83)												AaehyC	1506
.7 Submit project records to Q.A. Unit, DBBS (4Q83)												AaehyC	1507
												AaehyC	1508
												AaehyC	1509
												AaehyC	1510
												AaehyC	1511

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
										PY	\$1000
11. Neurotoxicity of Straight-Chain Hexacarbons (J. Russo, 684-8383) (1.5/176.8/223.8)(2.0/11.8/58.8)(1.5/10.8/61.3)(100/VOB-Chy-295)	82	86					C	c	a		
.1 Complete literature review				o						AahyyC	1514
.2 Complete peer review					o					AahyyC	1515
.3 Complete compound selection						o				AahyyC	1516
.4 Complete hazard information sheets							o			AahyyC	1517
.5 Initiate range finding studies for subchronic exposures							o			AahyyC	1518
.6 Submit RFC for neuropathology evaluations to Director, DBBS							o			AahyyC	1519
.7 Submit RFC to OAMS							o			AahyyC	1520
.8 Submit progress report to Director, DBBS			o	o	o	o				AahyyC	1521
.9 Complete range finding studies for subchronic exposures (1Q83)							o			AahyyC	1522
.10 Complete SOPs for subchronic exposure phase (1Q83)							o			AahyyC	1523
.11 Award contract for neuropathology evaluations (2Q83)							o			AahyyC	1524
.12 Initiate subchronic exposures (2Q83)							o			AahyyC	1525
.13 Conduct serial neurobehavioral tests (2,3,4Q83)							o			AahyyC	1526
.14 Complete subchronic exposures (4Q83)							o			AahyyC	1527
.15 Submit initial report to Director, DBBS (4Q83)							o			AahyyC	1528
.16 Complete SOPs for acute exposure phase (1Q84)							o			AahyyC	1529
.17 Initiate acute exposures (2Q84)							o			AahyyC	1530
.18 Conduct neurobehavioral tests (2,3,4Q84)							o			AahyyC	1531
.19 Complete acute exposures (4Q84)							o			AahyyC	1532
.20 Prepare tissue for neuropathology evaluations (1Q85)							o			AahyyC	1533
.21 Submit tissue for neuropathology evaluations (1Q85)							o			AahyyC	1534
.22 Complete neuropathology evaluations (2Q85)							o			AahyyC	1535
.23 Submit final contract report to Director, DBBS (3Q85)							o			AahyyC	1536
.24 Submit final project report to Director, DBBS (3Q85)							o			AahyyC	1537
.25 Submit abstract of final report to Director, NIOSH (3Q85)							o			AahyyC	1538
.26 Submit project records to Q.A. Unit, DBBS (4Q85)							o			AahyyC	1539
										AahyyC	1540
										AahyyC	1541
										AahyyC	1542
										AahyyC	1543
										AahyyC	1544

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF \$1000	TF \$1000
12. Neurotoxicity of Ethylene & Propylene Oxide (J. Setzer 684-8383) (VOB-cAh-264)(100/VOB-Chy-264)	78	82					C	c	a			
.1 Complete peer review (1Q78)											AahyyC	1547
.2 Complete baseline testing (1Q79)											AahyyC	1548
.3 Initiate inhalation exposures (3Q79)											AahyyC	1549
.4 Perform serial neurological tests (4Q79)(1Q-4Q80)(1Q81)											AahyyC	1550
.5 Submit neurochemistry RFC to Director, DBBS (2Q81)											AahyyC	1551
.6 Submit RFC to OAMS (2Q81)											AahyyC	1552
.7 Conduct final neurological tests (3Q81)											AahyyC	1553
.8 Perform terminal sacrifice (4Q81)											AahyyC	1554
.9 Award RFC for neuropathology (3Q81)											AahyyC	1555
.10 Submit progress report to Director, DBBS											AahyyC	1556
.11 Receive contractor's results											AahyyC	1557
.12 Complete final report											AahyyC	1558
.13 Submit final report to Director, DBBS											AahyyC	1559
.14 Submit abstract of final report to Director, NIOSH											AahyyC	1560
.15 Submit project records to Q.A. Unit, DBBS											AahyyC	1561
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS											AahyyC	1562
											AahyyC	1563
											AahyyC	1564
											AahyyC	1565
											F C	1567
											F C	1568
13. Research and Demonstration Grants - Neurotoxic Effects (Moshell, 443-4493) (0/0.7/0.7)(100/VCE-Cyy-892)	71	C					C	e	a		FayyyC	1569
											FayyyC	1570
											FayyyC	1571
											FayyyC	1572

## INJURY/TRAUMA

Annually, approximately one of every ten workers employed in the private sector sustains an occupational injury. In the more hazardous industries the injury rate is significantly greater. In 1979, work accidents were responsible for 13,200 deaths; additionally, roughly 2.2 million workers experienced disabling injuries, of which 80,000 were permanently disabled. The economic impact of such workplace accidents is staggering. Data from SSA indicate the cost of workers' compensation payments to be approximately \$9.7 billion of which \$3.0 billion was for medical and hospitalization costs and \$6.7 billion was for wage compensation. These rapidly increasing costs are up 14 percent from the previous year and up 314 percent from 10 years ago. The 1978 indirect costs from occupational injuries including lost productivity were \$12.6 billion, an increase of 19 percent from 1977. Overall in 1979, workplace accidents cost our Nation \$27.3 billion, a figure representing 1.3 percent of the 1979 U. S. gross national product. This enormous toll in human and economic resources dictates the need for an intervention strategy designed to stimulate injury prevention in the workplace. By using a multidisciplinary approach, NIOSH is bringing to bear the necessary scientific tools and methodologies needed to favorably impact this drain on our national resources. Implementing epidemiologic techniques to define the causal factors involved and subsequently defining solutions designed to ameliorate such contributing factors is the basic thrust of the Institute's efforts.

### Division of Safety Research

DSR is the focal point of the Institute's accident and injury prevention programs, with an overall mission to decrease the number and severity of occupationally related injuries. Functionally, the program is comprised of injury surveillance and epidemiology, injury prevention research, and technology applications. Primary responsibilities of the Division include:

1. Developing a national data base of occupationally related injuries, to better assess workplace risk and set priorities for research.
2. Designing and conducting safety research aimed at preventing or mitigating injury to workers.
3. Developing criteria for recommended safety practices.
4. Developing performance criteria for respirators and other items of personal protective equipment.

The Division will establish a stronger scientific basis for occupational safety research and give increased emphasis to moving research results from the laboratory to practical workplace application and demonstration.

Broad-based data sources for surveillance of occupational injuries will be used to describe the main features of work-injury patterns in the Nation and subsequently used as a basis for selecting research priorities, suggesting possible causal associations, measuring program impact, and providing baseline or background data for epidemiologic studies. Current priority areas have included manual materials handling, machine guarding techniques, and projects targeting fall accidents. To broaden its impact, DSR plans to stimulate and enlist the cooperation of numerous groups. To accomplish this, DSR will:

1. Stimulate occupational safety research through interaction with the few universities that have a capability and interest in occupational safety research.
2. Focus on specific groups of workers such as machinists, firefighters, building construction workers, and waste dump cleanup workers.
3. Extend surveillance and epidemiology into risk assessment to include cataloging of cases of job injuries and developing injury rates for various risk factors.

#### Division of Biomedical and Behavioral Sciences

DBBS research in this program area includes the investigation of job tasks, tools, and personal risk factors that precipitate and/or aggravate musculoskeletal disorders (e.g., low back injury, wrist disorders, tendonitis) and injuries, and the study of the job requirements that impact psychophysiologic functions of consequence to workers' health and safety. The development and application of control measures for preventing these problems include workplace and tool redesign.

Activities completed during FY 1981 included publication of a Work Practices Guide for Manual Materials Handling, which contains a basis for rating the hazard of overexertion in lifting tasks and means for risk reductions, documentation of successful intervention strategies for reducing the incidence of wrist disorders in selected jobs, and the design of a worksite indexing system in conjunction with NOHS-II for categorizing job tasks that pose risks to the musculoskeletal system. Proposed studies for FY 1982 will:

1. Focus on the effects of chronic trauma on light repetitive or sedentary work activities, particularly when the work period is extended or when workers are required to sit or stand in one place for long hours.
2. Apply the recommendations from research findings to workplace settings to demonstrate their effectiveness in reducing biomechanical hazards.
3. Identify worker groups and the extent of dermatologic disease produced by chronic physical trauma to the skin.

#### Division of Surveillance, Hazard Evaluations, and Field Studies

The DSHEFS surveillance program has adapted three national data sets--the NCHS Health Interview Survey, the SSA Disability Award File and Mortality Statistics, and State workmen's compensation award files for use in the assessment of work-related injury, disease, disability, and death. Of specific interest is an analysis of the 1969-1972 SSA Disability Award File for several occupational rubrics for which there is reason to suspect a relationship between trauma and disabilities of the musculoskeletal, nervous, or respiratory systems. A report will be available in early FY 1982 that will evaluate these possible relationships and, where found, will recommend steps for more definitive studies.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
		1Q	2Q	3Q	4Q	PY	NPF \$1000	TF \$1000		
*****INJURY/TRAUMA*****										F 1575
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE										F 1576
										A F 1577
										A F 1578
1. Methods for Detecting Cumulative Injury Risks (V. Putz 684-8383) (VOB-KEf-274)(1.0/245.0/270.0)(1.0/65.0/90.0)(100/VOB-Fyy-274)	81	84						F c a		AyyyyF 1580
.1 Develop Chronic Trauma Checklist for 2nd NOHS (1Q81)										AyyyyF 1581
.2 Prepare position paper on Chronic Trauma (2Q81)										AyyyyF 1582
.3 Complete literature review										AyyyyF 1583
.4 Submit protocol to OD, DBBS for preliminary evaluation			o							AyyyyF 1584
.5 Complete peer review				o						AyyyyF 1586
.6 Obtain required HSRB SPRG/approval				o						AyyyyF 1587
.7 Complete initial worksite evaluations					o					AyyyyF 1588
.8 Prepare RFC for methods evaluations						o				AyyyyF 1589
.9 Submit RFC to OD, DBBS							o			AyyyyF 1590
.10 Review NOHS II data on prevalence of repetitive motion/tasks							o			AyyyyF 1591
.11 Submit monthly reports to OD, DBBS			o	o	o		o			AyyyyF 1592
.12 Submit RFC to OAMS (1Q83)										AyyyyF 1593
.13 Award methods contract (3Q83)										AyyyyF 1594
.14 Complete in-house laboratory methods (4Q83)										AyyyyF 1595
.15 Review/submit contractor's report to OD, DBBS (3Q84)										AyyyyF 1596
.16 Evaluate methods development in field (2Q84)										AyyyyF 1597
.17 Submit final project report to OD, DBBS (4Q84)										AyyyyF 1598
.18 Submit abstract to Director, NIOSH (4Q84)										AyyyyF 1599
.19 Submit project records to Q.A. Unit, DBBS (4Q84)										AyyyyF 1600
										AyyyyF 1601
										AyyyyF 1602

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q								NPF	TF
															\$1000	\$1000
2. Repetitive Lifting: Limiting Factors (D. Badger, 684-8286) (VOB-kEp-265)(0.3/3.0/11.5)(100/VOB-Fyy-265)	77	83														
.1 Complete peer review (1Q77)															AayyyF	1605
.2 Complete contract Physiological Responses on Repetitive Lifting (HSM-99-79-93)(4Q77)															AayyyF	1606
.3 Complete contract Physiological Responses of Women to Repetitive Lifting (210-77-0044)(4Q79)															AayyyF	1607
.4 Complete in-house testing of physiological responses of repetitive lifting (waist to shoulder lifts)(4Q80)															AayyyF	1608
.5 Submit progress report to Director, DBBS															AayyyF	1609
.6 Dynamic Strength Tests (contract 210-79-0041)															AayyyF	1610
a. Award contract (210-79-0041)(4Q79)															AayyyF	1611
b. Complete phase I (210-79-0041)(3Q80)															AayyyF	1612
c. Complete phase II (equipment design) (3Q81)															AayyyF	1613
d. Receive phase II report from contractor (3Q81)															AayyyF	1614
e. Receive HSRB clearance for phase III (subject testing) (4Q81)															AayyyF	1615
f. Begin phase III (subject testing) of contract (4Q81)															AayyyF	1616
g. Completion of phase III by contractor															AayyyF	1617
h. Submit final report to Director, DBBS															AayyyF	1618
i. Submit abstract to Director, NIOSH															AayyyF	1619
.7 Job Stress in Warehousing (210-81-6103)															AayyyF	1620
a. Award contract (4Q81)															AayyyF	1621
b. Review contractor's progress reports															AayyyF	1622
c. Initiate field evaluations															AayyyF	1623
d. Complete field evaluations															AayyyF	1624
e. Receive final report (2Q83)															AayyyF	1625
f. Submit final report to Director, DBBS (3Q83)															AayyyF	1626
g. Submit abstract to Director, NIOSH (3Q83)															AayyyF	1627
.8 Demonstration Project - SSA															AayyyF	1628
a. Initiate site analysis (4Q81)															AayyyF	1629
b. Complete site analysis															AayyyF	1630
c. Institute intervention strategy															AayyyF	1631
d. Complete evaluation of strategy															AayyyF	1632
e. Submit report to Director, DBBS and SSA															AayyyF	1633
f. Submit abstract to Director, NIOSH															AayyyF	1634
.9 Submit final project report to Director, DBBS (4Q83)															AayyyF	1635
.10 Submit abstract to Director, NIOSH (4Q83)															AayyyF	1636
.11 Submit project records to Q.A. Unit, DBBS (4Q83)															AayyyF	1637
															AayyyF	1638
															AayyyF	1639
															AayyyF	1640
															AayyyF	1641
															AayyyF	1642
															AayyyF	1643
															AayyyF	1644
															AayyyF	1645



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000
3. Prevalence of Chronic Wrist Disorders (D. Habes 684-8286) (VOB-kEr-280)(0.5/10.0/20.0)(0.5/10.0/20.0)(100/VOB-Fyy-280)	81	84					F a a				
.1 Complete Project Peer Review (1Q81)										AayyyF	1648
.2 Case Demonstrations/Intervention Studies										AayyyF	1649
a. Submit FFS Ergonomic evaluation-Textile plant (3Q81)										AayyyF	1650
b. Review/submit to Director, DBBS report on Ergonomic Evaluation-Textile plant						o				AayyyF	1651
c. Submit FFS for Control/Intervention in Textile plant							o			AayyyF	1652
d. Review/submit final report to Director, DBBS on Textile Plant Intervention (4Q83)										AayyyF	1653
e. Submit FFS for Control/Intervention in Poultry plant (3Q81)										AayyyF	1654
f. Review/submit to Director, DBBS report on Intervention in Poultry Plant										AayyyF	1655
.3 Submit FFS-Development of Medical Model				o						AayyyF	1656
.4 Review/submit report on Medical Model to Dir., DBBS (3Q81)										AayyyF	1657
.5 Submit FFS Hazard Bulletin Development (2Q81)										AayyyF	1658
.6 Review/submit Hazard Bulletin to Director, DBBS and DTS							o			AayyyF	1659
.7 Chronic trauma-causal factors (contract)										AayyyF	1660
a. Submit RFC to OAMS (2Q81)										AayyyF	1661
b. Award contract (4Q81)										AayyyF	1662
c. Receive required clearances (contractor)				o						AayyyF	1663
d. Begin worksite testing jobs (1-4)						o				AayyyF	1664
e. Complete worksite testing jobs (1-4)(2Q83)										AayyyF	1665
f. Begin worksite testing jobs (5-9)(3Q83)										AayyyF	1666
g. Complete worksite testing jobs (5-9)(2Q84)										AayyyF	1667
h. Receive/review draft report (3Q84)										AayyyF	1668
i. Submit final report to Director, DBBS (4Q84)										AayyyF	1669
j. Submit abstract of final report to Director, NIOSH(4Q84)										AayyyF	1670
.8 Submit project records to Q.A. Unit, DBBS (4Q84)										AayyyF	1671
.9 Submit progress reports to Director, DBBS			o	o	o	o				AayyyF	1672
DIVISION OF SAFETY RESEARCH											
4. Explosion Hazards Related to Grain and Feed Dusts (1122)-- 12/31/81--\$104,729--P. Bochnak--Injury and Trauma										E F	1673
										E F	1682
										E F	1683
										E F	1684
										E F	1685
										E F	1686

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
5. Epidemiological Investigation of Falls from Ladders (Gustin 923-7576) (VLB-bbq-812)(2.0/40.0/100.0)(100/VEa-Fsy-812)	81	83					F	b	a			
.1 Submit RFC to contracts office (2Q80)											EasyF	1688
.2 Award contract (3Q81)											EasyF	1689
.3 Conduct one month NEISS trial run (1Q81)											EasyF	1690
.4 Complete contingency plans for accessing additional injury cases (1Q81)											EasyF	1691
.5 Approve completed AIM questionnaire (4Q81)											EasyF	1692
.6 Submit questionnaire to CPSC for their review & approval											EasyF	1693
.7 Submit study documentation to OMB											EasyF	1694
.8 Participate in one pre-test accident investigation											EasyF	1695
.9 Review and revise in-scope definition.											EasyF	1696
.10 Receive & approve Phase I contractor report.											EasyF	1697
.11 Conduct accident investigations for quality control.											EasyF	1698
.12 Complete accident investigations (first 175) (2Q83)											EasyF	1699
.13 Receive and approve Phase II analysis and recommendations report (2Q83)											EasyF	1700
.14 Verify 1-5 accident investigations (1Q83)											EasyF	1701
.15 Complete Phase III accident investigations (2nd 175) (2Q83)											EasyF	1702
.16 Receive & approve final analysis of all 350 investigations (3Q83)											EasyF	1703
.17 Approve Final Report - copy & abstract to Director, DSR, (3Q83)											EasyF	1704
.18 Submit final report for publication (4Q83)											EasyF	1705
											EasyF	1706
											EasyF	1707
											EasyF	1708
											EasyF	1709
											EasyF	1710
											EasyF	1711
											EasyF	1712
											EasyF	1713
											EasyF	1714

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U		NPF	TF	
							O	C			
						G	H	D	PY	\$1000	\$1000
6. Epidemiological Investigations of Lathe Injuries (Cleveland 923-7576) (VLB-bbN-808)(2.0/38.8/98.8)(100/VEa-FtN-808)	81	83					F	b	a		
.1 Submit RFC to Contracts Office (2Q80)										EatnyF	1717
.2 Award contract (2Q81)										EatnyF	1718
.3 Evaluate contractor's proposed project timetable (1Q81)										EatnyF	1719
.4 Conduct 1 month NEISS Trial Run (to evaluate system's ability to provide accidents) (1Q81)										EatnyF	1720
.5 Complete contingency plans for accessing additional in-scope accidents from BLS (4Q81)										EatnyF	1721
.6 Develop final in-scope accident definition (4Q81)										EatnyF	1722
.7 Submit purchase orders for additional data from State Worker's Compensation Agencies				o						EatnyF	1723
.8 Develop and approve accident investigation procedure, including the AIM questionnaire and consent form to comply with Privacy Act			o							EatnyF	1724
.9 Develop case-control matching procedure			o							EatnyF	1725
.10 Submit OMB Clearance documentation on accident investigation and investigation AIM questionnaire				o						EatnyF	1726
.11 Review pretest accident investigation procedure & questionnaire on nine subjects					o					EatnyF	1727
.12 Review first 175 case-control investigations (1Q83)										EatnyF	1728
.13 Review contractor's interim report on first 175 investigations and make any necessary modifications (1Q83)										EatnyF	1729
.14 Complete second 175 case control investigations (2Q84)										EatnyF	1730
.15 Review contractor's final report (3Q83)										EatnyF	1731
.16 Publish final report and conduct in-house seminar (4Q84)										EatnyF	1732
										EatnyF	1733
										EatnyF	1734
										EatnyF	1735
										EatnyF	1736
										EatnyF	1737
										EatnyF	1738
										EatnyF	1739
										EatnyF	1740
										EatnyF	1741
										EatnyF	1742
										EatnyF	1743
										EatnyF	1744

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
			G	H	D	PY	\$1000	\$1000			
7. Worker -Identified Hazard Control System (Cleveland 923-7576) (VLB-abm-809)(0.5/18.2/33.2)(100/VEa-Fst-809)	81	84					F	b	a		
.1 Submit RFC to contract office (2Q80)										EastyF	1747
.2 Review and approve contractor timetable (1Q81)										EastyF	1748
.3 Award contract 2Q81										EastyF	1749
.4 Review literature 4Q81										EastyF	1750
.5 Approve plant selection										EastyF	1751
.6 Review the design of the interview questionnaire and methodology										EastyF	1752
.7 Submit questionnaire to OMB and Human Subjects Review Board										EastyF	1753
.8 Review the design of the monetary and attitudinal evaluation criteria										EastyF	1754
.9 Approve survey start after OMB clearance is obtained										EastyF	1755
.10 Review monetary and attitudinal evaluation data (3Q83)										EastyF	1756
.11 Evaluate data and review contractor's final report (4Q83)										EastyF	1757
.12 Present internal evaluation of findings to Division Director and staff (4Q83)										EastyF	1758
.13 Write and submit article for publication (1Q84)										EastyF	1759
8. NEISS Occupationally Related Data Sharing (Gustin 923-7576) (VLB-abN-814)(0.5/270.0/285.0)(100/VEa-FNy-814)	80	C					F	b	a		
.1 Sign IAA-NIOSH & CPSC (4Q80)										EastyF	1760
.2 Initiate NEISS one month trial (1Q81)										EastyF	1761
.3 Evaluate trial results & report to Director, DSR (2Q81)										EastyF	1762
.4 Submit second IAA-NIOSH agreement (2Q81)										EastyF	1763
.5 Write IAA-NIOSH & CPSC for FY82 (4Q81)										EastyF	1764
.6 Report on success of FY81 effort to Director, DSR										EastyF	1765
.7 Complete evaluation of 6 months' (FY82) accumulated data, submit report to Director, DSR										EastyF	1766
.8 Submit 1st annual surveillance report for publication as NIOSH report										EastyF	1767
.9 Report to Director on continuing project for FY-83 (1Q83)										EastyF	1768
										EastyF	1769
										EastyF	1770
										EastyF	1771
										EastyF	1772
										EastyF	1773
										EastyF	1774
										EastyF	1775
										EastyF	1776
										EastyF	1777
										EastyF	1778
										EastyF	1779
										EastyF	1780
										EastyF	1781
										EastyF	1782
										EastyF	1783

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F			RESOURCES				
				1Q	2Q	3Q	4Q	R	E	U	NPF	TF			
				O	C	N	G	H	D	PY	\$1000	\$1000			
9. BLS Work Injury Report Surveys (Coleman 923-7576) (VLB-abN-813)(1.0/190.0/220.0)(100/VEa-FsN-813)	77		C					F	g	a				EasNyF	1786
.1 Submit reports to Director, DSR on surveys of:														EasNyF	1787
a. Equipment Servicing Injuries					o									EasNyF	1788
b. Back Injuries						o								EasNyF	1789
c. Amputations							o							EasNyF	1790
.2 Submit RFA to Contracts Office for Inter-Agency Agreement with BLS to fund future surveys								o						EasNyF	1791
.3 Solicit DSR needs and prepare report for FY82 surveys									o					EasNyF	1792
.4 Attend 4 planning meetings for FY82 surveys and FY81 results				o	o	o	o							EasNyF	1793
														EasNyF	1794
														EasNyF	1795
														EasNyF	1796
														EasNyF	1797
10. Study of Falls Involved with Pushing and Pulling Tasks (Pizatella 923-7454) (VLD-kbN-820)(0.8/4.0/28.0)(100/VEa-FsN-820)	81		83					F	b	a				EbsNyF	1800
.1 Contract awarded 3Q81														EbsNyF	1801
.2 Obtain HSRB approval for laboratory experiments					o									EbsNyF	1802
.3 Complete development of biomechanical model					o									EbsNyF	1803
.4 Complete laboratory pushing experiments							o							EbsNyF	1804
.5 Complete laboratory pulling experiments (1Q83)														EbsNyF	1805
.6 Complete workplace validatings (2Q83)														EbsNyF	1806
.7 Submit final report for review (2Q83)														EbsNyF	1807
.8 Complete approvals for publication of final report (3Q83)														EbsNyF	1808
.9 Transmit abstract to Director, NIOSH (4Q83)														EbsNyF	1809
.10 Submit for journal publication (4Q83)														EbsNyF	1810
														EbsNyF	1811
														EbsNyF	1812
														EbsNyF	1813
11. Allowable Loads for a Multi-Story Concrete Structure (Parsons 923-7454) (VLD-gbq-827)(1.2/3.0/39.0)(100/VEb Fsy-827)	81		83					F	b	a				EbsyyF	1816
.1 Submit requisition for lab computer (1Q81)														EbsyyF	1817
.2 Complete development of two dimensional Macro Element Model (2Q81)														EbsyyF	1818
.3 Complete computer program (3Q81)														EbsyyF	1819
.4 Submit paper for review and approvals					o									EbsyyF	1820
.5 Complete approvals and submit for publication						o								EbsyyF	1821
.6 Complete 2-dimensional model							o							EbsyyF	1822
.7 Rewrite program for mini computer								o						EbsyyF	1823
.8 Submit paper on 2-D model for review									o					EbsyyF	1824
.9 Complete approvals and submit for publication										o				EbsyyF	1825
.10 Complete literature search on shoring (1Q83)														EbsyyF	1826
.11 Have shoring scheme developed (2Q83)														EbsyyF	1827
.12 Have final computer program written (3Q83)														EbsyyF	1828
.13 Submit paper on excavation shoring computer program for publication (4Q83)														EbsyyF	1829
														EbsyyF	1830
														EbsyyF	1831
														EbsyyF	1832
														EbsyyF	1833
														EbsyyF	1834

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
12. Methods for Determining In-Situ Strength of Concrete (Parsons 923-7454) (VLD-gbq-826)(1.0/2.5/32.5)(100/VEb-Fsy-826)	80	83					F	b	a			
.1 Award contract 210-80-0036 (4Q80)											EbsyyF	1837
.2 Conduct review meeting (1Q80)											EbsyyF	1838
.3 Obtain SPRG clearance and complete Phase I (3Q81)											EbsyyF	1839
.4 Start Phase II (Data collection and analysis (4Q81)											EbsyyF	1840
.5 Report on scaffolding and submit new project for FY-83						o					EbsyyF	1841
.6 Visit local construction sites						o					EbsyyF	1842
.7 Receive interim reports on experimental results							o				EbsyyF	1843
.8 Review final report on in-situ strength (1Q83)											EbsyyF	1844
.9 Submit report for publication (3Q83)											EbsyyF	1845
13. Stairway Design for Reducing Fall Injuries (Jensen 923-7454) (VLD-kbN-839)(100/VEb-FsN-839)	79	82					F	b	a			
.1 Contract 210-79-0020 awarded to Georgia Tech (4Q79)											EbsNyF	1846
.2 Completed analysis of injury data to identify high risk industries (3Q80)											EbsNyF	1847
.3 Report from contractor on injury data (4Q80)											EbsNyF	1848
.4 Complete video taping of first ten stairways (Phase II) (1Q81)											EbsNyF	1849
.5 Contractor report on Phase II approved by NIOSH (4Q81)											EbsNyF	1850
.6 Submit contract modification to OAMS			o								EbsNyF	1851
.7 Initiate video taping second group of stairs			o								EbsNyF	1852
.8 Complete video taping of second group of ten stairways				o							EbsNyF	1853
.9 Receive draft final report					o						EbsNyF	1854
.10 Complete review of final report					o						EbsNyF	1855
.11 Transmit abstract to Director, NIOSH							o				EbsNyF	1856
.12 Submit report for publication							o				EbsNyF	1857
											EbsNyF	1858
											EbsNyF	1859
											EbsNyF	1860
											EbsNyF	1861
											EbsNyF	1862
											EbsNyF	1863
											EbsNyF	1864
											EbsNyF	1865
											EbsNyF	1866
											EbsNyF	1867
											EbsNyF	1868

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F		RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	R E U			
										O	C	N	
											NPF	TF	
											PY	\$1000	\$1000
14. Long Term Effects of Learned Safety Skills (Jensen 923-7454) (VLD-kbN-835)(100/VEb-FNy-835)	79	82							F	b	a		
.1 Contract 210-79-0018 awarded (4Q79)												EbNyyF	1871
.2 Completed pilot study (3Q80)												EbNyyF	1872
.3 Initiate behavioral monitoring (4Q80)												EbNyyF	1873
.4 Complete employee training (1Q81)												EbNyyF	1874
.5 Complete behavioral monitoring (3Q81)												EbNyyF	1875
.6 Complete data analysis (4Q81)												EbNyyF	1876
.7 Receive draft final report from contractor												EbNyyF	1877
.8 Complete technical review (evaluate & edit)												EbNyyF	1878
.9 Submit approved final report to NTIS												EbNyyF	1879
.10 Transmit abstract to Director, NIOSH												EbNyyF	1880
.11 Prepare manuscript for journal publication												EbNyyF	1881
.12 Complete technical review of manuscript for journal												EbNyyF	1882
.13 Final publication approval from Director, NIOSH												EbNyyF	1883
.14 Submit manuscript for publication in appropriate journal												EbNyyF	1884
												EbNyyF	1885
												EbNyyF	1886
												EbNyyF	1887
												EbNyyF	1888
												EbNyyF	1889
15. Controlling Overexertion Injuries Through Task Design (Jensen 923-7454) (VLD-kbN-834)(100/VEb-FNy-834)	79	82							F	b	a		
.1 Award contract 210-79-0022 (4Q79)												EbNyyF	1892
.2 Obtained required clearances (Phase I) (1Q80)												EbNyyF	1893
.3 Initiated data collection (2Q80)												EbNyyF	1894
.4 Complete collection and analysis of data (4Q81)												EbNyyF	1895
.5 Receive draft final report from contractor												EbNyyF	1896
.6 Complete technical review (evaluate & edit of final report)												EbNyyF	1897
.7 Submit approved final report to NTIS												EbNyyF	1898
.8 Transmit abstract to Director, NIOSH												EbNyyF	1899
.9 Prepare manuscript for journal publication												EbNyyF	1900
.10 Complete technical review of manuscript for journal publication												EbNyyF	1901
.11 Submit manuscript for publication in appropriate journal												EbNyyF	1902
												EbNyyF	1903
												EbNyyF	1904
												EbNyyF	1905
												EbNyyF	1906
												EbNyyF	1907
												EbNyyF	1908

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
16. Hand Speed Study of Press Operators (Pizatella 923-7454) (VLD-kbm-829)(100/VEb-Fty-829)	80	82					F	b	a			
.1 Obtain RSRB approval for pilot study (1Q81)											EbtyyF	1911
.2 Complete data collection (3Q81)											EbtyyF	1912
.3 Complete data analysis (4Q81)											EbtyyF	1913
.4 Draft report on pilot study (4Q81)											EbtyyF	1914
.5 Complete technical review of paper				o							EbtyyF	1915
.6 Complete revision of paper				o							EbtyyF	1916
.7 Obtain final approval for paper					o						EbtyyF	1917
.8 Submit for conference presentation						o					EbtyyF	1918
.9 Design and develop experimental protocol for full study; submit as a new project for FY83							o				EbtyyF	1919
											EbtyyF	1920
											EbtyyF	1921
											EbtyyF	1922
											EbtyyF	1923
											EbtyyF	1924
17. Study of OSHA's Experimental Variance on Power Presses (Etherton 923-7454) (VLD-kbN-830)(100/VEb-FtN-830)	81	82					F	b	a			
.1 Contract awarded (4Q80)											EbtNyF	1927
.2 Completed collection of European data (3Q81)											EbtNyF	1928
.3 Completed review of Interlake records (3Q81)											EbtNyF	1929
.4 Completed stress evaluations of Interlake workers (4Q81)											EbtNyF	1930
.5 Contractor's recommendations on the variance received (4Q81)											EbtNyF	1931
.6 Present recommendations to OSHA				o							EbtNyF	1932
.7 Contract modification					o						EbtNyF	1933
.8 Report on inspection criteria						o					EbtNyF	1934
.9 Review and evaluate reports							o				EbtNyF	1935
.10 Submit for publication or NTIS as appropriate								o			EbtNyF	1936
											EbtNyF	1937
											EbtNyF	1938
											EbtNyF	1939
											EbtNyF	1940
											EbtNyF	1941
18. Assessment of Musculoskeletal Injury Data (Jensen 923-7454) VLD-abN-833)(100/VEb-FyN-833)	81	82					F	a	a			
.1 Search BLS-SDS data tapes (1Q81)											EbyyNF	1944
.2 Draft report on wrist injuries (2Q81)											EbyyNF	1945
.3 Complete review of report (4Q81)											EbyyNF	1946
.4 Obtain final NIOSH approval to publish report				o							EbyyNF	1947
.5 Obtain WIR back injury survey data from BLS				o							EbyyNF	1948
.6 Search BLS-SDS data tapes for back injuries						o					EbyyNF	1949
.7 Complete analysis of back injury data							o				EbyyNF	1950
.8 Draft report on back injuries								o			EbyyNF	1951
.9 Complete technical reviews of back injury report									o		EbyyNF	1952
.10 Obtain final NIOSH approval to publish report										o	EbyyNF	1953
.11 Transmit abstract to Director, NIOSH											EbyyNF	1954
.12 Submit back injury paper for publication											EbyyNF	1955
.13 Participate in meetings of the NIOSH Working Group on Ergonomics and Trauma			o	o	o						EbyyNF	1956
											EbyyNF	1957
											EbyyNF	1958
											EbyyNF	1959
											EbyyNF	1960



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
19. Analysis for Safety of Foot Operated Machinery (Etherton 923-7454) (VLD-kbm-828)(1.0/5.0/35.0)(100/VEb-Fty-828)	81	83					F	b	a			
.1 RFC to OAMS (2Q81)										EbtyyF	1963	
.2 Review of proposals completed (4Q81)										EbtyyF	1964	
.3 Submit concept memo for approval by Director, NIOSH										EbtyyF	1965	
.4 Award contract										EbtyyF	1966	
.5 SPRG review completed										EbtyyF	1967	
.6 Experiment protocol completed										EbtyyF	1968	
.7 HSRB approval										EbtyyF	1969	
.8 Data collection completed										EbtyyF	1970	
.9 Draft paper detailing the experimental results completed (1Q83)										EbtyyF	1971	
.10 Submit for approval by Director's office a paper detailing the experimental results (2Q83)										EbtyyF	1972	
.11 Receive draft of a paper on safer foot pedal applications (3Q83)										EbtyyF	1973	
.12 Approval by Director's office of a paper on safer foot pedal applications (4Q83)										EbtyyF	1974	
.13 Submission to journals of two papers (4Q83)										EbtyyF	1975	
20. Design of Containers to Minimize Biomechanical Stress (Pizatella 923-7454) (VLD-kbN-837)(0.5/2.0/17.0)(100/VEb-FyN-837)	81	83					F	b	a			
.1 Submitted RFC to OAMS (2Q81)										EbyNyF	1986	
.2 Submit concept memo for approval by Director										EbyNyF	1987	
.3 Obtain SPRG clearance										EbyNyF	1988	
.4 Obtain HSRB clearance										EbyNyF	1989	
.5 Initiate data collection										EbyNyF	1990	
.6 Complete main experiments (1Q83)										EbyNyF	1991	
.7 Complete validation experiments (2Q83)										EbyNyF	1992	
.8 Receive draft final report (3Q83)										EbyNyF	1993	
.9 Complete review of final report (4Q83)										EbyNyF	1994	
.10 Transmit abstract to Director, NIOSH (4Q83)										EbyNyF	1995	
.11 Submit paper to journal (4Q83)										EbyNyF	1996	
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS										F	F	2003
21. Research and Demonstration Grants - Injury/Trauma (Moshell, 443-4493) (0/0.3/0.3)(100/VCE-Fyy-890)	71	C					F	e	a			
										F	F	2004
										FayyyF		2005
										FayyyF		2006
										FayyyF		2007
										FayyyF		2008

## LUNG DISORDERS

It has long been recognized that emphysema, which is the leading cause of respiratory deaths in the United States, has an increased incidence in populations exposed to dusty or chemical-laden environments. Lung cancer, which is the second leading cause of respiratory deaths, has been connected with occupational exposures of carcinogenic material. The morbidity and mortality of these diseases, plus occupational exposures which lead to the development of lung disorders such as asthma, bronchitis, allergic alveolitis, interstitial fibrosis, pneumoconiosis, and other airways diseases, show the importance of requiring research in respiratory disease if NIOSH is to carry out its mission of protecting the health of the American worker.

The major areas for research in lung disorders within the Institute are:

1. Non-fibrous minerals.
2. Fibrous minerals.
3. Organic dusts, chemicals, and biological products.
4. Methods development for measuring pulmonary mechanics and lung function in humans and animals.

The respiratory disease program within the Institute is multidisciplinary, and interrelates with other Institute areas such as surveillance, mutagenicity, respirator use, energy, and HHEs. The environmental, laboratory, and epidemiologic research of the Institute are all coordinated within this program, with primary responsibility residing within DRDS.

### Division of Respiratory Disease Studies

The major components of the Division program for the study of lung disorders includes laboratory-based research upon physiological mechanisms and the effect of various challenge agents upon lung mechanics and pulmonary function. Research is conducted that relates to coal and non-coal mining, fibrous minerals such as asbestos, and a variety of organic dusts, industrial chemicals, and biological products that are found in the workplace environment. Multiple morbidity and mortality studies are underway, and environmental data collected, to assist in the development of dose-response information which can then be translated into information of direct benefit to the worker.

The objective of the NIOSH Emerging Energy Industries Program is the prevention of OSH hazards in new energy industries. U.S. energy production is projected to increase by 30 to 40 percent in the next 20 years. Much of this increased production will involve new technologies for which occupational health hazards are unknown, and for which epidemiologic data for health assessment are unavailable.

The program strategy is to use industrial hygiene characterization and coordinated biological studies of pilot plants and initial demonstration plants or commercial plants, to provide guidance for process design, engineering modifications, and workplace controls for hazard prevention prior to extensive commercial deployment of the new technologies. This information also will provide a basis for subsequent medical surveillance and epidemiologic efforts to ensure the adequacy of the initial prevention measures.

In FY 1981, the following tasks were accomplished:

1. A program plan was developed, establishing the program strategy and providing for coordination of industrial hygiene, bioassay, medical surveillance, epidemiologic, and control technology studies.
2. Industrial hygiene characterizations of six selected resource recovery facilities that use wastes for combustion fuel was completed, including characterization of viral hazards. A comprehensive review and recommendations report is in preparation.
3. Industrial hygiene studies of fluidized bed coal combustion were initiated, the field studies to be completed in FY 1982.
4. Industrial hygiene characterization studies of the three generic types of coal gasifiers were completed. Studies of selected downstream fuel gas cleanup system operations were initiated and scheduled for completion in FY 1984. In FY 1982, the first comprehensive industrial hygiene review and recommendations report on coal gasification based on NIOSH field studies will be drafted.
5. Industrial hygiene characterization studies were completed on the three major direct coal-liquefaction process pilot facilities. Additional field studies will be completed in FY 1982, characterizing operations on Western coals and characterizing plant "turnarounds." In FY 1982 the first comprehensive industrial hygiene review and recommendations report on direct coal liquefaction based on NIOSH field studies will be written.

6. Industrial hygiene characterization of two modes of coal-fired utility power plant operation was completed. And data collection was completed for a mortality epidemiologic study of workers at those plants. Analysis of the data will be completed in FY 1982.
7. A report presenting initial recommendations for medical surveillance of workers at synfuel plants was prepared for review and publication.
8. A bioassay protocol for worker urine and blood bioassays and for workplace environmental sample cytogenetic and cytotoxicity bioassays was developed. The protocol is being submitted for clearance for use with planned conventional industrial hygiene studies.
9. Discussions were held with trade associations and State health department representatives to plan a prospective epidemiologic registry for synfuel workers. Development of the registry in cooperation with other involved groups will begin in FY 1982.
10. Plans were developed for industrial hygiene characterizations of oil shale mining and of above-ground and modified in situ shale oil retorting. The field studies begin in FY 1982 and continue through FY 1984. Morbidity and mortality epidemiologic studies of oil shale workers at the Anvil Points facility were previously completed.

New efforts in FY 1982 will include:

1. Retrospective mortality epidemiologic feasibility studies of four domestic synfuel production experiences.
2. Characterization of fugitive emissions from primary plant component sources.
3. Industrial hygiene characterization of advanced fossil fuel utilization technologies.

Division of Surveillance, Hazard Evaluations, and Field Studies

As part of DSHEFS' retrospective cohort mortality, proportionate mortality, and case control studies, nonmalignant respiratory disease is evaluated. In FY 1981, no final results were produced that showed any significant findings in this area.

Division of Safety Research

The DSR program in mining consists of legislatively mandated programs to test and certify respirators and coal mine personal dust samplers. In addition a new effort is proposed to actively monitor BOM-sponsored research to identify technology that also could be useful for reducing injury risks in non-mining workplaces.

Office of Extramural Coordination and Special Projects

OECSF proposes development of an occupational lung disease pathology registry.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES		
		1Q	2Q	3Q	4Q			NPF	TF	
								\$1000	\$1000	
*****LUNG DISORDERS*****										I 2011
										I 2012
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE										A I 2013
1. Safe Decompression Schedules of Caisson Workers (947)-- 1/31/83--\$60,951--( )										A I 2014
										A I 2015
										A I 2016
										A I 2017
										A I 2018
										A I 2019
										A I 2020
3. Chronic Toxicity of Insulation Materials (W. Moorman, 684-8275) (V00-cBi-327)(100/V00-Igy-312)	78	82				I a a				AcgyyI 2022
.1 Complete peer review (1Q78)										AcgyyI 2023
.2 Submit RFC to contract office (2Q78)										AcgyyI 2024
.3 Award contract (210-78-0037) (4Q78)										AcgyyI 2025
.4 Complete baseline biological testing (2Q79)										AcgyyI 2026
.5 Initiate inhalation exposures (3Q79)										AcgyyI 2027
.6 Consult Information Office (1Q80)										AcgyyI 2028
.7 Complete 9-month pulmonary function testing (2Q80)										AcgyyI 2029
.8 Submit contractor's progress report to Director, DBBS			o	o	o	o				AcgyyI 2030
.9 Complete 18-month exposure regimen (1Q81)										AcgyyI 2031
.10 Complete terminal sacrifice of rats and monkeys (1Q81)										AcgyyI 2032
.11 Complete pathology of monkeys (3Q81)										AcgyyI 2033
.12 Complete pathology of rats			o							AcgyyI 2034
.13 Review draft of final report				o						AcgyyI 2035
.14 Submit final report to Director, DBBS						o				AcgyyI 2036
.15 Submit abstract to Director, NIOSH						o				AcgyyI 2037
.16 Submit project records to Q. A. Unit, DBBS						o				AcgyyI 2038
										AcgyyI 2039
										AcgyyI 2040
										AcgyyI 2041

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED	COMPLETION	P M F	R E U	O C N	G H D	PY	RESOURCES			
											NPF	TF
									I	C	\$1000	\$1000
4. Pulmonary Hypersensitivity:Industrial Metals(R Biagini 684-8275) (V00-cDv-329)(1.4/59.5/99.5)(100/V00-Iyy-329)	79	83										
				I	c	a						
.1 Complete peer review (1Q79)									AcyyyI	2044		
.2 Submit final protocol to Director, DBBS (1Q79)									AcyyyI	2045		
.3 Initiate sensitization exposures (4Q79)									AcyyyI	2046		
.4 Complete Pt exposures (4Q80)									AcyyyI	2047		
.5 Complete acid co-asthmogen IT exposures (2Q81)									AcyyyI	2048		
.6 Complete development of aerosol sizing equipment (4Q81)									AcyyyI	2049		
.7 Whole-body Pt/Cl2 exposures									AcyyyI	2050		
a. Initiate exposures			o						AcyyyI	2051		
b. Complete exposures				o					AcyyyI	2052		
c. Initiate Pt challenge					o				AcyyyI	2053		
d. Complete Pt challenge						o			AcyyyI	2054		
e. Submit report to Director, DBBS							o		AcyyyI	2055		
.8 Whole-body Vanadium/O3 Exposures									AcyyyI	2056		
a. Prepare draft protocol			o						AcyyyI	2057		
b. Submit protocol to Director, DBBS			o						AcyyyI	2058		
c. Prepare HDS			o						AcyyyI	2059		
d. Initiate metacholine and V challenges				o					AcyyyI	2060		
e. Complete metacholine and V challenges					o				AcyyyI	2061		
f. Initiate V/O3 exposures						o			AcyyyI	2062		
g. Complete V/O3 exposures (1Q83)							o		AcyyyI	2063		
h. Submit report to Director, DBBS (2Q83)								o	AcyyyI	2064		
.9 Submit progress report to Director, DBBS			o	o	o	o			AcyyyI	2065		
.10 Submit final project report to Director, DBBS (3Q83)									AcyyyI	2066		
.11 Submit abstract to Director, NIOSH (3Q83)									AcyyyI	2067		
.12 Submit project records to Q. A. Unit, DBBS (3Q83)									AcyyyI	2068		
DIVISION OF RESPIRATORY DISEASE STUDIES												
									C	I	2074	
									C	I	2075	
5. M. Faeni: An Occupational Cause of Pulmonary Fibrosis (992)-- 8/31/83--\$48,500--S. Olenchock									C	I	2076	
									C	I	2077	
									C	I	2078	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
6. Epi/Env Study of Coal Miners Exposed to Diesel Emissions (Reger R 304-599-7476)(4.0/70.0/190.0)(3.0/50.0/155.0) (100/VCa-Imm-179)	82	84					I	c	b			
.1 Submit materials for HSRB, SPRG, FRA, and peer review			o							CammyI	2080	
.2 Develop environmental and medical protocol for follow-up			o							CammyI	2081	
.3 Conduct walk-thrus and negotiations with companies				o	o					CammyI	2082	
.4 Finalize environmental and medical protocol						o				CammyI	2083	
.5 Conduct field medical examinations and environmental surveys (1Q,2Q,3Q,4Q83)										CammyI	2084	
.6 Collate materials with data from original survey (1Q84)										CammyI	2085	
.7 Analyze data and write report (2Q,3Q84)										CammyI	2086	
.8 Submit abstract and final report to Director, NIOSH with copy of report and abstract to DTS (4Q84)										CammyI	2087	
										CammyI	2088	
										CammyI	2089	
										CammyI	2090	
										CammyI	2091	
										CammyI	2092	
										CammyI	2093	
										CammyI	2094	
7. IH/Epidemiology/Control Technology of Ceramic Workers (Gamble J 304-599-7476)(1.0/25.0/55.0)(0.2/7.0/14.0) (100/VCa-Ing-177)	82	84					I	c	a			
.1 Complete literature search			o							CangyI	2097	
.2 Hold meetings with industry representatives to select plants for walk-thru surveys				o						CangyI	2098	
.3 Complete walk-thru surveys for pilot study						o				CangyI	2099	
.4 Present recommendations for continuation studies to Director, DRDS (1Q83)										CangyI	2100	
										CangyI	2101	
										CangyI	2102	
										CangyI	2103	
										CangyI	2104	
										CangyI	2105	
										CangyI	2106	
										CangyI	2107	
										CangyI	2108	



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES				
	I	C	1Q	2Q	3Q	4Q	O	C	N	TF			
											G	H	D
8. Env/Morb/Mortality Study of Vermiculite Workers (Amandus H 304-599-7476)(100/VKL-bDp-196)(0.5/15.0/30.0) (100/VCa-Igk-196)	81	83					I	g	a			CagkyI	2111
												CagkyI	2112
												CagkyI	2113
												CagkyI	2114
.1 Submit employment records for SSA and IRS												CagkyI	2115
.2 Obtain and code death certificates (1Q83)												CagkyI	2116
.3 Evaluate environmental data and prepare for mortality analysis												CagkyI	2117
.4 Analysis and report (3Q83)												CagkyI	2118
Montana and South Carolina Plants												CagkyI	2119
.5 Plan strategy with NIOSH and MSHA legal counsel for obtaining records and access to facility												CagkyI	2120
.6 Obtain legal access to records and plant												CagkyI	2121
.7 Site visit to Libby, Montana plant. Cross-sectional medical/environmental study. Collect personnel records and examine facility processes to interpret hygiene measurements												CagkyI	2122
.8 Site visit of control facility (South Carolina)(2Q83)												CagkyI	2123
.9 Complete fiber analysis of vermiculite ore and airborne sample (4Q83)												CagkyI	2124
.10 Complete analysis of morbidity data (4Q83)												CagkyI	2125
.11 Complete follow-up of workers for mortality study (4Q83)												CagkyI	2126
.12 Morbidity, mortality, environmental report (1Q84)												CagkyI	2127
.13 Submit (summary) final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (1Q84)												CagkyI	2128
												CagkyI	2129
												CagkyI	2130
												CagkyI	2131
												CagkyI	2132
												CagkyI	2133
												CagkyI	2134
												CagkyI	2135
												CagkyI	2136

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U	PY	NPF	TF
							O C N			
								\$1000	\$1000	
9. Morb/Mort Study of Workers Exposed to Wood Dust (Gamble J 304-599-7476) (VKL-bsD-188) (2.0/75.0/135.0) (100/VCa-Igh-188)	79	83					I c a			
.1 Discussion with National Forest Products Association and other knowledgeable individuals in wood industry (FY79 & FY80)										CaghhI 2139
										CaghhI 2140
										CaghhI 2141
										CaghhI 2142
										CaghhI 2143
										CaghhI 2144
										CaghhI 2145
.2 Clearance of wood study design and protocol (4Q79)										CaghhI 2146
.3 Site visits of representative plants in this industry (4Q79)										CaghhI 2147
.4 Decision made to contract out part of the work (1Q80)										CaghhI 2148
.5 RFP for wood dust contract (2Q80)										CaghhI 2149
.6 NFPA agrees to conduct questionnaire survey of their for information on products, species, size, etc. Information is to be used in drawing a sample of plants to be included in the study (4Q80)										CaghhI 2150
										CaghhI 2151
										CaghhI 2152
										CaghhI 2153
.7 Data from NFPA used in selecting approx. 60 plants (2Q81)										CaghhI 2154
.8 Ready to contact plants, but no funds available to follow-up; everything on hold (3Q81 & 4Q81)										CaghhI 2155
										CaghhI 2156
.9 Award of contract questionable (doubtful)(3Q81 & 4Q81)										CaghhI 2157
.10 Tract pilot study (UNC grant)										CaghhI 2158
										CaghhI 2159
.11 Contact plants that agree to participate in study and make arrangements for walk-thrus										CaghhI 2160
										CaghhI 2161
.12 Microfilm records for mortality study										CaghhI 2162
.13 Walk-thru IH survey of plants. Set up time to do medical and IH survey										CaghhI 2163
										CaghhI 2164
.14 Medical and IH survey of plants in 4 cells/3quarters										CaghhI 2165
.15 Processing, coding, and editing										CaghhI 2166
.16 Initial morbidity analysis will be for each cell and will go on as walk-thrus & surveys are being conducted in the plants in other (species) cells										CaghhI 2167
										CaghhI 2168
.17 Analysis of medical data with acute environmental data will be for each cell. Complete analysis may have to wait for estimation of cumulative exposure estimates (2Q83)										CaghhI 2169
										CaghhI 2170
.18 Analysis and report for entire study using data from all cells (4Q83)										CaghhI 2171
										CaghhI 2172
.19 Submit abstract of final report to Director, NIOSH, with copy of abstract and report to DTS (4Q83)										CaghhI 2173
										CaghhI 2174
										CaghhI 2175
										CaghhI 2176

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
10. Third Round National Coal Study (Attfield M 304-599-7501)(VKL-bpD-183)(100/VCa-Imm-183)	77	82					I	b	b			
Mortality												
NCS 1 Cohort												
.1 Data preparation and ICDA coding completed				o							Camni I	2179
.2 Prepare master tape				o							Camni I	2180
.3 Mortality analysis					o						Camni I	2181
Appalachian Cohort											Camni I	2182
.4 Determine vital status of selected 'hard-to-locate' cases			o								Camni I	2183
.5 Analyze data and write and write report						o					Camni I	2184
Beckley-Charleston Compensation Cohort											Camni I	2185
.6 Determine vital status of selected 'hard-to-locate' cases			o								Camni I	2186
.7 Analyze data and write report						o					Camni I	2187
Morbidity											Camni I	2188
.1 Complete film reading				o							Camni I	2189
.2 Complete editing and letter generation				o							Camni I	2190
.3 Complete analysis (principally study of radiological progression)					o						Camni I	2191
.4 Complete final report and submit abstract to Director, NIOSH, with copy of all reports and abstracts						o					Camni I	2192
											Camni I	2193
											Camni I	2194
											Camni I	2195
											Camni I	2196
											Camni I	2197
											Camni I	2198
											Camni I	2199
											Camni I	2200
											Camni I	2201

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R	E	U	NPF	TF	
							O	C	N			
							G	H	D	PY	\$1000	\$1000
11. Epidemiologic Study of Normal Blue Collar Workers (Burchell B 304-599-7501)(VKL-iDp-195) (0.4/18.0/30.0) (100/VCa-Iyy-195)	77	83					I	c	b			
.1 Collect and edit data (1Q80)										CayyyI	2204	
.2 Verify the coding of the data and begin preliminary analyses (1Q81)										CayyyI	2205	
.3 Provide an analysis of the symptoms of respiratory diseases (2Q81)										CayyyI	2206	
.4 Provide an analysis of x-ray data (2Q81)										CayyyI	2207	
.5 Provide an analysis of the pulmonary function data (3Q81)										CayyyI	2208	
.6 Extract the asymptomatic nonsmokers' data and develop pulmonary function prediction equations (4Q81)										CayyyI	2209	
.7 Provide a written report to the Director, NIOSH, of items 3-6 (4Q81)										CayyyI	2210	
.8 Extract a set of nonexposed controls from secondary cotton study for use in the extended blue collar study			o							CayyyI	2211	
.9 Extract a set of nonexposed controls from cement workers' study for use in the extended blue collar study				o						CayyyI	2212	
.10 Calculate the total lung capacity for each subject in the study by the planimetric method and incorporate the results into the data file					o					CayyyI	2213	
.11 Provide and analysis of the supplemental controls' data						o				CayyyI	2214	
.12 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)							o			CayyyI	2215	
										CayyyI	2216	
										CayyyI	2217	
										CayyyI	2218	
										CayyyI	2219	
										CayyyI	2220	
										CayyyI	2221	
										CayyyI	2222	
										CayyyI	2223	
										CayyyI	2224	
										CayyyI	2225	
										CayyyI	2226	
										CayyyI	2227	
										CayyyI	2228	
										CayyyI	2229	
12. Cement Mortality Study (Amandus H 304-599-7476)(VKL-bDp-192) (0.4/8.0/20.0) (100/VCa-Ign-192)	80	83					I	c	d			
.1 Follow-up; vital status determined (4Q81)			o	o	o	o				CagnyI	2232	
.2 Obtain and code death certificates					o	o				CagnyI	2233	
.3 Analysis (2Q83)										CagnyI	2234	
.4 Complete data analysis (3Q83)										CagnyI	2235	
.5 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)										CagnyI	2236	
										CagnyI	2237	
										CagnyI	2238	
										CagnyI	2239	
										CagnyI	2240	
										CagnyI	2241	
										CagnyI	2242	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
13. Mort/IH Study of Workers in Coal-Fired Power Plants -TVA (Costello J 304-599-7476) (VKL-bDi-180) (100/VCa-Iim-180)	77	82					I	c	b			
.1 Monitor IH work performed by TVA under subagreement I (1Q,2Q,3Q,4Q81)											CaimyI	2245
.2 Monitor TVA work performed under mortality subagreement (1Q,2Q,3Q,4Q81)											CaimyI	2246
.3 Perform follow-up on subjects not in TVA retirement system. Tape supplied by TVA (3Q81)											CaimyI	2247
.4 Receipt of death certificates from TVA - subjects in TVA retirement system (1Q,2Q,3Q81)											CaimyI	2248
.5 Order death certificates for subjects not in TVA retirement system (3Q81)											CaimyI	2249
.6 Obtain remaining death certificates - in excess of 1000 (4Q81)											CaimyI	2250
.7 Send death certificates to NCHS for ICD coding (1Q,2Q,3Q,4Q81)											CaimyI	2251
.8 Receive all coded death certificates from NCHS (4Q81)											CaimyI	2252
.9 Interim IH report submitted by TVA and received by NIOSH (2Q81)											CaimyI	2253
.10 Final IH report reviewed and comments submitted by TVA (3Q81)											CaimyI	2254
.11 Complete protocol for IH characterization of welding environment (4Q81)											CaimyI	2255
.12 Combine tapes for subjects in and not in TVA retirement system											CaimyI	2256
.13 Supply TVA complete tape											CaimyI	2257
.14 Complete IH characterization of welding environment											CaimyI	2258
.15 Mortality analysis completed - TVA											CaimyI	2259
.16 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS											CaimyI	2260
.17 Cooperative (NIOSH & TVA) analysis and preparation of journal articles (open)											CaimyI	2261
											CaimyI	2262
											CaimyI	2263
											CaimyI	2264
											CaimyI	2265
											CaimyI	2266
											CaimyI	2267
											CaimyI	2268
											CaimyI	2269
											CaimyI	2270
											CaimyI	2271
											CaimyI	2272
											CaimyI	2273
											CaimyI	2274
											CaimyI	2275
											CaimyI	2276
											CaimyI	2277
											CaimyI	2278
											CaimyI	2279

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
14. Mortality Study Diesel Engine Mechanics (Costello J 304-599-7476) (VKL-bpB-193) (0.4/8.0/20.0) (100/VCa-Iyi-193)	79	83					I	g	a			
.1 Initial cohort gathered from selected bus garage workers and railroad shop repairmen - done through local unions of the Machinists Union. n=approx 3500 (FY79 & 80)											CayiyI	2282
.2 Negotiate with Machinists International to expand cohort (1Q81)											CayiyI	2283
.3 Negotiate with Federal Railroad Retirement Board - referral from Machinists Union (2Q81)											CayiyI	2284
.4 Five percent (5%) sample requested from FRRB (3Q81)											CayiyI	2285
.5 Receive data from FRRB (4Q81)											CayiyI	2286
.6 Process and code data from FRRB - no follow-back required				o							CayiyI	2287
.7 Follow-back with postmasters, IRS, SSA, to determine vital status on original cohort					o						CayiyI	2288
.8 Complete building master tape on original cohort, plus FRRB workers						o					CayiyI	2289
.9 Order death certificates on original cohort, plus acquire death notices from FRRB							o				CayiyI	2290
.10 Death certificate coding								o			CayiyI	2291
.11 Submit Equifax renewal RFC				o							CayiyI	2292
.12 Updating of master file (computer processing) for analysis (1Q83)											CayiyI	2293
.13 Complete analysis and report writing (3Q83)											CayiyI	2294
.14 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)											CayiyI	2295
											CayiyI	2296
											CayiyI	2297
											CayiyI	2298
											CayiyI	2299
											CayiyI	2300
											CayiyI	2301
											CayiyI	2302
											CayiyI	2303
											CayiyI	2304
											CayiyI	2305
											CayiyI	2306
											CayiyI	2307
											CayiyI	2308
											CayiyI	2309
											CayiyI	2310

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	PY	\$1000 \$1000
15. Occupational Exposure to Phthalic Anhydride (Sanderson W 304 599-7421)(2.0/44.9/104.9)(0.5/17.4/34.9) (100/VCb-Iyy-156)	82	84					I c a		
.1 Submit interim report and anthology reviewing current literature to Director, DRDS			o					CbyyyI	2314
.2 Submit a draft of environmental study protocol to Director, DRDS				o				CbyyyI	2315
.3 Submit to Director, DRDS a draft of laboratory study protocol				o				CbyyyI	2316
.4 Complete tripartite meeting and consultation with industry and labor concerning proposed study					o			CbyyyI	2317
.5 Submit package for HSRB clearance						o		CbyyyI	2318
.6 Completion of walk-thru surveys of industry						o		CbyyyI	2319
.7 Award contract for immunology analysis						o		CbyyyI	2320
.8 Completion of study protocol including results of walk-thru studies (1Q83)						o		CbyyyI	2321
.9 Initiate field studies (2Q83)								CbyyyI	2322
.10 Submit draft of proposed method of data reduction and analysis, including format of plant reports and data coding system to Director, DRDS (3Q83)								CbyyyI	2323
.11 Complete field studies (4Q83)								CbyyyI	2324
.12 Complete survey reports and data coding (1Q84)								CbyyyI	2325
.13 Submit draft final report for peer review (3Q84)								CbyyyI	2326
.14 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q84)								CbyyyI	2327
								CbyyyI	2328
								CbyyyI	2329
								CbyyyI	2330
								CbyyyI	2331
								CbyyyI	2332
								CbyyyI	2333
								CbyyyI	2334
								CbyyyI	2335
								CbyyyI	2336
								CbyyyI	2337
								CbyyyI	2338
								CbyyyI	2339
								CbyyyI	2340
16. Morb/Mort/IH Study of Welding, Thermal Cutting, Brazing (Hewett P 304-599-7421)(3.0/50.0/140.0)(2.5/42.6/130.1) (100/VCb-Ipy-157)	82	84					I c e		
.1 Complete literature search and submit referenced review (for possible publication as a review article)			o					CbpyrI	2343
.2 Meet with DPSE to establish chemistry protocol				o				CbpyrI	2344
.3 Prepare and submit draft environmental protocol				o				CbpyrI	2345
.4 Make contact with and solicit input from Trade Associations, labor union, and other Federal Agencies (e.g., AWS, DOD, ISWA, etc)				o				CbpyrI	2346
.5 Identify potential cohorts through walk-thru reviews of industrial operations				3	3	3		CbpyrI	2347
.6 Submit interim report to Director, DRDS with plan for FY83 effort						o		CbpyrI	2348
.7 Initiate examination of Morbidity/Mortality Data Base						o		CbpyrI	2349
.8 Outyear plan pending results of Phase I FY82 study								CbpyrI	2350
								CbpyrI	2351
								CbpyrI	2352
								CbpyrI	2353
								CbpyrI	2354
								CbpyrI	2355
								CbpyrI	2356
								CbpyrI	2357
								CbpyrI	2358
								CbpyrI	2359
								CbpyrI	2360

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
				1Q	2Q	3Q	4Q			NPF	TF
										\$1000	\$1000
17. Prevalence of Respiratory Disease in Poultry Confinement Industry (Morring K 304-599-7421)(VKP-cDd-162) (3.3/176.0/175.0) (2.0/50.0/120.0)(0.3/24.8/35.9)(100/VCb-Idu-162)	82	85					I c a				
.1 Submit referenced review of prior industrial hygiene characterizations of confinement facilities (EIB)				o							CbduyI 2363
.2 Complete review of medical literature (CIB)				o							CbduyI 2364
.3 Design medical questionnaire and develop clinical study design (CIB)					o						CbduyI 2365
.4 Identify poultry confinement systems available to study					o						CbduyI 2366
.5 Complete walk-thru surveys at selected facilities						o					CbduyI 2367
.6 Prepare sampling protocol for major toxic gases and organic dusts and other particulate matter found in confinement environments (EIB)							o				CbduyI 2368
.7 Develop study design to test immunologic parameters in exposed worker populations (LIB)							o				CbduyI 2369
.8 Complete environmental, medical, and laboratory study design and submit proposal for OMB approval							o				CbduyI 2370
.9 Initiate pilot study to test study design							o				CbduyI 2371
.10 Submit interim project report (1Q83)								o			CbduyI 2372
.11 Complete final medical/environmental study protocol used in comprehensive studies (1Q83)									o		CbduyI 2373
.12 Select facilities to be studied; submit survey schedule (1Q83). Complete summer characterization of confinement operations (4Q83)										o	CbduyI 2374
.13 Complete winter characterizations of confinement operations (2Q84)											CbduyI 2375
.14 Complete data analysis of medical, laboratory and environmental results (3Q84)											CbduyI 2376
.15 Prepare and submit draft final report to Director, DRDS (4Q84)											CbduyI 2377
.16 Submit final report to Director, DRDS (2Q85)											CbduyI 2378
.17 Submit report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q85)											CbduyI 2379
											CbduyI 2380
											CbduyI 2381
											CbduyI 2382
											CbduyI 2383
											CbduyI 2384
											CbduyI 2385
											CbduyI 2386
											CbduyI 2387
											CbduyI 2388
											CbduyI 2389
											CbduyI 2390
											CbduyI 2391
											CbduyI 2392
											CbduyI 2393
											CbduyI 2394
											CbduyI 2395
											CbduyI 2396
											CbduyI 2397
											CbduyI 2398



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	\$1000		\$1000	
18. Aerosol Deposition in Humans (McCawley M 304-599-7421)(VKP-hDy-163) (0.7/20.0/40.0) (100/VCb-Iyj-163)	81	83						I c a			
.1 Conduct initial tests of aerosol deposition in 50 exposed and 50 control subjects (baseline function)			o						CbyjnI	2401	
.2 Conduct first follow-up of control and exposed subjects				o					CbyjnI	2402	
.3 Conduct second follow-up of control and exposed subjects					o				CbyjnI	2403	
.4 Conduct final follow-up of control and exposed subjects						o			CbyjnI	2404	
.5 Prepare report on comparison of pulmonary function and aerosol deposition measurements (2Q83)							o		CbyjnI	2405	
.6 Purchase and construct fieldworthy instrument (2Q83)									CbyjnI	2406	
.7 Conduct comparative deposition tests with German collaborators (3Q83)									CbyjnI	2407	
.8 Submit final report on instrument test, including operation manual, and blueprints to Director, DRDS (4Q83)									CbyjnI	2408	
.9 Submit fully tested aerosol deposition instrument to Director, DRDS for use on future studies (4Q83)									CbyjnI	2409	
									CbyjnI	2410	
									CbyjnI	2411	
									CbyjnI	2412	
									CbyjnI	2413	
									CbyjnI	2414	
									CbyjnI	2415	
									CbyjnI	2416	
									CbyjnI	2417	
									CbyjnI	2418	
									CbyjnI	2419	
19. IH Characterization of F.B.C. (Regad E 304-599-7421) (VKP-ciD-175)(100/VCb-Iiy-175)	81	82						I b b			
.1 Award contract (2Q81)									CbiyuI	2422	
.2 Obtain work plan for survey from contractor (3Q81)									CbiyuI	2423	
.3 Complete surveys of 2 FBC plants									CbiyuI	2424	
.4 Decision point on extending contract based on technology and engineering status of FBC facilities at this point in time							o		CbiyuI	2425	
.5 Receive final contractor reports on IH environment in FBC facilities								o	CbiyuI	2426	
.6 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS								o	CbiyuI	2427	
								o	CbiyuI	2428	
								o	CbiyuI	2429	
								o	CbiyuI	2430	
								o	CbiyuI	2431	
								o	CbiyuI	2432	
								o	CbiyuI	2433	
								o	CbiyuI	2434	
									CbiyuI	2435	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY			NPF	TF
													O	C
20. IH Study of Coal Liquefaction Processes - EPA (Keane M 304-599-7421)(VKP-ciH-165)(2.0/240.0/300.0) (100/VCb-Iiy-165)	77	83												
.1 Receipt of contractor's final report on 5 liquefaction facility comprehensive IH surveys			o										CbiyhI	2438
.2 Review of contractor's report and other sources on findings in liquefaction facilities						o							CbiyhI	2439
.3 Comprehensive Industrial Hygiene Survey of the Exxon Donor Solvent, operation on lignite, subject to entry agreement and operation schedule							o						CbiyhI	2440
.4 IH survey on Exxon Donor Solvent facility during plant turnaround, subject to entry agreement and operating schedule								o					CbiyhI	2441
.5 Turnaround survey of H-coal facility subject to entry agreement and operating schedule									o				CbiyhI	2442
.6 Draft report detailing findings pertaining to occupational health in liquefaction facilities, to Director, NIOSH, and recommendations for additional studies (1Q83)										o			CbiyhI	2443
.7 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (2Q83)											o		CbiyhI	2444
													CbiyhI	2445
													CbiyhI	2446
													CbiyhI	2447
													CbiyhI	2448
													CbiyhI	2449
													CbiyhI	2450
													CbiyhI	2451
													CbiyhI	2452
													CbiyhI	2453
													CbiyhI	2454
													CbiyhI	2455
													CbiyhI	2456
													CbiyhI	2457
													CbiyhI	2458
													CbiyhI	2459
													CbiyhI	2460
21. OH Studies of Gasification Processes - EPA (Reaux C 304-599-7421)(VKP-ciD-172) (2.0/80.0/140.0)(2.0/70.0/140.0)(100/VCb-Iiy-172)	77	84												
.1 Review IH characterization data from Caterpillar, CE, and Westinghouse gasifiers													CbiyuI	2463
.2 Gasification site IH field studies			o		o								CbiyuI	2464
.3 Draft comprehensive report on data to date						o		o					CbiyuI	2465
.4 Initiate Kosova, Yugoslavia Lurgi gasifier study								o					CbiyuI	2466
.5 Completion of TVA-Texaco gasifier IH studies Under Interagency Agreement (4Q83)													CbiyuI	2467
.7 Completion of gasifier pilot plant field studies (4Q83)													CbiyuI	2468
.8 Complete Phase I of Yugoslavia study, Interagency decision on Phase 2 (3Q84)													CbiyuI	2469
.9 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (3Q84)													CbiyuI	2470
													CbiyuI	2471
													CbiyuI	2472
													CbiyuI	2473
													CbiyuI	2474
													CbiyuI	2475
													CbiyuI	2476
													CbiyuI	2477
													CbiyuI	2478
													CbiyuI	2479

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
22. OH Studies of Oil-Shale Processes-EPA (Wheeler R 304-599-7421)(VKP-cip-166)(100/VCb-Iiy-166)	81	82					I	c	c			
.1 IH characterization of Logan Oil Shale Retort											CbiyuI	2482
.2 IH characterization of Occidental C/B Modified In Situ mine preparation											CbiyuI	2483
.3 IH characterization of Colony Mine preparation											CbiyuI	2484
.4 IH characterization of Tar Sands Facility (2Q83)											CbiyuI	2485
.5 IH characterization of Colony Mine Operation (3Q83)											CbiyuI	2486
.6 Comprehensive review of NIOSH and National Labs Oil Shale Toxicology data to date (4Q83)											CbiyuI	2487
.7 Submit report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)											CbiyuI	2488
											CbiyuI	2489
											CbiyuI	2490
											CbiyuI	2491
											CbiyuI	2492
											CbiyuI	2493
											CbiyuI	2494
											CbiyuI	2495
23. Hypersensitivity Pneumonitis Due to Humidifiers (Kullman G 304-599-7421)(VKP-cDd-160)(0.7/17.3/38.3) (100/VCb-Idy-160)	81	83					I	c	a			
.1 Complete one (1) walk-thru/sampling survey at a problem facility (4Q81)											CbdyyI	2498
.2 Complete an interim report on FY81 accomplishments											CbdyyI	2499
.3 Apply for clearance to take blood samples in FY82											CbdyyI	2500
.4 Complete comparative tests on viable sampling equipment											CbdyyI	2501
.5 Finalize environmental protocol											CbdyyI	2502
.6 Complete field survey(s)											CbdyyI	2503
.7 Meet with CIB Section to discuss their involvement in the project for FY83											CbdyyI	2504
.8 Complete second interim report											CbdyyI	2505
.9 Future direction pending results of FY82 study; to be drafted per milestone 7, FY83											CbdyyI	2506
											CbdyyI	2507
											CbdyyI	2508
											CbdyyI	2509
											CbdyyI	2510
											CbdyyI	2511
											CbdyyI	2512
											CbdyyI	2513
											CbdyyI	2514

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q								NPF	TF
				\$1000	\$1000											
24. Demonstration Plant OH Studies (Regad E 304-599-7421)(1.5/115.0/160.0)(1.5/77.5/130.0) (100/VCb-Iiy-152)	81	84											I c b			
.1 Identify technologies likely to be implemented				o												CbiyuI 2517
.2 Establish industry/sybfuels corporation liason					o											CbiyuI 2518
.3 Identify and select from plants available for review				o												CbiyuI 2519
.4 Identify plant starts projected for FY83				o												CbiyuI 2520
.5 Request design information for FY82 plants				o												CbiyuI 2521
.6 Commence design IH study, FY82 plants						o										CbiyuI 2522
.7 Request design information FY83 plants (contingent on bid announcements)						o										CbiuyI 2523
.8 Conduct field IH characterization of improved coal combustion technology									o							CbiyuI 2524
.9 Complete design review, FY82 plants									o							CbiyuI 2525
.10 Submit report and abstract on FY82 plants to Director, NIOSH, with copy of report and abstract to DTS (1Q83)																CbiuyI 2526
25. Determination of Respiratory Mechanics by Force Oscillations (Hankinson J 304-599-7755)(100/VCc-Ijd-213)	82	82											I c a			CbiuyI 2527
.1 Submit research protocol to HSRB				o												CbiuyI 2528
.2 Submit requisition for equipment				o												CbiuyI 2529
.3 Complete collection of data on approximately 14 subjects (cumulative)						7	14									CbiuyI 2530
.4 Complete field testing of system									o							CbiuyI 2531
.5 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS									o							CbiuyI 2532
26. Spirometer Testing (Hankinson J 304-599-7755) (VKH-mDp-219) (100/VCc-Imm-219)	81	82											I c a			CbiuyI 2533
.1 Implement spirometer testing program				o												CbiuyI 2534
.2 Test spirometers submitted				o												CbjdyI 2537
.a Cumulative ( ) tested				( )	( )	( )	( )									CbjdyI 2538
.b Number approved ( )				( )	( )	( )	( )									CbjdyI 2539
																CbjdyI 2540
																CbjdyI 2541
																CbjdyI 2542
																CbjdyI 2543
																CbjdyI 2544
																CbjdyI 2545
																CbjdyI 2546
																CbjdyI 2547
																ComnyI 2550
																ComnyI 2551
																ComnyI 2552
																ComnyI 2553
																ComnyI 2554
																ComnyI 2555
																ComnyI 2556
																ComnyI 2557
																ComnyI 2558

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES			
	I	C	1Q	2Q	3Q	4Q	R E U		NPF	TF		
							O	C				
							G	H	D	PY	\$1000	\$1000
27. Cross-sectional Medical/IH Survey - Non-Textile Cotton (Merchant J 304-599-7474) (VKH-nDr-216)(100/VCC-IJg-216)	76	82					I	b	a			
.1 Complete individual (14) plant reports and final report of medical-environmental results: warehouse/compress segment			o							CcJgdI	2561	
.2 Complete individual (14) plant reports and final report: cottonseed oil mill segment				o						CcJgdI	2562	
.3 Initiate bioassays of archived filters				o						CcJgdI	2563	
.4 Complete plant report (6) and final report: classification office segment					o					CcJgdI	2564	
.5 Submit final reports and abstracts to Director, NIOSH, with copies of reports and abstracts to DTS						o				CcJgdI	2565	
.6 Submit project-related paper to peer review journals for publication							o			CcJgdI	2566	
.7 Complete interim report on bioassay of collected filters							o			CcJgdI	2567	
28. Prospective EPI/IH Study of New & Ex-Coal Miners (Hankinson J 304-599-7755) (VKH-bpD-214)(100/VCC-Imm-214)	77	82							I	c	b	
.1 Complete last round of follow-up studies (24 months)			o							CcmiI	2570	
.2 Complete collection of particle size distribution data				o						CcmiI	2571	
.3 Complete IH data analysis					o					CcmiI	2572	
.4 Complete all data analysis and correlations						o				CcmiI	2573	
.5 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS							o			CcmiI	2574	
29. Morb/IH Study of Cement Workers (Abrons H 304-599-7755) (VKH-bpD-215)(100/VCC-Idy-215)	78	82	o						I	b	d	
.1 Complete medical studies at 3 cement plants and control plants				o						CcdyyI	2575	
.2 Complete IH studies at 3 cement plants and control plants				o						CcdyyI	2576	
.3 Complete IH plant reports					o					CcdyyI	2577	
.4 Complete data analysis						o				CcdyyI	2578	
.5 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS							o			CcdyyI	2579	
								o		CcdyyI	2600	
									o	CcdyyI	2601	
										CcdyyI	2602	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	RE	U	PY	NPF	TF
							O	C		N	\$1000
30. Evaluation of the Effects of Washed Cotton Dust (Castellan R) (VKA-eDg-105)(1.3/10.0/49.0)(100/VCo-IJg-105)	81	83					I	g	h		
.1 Complete screening and selection procedures and begin year long exposures			o							CcJgdI	2605
.2 Complete analysis of FEV1 effect of three months exposure				o						CcJgdI	2606
.3 Complete analysis of FEV1 effect of seven months exposure					o					CcJgdI	2607
.4 Monitor NIOSH/UNC Technical Assistance. Ensure task is in schedule and deliverables are in production			o	o	o					CcJgdI	2608
.5 Complete data collection (1Q83)										CcJgdI	2609
.6 Receive final report from NIOSH/UNC Technical Assistance, complete analysis, and submit final project report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)										CcJgdI	2610
										CcJgdI	2611
										CcJgdI	2612
										CcJgdI	2613
										CcJgdI	2614
										CcJgdI	2615
										CcJgdI	2616
										CcJgdI	2617
										CcJgdI	2618
										CcJgdI	2619
										CcJgdI	2620
										CcJgdI	2621

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION					P M F R E U O C N			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
										\$1000	\$1000	
34. Comparative Toxicity/Pathogenicity of Mineral Dusts (Vallyathan V. 304 599-7581)(1.2/80.6/116.6)(1.0/35.0/70.0) (1.0/35.0/70.0)(100/Vcd-Img-108)	82	85					I	c	d			
.1 Training personnel in animal experimentation, tissue preparations												CdmgkI 2710
.2 Experimental design, planning protocol studies, dust sample collections from workplaces, dust sample fractionations, preparations, pilot studies												CdmgkI 2711
.3 Mineral identification, characterization												CdmgkI 2712
.4 Histopathological studies of few selected dusts												CdmgkI 2713
												CdmgkI 2714
												CdmgkI 2715
												CdmgkI 2716
												CdmgkI 2717
												CdmgkI 2718
												CdmgkI 2719
												CdmgkI 2720
												CdmgkI 2721
35. Immunology of Grain and Other Organic Dusts (Olenchok S 304-599-7256)(VKC-cDn-109)(100/Vcd-Idy-109)	80	82					I	c	a			
.1 Initiate new studies on complement and organic dusts (1Q80)												CddyI 2724
.2 Complete examination of bacterial endotoxins contamination of cotton dust samples and animal confinement dusts (2Q80)												CddyI 2725
.3 Complete analyses for complement in sera from workers exposed to dust in model cardroom (4Q80)												CddyI 2726
.4 Initiate collaboration (EpIB) on wood dust studies to evaluate complement activation by wood dusts, associated products and other derivations (2Q81)												CddyI 2727
.5 Complete report of airborne endotoxin levels in poultry processing plant (2Q81)												CddyI 2728
.6 Complete endotoxin determinations on airborne dust samples from model cotton cardroom 1980 exposure study (2Q81)												CddyI 2729
.7 Complete complement analyses on serum from subjects in model cardroom 1980 exposure study (3Q81)												CddyI 2730
.8 Complete endotoxin analyses of airborne dust from 1981 intermediate study of model cardroom exposure (4Q81)												CddyI 2731
.9 Complete analysis of cotton textile workers sera for antibodies to hypersensitivity pneumonitis panel (4Q81)												CddyI 2732
.10 Complete collection of pre-exposure samples from model cardroom prospective study												CddyI 2733
.11 Complete preliminary characterizations of grain dust												CddyI 2734
.12 Expose animals to grain dust/components and evaluate pulmonary response												CddyI 2735
.13 Complete Phase I of sample collection and wood dust collaborative study												CddyI 2736
.14 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS												CddyI 2737
												CddyI 2738
												CddyI 2739
												CddyI 2740
												CddyI 2741
												CddyI 2742
												CddyI 2743
												CddyI 2744
												CddyI 2745
												CddyI 2746
												CddyI 2747
												CddyI 2748
												CddyI 2749
												CddyI 2750
												CddyI 2751
												CddyI 2752
												CddyI 2753
												CddyI 2754
												CddyI 2755

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q					NPF	TF
												\$1000	\$1000
36. Organic Dust: Airway Smooth Muscle and Nerve Effects (Fedan J 304-599-7561)(VKC-cDd-110) (2.1/7.1/80.1) (100/VCd-Ijg-110)	81	83											
.1 Complete studies on effects of cotton dust on broncho- constriction and neurotransmission						o							CdjgyI 2758
.2 Complete studies on effects of phthalic anhydrides on bronchoconstriction and neurotransmission								o					CdjgyI 2759
.3 Complete studies on effects of soybean dust on bronchoconstriction and neurotransmission (2Q83)									o				CdjgyI 2760
.4 Complete studies on effects of wood dust on bronchoconstriction and neurotransmission (4Q83)													CdjgyI 2761
.5 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)													CdjgyI 2762
													CdjgyI 2763
													CdjgyI 2764
													CdjgyI 2765
													CdjgyI 2766
													CdjgyI 2767
													CdjgyI 2768
													CdjgyI 2769
													CdjgyI 2770
													CdjgyI 2771
													CdjgyI 2772
37. Effects of Trace Metal Exposure on Isolated Lung Cells (Castranova V 304-599-7561)(VKC-cDp-126) (3.3/21.0/120.0)(100/VCd-Iqr-126)	81	83											
.1 Measure the effects of metallic ions on the membrane integrity of type II cells													CdqryI 2775
.2 Measure the effects of metallic ions on chemiluminescence in alveolar macrophages						o							CdqryI 2776
.3 Develop cultures of alveolar macrophages													CdqryI 2777
.4 Measure effects of metallic ions on oxygen consumption of macrophages in culture													CdqryI 2778
.5 Measure effects of metallic ions on the cellular volume of macrophages in culture (1Q83)													CdqryI 2779
.6 Measure effects of metallic particles on oxygen consumption of macrophages in culture (2Q83)													CdqryI 2780
.7 Measure effects of metallic particles on cellular volume of macrophages in culture (3Q83)													CdqryI 2781
.8 Submit final report and abstract to Director, NIOSH with copy of report and abstract to DTS (4Q83)													CdqryI 2782
													CdqryI 2783
													CdqryI 2784
													CdqryI 2785
													CdqryI 2786
													CdqryI 2787
													CdqryI 2788
													CdqryI 2789
													CdqryI 2790
													CdqryI 2791
													CdqryI 2792
													CdqryI 2793
													CdqryI 2794



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	R E U		NPF	TF	
										O	C	N	PY	\$1000
38. Immunopathology of Organic Dust Pneumoconiosis (Mentnech M 304-599-7256)(VKC-cDd-124) (0.9/57.0/84.0) (100/VCD-Idy-124)	81	83					I	c	a					
.1 Complete the experiment on effects of cortosone on "zymosan" lung and prepare manuscript (1Q81)												CddjyI	2797	
.2 Complete enzyme studies on alveolar macrophages (2Q81)												CddjyI	2798	
.3 Complete hemolytic assays with volcanic ash and selected dusts (3Q81)												CddjyI	2799	
.4 Intratracheal instillation amd aerosol exposure of volcanic ash in vivo (3Q81)												CddjyI	2800	
.5 Complete enzyme studies with rat alveolar macrophages exposed to volcanic ash in vitro (3Q81)												CddjyI	2801	
.6 Complete analysis of alveolar macrophage changes in response to cotton dust in vitro (4Q81)												CddjyI	2802	
.7 Complete the survey of selected pharmacological agents on the animal lesion induced by zymosan												CddjyI	2803	
.8 Complete the immunoflourescent studies												CddjyI	2804	
.9 Complete the working file of occupationally diseased tissues and prepare manuscript of finding												CddjyI	2805	
.10 Complete appraisal of analytical techniques for organic antigens insitu (2Q83)												CddjyI	2806	
.11 Complete the clearance studies of selected organic antigens (3Q83)												CddjyI	2807	
.12 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)												CddjyI	2808	
												CddjyI	2809	
												CddjyI	2810	
												CddjyI	2811	
												CddjyI	2812	
												CddjyI	2813	
												CddjyI	2814	
												CddjyI	2815	
												CddjyI	2816	
												CddjyI	2817	
												CddjyI	2818	
												CddjyI	2819	
												CddjyI	2820	
												CddjyI	2821	
												CddjyI	2822	
												CddjyI	2823	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F				RESOURCES					
	I	C	PLANNED COMPLETION		O	C	N	G	H	D	PY	NPF	TF	
			1Q	2Q								3Q	4Q	\$1000
39. Early Events in Immune Response to Organic Dusts (Lewis D 304-599-7256) (VKC-cDd-122)(0.8/46.0/70.0) (100/VCd-Idy-122)	81	83								I	c	a		
.1 Complete protocol development for study of mitogenic nature of organic dusts (2Q81)													CddyjI	2826
.2 Complete analysis of serum factors in cohort of loggers, Phase I (3Q81)													CddyjI	2827
.3 Complete analysis of serum factors in cohort of loggers, Phase II (4Q81)													CddyjI	2828
.4 Complete study of mitogenic activities of selected organic dusts (4Q81)													CddyjI	2829
.5 Identify cell populations affected by selected organic dust extracts			o										CddyjI	2830
.6 Begin isolation and/or identification of mediators released in response to organic dust exposure				o									CddyjI	2831
.7 Analyze mediator formation in vivo after aerosol/intra-tracheal exposure to organic dust							o						CddyjI	2832
.8 Complete analysis of in vivo mediator release and correlate results with antibody formation (2Q83)								o					CddyjI	2833
.9 Complete attempt to isolate and/or identify mediators released in response to organic dust exposure (3Q83)									o				CddyjI	2834
.10 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)													CddyjI	2835
													CddyjI	2836
													CddyjI	2837
													CddyjI	2838
													CddyjI	2839
													CddyjI	2840
													CddyjI	2841
													CddyjI	2842
													CddyjI	2843
													CddyjI	2844
													CddyjI	2845
													CddyjI	2846
													CddyjI	2847
													CddyjI	2848
													CddyjI	2849
													CddyjI	2850
40. Methods Development for Evaluating Lung Disease (Frazer D 304-599-7561)(VKC-iDp-127)(1.5/30.0/75.0) (100/VCd-Idy-127)	81	83												
.1 Assemble and test equipment for measuring lung sounds and trapped gas in animal lungs													CddyI	2853
.2 Simultaneously measure lung sounds and gas trapping in excised lungs and identify the sounds associated with gas trapping				o									CddyI	2854
.3 Simultaneously measure lung sounds and gas trapping in live animals and identify sounds associated with gas trapping							o						CddyI	2855
.4 Assemble and test equipment for simultaneously measuring lung sounds and trapped gas in humans (2Q83)								o					CddyI	2856
.5 Measure lung sounds and trapped gas simultaneously in humans and characterize the sounds of the different events associated with the gas trapping process in humans (3Q83)									o				CddyI	2857
.6 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)													CddyI	2858
													CddyI	2859
													CddyI	2860
													CddyI	2861
													CddyI	2862
													CddyI	2863
													CddyI	2864
													CddyI	2865
													CddyI	2866
													CddyI	2867
													CddyI	2868
													CddyI	2869
													CddyI	2870
													CddyI	2871
													CddyI	2872
													CddyI	2873

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N			RESOURCES			
	FY	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
	I	C								\$1000	\$1000
41. Aerosol Inhalation - Disease Mechanisms (Frazer D 304-599-7561)(VKC-cDp-128)(1.7/34.0/85.0) (100/VCD-Iry-128)	81	83						I c a			
.1 Complete system for making morphological measurements of rat lungs										CdryyI	2876
.2 Complete testing of exposure system										CdryyI	2877
.3 Expose rats to test aerosols										CdryyI	2878
.4 Examine lung morphometry of exposed rats (1Q83)										CdryyI	2879
.5 Compare lung function differences between exposed and control animals (2Q83)										CdryyI	2880
.6 Provide exposed animals to other investigators (3Q83)										CdryyI	2881
.7 Submit final report and abstract to Director, NIOSH with copy of report and abstract to DTS (4Q83)										CdryyI	2882
										CdryyI	2883
										CdryyI	2884
										CdryyI	2885
										CdryyI	2886
										CdryyI	2887
										CdryyI	2888
										CdryyI	2889
										CdryyI	2890
42. Cellular Toxicity of Mineral Dusts (Pailes W 304-599-7561)(VKC-cDg-119)(100/VCD-Idg-119)	80	82						I d g			
.1 Determine the effects of Wollastonite, asbestos and latex particles on membrane integrity of lung macrophages										CddgtI	2893
.2 Determine the effects of Wollastonite, asbestos and latex particles on the selective release of lysosomal enzymes from cultures of lung macrophages										CddgtI	2894
.3 Determine the effects of lysates from particle-exposed macrophages on cultured lung fibroblast growth										CddgtI	2895
.4 Complete final report and abstract to Director, NIOSH with copy of report and abstract to DTS										CddgtI	2896
										CddgtI	2897
										CddgtI	2898
										CddgtI	2899
										CddgtI	2900
										CddgtI	2901
										CddgtI	2902
										CddgtI	2903
										CddgtI	2904
										CddgtI	2905
										CddgtI	2906
43. Effect of Mycotoxins on Pulmonary Macrophages (Sorenson W 304-599-7516)(VKC-cdn-106) (1.0/50.0/80.0) (100/VCD-Iyd-106)	81	83						I c a			
.1 Complete analysis of air samples										CdyduI	2909
.2 Complete study of the effect of mycotoxins on production of specific inducible AM proteins										CdyduI	2910
.3 Complete study of effect of mycotoxins on total cellular ATP										CdyduI	2911
.4 Complete study of synergistic effects of mycotoxins on in vivo AM functions (3Q83)										CdyduI	2912
.5 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)										CdyduI	2913
										CdyduI	2914
										CdyduI	2915
										CdyduI	2916
										CdyduI	2917
										CdyduI	2918
										CdyduI	2919
										CdyduI	2920
										CdyduI	2921
										CdyduI	2922



### CUTANEOUS DISORDERS

Diseases of the skin are generally recognized as the most common of all occupational illnesses. According to the BLS annual survey of occupational injuries and illnesses, skin diseases and disorders have accounted for more than 40 percent of all reported occupational diseases each year from 1972 through 1976. The average annual incidence of occupational skin disease for the private sector for 1972-1976 was 1.5 cases per 1,000 workers, according to BLS data. During 1975 one of every 11 private-sector employees (9.1 percent) experienced a job-related injury or illness of some kind. The vast majority of these (96.7 percent) were classified as injuries; only 3.27 percent were classified as illnesses, and only 1.49 percent were skin diseases or disorders. Comparison of the last two figures reveals the origin of the 40 percent figure for skin problems cited above.

Considered in perspective, these statistics seem to indicate that occupational illness is a very minor proportion of total occupational health problems. However, a Stanford Research Institute report and the Discher Report, both of which evaluated existing data sources of occupational health statistics, cast considerable doubt on such a conclusion. The serious under-reporting of occupational disease and the inadequacy of the reporting system may mean that the true incidence is anywhere from 10 to 50 times greater than reported in the BLS data. Schwartz, Tulipan, and Birmingham have indicated that approximately 1 percent of the work force may be affected by occupational skin disease at any given time. Data from the 1976 BLS annual survey show that occupational skin diseases or disorders were unevenly distributed among industries. These diseases are more prevalent in agriculture and manufacturing: the agriculture industry, which employed 1 percent of the private sector work force, had 4 percent; manufacturing, with 30 percent of the work force, accounted for 65 percent of skin disease. The agriculture industry had the highest incidence for both total cases and lost workday cases, the second highest incidence rate for lost workdays, and the second highest for the other two types of cases. All other industries had low incidence rates for all three aspects of cases.

Annual cost of occupational skin disease could be used as a measure of the significance of occupational skin disease. Using the BLS data and averaging the 1975-1976 figures, approximately 200,000 lost workdays are attributable annually to occupationally induced skin problems. Assuming an average pay rate of \$6.00 per hour, this represents a direct economic cost due to the lost productivity of absent workers of \$9.6 million. Adding the cost of a less efficient replacement worker, indemnity, medical costs, and insurance could easily increase this figure two to three times (i.e., to \$20-30 million annually).

### Office of Extramural Coordination and Special Projects

The OECSP dermatology program, established at the request of Congress, includes all aspects of occupationally related dermatology, both intramural and extramural, clinical, research, and training. Assistance is provided to DSHEFS and DRDS HHEs that involve skin problems. This consists of both informal consultations with the investigator and field visits with formal consultation reports. Similar assistance is provided for industrywide studies, in both their planning and conduct. With respect to the extramural grants program, assistance is provided to prospective grantees upon their request. Upon receipt of grant applications, assistance is provided to the Grants Administration and Review Branch in obtaining appropriate outside reviews of dermatology grants. Once approved, assistance is provided in preparing for the Institute's secondary review of grants. Once awarded, technical advice is provided.

Liaison with national dermatologic organizations is provided. An OECSP representative is a member of the American Academy of Dermatology's Task Force on Occupational and Environmental Dermatology and its NIH Liaison Steering Committee. Training is provided to Epidemic Intelligence Service officers both formally in the form of lectures, such as at DSHEFS scientific seminars and the OECSP occupational medicine course, and informally in relation to clinical studies. An AAD-accredited Continuing Medical Education course in occupational dermatology will be given every 2 to 3 years, cosponsored by OECSP and an academic center. Assistance is provided in the peer review of intramural skin research projects, usually in DBBS. Similar assistance is provided in the preparation of skin-related Requests for Proposals and the review of responses to those RFPs, again usually for DBBS. Liaison is provided with other Federal agencies involved in dermatologic research. An OECSP representative is a member of the Ad Hoc Interagency Dermatology Working Group which includes representatives from EPA, FDA, and various Institutes within NIH.

### Division of Biomedical and Behavioral Sciences

DBBS is currently assessing existing methods, and developing new methods, for identifying phototoxic compounds and for determining percutaneous absorption rates of chemicals through intact skin. A study for OSHA completed during FY 1981 determined the degree of penetration of the skin and uptake by the body of MOCA [4,4'-methylenebis(2-chloroaniline)]. The techniques developed, including monitoring of metabolites in urine excretion, will be extended to a similar study of glycol ether mixtures in FY 1982. This program is expected to facilitate early identification of cutaneous hazards and provide support for control technology and protective clothing research.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U	NPF	TF	
							O C N	\$1000	\$1000	
*****CUTANEOUS DISORDERS*****										J 2951
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE										J 2952
										A J 2953
1. Cutaneous Toxicity Hazards (A. Susten, 684-8357)	80	85					J c a			A J 2954
(V00-cFh-335)(2.4/34.5/100.0)(2.4/5.0/73.0)(2.4/5.0/73.0)										AchyyJ 2956
(0.2/5.0/10.0)(100/V00-Jhy-335)										AchyyJ 2957
.1 Submit progress report to Director, DBBS										AchyyJ 2958
.2 Complete literature review (4Q80)										AchyyJ 2959
.3 Objective 1. Irritation and Sensitization Studies										AchyyJ 2960
on NIOSH priority chemicals										AchyyJ 2961
a. Develop hazard data sheet (1Q, 3Q80)										AchyyJ 2962
b. Submit H.D.S. to Director, DBBS (1Q, 3Q80)										AchyyJ 2963
c. Submit H.D.S. to all project staff (1Q, 3Q80)										AchyyJ 2964
d. Complete acrolein study (2Q80)										AchyyJ 2965
e. Complete N,N-dimethylacetamide study (4Q80)										AchyyJ 2966
f. Complete ethyl silicate (3Q80)										AchyyJ 2967
.4 Objective 2: Photosensitization										AchyyJ 2968
a. Initiate comparisons of scoring methods (1Q81)										AchyyJ 2969
b. Initiate literature review of screening methods (1Q81)										AchyyJ 2970
c. Complete review of screening methods (2Q81)										AchyyJ 2971
d. Complete comparisons of scoring methods										AchyyJ 2972
e. Initiate in vivo tests of chemicals										AchyyJ 2973
f. Initiate in vitro tests or biochemical screens										AchyyJ 2974
g. Complete in vitro or biochemical screening (2Q84)										AchyyJ 2975
h. Submit final report to Director, DBBS (4Q84)										AchyyJ 2976
i. Submit abstract to Director, NIOSH (4Q84)										AchyyJ 2977
.5 Objective 3: Percutaneous Absorption Model										AchyyJ 2978
a. Initiate testing of chamber design (vapors)(3Q81)										AchyyJ 2979
b. Complete testing of chamber design (vapors)										AchyyJ 2980
c. Initiate percutaneous absorption kinetics study										AchyyJ 2981
d. Complete kinetic study (1Q83)										AchyyJ 2982
e. Initiate testing of system for liquids										AchyyJ 2983
f. Complete testing of system for liquids (2Q83)										AchyyJ 2984
g. Initiate testing (liquids) in second species (3Q83)										AchyyJ 2985
h. Complete testing (liquids) in (1Q85)										AchyyJ 2986
i. Submit report to Director, DBBS (1Q85)										AchyyJ 2987
.6 Submit final overall project report to Director, DBBS (4Q85)										AchyyJ 2988
.7 Subject abstract to Director, NIOSH (4Q85)										AchyyJ 2989
.8 Submit project records to Q.A. Unit, DBBS (4Q85)										AchyyJ 2990
										AchyyJ 2991
										AchyyJ 2992
										AchyyJ 2993





PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
8. NIOSH Dermatology Program (Moshell, 443-6437) (1.3/0.015/0.050) (VCA-Jyy-886)	82	C					J	c	a			
										FFyyyJ	3040	
										FFyyyJ	3041	
										FFyyyJ	3042	
.1 Provide medical backup to HETAB for HHE's requiring dermatologic expertise			3	6	9	12				FFyyyJ	3043	
.2 Extramural Grants Program										FFyyyJ	3044	
a. Assist prospective grantees			o	o	o	o				FFyyyJ	3045	
b. Assist in providing research grant reviews for applications submitted to Occupational Safety and Health Study Section			o	o	o	o				FFyyyJ	3046	
c. Assist in secondary review			o	o	o					FFyyyJ	3047	
d. Act as T.A. for funded research grants										FFyyyJ	3048	
.01 Submit renewal reports to GARB						7				FFyyyJ	3049	
.3 Liaison with dermatologic organizations										FFyyyJ	3050	
a. Attend AAD Task Force meetings			1		2					FFyyyJ	3051	
b. Attend American Academy of Dermatology NIH Committee meeting			1		2					FFyyyJ	3052	
.4 Training										FFyyyJ	3053	
a. Give dermatology lecture at NIOSH Occupational Medicine Course			o							FFyyyJ	3054	
b. Give dermatology lectures to NIOSH EIS officers			1	2	3					FFyyyJ	3055	
c. Organize Occupational Dermatology Continuing Medical Education Course					o					FFyyyJ	3056	
.5 Intramural NIOSH dermatologic research projects										FFyyyJ	3057	
a. Peer review research projects			o	o	o	o				FFyyyJ	3058	
b. Peer review RFP's			o	o	o	o				FFyyyJ	3059	
c. Peer review contract proposals			o	o	o	o				FFyyyJ	3060	
.6 Liaison with other government agencies										FFyyyJ	3061	
a. Represent NIOSH at ad hoc Interagency Dermatology Working Group						o				FFyyyJ	3062	
b. Collaborate with Dermatology Branch, NCI, on research relevant to NIOSH needs			o	o	o	o				FFyyyJ	3063	
										FFyyyJ	3064	
										FFyyyJ	3065	
										FFyyyJ	3066	
										FFyyyJ	3067	
										FFyyyJ	3068	
										FFyyyJ	3069	
										FFyyyJ	3070	
										FFyyyJ	3071	
										FFyyyJ	3072	
OFFICE OF THE DIRECTOR										K	J	3074
										K	J	3075
9. Pathomechanisms of Chemically Induced Pigmentation (714)-- 7/31/83--\$70,000--L.Hatch										K	J	3077
										K	J	3078
										K	J	3079

## CARDIOVASCULAR DISORDERS

Many exposures in the workplace have been shown to have an effect on the cardiovascular system of American workers. Many other exposures have not been evaluated with respect to their potential insults to the cardiovascular system. Most of the Institute's previous experience in cardiovascular research involved the heart and the major vessels of the cardiovascular system. This area needs to be continued and expanded. In addition, since the cardiovascular system of the lung is only a few micrometers from the airspaces in the lung, airborne contaminants can be expected to have an effect on the cardiopulmonary system. However, the effects of most workplace contaminants on the cardiopulmonary system have not been evaluated. NIOSH should support studies that evaluate the potential hazards involved.

It is particularly important to develop appropriate animal models for the testing and evaluation of workplace hazards. The results from the animal studies need to be coordinated with studies evaluating the potential hazards in the workplace, with epidemiologic studies, and with the groups developing control technology designed to eliminate or reduce exposure levels. The animal models will be helpful in elucidating disease mechanisms as well as confirming preliminary epidemiologic information. In fact, positive results in studies using animal models will permit epidemiologic studies to be initiated where potential cardiovascular problems may exist.

### Division of Respiratory Disease Studies

1. Appropriate animal models of cardiovascular disease need to be developed for laboratory testing of occupational hazards.
2. Epidemiology related to stress and cardiovascular disease needs to be continued and expanded.

### Division of Surveillance, Hazard Evaluations, and Field Studies

DSHEFS has three ongoing studies where the effects of occupational exposure on the cardiovascular system are specifically being examined. (Excess risk of dying from cardiovascular disease is, of course, evaluated in all mortality studies that are conducted.) One of these studies involves workers exposed to nitroglycerin, which has been associated with symptoms of cardiovascular disease and sudden cardiac death. This study, which is a retrospective cohort mortality design, along with a detailed industrial hygiene survey, is expected to be completed in FY 1982. The second study is a

cross-sectional medical and industrial hygiene survey of workers exposed to carbon disulfide, which is in its final stages of completion. The third study is a retrospective cohort mortality study of bridge and tunnel workers exposed to carbon monoxide. A study of motor vehicle examiners exposed to lower levels of carbon monoxide was completed in FY 1980.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
*****CARDIOVASCULAR DISORDERS*****												L 3083
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE												L 3084
												A L 3085
												A L 3086
1. Cardiac Toxicity of Inhaled Amines (D. Lynch 684-8274) (V00-cHK-339)(0.3/13.5/22.0)(100/V00-Lhy-339)	81	83						L	c	a		AchyyL 3088
.1 Complete peer review (1Q81)												AchyyL 3089
.2 Develop hazard data sheet (H.D.S.)(1Q81)												AchyyL 3090
.3 Submit H.D.S. to Director, DBBS (1Q81)												AchyyL 3091
.4 Submit H.D.S. to all project staff (1Q81)												AchyyL 3092
.5 Submit progress report to Director, DBBS												AchyyL 3093
.6 Initiate evaluation criteria development for ECG (2Q81)				o	o	o	o					AchyyL 3094
.7 Complete evaluation criteria development for ECG (2Q81)												AchyyL 3095
.8 Initiate range finding studies												AchyyL 3096
a. Allylamine (2Q81)												AchyyL 3097
b. Triethylamine (4Q81)												AchyyL 3098
.9 Complete range finding studies												AchyyL 3099
a. Allylamine (3Q81)												AchyyL 3100
b. Triethylamine (4Q81)												AchyyL 3101
.10 Initiate methods development for mitochondria (2Q81)												AchyyL 3102
.11 Complete methods development for mitochondria (3Q81)												AchyyL 3103
.12 Initiate 90-day exposures												AchyyL 3104
a. Allylamine (4Q81)												AchyyL 3105
b. Triethylamine (4Q81)												AchyyL 3106
c. Amine #3												AchyyL 3107
d. Amine #4												AchyyL 3108
.13 Complete 90-day exposures												AchyyL 3109
a. Allylamine												AchyyL 3110
b. Triethylamine												AchyyL 3111
c. Amine #3 (1Q83)												AchyyL 3112
d. Amine #4 (1Q83)												AchyyL 3113
.14 Complete pathology												AchyyL 3114
a. Allylamine												AchyyL 3115
b. Triethylamine												AchyyL 3116
c. Amine #3 (3Q83)												AchyyL 3117
d. Amine #4 (3Q83)												AchyyL 3118
.15 Complete data analysis (4Q83)												AchyyL 3119
.16 Submit final report to Director, DBBS (4Q83)												AchyyL 3120
.17 Submit abstract to Director, NIOSH (4Q83)												AchyyL 3121
.18 Submit project records to Q.A. Unit, DBBS (4Q83)												AchyyL 3122
												AchyyL 3123
												AchyyL 3124
												AchyyL 3125

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
										\$1000	\$1000	
2. Cardiopulmonary Animal Modeling (W. Moorman, 684-8275) (0.1/1.8/4.8)(100/V00-Lyy-310)	82	83					L	c	a			
.1 Complete peer review			o									AcyyyL 3128
.2 Submit final protocol to Director, DBBS			o									AcyyyL 3129
.3 Submit progress report to Director, DBBS			o									AcyyyL 3130
.4 Initiate pulmonary comparisons				o	o	o						AcyyyL 3131
.5 Complete pulmonary comparisons					o							AcyyyL 3132
.6 Initiate ECG comparisons					o							AcyyyL 3133
.7 Complete ECG comparisons (1Q83)						o						AcyyyL 3134
.8 Submit final report to Director, DBBS (3Q83)												AcyyyL 3135
.9 Submit abstract to Director, NIOSH (3Q83)												AcyyyL 3136
.10 Submit project records to Q.A. Unit, DBBS (4Q83)												AcyyyL 3137
DIVISION OF RESPIRATORY DISEASE STUDIES												
3. Pathology/Microanalysis Support for DRDS (Tucker J 304-599-7581) (VKC-uDp-116)(100/VCD-Lyd-116)	80	C					L	c	a			
and tissue processing to all DRDS projects where pathology support is required			o	o	o	o						C L 3143
.2 Provide elemental analysis, mineral identifications, and electromicroscopical and scanning electron microscopical studies to Divisional research investigations			o	o	o	o						C L 3144
.3 Support Environmental Investigations Branch investigations by providing dust analysis and training EIB personnel in method of preparing samples for TEM, SEM, and XES analysis			o	o	o	o						CdydGL 3146
.4 Provide histopathological evaluation of tissue and interpretations of results			o	o	o	o						CdydGL 3147
.5 Processing, investigations and interpretations of biopsy and autopsy tissues and reporting to pathologists around the country			o	o	o	o						CdydGL 3148
												CdydGL 3149
												CdydGL 3150
												CdydGL 3151
												CdydGL 3152
												CdydGL 3153
												CdydGL 3154
												CdydGL 3155
												CdydGL 3156
												CdydGL 3157
												CdydGL 3158
												CdydGL 3159
												CdydGL 3160
												CdydGL 3161
												CdydGL 3162
												CdydGL 3163
												CdydGL 3164

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES						
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF						
													O	C	N	\$1000	\$1000	
DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES													D	L	3167			
4. Mortality and Industrial Hygiene Study of Workers Exposed to Nitroglycerin (Gordon Reave 513-684-2352) (0.5/40.0/55.0)(100/VMH-Lyy-557)													D	L	3168			
A. Complete industrial hygiene surveys (4Q80).													D	b	y	y	L	3169
B. Complete demographic and work history coding (3Q81).													D	b	y	y	L	3170
C. Complete application of follow-up data to master file.													D	b	y	y	L	3171
D. Complete preparation of master file.													D	b	y	y	L	3172
E. Complete data analyses.													D	b	y	y	L	3173
F. Determine necessity for using internal control group.													D	b	y	y	L	3174
G. Complete report on life table analyses and submit abstract to Director, NIOSH and copy to DTS (1Q83).													D	b	y	y	L	3175
A. Complete industrial hygiene surveys (4Q80).													D	b	y	y	L	3176
B. Complete demographic and work history coding (3Q81).													D	b	y	y	L	3177
C. Complete application of follow-up data to master file.													D	b	y	y	L	3178
D. Complete preparation of master file.													D	b	y	y	L	3179
E. Complete data analyses.													D	b	y	y	L	3180
F. Determine necessity for using internal control group.													D	b	y	y	L	3181
G. Complete report on life table analyses and submit abstract to Director, NIOSH and copy to DTS (1Q83).													D	b	y	y	L	3182
5. Mortality and Industrial Hygiene Study of Workers Exposed to Carbon Monoxide (Frank Stern 513-684-2761) (2.0/30.0/85.0)(1.0/30.0/60.0)(100/VMH-Lyy-558)													D	b	y	y	L	3183
A. Complete peer review (3Q80).													D	b	y	y	L	3184
B. Initiate coding of demographic information (2Q81).													D	b	y	y	L	3185
C. Complete indepth industrial hygiene surveys.													D	b	y	y	L	3186
D. Initiate vital status follow-up.													D	b	y	y	L	3187
E. Complete industrial hygiene report.													D	b	y	y	L	3188
F. Initiate acquisition of death certificates.													D	b	y	y	L	3189
G. Complete 95% follow-up (4Q83).													D	b	y	y	L	3190
H. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q84).													D	b	y	y	L	3191
A. Complete peer review (3Q80).													D	b	y	y	L	3192
B. Initiate coding of demographic information (2Q81).													D	b	y	y	L	3193
C. Complete indepth industrial hygiene surveys.													D	b	y	y	L	3194
D. Initiate vital status follow-up.													D	b	y	y	L	3195
E. Complete industrial hygiene report.													D	b	y	y	L	3196
F. Initiate acquisition of death certificates.													D	b	y	y	L	3197
G. Complete 95% follow-up (4Q83).													D	b	y	y	L	3198
H. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q84).													D	b	y	y	L	3199

## CANCER

The occurrence of occupational cancer has been known for over 200 years with the discovery of scrotal cancer in chimney sweeps. The issue of how much cancer can be attributed to occupation has been particularly controversial following a 1978 DHEW report on this subject. It should be noted that each year about 400,000 Americans die from cancer. If occupation were a factor in only 5 percent of these deaths, then 20,000 deaths each year from cancer may be related to the workplace, at least in part. The only way to resolve this controversy is through additional scientific research.

One of the problems in identifying occupationally related cancer is that cancers generally become manifest in humans from 20 to 40 years after the first exposure. In order to develop a comprehensive understanding of occupationally induced cancers, NIOSH has been conducting epidemiologic research. For example, the known occupational carcinogens that produce human cancers were discovered through epidemiologic studies. NIOSH can learn of possible cancer incidence in the workplace from individual workers, unions, industrial scientists, news media, government agencies, or scientific publications. With the more than 1,000 new chemicals being introduced into the U.S. workplace each year, occupational cancer-related problems may become even more complex in the future.

Over the last 5 years, approximately 50 to 70 percent of NIOSH's occupational cancer research was supported through an interagency agreement with NCI. Since its inception, NCI has provided NIOSH with more than \$15 million to conduct more than 65 research projects dealing with a broad spectrum of topics related to cancer in the workplace. Approximately 20 projects are currently under way. NIOSH has worked closely with NCI under the interagency agreement and has participated in two collaborative workshops with NCI and EPA. Future collaboration between NCI and NIOSH will continue through joint project officers on interagency projects.

### Division of Biomedical and Behavioral Sciences

The DBBS toxicology program in carcinogenesis extends beyond the bioassay screening of single chemicals by the NTP, to include assessment of the carcinogenic potential of complex mixtures, modifications of carcinogenesis by promoters, and the etiology of the carcinogenic process in various workplace environments.

Completed laboratory studies have demonstrated the carcinogenicity, through dermal exposure, of such roofing material components as asphalt fumes and pitch. Other studies have demonstrated and/or delineated the carcinogenicity of a wide variety of compounds from antimony compounds to toluidine isomers.

For FY 1982, resources will be directed at:

1. Identification of carcinogenic agents in complex occupational environments such as newsprint ink, foundry particulates, and insulation products.
2. Investigation of the carcinogenic interaction between single chemical agents (e.g., dichloroethane) and (a) common prescription drugs used by workers, and (b) physical agents (e.g., ultraviolet lights).
3. Development of in vitro methods that can be used to screen industrial chemicals for cocarcinogenic/promotion potential.
4. Expansion of research on the role of pulmonary fibrosis in the development of lung cancer.

Division of Surveillance, Hazard Evaluations, and Field Studies

The approach in which cancer research is conducted in DSHEFS involves several levels of epidemiologic study. Under DSHEFS surveillance activities, cancer risk among occupational groups is assessed using existing record systems such as tumor registries, State and Federal vital statistics, and the SSA. These studies usually generate hypotheses that require further study. In FY 1981 and continuing into FY 1982, maps for the United States will be systematically developed according to exposures or use of specific chemicals, as well as by occurrence of specific diseases, including cancer. An association between exposure and cancer within specific areas of the country will then be examined. The information generated from this surveillance effort will be assessed for further study by groups outside of NIOSH, as well as by researchers in DSHEFS.

Within the DSHEFS industrywide studies program, investigations are conducted to determine whether or not specific occupational exposures or work within certain occupational groups in general are associated with an increased risk of developing cancer. The ultimate goal of the studies is to identify whether or not certain industrial chemicals are cancer-causing agents. The research involves the identification of worker populations that lend themselves to epidemiologic research. In addition, detailed industrial hygiene surveys are usually conducted to describe the actual levels of exposure experienced by the study population. Industrywide epidemiologic/industrial hygiene studies of this type have been instrumental in achieving lower exposures to certain chemicals in the workplace.



In order to more effectively assess the potential for conducting large-scale epidemiologic studies, a better system of feasibility testing has been established. Assistance in epidemiology and industrial hygiene also has been offered to unions, industry, and other parties interested in occupational health problems.

During FY 1981, cancer epidemiologic studies of occupational groups have continued and many will continue into FY 1982 and 1983. Each study is at a different phase of completion and several have been completed this year [i.e., retrospective cohort mortality studies of workers in nuclear shipyards, the petrochemical industry, and dry-cleaning establishments (perchloroethylene exposures); proportionate mortality studies of workers in the petrochemical industry and boilermakers union; case-control studies of petrochemical workers; and industrial hygiene characterization studies of petroleum refineries, wood preservative operations, heat-sealing operations, carbon disulfide in viscose rayon operations, and perchloroethylene in dry-cleaning operations].

New methods of analysis continue to be developed and refined. Due to the recent Supreme Court decision regarding benzene, analytical designs are being developed to provide a better risk assessment in terms of dose/response.

#### Office of Extramural Coordination and Special Projects

As the Institute coordinator for the NCI-NIOSH interagency agreement relating to occupational cancer research, OECSP attempts to ensure that milestones are being met and that monies are being spent on schedule and as originally intended. OECSP identifies potential problem areas concerned with the interagency agreement for discussion or resolution with NCI, possibly resulting in a modification to the agreement. Preparation of programmatic and financial reports as well as research summaries, including annual and semiannual progress reports, to NCI is coordinated through OECSP. Solicitation of new project areas from NIOSH O/Ds to be considered by NCI for new funding under the interagency agreement is another function of the office. OECSP works closely with NIOSH research O/D directors, as well as with the Director of the Office of Program Planning and Evaluation, in this regard.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES					
	I	C	1Q	2Q	3Q	4Q	R	U	NPF	TF			
							O	C			N		
							G	H	D	PY	\$1000	\$1000	
*****CANCER*****													
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE													
1. Foundry Pyrolysis Effluent-Carcinogenesis (W. Moorman 684-8275) (V00-cBD-326)(0.1/0.6/5.0)(0.1/0.6/4.5)(100/V00-Myy-326)	78	84					M	a	e				
.1 Complete peer review (1Q78)											M	3201	
.2 Submit RFC to contract office (2Q78)											M	3202	
.3 Award contract (210-78-0033) (3Q78)											A	M	3203
.4 Initiate experimental protocol (1Q79)											A	M	3204
.5 Complete contract modification to include additional binder (furan)(1Q79)											A	M	3206
.6 Consult Information Office (1Q80)											A	M	3207
.7 Complete analytical phases (2Q80)											A	M	3208
.8 Initiate prechronic IT injections (2Q80)											A	M	3209
.9 Complete prechronic IT injections (4Q80)											A	M	3210
.10 Initiate chronic IT injections (4Q80)											A	M	3211
.11 Complete chronic IT injections (4Q81)											A	M	3212
.12 Review progress reports											A	M	3213
.13 Complete chronic bioassay (1Q83)											A	M	3214
.14 Complete pathology (3Q83)											A	M	3215
.15 Receive draft final report (1Q84)											A	M	3216
.16 Submit final report to Director, DBBS (2Q84)											A	M	3217
.17 Submit abstract to Director, NIOSH (2Q84)											A	M	3218
.18 Submit project records to Q.A. Unit, DBBS (4Q84)											A	M	3219
											A	M	3220
											A	M	3221
											A	M	3222
											A	M	3223
											A	M	3224
											A	M	3225
											A	M	3226
											A	M	3227
											A	M	3228
2. Etiology of Newsprint Workers Cancer (R. Niemeier, 684-8394) (0.1/155.0/160.0)(0.1/106.0/109.6)(.2/1.0/8.2)(100/V00-Mhy-315)	82	85					M	a	e				
.1 Complete peer review											A	M	3231
.2 Submit RFC to OAMS											A	M	3232
.3 Obtain samples for testing											A	M	3233
.4 Award contract											A	M	3234
.5 Submit progress report to Director, DBBS											A	M	3235
.6 Perform site visit (2Q83)(4Q83)(2Q84)(4Q84)											A	M	3236
.7 Initiate animal studies (1Q83)											A	M	3237
.8 Review progress reports											A	M	3238
.9 Complete animal studies (4Q84)											A	M	3239
.10 Complete pathology evaluations (3Q85)											A	M	3240
.11 Review draft final report (4Q85)											A	M	3241
.12 Submit final report to Director, DBBS (4Q85)											A	M	3242
.13 Submit abstract to Director, NIOSH (4Q85)											A	M	3243
.14 Submit project records to Q.A. Unit, DBBS (4Q85)											A	M	3244
											A	M	3245
											A	M	3246
											A	M	3247
											A	M	3248

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	TF
										\$1000	\$1000
3. Diesel Exhaust/Coal Dust Animal Studies (T. Lewis, 684-8392) (V00-cBi-325)(0.3/181.3/196.0)(100/V00-Mmy-325)	78	83							M b c		
.1 Complete peer review (1Q78)										AcmyyM	3251
.2 Prepare interagency agreement (3Q78)(4Q79)(4Q80)(4Q81)										AcmyyM	3252
.3 Begin facility setup (1Q79)										AcmyyM	3253
.4 Complete facility set up (4Q79)										AcmyyM	3254
.5 Initiate generation system set-up (4Q79)										AcmyyM	3255
.6 Characterize emissions (4Q79)										AcmyyM	3256
.7 Award interagency agreement (1Q79)(1Q80)(1Q81)			o							AcmyyM	3257
.8 Consult Information Office (1Q80)										AcmyyM	3258
.9 Initiate animal exposures (2Q80)										AcmyyM	3259
.10 Submit progress report to Director, DBBS			o	o	o	o				AcmyyM	3260
.11 Perform 6-month response studies (rats) (4Q80)(2Q81)(4Q81)				o						AcmyyM	3261
.12 Initiate exposure of monkeys (1Q81)										AcmyyM	3262
.13 Perform 6-month pulmonary tests (monkeys)(3Q81)(1Q83)			o		o					AcmyyM	3263
.14 Complete terminal sacrifice of rats					o					AcmyyM	3264
.15 Initiate infectivity/mutagenicity testing					o					AcmyyM	3265
.16 Complete infectivity/mutagenicity testing						o				AcmyyM	3266
.17 Complete terminal sacrifice of monkeys (1Q83)							o			AcmyyM	3267
.18 Receive pathology reports (2Q83)										AcmyyM	3268
.19 Review draft final report (3Q83)										AcmyyM	3269
.20 Submit final report to Director, DBBS (4Q83)										AcmyyM	3270
.21 Submit abstract to Director, NIOSH (4Q83)										AcmyyM	3271
.22 Submit project records to Q.A. Unit, DBBS (4Q83)										AcmyyM	3272
4. Dichloroethane: Drug Interactions (K. Cheever 684-8497) (V00-cBi-319)(0.1/150.0/154.4)(0.1/150.0/154.4)(0.1/50.0/55.0) (100/V00-Mhy-319)	81	85							M a e		
.1 Develop RFC (4Q80)										AcmyyM	3273
.2 Complete peer review (1Q81)										AcmyyM	3274
.3 Submit RFC to Director, DBBS (1Q81)										AcmyyM	3275
.4 Submit RFC to Contracting Office, OAMS (2Q81)										AcmyyM	3276
.5 Award contract (4Q81)										AcmyyM	3277
.6 Submit progress report to Director, DBBS			o	o	o	o				AcmyyM	3278
.7 Make site visit to contractor (1Q83)(3Q83)(1Q84)			o		o					AcmyyM	3279
.8 Initiate inhalation exposures				o						AcmyyM	3280
.9 Complete inhalation exposures (4Q83)										AcmyyM	3281
.10 Complete histopathologic evaluations (1Q84)										AcmyyM	3282
.11 Review draft final report from contractor (3Q84)										AcmyyM	3283
.12 Submit final report to Director, DBBS (1Q85)										AcmyyM	3284
.13 Submit abstract to Director, NIOSH (1Q85)										AcmyyM	3285
.14 Submit project records to Q.A. Unit, DBBS (1Q85)										AcmyyM	3286
										AcmyyM	3287
										AcmyyM	3288
										AcmyyM	3289
										AcmyyM	3290
										AcmyyM	3291
										AcmyyM	3292
										AcmyyM	3293
										AcmyyM	3294
										AcmyyM	3295
										AcmyyM	3296
										AcmyyM	3297

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	PY	\$1000 \$1000
5. Carcinogenicity of Aromatic Amines-Azo Dyes (T. Lewis, 684-8392) (V00-cBt-332)(100/V00-Myy-332)	78	82					M a a		
.1 Complete peer review (1Q78)								AcyyyM	3300
.2 Submit RFC to contract office (2Q78)								AcyyyM	3301
.3 Award contract (210-78-0032) (3Q78)								AcyyyM	3302
.4 Initiate subchronic study (3Q79)								AcyyyM	3303
.5 Complete subchronic study (4Q79)								AcyyyM	3304
.6 Consult Information Office (1Q80)								AcyyyM	3305
.7 Initiate chronic feeding studies and IT dosing (1Q80)								AcyyyM	3306
.8 Complete IT dosing (2Q80)								AcyyyM	3307
.9 Submit contractor's progress report to Director, DBBS			o	o	o	o		AcyyyM	3308
.10 Complete chronic feeding studies				o				AcyyyM	3309
.11 Complete sacrifice of rats and hamsters				o				AcyyyM	3310
.12 Complete pathology					o			AcyyyM	3311
.13 Review draft final report from contractor					o			AcyyyM	3312
.14 Submit final report to Director, DBBS						o		AcyyyM	3313
.15 Submit abstract to Director, NIOSH						o		AcyyyM	3314
.16 Submit manuscript for journal publication						o		AcyyyM	3315
.17 Submit project records to Q.A. Unit, DBBS						o		AcyyyM	3316
								AcyyyM	3317
								AcyyyM	3318
								AcyyyM	3319
								AcyyyM	3320
6. Inhalation Toxicity of Organic Oxides (D. Lynch, 684-8274) (V00-cXh-330)(100/V00-Mhy-330)	78	82					M c a		
.1 Complete peer review (2Q78)								AchyyM	3323
.2 Standardize and calibrate new inhalation chambers (1Q79)								AchyyM	3324
.3 Initiate inhalation exposures to ethylene oxide and propylene oxide (3Q79)								AchyyM	3325
.4 Consult Information Office (1Q80)								AchyyM	3326
.5 Submit progress report to Director, DBBS			o	o	o	o		AchyyM	3327
.6 Perform 6-month testing (1Q80)(3Q80)(1Q81)(3Q81)								AchyyM	3328
.7 Complete inhalation exposures (3Q81)								AchyyM	3329
.8 Perform terminal sacrifice (3Q81)								AchyyM	3330
.9 Complete pathology reports				o				AchyyM	3331
.10 Complete data analysis					o			AchyyM	3332
.11 Submit final project report to Director, DBBS						o		AchyyM	3333
.12 Submit abstract to Director, NIOSH						o		AchyyM	3334
.13 Submit project records to Q.A. Unit, DBBS						o		AchyyM	3335
								AchyyM	3336
								AchyyM	3337
								AchyyM	3338
								AchyyM	3339
								AchyyM	3340

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES		
		1Q	2Q	3Q	4Q		NPF	TF	
							PY	\$1000 \$1000	
7. Co-Carcinogenicity of Foundry Particulates (R Niemeier 684-8394) (V00-cBy-320)(0.1/1.3/4.3)(0.1/0.9/4.3)(100/V00-Mny-320)	79	83				M a e			AcnyyM 3343
.1 Complete literature search and peer review (1Q79)									AcnyyM 3344
.2 Submit RFC to contract office (2Q79)									AcnyyM 3345
.3 Award contract (210-79-0036) (4Q79)									AcnyyM 3346
.4 Consult Information Office (1Q80)									AcnyyM 3347
.5 Initiate animal treatments (3Q80)									AcnyyM 3348
.6 Complete 15 weekly administrations of test material (4Q80)									AcnyyM 3349
.7 Submit contractor's progress report to Director, DBBS			o	o	o	o			AcnyyM 3350
.8 Complete site visits (1Q81)(2Q81)				o		o			AcnyyM 3351
.9 Perform terminal sacrifice				o					AcnyyM 3352
.10 Complete pathology evaluation						o			AcnyyM 3353
.11 Review draft Final Report (1Q83)									AcnyyM 3354
.12 Submit final report to Director, DBBS (2Q83)									AcnyyM 3355
.13 Submit abstract to Director, NIOSH (2Q83)									AcnyyM 3356
.14 Submit manuscript for publication (3Q83)									AcnyyM 3357
.15 Submit project records to Q.A. Unit, DBBS (3Q83)									AcnyyM 3358
									AcnyyM 3359
									AcnyyM 3360
									AcnyyM 3361

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES		
	I C		1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF	\$1000	\$1000
8. In Vitro Tests for Workplace Cocarcinogens (J. Bohrman 684-8358) (V00-cBh-343)(1.5/155.0/200.0)(1.5/162.0/211.2)(1.5/20.0/70.0) (1.5/20.0/70.0)(100/V00-Mhy-343)	81	86							M	b	a			
.1 Initiate literature review (1Q81)												AchyyM	3364	
.2 Submit progress reports to Director, DBBS			o	o	o	o						AchyyM	3365	
.3 Complete literature review (2Q81)												AchyyM	3366	
.4 Complete development of RFC (3Q81)												AchyyM	3367	
.5 Complete peer review (4Q81)												AchyyM	3368	
.6 Submit RFC to Director, DBBS (4Q81)												AchyyM	3369	
.7 Submit RFC to OAMS (4Q81)												AchyyM	3370	
.8 Complete new tissue culture laboratory set-up					o							AchyyM	3371	
.9 Initiate in-house studies on methods development					o							AchyyM	3372	
.10 Hazard Data Sheets (H.D.S.)												AchyyM	3373	
a. Develop H.D.S.					o							AchyyM	3374	
b. Submit H.D.S. to Director, DBBS					o							AchyyM	3375	
c. Submit H.D.S. to all project staff					o							AchyyM	3376	
.11 Award Contract #1 on Comparative Screening Methods					o							AchyyM	3377	
.12 Complete in-house methods development studies (2Q84)												AchyyM	3378	
.13 Initiate testing of field samples in-house (2Q84)												AchyyM	3379	
.14 Review draft final report (2Q84)												AchyyM	3380	
.15 Review final report (Contract #1)(3Q84)												AchyyM	3381	
.16 Submit final contract report to Director, DBBS (3Q84)												AchyyM	3382	
.17 Submit abstract final report to Director, NIOSH (3Q84)												AchyyM	3383	
.18 Award Contract #2 (4Q84)												AchyyM	3384	
.19 Review draft final report (2Q86)												AchyyM	3385	
.20 Review final report (contract #2)(2Q86)												AchyyM	3386	
.21 Complete in-house screening of field samples (4Q85)												AchyyM	3387	
.22 Submit final report to Director, DBBS (3Q86)												AchyyM	3388	
.23 Submit abstract to Director, NIOSH (3Q86)												AchyyM	3389	
.24 Submit project records to Q.A. Unit, DBBS (4Q86)												AchyyM	3390	
												AchyyM	3391	
												AchyyM	3392	
												AchyyM	3393	
												AchyyM	3394	
												AchyyM	3395	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U	NPF	TF	
							O C N	PY	\$1000	\$1000
9. Fibrogenicity & Pulmonary Carcinogenesis (T. Lewis 684-8392) (V00-cBD-324)(100/V00-Mny-324)	79	82					M a e			
.1 Conduct peer review (1Q79)								AcnyyM	3398	
.2 Submit RFC to contract office (1Q79)								AcnyyM	3399	
.3 Award contract (210-79-0038) (4Q79)								AcnyyM	3400	
.4 Consult Information Office (1Q80)								AcnyyM	3401	
.5 Obtain and characterize particulates to be supplied to contractor (1Q80)								AcnyyM	3402	
.6 Initiate experimental work (1Q80)								AcnyyM	3403	
.7 Submit contractor's progress report to Director, DBBS				o	o			AcnyyM	3404	
.8 Complete experimental work				o				AcnyyM	3405	
.9 Complete histopathology				o				AcnyyM	3406	
.10 Review draft final report					o			AcnyyM	3407	
.11 Submit final report to Director, DBBS						o		AcnyyM	3408	
.12 Submit abstract to Director, NIOSH						o		AcnyyM	3409	
.13 Submit project records to Q.A. Unit, DBBS						o		AcnyyM	3410	
10. Fluoride & Carcinogenicity of Mineral Fibers (D. Groth 684-8361) (0.4/12.0/30.0)(0.4/5.0/23.0)(100/VOT/Mkg/376)	82	84					M c e			
.1 Submit peer review notice to Information Office				o				AcnyyM	3411	
.2 Complete peer review				o				AcnyyM	3412	
.3 Submit project protocol to OD, DBBS					o			AcnyyM	3413	
.4 Order animals, chemicals, and diet.					o			AcnyyM	3414	
.5 Inoculate animals						o		AcnyyM	3415	
.6 Submit progress report to OD, DBBS				o	o	o	o	AdkgyM	3418	
.7 Perform 12-month sacrifice (2Q83)								AdkgyM	3419	
.8 Submit histopathology report to OD, DBBS (4Q83)								AdkgyM	3420	
.9 Complete sacrifices (2Q84)								AdkgyM	3421	
.10 Submit histopathology report to OD, DBBS (4Q84)								AdkgyM	3422	
.11 Submit final project report to OD, DBBS (4Q84)								AdkgyM	3423	
.12 Submit abstract of final report to OD, NIOSH (4Q84)								AdkgyM	3424	
.13 Submit project records to Q. A. Unit, DBBS (4Q84)								AdkgyM	3425	
								AdkgyM	3426	
								AdkgyM	3427	
								AdkgyM	3428	
								AdkgyM	3429	
								AdkgyM	3430	
								AdkgyM	3431	
								AdkgyM	3432	
								AdkgyM	3433	
								AdkgyM	3434	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
11. Carcinogenicity of Dimethylformamide (W. Wagner, 684-8433) (VOT-cBh-373)(0.1/1.0/5.0)(0.1/1.0/6.0)(0.1/1.0/7) (100/VOT-Mhy-373)	80	85					M	b	e			
.1 Consult Information Office (1Q80)											AdhyyM	3437
.2 Conduct project peer review (2Q80)											AdhyyM	3438
.3 Submit RFC to Director, DBBS (2Q80)											AdhyyM	3439
.4 Submit RFC to Contracting Office (2Q80)											AdhyyM	3440
.5 Award contract (4Q81)											AdhyyM	3441
.6 Submit progress report to Director, DBBS											AdhyyM	3442
.7 Perform maximum tolerated dose (MTD) study				o	o	o					AdhyyM	3443
.8 Monitor contract-site visit					o						AdhyyM	3444
.9 Initiate chronic inhalation exposure study					o						AdhyyM	3445
.10 Perform 6-month serial sacrifice and serum enzyme evaluations									o		AdhyyM	3446
.11 Perform 12-month serial sacrifice and serum enzyme evaluations (2Q83)											AdhyyM	3447
.12 Perform 18-month serial sacrifice and serum enzyme evaluations (4Q83)											AdhyyM	3448
.13 Complete chronic inhalation exposures (2Q84)											AdhyyM	3449
.14 Perform terminal sacrifice and serum enzyme evaluations, 30-month (4Q84)											AdhyyM	3450
.15 Complete histologic evaluations (2Q85)											AdhyyM	3451
.16 Receive draft of contractor's final report (3Q85)											AdhyyM	3452
.17 Submit final report to Director, DBBS (4Q85)											AdhyyM	3453
.18 Submit abstract to Director, NIOSH (4Q85)											AdhyyM	3454
.19 Submit project records to Q. A. Unit, DBBS (4Q85)											AdhyyM	3455
12. Metabolism of Azo Dyes to Aromatic Amines (L. Lowry, 684-8338) (VOT-cBr-372)(100/VOT-Myy-372)	80	82					M	a	e			
.1 Consult Information Office (1Q80)											AdyyyM	3467
.2 Submit draft IA to Director, DBBS (2Q80)											AdyyyM	3468
.3 Submit IA to NCTR (2Q80)											AdyyyM	3469
.4 Award IA (4Q80)											AdyyyM	3470
.5 Submit progress report to Director, DBBS											AdyyyM	3471
.6 Conduct site visit (2Q81)(4Q81)				o	o	o					AdyyyM	3472
.7 Initiate methods development (1Q81)					o						AdyyyM	3473
.8 Complete methods development (1Q81)											AdyyyM	3474
.9 Initiate testing of animals (2Q81)											AdyyyM	3475
.10 Complete metabolic and chemical disposition studies				o	o	o					AdyyyM	3476
.11 Receive draft of final report											AdyyyM	3477
.12 Submit IA final report to Director, DBBS					o						AdyyyM	3478
.13 Submit abstract to Director, NIOSH									o		AdyyyM	3479
.14 Submit project records to Q.A. Unit, DBBS									o		AdyyyM	3480
											AdyyyM	3481
											AdyyyM	3482
											AdyyyM	3483
											AdyyyM	3484



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	
							\$1000	\$1000		
<b>DIVISION OF RESPIRATORY DISEASE STUDIES</b>										
13. Retrospective Mortality Study of Synthetic Fuel Workers (Ames R 304-599-7476)(1.0/50.0/80.0)(0.8/21.7/49.7) (100/VCa-Mih-187)	82	84								C M 3486 C M 3487 CaihyM 3489 CaihyM 3490 CaihyM 3491 CaihyM 3492 CaihyM 3493 CaihyM 3494 CaihyM 3495 CaihyM 3496 CaihyM 3497 CaihyM 3498 CaihyM 3499 CaihyM 3500 CaihyM 3501 CaihyM 3502 CaihyM 3503 CaihyM 3504 CaihyM 3505 CaihyM 3506 CaihyM 3507 CaihyM 3508 CaihyM 3509 CaihyM 3510 CaihyM 3511 CaihyM 3512 CaihyM 3513 CaihyM 3514 CaihyM 3515 CaihyM 3516 CaihyM 3517 CaihyM 3518 CaihyM 3519 CaihyM 3520 CaihyM 3521 CaihyM 3522 CaihyM 3523
.1 Develop study plan (FY81)										
.2 Conduct literature review (FY81)										
.3 Obtain employee records (Union Carbide)				o						
.4 Complete in-house follow-up of UC					o					
.5 Initiate Equifax follow-up of UC					o					
.6 Obtain employee records from 5 National Energy Tech Centers					o					
.7 Complete in-house follow-up of 5 National Energy Tech Centers						o				
.8 Initiate Equifax follow-up of 5 National Energy Tech Centers (FY83)										
.9 Complete Equifax follow-up of Union Carbide (FY83)										
.10 Obtain worker records at BOM coal liquefaction facilities (FY83)										
.11 Complete in-house follow-up of BOM facilities (FY83)										
.12 Initiate Equifax follow-up of BOM facilities (FY83)										
.13 Complete Equifax follow-up of 5 National Energy Tech Centers (FY83)										
.14 Obtain employee records, town gas plants (FY83)										
.15 Complete in-house follow-up of town gas (FY83)										
.16 Initiate Equifax follow-up of town gas (FY84)										
.17 Complete Equifax follow-up of BOM facilities (FY84)										
.18 Prepare report, Union Carbide phase (FY84)										
.19 Prepare report, 5 National Energy Tech Centers (FY84)										
.20 Prepare, BOM facilities (FY84)										
.21 Complete Equifax follow-up of town gas (FY84)										
.22 Prepare report, town gas (FY84)										
.23 Prepare summary final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (FY84)										

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	PY	\$1000 \$1000
14. IH/Mortality Study of Crushed Stone Workers (Costello J 304-599-7476) (VKL-bpB-186) (0.3/11.0/20.0) (100/VCa-Mkg-186)	79	83					M g a		
.1 Cohort completely defined and data collected from all quarries (n=approx 6000) (2Q81)								CakgyM	3526
.2 All data entered and master file (for follow-up) completed (3Q81)								CakgyM	3527
.3 Follow-back with postmasters, SSA, and IRS to determine vital status								CakgyM	3528
.4 Update master file from follow-back				o				CakgyM	3529
.5 Order and receive death certificates				o				CakgyM	3530
.6 Death certificate coding						o		CakgyM	3531
.7 Update master file (computer processing) for analysis (1Q83)								CakgyM	3532
.8 Analysis and report writing (2Q&3Q83)								CakgyM	3533
.9 Complete final report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)								CakgyM	3534
				o				CakgyM	3535
				o				CakgyM	3536
					o			CakgyM	3537
						o		CakgyM	3538
								CakgyM	3539
								CakgyM	3540
								CakgyM	3541
								CakgyM	3542
								CakgyM	3543
15. Morb/IH Study of Fibrous Attapulgite Workers (Gamble J 304-599-7476) (VKL-bDg-185)(100/VCa-Mgk-185)	77	82					M c d		
.1 Complete negotiations on data collection (2Q81)								CagknM	3546
.2 Complete walk-thru surveys of 2 plants (3Q81)								CagknM	3547
.3 Complete IH surveys (4Q81)								CagknM	3548
.4 Complete film reading trials				o				CagknM	3549
.5 Receive taped data from Englehard				o				CagknM	3550
.6 Receive hard copy data from Pennsylvania Glass Sand Corp.				o				CagknM	3551
.7 Edit Englehard data for analysis				o				CagknM	3552
.8 Code PGS data and put on tape				o				CagknM	3553
.9 Edit PGS data for analysis				o				CagknM	3554
.10 Code and put IH data on computer tape				o				CagknM	3555
.11 Analyze cross-sectional and prospective data				o	o	o		CagknM	3556
.12 Estimate cumulative exposure					o			CagknM	3557
.13 Complete report and submit abstract to Director, NIOSH, with copy of report and abstract to DTS						o		CagknM	3558
								CagknM	3559
								CagknM	3560
								CagknM	3561
								CagknM	3562
								CagknM	3563

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
16. Registry of Workers-Emerging Energy Technologies-EPA (Costello J 304-599-7476) (VKL-aiB-189)(100/VCa-Mih-189)	81	82					M	b	c			
.1 Develop preliminary protocol for establishment of a synthetic fuels workers registry (1Q81)											CaihyM	3566
.2 Contact appropriate agencies (DOE, API, EPRI, etc) to discuss the registry project and evaluate their interest in participating (1Q81)											CaihyM	3567
.3 Meet with representatives of API to discuss their plans for registry establishment and operation (2Q81)											CaihyM	3568
.4 Attend meeting planned by API to include those with an interest in pilot oil shale registry (individual energy companies, NIOSH, MSHA, OSHA, state health departments) (4Q81)											CaihyM	3569
.5 Obtain seat on API and Tri-state consortium advisory committee				o							CaihyM	3570
.6 Confer with IOM officials regarding cooperative or contractual arrangement to examine ex-shale oil workers a. Submit RFC to CDC/OAMS				o							CaihyM	3571
.7 If feasible, award contract in one of several areas					o						CaihyM	3572
.8 Monitor contract work - in cooperation with DOE						o					CaihyM	3573
.9 Provide advice to API and state health departments concerned with shale oil registry in US						o					CaihyM	3574
.10 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS							o				CaihyM	3575
								o			CaihyM	3576
									o		CaihyM	3577
										o	CaihyM	3578
											CaihyM	3579
											CaihyM	3580
											CaihyM	3581
											CaihyM	3582
											CaihyM	3583
											CaihyM	3584
											CaihyM	3585
											CaihyM	3586
											CaihyM	3587
											CaihyM	3588
											CaihyM	3589
											CaihyM	3590
											CaihyM	3591
17. Fibrous Minerals and Metals on Interferon System (Hahon N 304-599-7517)(VKC-cCB-129)(1.9/27.0/84.0) (100/VCd-Mgm-129)	81	83							M	c	d	
METALS												
.1 Complete determination of chromium and manganese on cell viability, cell growth				o							CdgmyM	3594
.2 Complete assessment of metal effects on viral induction of interferon					o						CdgmyM	3595
.3 Complete study of metals on interferon system (cell-mediated antiviral resistance, virus growth)						o					CdgmyM	3596
MINERAL-METAL COMBINATIONS											CdgmyM	3597
.1 Complete determination of garnierite (nickel-asbestos) on cell integrity (1Q83)											CdgmyM	3598
.2 Complete study of garnierite effects on interferon system (induction, cell-resistance, virus growth) (3Q83)											CdgmyM	3599
.3 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)											CdgmyM	3600
											CdgmyM	3601
											CdgmyM	3602
											CdgmyM	3603
											CdgmyM	3604
											CdgmyM	3605
											CdgmyM	3606
											CdgmyM	3607
											CdgmyM	3608
											CdgmyM	3609
											CdgmyM	3610
											CdgmyM	3611
											CdgmyM	3612
											CdgmyM	3613

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	FY	I	Q	Q	Q	Q	PY	NPF	TF
	I C	1Q	2Q	3Q	4Q		\$1000	\$1000	
18. Diesel Exhaust/Coal Dust Animal Exposure Studies (Green F 304-599-7581) (VKC-cpD-117)(100/VCD-Mmi-117)	80	82					M g b		
.1 Submit IA to DOE for dust analysis by Brookhaven National Labs			o					CdmiyM	3616
.2 Complete report on 12-month exposure			o					CdmiyM	3617
.3 Complete 24-month animal sampling				o				CdmiyM	3618
.4 Submit final report and abstract to Director, NIOSH with copy of report and abstract to DTS						o		CdmiyM	3619
								CdmiyM	3620
								CdmiyM	3621
								CdmiyM	3622
								CdmiyM	3623
								CdmiyM	3624
								CdmiyM	3625
19. Early Indicators of Risk for Energy Technologies-EPA (Resnick H 304-599-7593)(VKC-ciB-120)(2.5/75.0/150.0) (2.5/50.0/140.0)(100/VCD-Mid-120)	81	84					M c c		
.1 Complete peer review of protocol			o					CdiduM	3628
.2 Complete SPRG/HSRB/OMB approval			o					CdiduM	3629
.3 Complete review of alternate bioassays available					o			CdiduM	3630
.4 Complete coordinating bioassays of samples provided from field studies				o				CdiduM	3631
.5 Complete evaluation of plants studied; redirection if necessary						o		CdiduM	3632
.6 Continuing out-year milestones contingent upon progress realized during FY82 efforts								CdiduM	3633
								CdiduM	3634
								CdiduM	3635
								CdiduM	3636
								CdiduM	3637
								CdiduM	3638
								CdiduM	3639
								CdiduM	3640
								CdiduM	3641
DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES									
								D M	3643
								D M	3644
20. Lung Cancer Screening of Workers at High Risk (914)-- 4/30/84--\$168,901--J. Malius								D M	3645
								D M	3646
								D M	3647
21. Multiple Myeloma and Brain Tumors in Physicians (920) 7/31/83--\$122,508--E. Leffingwell								D M	3648
								D M	3649
								D M	3650
22. Worker Notification Pilot Program (Paul Schulte 513-684-2732) (100/VMC-Myy-687)	81	82					M b a		
A. Award contracts for medical services (4Q81).								DayyyM	3652
B. Complete data collection.								DayyyM	3653
C. Complete final report and submit abstract to Director, NIOSH and copy to DTS.				o		o		DayyyM	3654
D. Devise follow-up plan.						o		DayyyM	3655
								DayyyM	3656
								DayyyM	3657
								DayyyM	3658
								DayyyM	3659
								DayyyM	3660

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
23. Investigation of Brain Tumors Among Workers at the Dow Chemical Company, Texas Division (Gordon Reeve 513-684-2352) (100/VMH-My-580)	82	82					M	c	e			
A. Complete brain tumor case control study.				o							DbyyyM	3663
B. Collect death certificates for second phase of study.					o						DbyyyM	3664
C. Complete final report on case control study and submit abstract to Director, NIOSH and copy to DTS.						o					DbyyyM	3665
D. Complete sample based cohort mortality analysis and make recommendations for future study.								o			DbyyyM	3666
											DbyyyM	3667
											DbyyyM	3668
											DbyyyM	3669
											DbyyyM	3670
											DbyyyM	3671
											DbyyyM	3672
											DbyyyM	3673
24. Beryllium Retrospective Cohort Investigation (Andrea Okun 513-684-2145) (1.0/60.0/90.0)(100/VMH-Myy-583)	82	83					M	c	a			
A. Initiate preparation of protocol.				o							DbyyyM	3676
B. Submit protocol to peer review panel.					o						DbyyyM	3677
C. Establish future milestones dependent on peer review comments.						o					DbyyyM	3678
											DbyyyM	3679
											DbyyyM	3680
											DbyyyM	3681
											DbyyyM	3682
											DbyyyM	3683
											DbyyyM	3684
25. Case Control Study of Soft Tissue Sarcoma (Pat Honchar 513-684-3593) (1.0/40.0/70.0)(100/VMH-Mee-582)	82	83					M	b	a			
A. Complete RFC and OMB package and submit to OAMS.					o						DbeeeM	3687
B. Award contract (210-82- ).								o			DbeeeM	3688
C. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q83).											DbeeeM	3689
											DbeeeM	3690
											DbeeeM	3691
											DbeeeM	3692
											DbeeeM	3693
											DbeeeM	3694
											DbeeeM	3695
26. Mortality and Industrial Hygiene Study of Uranium Enrichment Plant (Dave Brown 513-684-3593) (VMH-Mai-546)	81	82					M	c	a			
A. Complete acquisition of 70% of death certificates (2Q81).				o							DbaiaM	3698
B. Complete vital status follow-up.					o						DbaiaM	3699
C. Complete industrial hygiene survey.						o					DbaiaM	3700
D. Initiate analyses of mortality data.								o			DbaiaM	3701
E. Complete final report and submit abstract to Director, NIOSH and copy to DTS.									o		DbaiaM	3702
											DbaiaM	3703
											DbaiaM	3704
											DbaiaM	3705
											DbaiaM	3706
											DbaiaM	3707
											DbaiaM	3708

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF	
											O	C	N
27. Uranium Miner and Miller Study (Rick Waxweiler 513-684-2761) (100/VMH-Mai-560)	79	82							M	c	d		
A. Construct cohort of uranium millers (2Q79).												Dbaiam	3711
B. Eliminate those millers who worked in uranium mines (2Q80).												Dbaiam	3712
C. Complete 90% follow-up of uranium millers (4Q81).												Dbaiam	3713
D. Complete analyses of millers cohort.												Dbaiam	3714
E. Complete Phase 1 analysis of miners cohort.												Dbaiam	3715
F. Complete final report on millers and submit abstract to Director, NIOSH and copy to DTS.												Dbaiam	3716
G. Complete Phase 1 report on miners and submit abstract to Director, NIOSH and copy to DTS.												Dbaiam	3717
H. Complete Phase 2 report on miners and submit abstract to Director, NIOSH and copy to DTS.												Dbaiam	3718
												Dbaiam	3719
												Dbaiam	3720
												Dbaiam	3721
												Dbaiam	3722
												Dbaiam	3723
												Dbaiam	3724
												Dbaiam	3725
28. Mortality and Industrial Hygiene Study of Workers Exposed to Tetra Ethyl Lead (Marie Haring 513-684-2761) (1.0/9.0/36.0)(0.5/10.0/30.0)(100/VMH-Myy-548)	80	84										DbyyyM	3728
A. Initiate vital status follow-up and death certificate acquisition (4Q80).												DbyyyM	3729
B. Initiate vital status follow-up (2Q81).												DbyyyM	3730
C. Complete 90% vital status ascertainment.												DbyyyM	3731
D. Complete acquisition of 70% of death certificates.												DbyyyM	3732
E. Complete 95% vital status ascertainment.												DbyyyM	3733
F. Complete acquisition of 95% of death certificates.												DbyyyM	3734
G. Complete draft final report (4Q83).												DbyyyM	3735
H. Complete final report and submit abstract to Director, NIOSH and copy to DTS (1Q84).												DbyyyM	3736
												DbyyyM	3737
												DbyyyM	3738
												DbyyyM	3739
												DbyyyM	3740
												DbyyyM	3741
												DbyyyM	3742

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION					P M F R E U O C N			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
29. Mortality Study of Chemical Plants in Kanawha Valley, West Virginia (NCI)(Terry Leet 513-684-2761) (0.8/50.0/70.0)(VMH-Mih-605)	80	83					M	c	e			
A. Complete initial study protocol, initiate coding of demographic and work history data (1Q80).											DbihyM	3745
B. Complete coding of demographic and work history data (4Q81).											DbihyM	3746
C. Initiate SSA follow-up on second half of master file.			o								DbihyM	3747
D. Complete 90% of death certificate acquisition on first half of master file.				o							DbihyM	3748
E. Initiate death certificate acquisition on second half of master file.					o						DbihyM	3749
F. Complete vital status follow-up.						o					DbihyM	3750
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (3Q83).							o				DbihyM	3751
											DbihyM	3752
											DbihyM	3753
											DbihyM	3754
											DbihyM	3755
											DbihyM	3756
											DbihyM	3757
											DbihyM	3758
											DbihyM	3759
											DbihyM	3760
											DbihyM	3761
30. Mortality and Industrial Hygiene Study of New Agents-III (Jim Oser 513-684-3255) (100/VMH-MNe-602)	78	82					M	b	e			
A. Award contract (4Q78).											DbNeeM	3764
B. Initiate surveys for wood preservatives (2Q79).											DbNeeM	3765
C. Initiate surveys for paraquat (2Q80).											DbNeeM	3766
D. Complete final report on wood preservatives (4Q81).											DbNeeM	3767
E. Complete final report on paraquat and submit abstract to Director, NIOSH and copy to DTS.					o						DbNeeM	3768
F. Complete final report on vanadium compounds and submit abstract to Director, NIOSH and copy to DTS.						o					DbNeeM	3769
											DbNeeM	3770
											DbNeeM	3771
											DbNeeM	3772
											DbNeeM	3773
											DbNeeM	3774
											DbNeeM	3775
											DbNeeM	3776
31. Mortality and Industrial Hygiene Study of Formaldehyde (Larry Elliott 513-684-3255) (0.2/20.0/25.0)(100/VMH-Myy-576)	81	83					M	c	a			
A. Complete study protocol (3Q81).											DbyyyM	3779
B. Complete microfilming.											DbyyyM	3780
C. Complete coding of death certificates and create master file.			o								DbyyyM	3781
D. Complete indepth industrial hygiene surveys.				o							DbyyyM	3782
E. Complete industrial hygiene report.					o						DbyyyM	3783
F. Complete final report and submit abstract to Director, NIOSH and copy to DTS (2Q83).						o					DbyyyM	3784
											DbyyyM	3785
											DbyyyM	3786
											DbyyyM	3787
											DbyyyM	3788
											DbyyyM	3789
											DbyyyM	3790
											DbyyyM	3791

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				R E U			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	PY	NPF	TF
32. Mortality and Industrial Hygiene Study of Workers Exposed to Toluene (NCI) (Frank Stern 513-684-2761) (0.5/25.0/40.0)(100/VMH-Mhh-604)	79	83					M	c	e			
A. Initiate walk-through surveys (1Q79).											DbhhhM	3794
B. Complete selection of plants for study (1Q80).											DbhhhM	3795
C. Complete industrial hygiene report (2Q81).											DbhhhM	3796
D. Initiate coding of death certificates.				o							DbhhhM	3797
E. Complete 70% vital status follow-up.					o						DbhhhM	3798
F. Complete acquisition of 70% of death certificates.						o					DbhhhM	3799
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (3Q83).											DbhhhM	3800
											DbhhhM	3801
											DbhhhM	3802
											DbhhhM	3803
											DbhhhM	3804
											DbhhhM	3805
											DbhhhM	3806
33. Mortality and Industrial Hygiene Study of Leather Industry Workers (NCI) (Frank Stern 513-684-2761) (1.0/40.0/65.0)(100/VMH-Myy-603)	79	83					M	c	e			
A. Complete peer review (3Q79).											DbyyyM	3809
B. Select plants for study (2Q80).											DbyyyM	3810
C. Complete industrial hygiene reports (3Q81).											DbyyyM	3811
D. Initiate coding of death certificates.				o							DbyyyM	3812
E. Complete 70% vital status follow-up.					o						DbyyyM	3813
F. Complete acquisition of 70% of death certificates.						o					DbyyyM	3814
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q83).											DbyyyM	3815
											DbyyyM	3816
											DbyyyM	3817
											DbyyyM	3818
											DbyyyM	3819
											DbyyyM	3820
											DbyyyM	3821
34. Industrial Hygiene Characterization of the Tanning Industry (Ken Wallingford 513-684-3255) (0.4/10.0/20.0)(100/VMH-Myy-562)	81	83					M	c	a			
A. Complete detailed industrial hygiene assessments (4Q81).											DbyyyM	3824
B. Complete final report on vegetable tanning and submit abstract to Director, NIOSH and copy to DTS.				o							DbyyyM	3825
C. Complete walk-through surveys for chrome tanning.					o						DbyyyM	3826
D. Select plants for indepth surveys of chrome tanning.						o					DbyyyM	3827
E. Complete final report on chrome tanning and submit abstract to Director, NIOSH and copy to DTS (2Q83).											DbyyyM	3828
											DbyyyM	3829
											DbyyyM	3830
											DbyyyM	3831
											DbyyyM	3832
											DbyyyM	3833
											DbyyyM	3834
											DbyyyM	3835



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF
								\$1000	\$1000
35. Mortality and Industrial Hygiene Study of Automotive Wood Die and Model Makers (Robert Roscoe 513-684-2761) (1.0/40.0/70.0)(100/VMH-Myy-568)	81	83							
A. Complete computer indexing (1Q81).									DbyyyM 3838
B. Complete industrial hygiene report.			o						DbyyyM 3839
C. Complete SSA vital status follow-up.				o					DbyyyM 3840
D. Complete acquisition of 70% of death certificates.					o				DbyyyM 3841
E. Complete acquisition of 93% of death certificates.						o			DbyyyM 3842
F. Complete final report and submit abstract to Director, NIOSH and copy to DTS (3Q83).									DbyyyM 3843
									DbyyyM 3844
									DbyyyM 3845
									DbyyyM 3846
									DbyyyM 3847
									DbyyyM 3848
									DbyyyM 3849
36. Industrial Hygiene Characterization of Petroleum Turnarounds (Clint Cox 513-684-3255) (0.2/10.0/15.0)(100/VMH-Mii-555)	80	83							
A. Complete study protocol (3Q80).									Dbiim 3852
B. Select plants for surveys (3Q81).									Dbiim 3853
C. Initiate industrial hygiene surveys.			o						Dbiim 3854
D. Complete first set of surveys.				o					Dbiim 3855
E. Complete reports on first surveys.					o				Dbiim 3856
F. Complete final surveys.						o			Dbiim 3857
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q83).									Dbiim 3858
									Dbiim 3859
									Dbiim 3860
									Dbiim 3861
									Dbiim 3862
									Dbiim 3863
									Dbiim 3864
37. Mortality and Industrial Hygiene Study of Workers Exposed to Sulfuric Acid (Jay Beaumont 513-684-2145) (0.2/2.0/8.0)(100/VMH-Myy-573)	76	83							
A. Complete protocol (4Q78)									DbyyyM 3867
B. Complete walk-through surveys (4Q79).									DbyyyM 3868
C. Choose plants for study (1Q80).									DbyyyM 3869
D. Complete microfilming of records (3Q81).									DbyyyM 3870
E. Complete SSA vital status follow-up.			o						DbyyyM 3871
F. Complete acquisition of 70% of death certificates.				o					DbyyyM 3872
G. Complete 95% vital status follow-up.					o				DbyyyM 3873
H. Initiate data analyses.						o			DbyyyM 3874
I. Complete final report and submit abstract to Director, NIOSH and copy to DTS (2Q83).									DbyyyM 3875
									DbyyyM 3876
									DbyyyM 3877
									DbyyyM 3878
									DbyyyM 3879
									DbyyyM 3880
									DbyyyM 3881

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	O	C	N	PY	NPF	TF
														\$1000	\$1000
38. Registry of Dioxin Workers) (Pat Honchar 513-684-3593) (3.0/40.0/126.0)(100/VMH-Mee-550)	80	83									M	c	a		
A. Mortality														DbeeeM	3884
1. Initiate data collection (3Q80).														DbeeeM	3885
2. Initiate work history coding (3Q81).														DbeeeM	3886
3. Complete final aspects of protocol.														DbeeeM	3887
4. Complete status report.														DbeeeM	3888
5. Complete final reports on site visits.														DbeeeM	3889
6. Complete final report and submit abstract to Director, NIOSH and copy to DTS (4Q83).														DbeeeM	3890
B. Chloracne Subgroup														DbeeeM	3891
1. Initiate dermatologic review (3Q81).														DbeeeM	3892
2. Establish case definition.														DbeeeM	3893
3. Complete review of cases.														DbeeeM	3894
4. Complete coding of cases.														DbeeeM	3895
5. Complete analysis (1Q83).														DbeeeM	3896
C. Reproductive Study														DbeeeM	3897
1. Initiate feasibility assessment.														DbeeeM	3898
2. Complete assessment and make recommendations for future study.														DbeeeM	3899
														DbeeeM	3900
														DbeeeM	3901
														DbeeeM	3902
														DbeeeM	3903
														DbeeeM	3904
														DbeeeM	3905
39. Epidemiologic Methods Development (Jay Beaumont 513-684-2145) (0.2/35.0/40.0)(100/VMH-Myy-547)	80	C												DbyyyM	3908
A. Complete PMR/SMR comparison (3Q81).														DbyyyM	3909
B. Complete computer run on Monson PMR/SMR System.														DbyyyM	3910
C. Publish Version D Life Table System.														DbyyyM	3911
D. Publish Epidemiology exercises.														DbyyyM	3912
E. Initiate documentation for Version E of Life Table System.														DbyyyM	3913
														DbyyyM	3914
														DbyyyM	3915
														DbyyyM	3916

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U O C N G H D	PY	RESOURCES	
		1Q	2Q	3Q	4Q				NPF \$1000	TF \$1000
40. Mortality, Medical and Industrial Hygiene Study of the Painting Trades (NCI) (Dennis Zaebst 513-684-3255) (1.0/20.0/50.0)(1.0/20.0/50.0)(100/VMH-Mhy-599)	77	84					M b e			
A. Award contract (210-77-0096) (4Q77).										DbhyyM 3919
B. Select plants for walk-through surveys (2Q78).										DbhyyM 3920
C. Complete walk-through industrial hygiene surveys (4Q79).										DbhyyM 3921
D. Obtain original study protocol from contractor (4Q80).										DbhyyM 3922
E. Obtain new study protocol from contractor (3Q81).										DbhyyM 3923
F. Complete OMB package for case control study.			o							DbhyyM 3924
G. Initiate mortality and case control study.				o						DbhyyM 3925
H. Complete eleven of fourteen industrial hygiene surveys.					o					DbhyyM 3926
I. Complete industrial hygiene reports (4Q83).										DbhyyM 3927
J. Complete final report and submit abstract to Director, NIOSH and copy to DTS (2Q84).										DbhyyM 3928
										DbhyyM 3929
										DbhyyM 3930
										DbhyyM 3931
										DbhyyM 3932
										DbhyyM 3933
										DbhyyM 3934
41. Medical, Biometric and Industrial Hygiene Study of Emerging Problems (Bill Halperin 513-684-3593) (10.0/250.0/500.0)(100/VMH-MNy-543)	80	C					M g a			DbNyyM 3937
A. Emerging problems										DbNyyM 3938
1. Respondent to 5 emerging problems through 3Q81.										DbNyyM 3939
2. Emerging problem requests received.			3	6	9	12				DbNyyM 3940
3. Respond to new emerging problems.			1	3	4	5				DbNyyM 3941
4. Complete reports on actions and close out.			3	6	9	12				DbNyyM 3942
5. Recommend specific problems for next fiscal year projects.				o						DbNyyM 3943
6. Assist with HHE's			1	2	3	4				DbNyyM 3944
B. Exposure characterization of benzidine analog dyes										DbNyyM 3945
1. Complete study protocol (4Q81).										DbNyyM 3946
2. Identify facilities.			o							DbNyyM 3947
3. Initiate sampling surveys.				o						DbNyyM 3948
4. Initiate writing of draft report.					o					DbNyyM 3949
5. Complete final report and submit abstract to Director, NIOSH and copy to DTS.						o				DbNyyM 3950
C. Final reports from FY'81										DbNyyM 3951
Milestones will be added during 1st quarter FY'82 review.										DbNyyM 3952
										DbNyyM 3953
										DbNyyM 3954
										DbNyyM 3955
										DbNyyM 3956
										DbNyyM 3957
										DbNyyM 3958
										DbNyyM 3959
										DbNyyM 3960
										DbNyyM 3961
										DbNyyM 3962
										DbNyyM 3963

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	G H D	PY	NPF TF
								\$1000	\$1000
42. Mortality Analysis of United Auto Workers Cohort (John Whalen 513-684-3593) (0.2/5.0/10.0)(0.2/5.0/10.0)(100/VMH-Myy-607)	81	84					M b e		
A. Award contract (210-81-5104)(4Q81).								DbyyyM	3966
B. Initiate surveillance system.			o					DbyyyM	3967
C. Complete initial priority list of projects.				o				DbyyyM	3968
D. Initiate study of first process or agent.					o			DbyyyM	3969
E. Initiate second study.						o		DbyyyM	3970
F. Prepare interim report (2Q83).								DbyyyM	3971
G. Complete final report and submit abstract to Director, NIOSH and copy to DTS (1Q84).								DbyyyM	3972
								DbyyyM	3973
								DbyyyM	3974
								DbyyyM	3975
								DbyyyM	3976
								DbyyyM	3977
								DbyyyM	3978
43. Mortality and Industrial Hygiene Study of Workers Exposed to Styrene (NCI) (Jay Beaumont 513-684-2145) (0.5/20.0/30.0)(100/VMH-Mhy-600)	77	83					M c e		
A. Complete selection of cohort (3Q78).								DbhyyM	3981
B. Complete industrial hygiene surveys (3Q79).								DbhyyM	3982
C. Complete industrial hygiene report (1Q81).								DbhyyM	3983
D. Complete conversion of microfilm to microfiche (2Q81).								DbhyyM	3984
E. Complete acquisition of 70% of death certificates.				o				DbhyyM	3985
F. Complete 95% vital status follow-up.					o			DbhyyM	3986
G. Complete data analysis.						o		DbhyyM	3987
H. Complete final report and submit abstract to Director, NIOSH and copy to DTS (2Q83).								DbhyyM	3988
								DbhyyM	3989
								DbhyyM	3990
								DbhyyM	3991
								DbhyyM	3992
								DbhyyM	3993
								DbhyyM	3994
44. Mortality Study of Workers in the Plywood, Paper and Pulp Industry (NCI) (Leo Blade 513-684-3255) (100/VMH-Myy-597)	76	82					M b e		
A. Initiate development of master file (1Q78).								DbyyyM	3997
B. Complete death certificate coding (4Q79).								DbyyyM	3998
C. Complete coding of new study members (2Q80).								DbyyyM	3999
D. Complete data analysis on mortality study (4Q81).								DbyyyM	4000
E. Complete final report on mortality study and submit abstract to Director, NIOSH and copy to DTS.			o					DbyyyM	4001
F. Initiate walk-through industrial hygiene surveys.			o					DbyyyM	4002
G. Initiate indepth surveys.					o			DbyyyM	4003
H. Complete final industrial hygiene report and submit abstract to Director, NIOSH and copy to DTS.						o		DbyyyM	4004
								DbyyyM	4005
								DbyyyM	4006
								DbyyyM	4007
								DbyyyM	4008
								DbyyyM	4009
								DbyyyM	4010
								DbyyyM	4011

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
45. Epidemiologic Support of TSCA (EPA) (Dave Brown 513-684-3593) (1.0/40.0/68.0)(100/VMH-Myy-609)	82	C					M	g	c			
A. Award IA 81-60 (3Q81).										DbyyyM	4014	
B. Initiate walk-through surveys for first agent.			o							DbyyyM	4015	
C. Complete background search for agent.				o						DbyyyM	4016	
D. Complete interim report for first agent and recommend further study or not.					o					DbyyyM	4017	
E. Initiate walk-through surveys for second agent.						o				DbyyyM	4018	
F. Complete background search for third agent.							o			DbyyyM	4019	
Milestones proceed in this sequence into FY'83.										DbyyyM	4020	
										DbyyyM	4021	
										DbyyyM	4022	
										DbyyyM	4023	
										DbyyyM	4024	
										DbyyyM	4025	
										DbyyyM	4026	
46. Industrial Hygiene Study of New Agents-IV (NCI) (Jim Oser 513-684-3255) (0.2/75.0/80.0)(0.2/75.0/80.0)(100/VMH-MNy-554)	81	84					M	b	e			
A. Award contract (210-81-5103)			o							DcNyyM	4029	
B. Identify first agent for study.				o						DcNyyM	4030	
C. Complete Phase I for first agent.					o					DcNyyM	4031	
D. Identify second agent for study.						o				DcNyyM	4032	
E. Complete final report on first agent (2Q83).								o		DcNyyM	4033	
F. Complete final report on second agent (2Q84).										DcNyyM	4034	
G. Complete final report on third agent (4Q84).										DcNyyM	4035	
										DcNyyM	4036	
										DcNyyM	4037	
										DcNyyM	4038	
										DcNyyM	4039	
										DcNyyM	4040	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000	
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS												F M 4043
47. NIOSH/EPA:NIOSH/NCI Interagency Energy/Cancer Research Agreements (Harris, 443-6377) (VCA-bB1-879) (1.5/0.005/0.050) (100/VCA-Myy-879)	76	C						M c a				F M 4044
.1 NIOSH/NCI Interagency Agreement												FFyyyM 4045
a. Submit NCI IA to OPPE				o								FFyyyM 4046
b. Obtain signatures of concurrence on NCI IA					o							FFyyyM 4047
c. Hold quarterly meetings with NCI				o	o	o	o					FFyyyM 4048
d. Complete NCI six-month progress reports						o						FFyyyM 4049
e. Complete NCI Annual Progress Report				o								FFyyyM 4050
f. Solicit new cancer research proposals from divisions						o						FFyyyM 4051
g. Hold IA (NCI/EPA/NIOSH) peer review of proposed new cancer projects							o					FFyyyM 4052
h. Hold annual review meeting with research divisions								o				FFyyyM 4053
.2 NIOSH/EPA/ Interagency Agreement												FFyyyM 4054
a. Hold quarterly meetings with EPA				o	o	o	o					FFyyyM 4055
b. Complete EPA Annual Progress Report				o								FFyyyM 4056
c. Complete EPA six-month Progress Report						o						FFyyyM 4057
d. Initiate EPA Laboratory Operating Plans				o								FFyyyM 4058
e. Review and submit Laboratory Operating Plans to EPA				o								FFyyyM 4059
.3 Other Interagency Activities												FFyyyM 4060
a. Solicit list of Interagency Agreements from NIOSH Offices and Divisions				o								FFyyyM 4061
b. Compile list and submit to Director, NIOSH				o								FFyyyM 4062
c. Hold discussions with other Federal agencies, foundations, etc., regarding possible sources of funding for NIOSH projects				o	o	o	o					FFyyyM 4063
												FFyyyM 4064
												FFyyyM 4065
												FFyyyM 4066
												FFyyyM 4067
												FFyyyM 4068
												FFyyyM 4069
												FFyyyM 4070
												FFyyyM 4071
												FFyyyM 4072

## STRESS-RELATED DISORDERS

NIOSH concerns about job stress and its health consequences arise from (1) evidence linking stress with increased risk of cardiovascular disease, digestive disorders, and nervous disturbances, and (2) the recognition that certain occupations, because of the nature of their job tasks or work pressures imposed, show a disproportionate number of workers afflicted with these problems. In addition, spreading automation and new technology in the workplace have resulted in major changes in job tasks and organizational structure with new forms of stress emerging (e.g., loss of job control, automatic monitoring of one's performance, task-imposed isolation, high sensory-motor demands). Growing signs of workers' disaffection with their jobs, behavioral problems (e.g., increased absenteeism, smoking, drinking), and symptomatic health complaints mark such stressors which, without abatement, could portend more serious health problems. That over 50 percent of the U.S. work force is now engaged in white collar work--the target for the new technological revolution brought about by computers--gives further impetus to the need to study job-stress problems and means for their alleviation.

### Division of Biomedical and Behavioral Sciences

This area of research and consultation in DBBS has two basic objectives--to identify work conditions that produce mental and physical health problems, and to develop and evaluate approaches for reducing workers' stress. During FY 1981, work in this program area continued in examining the stress consequences of machine-paced work. Findings reflecting on both psychological as well as physical health problems stemming from such job tasks were presented at the NIOSH-sponsored conference on occupational stress. In addition, field and laboratory efforts continued in defining job task and ergonomic factors responsible for visual, musculoskeletal, and general health complaints reported by users of video display equipment. Another conference held in FY 1981 was directed at Occupational Health Issues Affecting Clerical/Secretarial Personnel.

For FY 1982, major efforts will be directed to surveying stress/health problems in office workers as a follow-on to the FY 1981 conference. In addition, task analysis and ergonomic evaluations are planned in the telecommunications industry as part of a new project to define potential stressors in jobs subject to technological change via use of computers and electronic displays. Since over 50 percent of the Nation's work force is engaged in work activities that deal with information processing, significant efforts should be concentrated on these work activities. Also in FY 1982, efforts will continue in applying stress reduction programs at the worksite to select occupational groups for whom job redesign is not possible.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	FY	1Q	2Q	3Q	4Q	PY	NPF	TF	
	I C						\$1000	\$1000	
*****STRESS-RELATED DISORDERS*****									0 4076
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE									0 4077
1. Chronic Stress in Office Work (B. Cohen, 684-8293)	81	84							A 0 4078
(VOB-bXy-286)(1.1/260.9/290.0)(1.1/35.0/65.0)(100/VOB-Oyy-286)						O b a			A 0 4079
.1 Submit progress report to Director, DBBS			o	o	o	o			Ayyy0 4081
.2 Conference									Ayyy0 4082
a. Submit RFC to Director, DBBS for 8A contract award (1Q81)									Ayyy0 4083
b. Submit RFC to OAMS (2Q81)									Ayyy0 4084
c. Award contract (3Q81)									Ayyy0 4085
d. Hold conference (4Q81)									Ayyy0 4086
e. Receive conference proceedings			o						Ayyy0 4087
f. Submit proceedings to Director, DBBS				o					Ayyy0 4088
g. Submit abstract to Director, NIOSH				o					Ayyy0 4089
.3 Questionnaire Survey									Ayyy0 4090
a. Formulate draft of questions				o					Ayyy0 4091
b. Peer review of RFC				o					Ayyy0 4092
c. Submit for HSRB & OMB approval					o				Ayyy0 4093
d. Submit RFC to Director, DBBS					o				Ayyy0 4094
e. Submit RFC to OAMS					o				Ayyy0 4095
f. Obtain HSRB approval					o				Ayyy0 4096
g. Award contract						o			Ayyy0 4097
h. Obtain OMB approval (2Q83)									Ayyy0 4098
i. Initiate data collection (2Q83)									Ayyy0 4099
j. Complete data analysis (2Q84)									Ayyy0 4100
k. Submit final report to Director, DBBS (4Q84)									Ayyy0 4101
l. Submit abstract to Director, NIOSH (4Q84)									Ayyy0 4102
m. Submit project records to Q.A. Unit, DBBS (4Q84)									Ayyy0 4103
.4 Hold ad hoc meeting on office workers health			o		o				Ayyy0 4104
									Ayyy0 4105
									Ayyy0 4106
									Ayyy0 4107
									Ayyy0 4108





PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF		
													O	C
3. Machine-Paced Stress in Postal Workers (M. Smith, 684-8386) (VOB-kAm-262)(100/VOB-Oyy-262)	79	82												
.1 Consult Information Office (1Q80)													Aayyy0	4157
.2 Submit progress report to Director, DBBS													Aayyy0	4158
.3 Longitudinal Study													Aayyy0	4159
a. Submit RFC to Director, DBBS (1Q79)				o	o	o	o						Aayyy0	4160
b. Obtain HSRB approval (1Q79)													Aayyy0	4161
c. Award contract (3Q79)													Aayyy0	4162
d. Award incremental funding (2Q80)													Aayyy0	4163
e. Obtain stress strain data (4Q79)(1Q80)(3Q80)													Aayyy0	4164
f. Submit final report to Director, DBBS					o								Aayyy0	4165
g. Submit report to USPS and APWU									o				Aayyy0	4166
.4 National Questionnaire Survey									o				Aayyy0	4167
a. Obtain HSRB approval (1Q79)													Aayyy0	4168
b. Initiate survey data collection (4Q79)													Aayyy0	4169
c. Complete survey data collection (1Q80)													Aayyy0	4170
d. Complete survey data analysis													Aayyy0	4171
e. Complete final survey report				o									Aayyy0	4172
f. Submit final report to Director, DBBS						o							Aayyy0	4173
g. Submit report to USPS and APWU									o				Aayyy0	4174
.5 Submit project records to Q.A. Unit, DBBS									o				Aayyy0	4175
.6 Submit abstract to Director, NIOSH									o				Aayyy0	4176
									o				Aayyy0	4177
									o				Aayyy0	4178
									o				Aayyy0	4179
													Aayyy0	4180
4. Phase Shifts and Stressor Effects (M. Colligan, 684-8286) (VOB-cAf-290)(100/VOB-Ofy-290)	80	82											Aafyy0	4181
													Aafyy0	4182
.1 Complete literature review (3Q80)													Aafyy0	4183
.2 Prepare initial study plan (3Q80)													Aafyy0	4184
.3 Initiate pilot experiment (4Q80)													Aafyy0	4185
.4 Complete pilot study (1Q81)													Aafyy0	4186
.5 Finalize experimental design (1Q81)													Aafyy0	4187
.6 Hold peer review (2Q81)													Aafyy0	4188
.7 Initiate testing on main study (3Q81)													Aafyy0	4189
.8 Submit progress reports to Director, DBBS													Aafyy0	4190
.9 Complete testing on main study				o	o	o							Aafyy0	4191
.10 Complete report of study and submit to Director, DBBS				o									Aafyy0	4192
.11 Submit project's records to Q.A. Unit, DBBS					o								Aafyy0	4193
.12 Submit abstract to Director, NIOSH					o								Aafyy0	4194
					o								Aafyy0	4195
					o								Aafyy0	4196
					o								Aafyy0	4197
													Aafyy0	4198

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
			\$1000	\$1000								
5. Stress/Trauma of Non-Traditional Jobs (B. Wilkes 684-8293) (VOB-kEf-285)(1.3/145.0/175.0)(1.3/15.0/50.0)(100/VOB-Oyy-285)	81	84					O	b	a			
.1 Initiate information search (1Q81)											Aayyy0	4201
.2 Submit progress reports to Director, DBBS			o	o	o	o					Aayyy0	4202
.3 Conduct peer review				o							Aayyy0	4203
.4 Submit final project protocol to Director, DBBS				o							Aayyy0	4204
.5 Ergonomic Evaluations											Aayyy0	4205
a. Award FFS-non-trad.-Job #1				o							Aayyy0	4206
b. Initiate evaluations - Job #1					o						Aayyy0	4207
c. Award FFD-Job #2 (1Q83)						o					Aayyy0	4208
d. Complete evaluations - Job #1 (2Q83)											Aayyy0	4209
e. Initiate evaluations - Job #2 (2Q83)											Aayyy0	4210
f. Receive report on Job #1 (3Q83)											Aayyy0	4211
g. Submit report to Director, DBBS - Job #1 (4Q83)											Aayyy0	4212
h. Complete evaluations - Job #2 (2Q84)											Aayyy0	4213
i. Receive report - Job #2 (3Q84)											Aayyy0	4214
j. Submit report, Job #2, to Director, DBBS (4Q84)											Aayyy0	4215
.6 Questionnaire Survey											Aayyy0	4216
a. Complete questionnaire and protocol					o						Aayyy0	4217
b. Submit protocol to HSRB						o					Aayyy0	4218
c. Obtain HSRB approval							o				Aayyy0	4219
d. Submit protocol to OMB							o				Aayyy0	4220
e. Complete RFC for data collection								o			Aayyy0	4221
f. Submit RFC to Director, DBBS (1Q83)									o		Aayyy0	4222
g. Submit RFC to OAMS (1Q83)										o	Aayyy0	4223
h. Obtain OMB clearance (3Q83)											Aayyy0	4224
i. Award contract (3Q83)											Aayyy0	4225
j. Initiate survey (4Q83)											Aayyy0	4226
k. Complete survey (1Q84)											Aayyy0	4227
l. Receive contractor's report (4Q84)											Aayyy0	4228
m. Submit final report to Director, DBBS (4Q84)											Aayyy0	4229
.7 Submit Final Project Report to Director, DBBS (4Q84)											Aayyy0	4230
.8 Submit project records to Q.A. Unit, DBBS (4Q84)											Aayyy0	4231
.9 Submit abstract to Director, NIOSH (4Q84)											Aayyy0	4232
											Aayyy0	4233
											Aayyy0	4234
											Aayyy0	4235
											Aayyy0	4236

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	PY	NPF	TF
											\$1000	\$1000
6. Job Stress in Video Display Work (B. Stammerjohn, 684-8293) (VOB-kAm-267)(2.0/50.0/110.0)(100/VOB-Oyy-267)	78	83					O	b	a			
.1 Laboratory Studies												
A. Punch Press Simulation Task												
a. Complete punch-press simulator (3Q78)											Aayyy0	4239
b. Initiate testing of subjects (4Q79)											Aayyy0	4240
c. Complete testing of subjects (4Q81)											Aayyy0	4241
d. Complete data analysis											Aayyy0	4242
e. Complete draft final report											Aayyy0	4243
B. Data Entry Simulation Task											Aayyy0	4244
a. Obtain HSRB approval											Aayyy0	4245
b. Complete simulation task											Aayyy0	4246
c. Initiate testing of subjects											Aayyy0	4247
d. Complete testing of subjects (1Q83)											Aayyy0	4248
e. Complete data analyses (2Q83)											Aayyy0	4249
f. Complete final report (4Q83)											Aayyy0	4250
g. Submit final report to Director, DBBS (4Q83)											Aayyy0	4251
.2 Worksite Studies												
A. University of Wisconsin Contract (210-79-0034)												
a. Award contract (3Q79)											Aayyy0	4252
b. Expand data sample (3Q80)											Aayyy0	4253
c. Review contractor's progress report											Aayyy0	4254
d. Receive contractor's final report											Aayyy0	4255
e. Submit final report to Director, DBBS											Aayyy0	4256
f. Submit abstract of final report to Director, NIOSH											Aayyy0	4257
B. Study of NIOSH Word Processing Operators												
a. Complete design of survey (4Q80)											Aayyy0	4258
b. Administer first round of questionnaire (1Q81)											Aayyy0	4259
c. Complete ophthalmologic examinations (1Q81)											Aayyy0	4260
d. Complete questionnaire survey(2Q81)											Aayyy0	4261
e. Complete data analyses (3Q81)											Aayyy0	4262
f. Submit final report to Director, DBBS											Aayyy0	4263
g. Submit final report to Director, NIOSH											Aayyy0	4264
C. Focal Field Studies												
a. Obtain HSRB clearance											Aayyy0	4265
b. Submit for OMB clearance											Aayyy0	4266
c. Initiate ergonomics survey											Aayyy0	4267
d. Complete ergonomics survey											Aayyy0	4268
e. Initiate questionnaire survey											Aayyy0	4269
f. Obtain OMB clearance											Aayyy0	4270
g. Complete questionnaire survey (2Q83)											Aayyy0	4271
h. Complete study report (3Q83)											Aayyy0	4272
i. Submit report to Director, DBBS (4Q83)											Aayyy0	4273
.3 Submit progress report to Director, DBBS											Aayyy0	4274
.4 Submit final project report to Director, DBBS (4Q83)											Aayyy0	4275
											Aayyy0	4276
											Aayyy0	4277
											Aayyy0	4278
											Aayyy0	4279
											Aayyy0	4280
											Aayyy0	4281
											Aayyy0	4282
											Aayyy0	4283
											Aayyy0	4284

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
										PY	\$1000
.5 Submit project records to Q.A. Unit, DBBS (4Q83)										Aayyy0	4285
.6 Submit abstract to Director, NIOSH (4Q83)										Aayyy0	4286
7. Reducing Stress in Video Display Tasks (M. Dainoff, 684-8386)	81	83								Aayyy0	4287
(VOB-KAG-266)(1.0/30.0/59.0)(100/VOB-Oyy-266)							0	b	a	Aayyy0	4290
.1 Complete peer review (2Q81)										Aayyy0	4291
.2 Obtain HSRB approval for subject testing (2Q81)										Aayyy0	4292
.3 Laboratory Studies										Aayyy0	4293
a. Complete development of task simulation (1Q81)										Aayyy0	4294
b. Submit progress report to Director, DBBS										Aayyy0	4295
c. Initiate testing: lighting & furniture										Aayyy0	4296
d. Complete testing: lighting & furniture										Aayyy0	4297
e. Initiate work/rest regimens testing										Aayyy0	4298
f. Complete work/rest regimens										Aayyy0	4299
g. Initiate testing of lighting										Aayyy0	4300
h. Complete testing of lighting										Aayyy0	4301
i. Initiate testing of furniture effects										Aayyy0	4302
j. Complete testing of furniture effects										Aayyy0	4303
k. Initiate testing of revised work/rest regimens (1Q83)										Aayyy0	4304
l. Complete revised work/rest regimens (2Q83)										Aayyy0	4305
m. Initiate glare control testing (2Q83)										Aayyy0	4306
n. Complete glare control testing (2Q83)										Aayyy0	4307
o. Complete study report (3Q83)										Aayyy0	4308
p. Submit study report to Director, DBBS (4Q83)										Aayyy0	4309
.4 NAS Conference										Aayyy0	4310
a. Initiate IA with NAS for Conference (1Q81)										Aayyy0	4311
b. Conduct Conference (4Q81)										Aayyy0	4312
c. Receive Conference Proceedings										Aayyy0	4313
d. Receive final report										Aayyy0	4314
e. Submit final report to Director, DBBS										Aayyy0	4315
.5 Submit final report to Director, DBBS (4Q83)										Aayyy0	4316
.6 Submit project records to Q.A. Unit, DBBS (4Q83)										Aayyy0	4317
.7 Submit abstract to Director, NIOSH (4Q83)										Aayyy0	4318
										Aayyy0	4319
										Aayyy0	4320
										Aayyy0	4321

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F				RESOURCES		
	I C		PLANNED COMPLETION		R E U				NPF	TF	
	I	C	1Q	2Q	3Q	4Q	O C N	G H D	PY	\$1000	\$1000
8. Studies of Stress Reduction Approaches (L. Murphy, 684-8293) (VOB-mAy-269)(1.0/95.0/120.0)(100/VOB-Oyy-269)	79	83					O c a				
.1 UCLA Job Stress Conference										Aayyy0	4324
a. Cosponsor conference (1Q79)										Aayyy0	4325
b. Receive conference proceedings (4Q79)										Aayyy0	4326
c. Submit edited proceedings to Director, DBBS (2Q80)										Aayyy0	4327
d. Submit abstract to Director, NIOSH (3Q80)										Aayyy0	4328
.2 Conduct peer review (2Q80)										Aayyy0	4329
.3 Submit progress report to Director, DBBS			o	o	o	o				Aayyy0	4330
.4 Worksite Studies										Aayyy0	4331
a. Complete training program, nurses (4Q80)										Aayyy0	4332
b. Initiate training program, sales clerks (4Q80)										Aayyy0	4333
c. Initiate training program, blue collar workers (3Q81)										Aayyy0	4334
d. Complete training program, sales clerks (2Q81)										Aayyy0	4335
e. Submit report, nurses, to Director, DBBS (4Q81)										Aayyy0	4336
f. Submit report, sales clerks, to Dir., DBBS (4Q81)										Aayyy0	4337
g. Complete blue collar workers					o					Aayyy0	4338
h. Initiate analysis of followup data						o				Aayyy0	4339
i. Complete relaxation data analysis						o				Aayyy0	4340
j. Complete follow-up data analysis (1Q83)										Aayyy0	4341
k. Submit final report to Director, DBBS (4Q83)										Aayyy0	4342
.5 Stress Management Data Purchase										Aayyy0	4343
a. Purchase stress reduction data (2Q80)										Aayyy0	4344
b. Receive report from contractor (4Q80)										Aayyy0	4345
c. Submit report to Director, DBBS (1Q81)										Aayyy0	4346
d. Submit data purchase orders to OAMS				o						Aayyy0	4347
e. Receive reports from contractor						o				Aayyy0	4348
f. Submit reports to Director, DBBS						o				Aayyy0	4349
.6 Stress Control Manual										Aayyy0	4350
a. Submit manual to Director, DBBS (4Q83)										Aayyy0	4351
b. Submit manual to DTMD (4Q83)										Aayyy0	4352
.7 Submit final project report to Director, DBBS (4Q83)										Aayyy0	4353
.8 Submit abstract to Director, NIOSH (4Q83)										Aayyy0	4354
.9 Submit project records to Q.A. Unit, DBBS (4Q83)										Aayyy0	4355
										Aayyy0	4356
										Aayyy0	4357
										Aayyy0	4358
										Aayyy0	4359

## PHYSICAL AGENTS

The NIOSH physical agents program includes research studies in industrial radiation, occupational vibration, bioacoustics, and atmospheric extremes. Estimates of the work force population exposed to these agents are as high as 25 percent for industrial radiation, 10 percent for whole-body and segmental vibration, 25 percent to noise, and 25 percent to heat, cold, and pressure variations. By necessity, the program is composed of both field and inhouse laboratory research requiring a multidisciplinary approach. From workplace surveys and target occupational groups, industries that have potentially excessive exposures are identified and data collected. Medical and epidemiologic followup studies identify the specific hazard to the worker and the degree of injury. The adequacy of control technology strategies, including both administrative and engineering controls, is evaluated when indicated and specific recommendations made for reducing worker exposure.

### Division of Biomedical and Behavioral Sciences

The DBBS program area in physical agents consists of projects in:

1. Industrial Radiation--Work previously completed has shown that radio frequency (RF) radiation under laboratory conditions is teratogenic. Staff have worked with DSDTT staff to produce a control technology guide that outlines the hazards of RF radiation from heat sealers and provides recommendations bearing on reducing workers' exposure. Continued research in RF radiation will include development of dosimetry equipment and examination of possible biological effects of low-frequency electromagnetic energy. An initiative in the area of optical radiation will be proposed if recommendations from the FY 1982 Symposium on Macular Degeneration so indicate.
2. Occupational Vibration--A research program that has investigated the prevalence of vibration white-finger disease will be concluded in FY 1982. Evaluation of protection from vibration afforded by different glove materials will be accomplished. Also in FY 1982, initial planning efforts directed toward whole-body vibration research will be undertaken.
3. Bioacoustics--The occupational bioacoustic program focuses on hearing conservation and hazards associated with impact/impulse noise. Previous work has provided an estimate of 3.7 million workers exposed to impact/impulse noise, and initial efforts were begun to develop sound-level meters capable of measuring impact/impulse noise. A field study of impact-noise-exposure levels in the U.S., to be initiated in FY 1982, will provide information enabling work practices and

equipment that protect against impact noise in a manner similar to that produced from continuous noise. Validation of field methods proposed for determining effectiveness of ear plugs will be undertaken in FY 1982.

4. Atmospheric Extremes--In FY 1981 proceedings of a NIOSH workshop on heat stress were printed and distributed to interested government agencies, labor groups, and industries. Research in heat stress will continue to focus on the derivation of heat-stress indices appropriate for detection of imminent danger in miners. FYs 1982 and 1983 will be the second and third years of the 4-year effort to develop safety and health guides to prevent illnesses and injuries from cold exposure. Also during FYs 1982 and 1983, NIOSH will continue to identify health and safety problems of divers through interagency agreements with the National Oceanic and Atmospheric Administration and OSHA.

#### Division of Surveillance, Hazard Evaluations, and Field Studies

The physical agents research being conducted in DSHEFS pertains to ionizing and nonionizing radiation. The ongoing studies involving ionizing radiation include epidemiologic/industrial hygiene studies of uranium miners and millers, nuclear shipyard workers, and workers at a uranium enrichment plant. In FY 1981, the retrospective cohort mortality portion of the nuclear shipyard study was completed.

An ongoing study in ionizing radiation involves an assessment of effects on the reproductive systems of female employees exposed to microwave radiation. However, a suitable cohort has not been found to date.



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F				RESOURCES			
	PLANNED		COMPLETION		R E U				NPF	TF		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
*****PHYSICAL AGENTS*****												Q 4363
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE												Q 4364
1. Effects of Impulse Noise on the Auditory System (1152)-- 6/30/83--\$98,213--D. Wasserman												A Q 4365
												A Q 4366
												A Q 4367
												A Q 4368
												A Q 4369
2. Whole Body Vibration: Health Effects (D. Badger, 684-8286) (VOB-nHf-279)(100/VOB-Qfy-279)	79	82							Q c a			AafyyQ 4371
.1 Complete peer review (2Q80)												AafyyQ 4372
.2 Submit progress report to Director, DBBS			o	o	o	o						AafyyQ 4373
.3 In-house Animal Tests												AafyyQ 4374
a. Complete installation of body shaker (4Q80)												AafyyQ 4375
b. Initiate primate testing (2Q81)												AafyyQ 4376
c. Complete primate testing				o								AafyyQ 4377
d. Complete final report					o							AafyyQ 4378
e. Submit final report to Director, DBBS						o						AafyyQ 4379
f. Submit abstract to Director, NIOSH						o						AafyyQ 4380
.4 Submit project records to Q.A. Unit, DBBS						o						AafyyQ 4381
						o						AafyyQ 4382
						o						AafyyQ 4383
												AafyyQ 4384
3. Health and Safety Effects of Cold Stress (W. Carlson, 684-8286) (VOB-eAf-283)(1.0/90.0/120.0)(1.0/60.0/90.0)(100/VOB-Qfy-283)	81	84							Q b a			AafyyQ 4387
.1 Prepare project protocol (2Q81)												AafyyQ 4388
.2 Hold project peer review (3Q81)												AafyyQ 4389
.3 Submit quarterly report to OD, DBBS			o	o	o	o						AafyyQ 4390
.4 Submit revised protocol to OD, DBBS				o								AafyyQ 4391
.5 Obtain HSRB approval				o								AafyyQ 4392
.6 Submit cooperative agreement to OAMS					o							AafyyQ 4393
.7 Award cooperative agreement					o							AafyyQ 4394
.8 Analyze existing data bases						o						AafyyQ 4395
a. Assess injury records with DSR						o						AafyyQ 4396
b. Assess/evaluate target work sites							o					AafyyQ 4397
c. Establish decision point for "Worst Case"							o					AafyyQ 4398
.9 Identify 5 worksites with high cold risks (1Q83)								o				AafyyQ 4399
.10 Perform initial probe study (2Q83)												AafyyQ 4400
.11 Introduce corrective interventions (3Q83)												AafyyQ 4401
.12 Monitor progress of interventions (4Q83)												AafyyQ 4402
.13 Perform follow up tests and evaluations (2Q84)												AafyyQ 4403
.14 Submit final report to OD, NIOSH (4Q84)												AafyyQ 4404
.15 Submit abstract to Director, NIOSH (4Q84)												AafyyQ 4405
.16 Submit project records to Q.A. Unit, DBBS (4Q84)												AafyyQ 4406
												AafyyQ 4407
												AafyyQ 4408
												AafyyQ 4409

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	G	H	D	O	C	N	PY	NPF	TF
														\$1000	\$1000
4. Clothing Selection in Cold Environments (R. James, 684-8469) (0.9/34.1/64.1)(100/VOA/Qfi-307)	82	83								Q	c	a			
.1 Submit progress report to Director, DBBS			o	o	o	o								AafiuQ	4412
.2 Initiate literature search			o											AafiuQ	4413
.3 Submit fee for services requisition			o											AafiuQ	4414
.4 Obtain final report from consultant														AafiuQ	4415
.5 Conduct field investigations on winter clothing design			o	o	o	o								AafiuQ	4416
.6 Complete literature search														AafiuQ	4417
.7 Submit articles for publication														AafiuQ	4418
.8 Obtain work practices report from consultant														AafiuQ	4419
.9 Complete review of all data (2Q83)														AafiuQ	4420
.10 Prepare recommendations for clothing use (3Q83)														AafiuQ	4421
.11 Submit report for publication (3Q83)														AafiuQ	4422
.12 Submit report to Unions, and management (4Q83)														AafiuQ	4423
.13 Submit final report to Director, DBBS (4Q83)														AafiuQ	4424
.14 Submit abstract of final report to Director, NIOSH (4Q83)														AafiuQ	4425
														AafiuQ	4426
														AafiuQ	4427
														AafiuQ	4428
														AafiuQ	4429

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	PY	\$1000 \$1000
5. Safety and Health of Commercial Divers (D. Badger, 684-8286) (VOB-aXb-296)(1.0/90.0/120.0)(100/VOB-Qfy-296)	80	83					Q b a		
.1 Complete peer review (1Q80)								AafyyQ	4432
.2 Establish diver data process center (1Q80)								AafyyQ	4433
.3 Award contract for X-ray (osteonecrosis)(3Q80)								AafyyQ	4434
.4 Award contract "Hyperbaric Cond./Drugs" (4Q80)								AafyyQ	4435
.5 Complete workshop "Common Drugs/hyperbaric Testing" (4Q80)								AafyyQ	4436
.6 Complete Workshop "Methods/Sudden Loss Consciousness" (4Q80)								AafyyQ	4437
.7 Receive draft "Decompression Tables for Tunnel Work (3Q80)								AafyyQ	4438
.8 Receive report "Hyperbaric Conditions/Reprod." (2Q80)								AafyyQ	4439
.9 Establish National Diving Accident Network (3Q80)								AafyyQ	4440
.10 Initiate I.A. University Rhode Island Diver Mortality (1Q80)								AafyyQ	4441
.11 Submit progress report to Director, DBBS								AafyyQ	4442
.12 Update National Plan for Safety and Health of Divers								AafyyQ	4443
a. Submit RFC to Director, DBBS				o	o	o		AafyyQ	4444
b. Submit RFC to OAMS				o				AafyyQ	4445
c. Award contract (3Q82)								AafyyQ	4446
d. Review contractor's reports						o		AafyyQ	4447
e. Monitor contract (2Q83)						o	o	AafyyQ	4448
f. Submit final report to Director, DBBS (4Q83)						o		AafyyQ	4449
g. Submit abstract to Director, NIOSH (4Q83)								AafyyQ	4450
.13 Diving in Polluted Waters								AafyyQ	4451
a. Execute agreement with NOAA for report (1Q81)								AafyyQ	4452
b. Monitor progress of report development (2Q81)(4Q81)								AafyyQ	4453
c. Receive final report				o				AafyyQ	4454
d. Submit final report to Director, DBBS					o			AafyyQ	4455
e. Submit abstract of final report to Director, NIOSH					o			AafyyQ	4456
.14 Drug Effects Under Hyperbaric Conditions								AafyyQ	4457
a. Award contract (4Q80)								AafyyQ	4458
b. Initiate experimentation (1Q81)								AafyyQ	4459
c. Complete 3 of 10 drug tests (2Q81)								AafyyQ	4460
d. Receive interim report (4Q81)								AafyyQ	4461
e. Complete 7 of 10 drug tests (3Q81)								AafyyQ	4462
f. Complete all drug testing				o				AafyyQ	4463
g. Receive final report					o			AafyyQ	4464
h. Submit final report to Director, DBBS						o		AafyyQ	4465
i. Submit abstract of final report to Director, NIOSH						o		AafyyQ	4466
.15 National Diving Accident Network								AafyyQ	4467
a. Baseline Data on Divers								AafyyQ	4468
1. Execute IA with OSHA on physical exams (1Q81)								AafyyQ	4469
2. Monitor number of exams given (2Q81, 3Q81)								AafyyQ	4470
3. Complete 100 exams							o	AafyyQ	4471
4. Input data into network							o	AafyyQ	4472
b. Diving Accident Centers (Duke University)								AafyyQ	4473
1. Monitor reports from centers on diving accidents				o	o	o	o	AafyyQ	4474
								AafyyQ	4475
								AafyyQ	4476
								AafyyQ	4477

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
		I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
												\$1000	\$1000
2. Receive data summaries of diver accident pathology/mortality (1Q83)				o								AafyyQ	4478
3. Submit IA for training manual development												AafyyQ	4479
4. Receive training manual (3Q83)												AafyyQ	4480
5. Submit training manual (3Q83)												AafyyQ	4481
c. University of Rhode Island Mortality Study												AafyyQ	4482
1. Monitor collection of fatality cases				o	o	o	o					AafyyQ	4483
2. Receive summaries of diver fatality statistics				o		o						AafyyQ	4484
												AafyyQ	4485
												AafyyQ	4486

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q								NPF	TF
				1000	1000	1000	1000								1000	1000
6. Impact/Impulsive Noise Data Base (J. Erdreich, 684-8281) (VOG-nGf-363) (100/VOG-Qfy-352) (100/VOG-Qfi-363)	78	82														
.1 Information Development and Analysis															AefyyQ	4489
a. Initiate review of existing data bases (1Q80)															AefyyQ	4490
b. Submit CHABA IA to Director, DBBS (1Q80)(1Q81)				o											AefyyQ	4491
c. Award IA (1Q80)(1Q81)					o										AefyyQ	4492
d. Initiate evaluation of measurement techniques (1Q80)															AefyyQ	4493
e. Begin to refine and develop new techniques (3Q80)															AefyyQ	4494
f. Complete technique development (4Q80)															AefyyQ	4495
g. Obtain English noise and hearing data (4Q80)															AefyyQ	4496
h. Obtain Polish noise and hearing data (2Q81)															AefyyQ	4497
i. Complete analysis of English and Polish data (3Q81)															AefyyQ	4498
.2 Submit progress report to Director, DBBS				o	o	o	o								AefyyQ	4499
.3 Review state-of-art concerning impulse noise hazard				o											AefyyQ	4500
a. Prepare report on international consensus concerning impulse noise hazard and measurement				o											AefyyQ	4501
b. Prepare report comparing foreign data with continuous noise data				o											AefyyQ	4502
c. Submit report to Director, DBBS					o										AefyyQ	4503
.4 Impulse Noise Field Measurement				o											AefyyQ	4504
a. Conduct peer review of noise measurement protocol				o											AefyyQ	4505
b. Initiate twenty industrial noise surveys				o											AefyyQ	4506
c. Complete noise surveys					o										AefyyQ	4507
d. Develop model for noise contributions in multipath environment						o									AefyyQ	4508
e. Analyze noise measurements and prepare report							o								AefyyQ	4509
f. Complete document on instrumentation measurement specifications							o								AefyyQ	4510
g. Complete report on predicting exposure of workers							o								AefyyQ	4511
h. Submit report to Director, DBBS							o								AefyyQ	4512
.5 Application of Acoustic Data															AefyyQ	4513
a. Complete protocol for laboratory study of effectiveness of hearing protectors in impulse noise										o					AefyyQ	4514
b. Complete protocol for audiometric study of impulse noise exposed populations										o					AefyyQ	4515
c. Submit protocols to Director, DBBS										o					AefyyQ	4516
.6 EPA Interagency Agreement (non-auditory effects)				o											AefyyQ	4517
a. Receive IA from EPA				o											AefyyQ	4518
b. Review EPA feasibility study				o											AefyyQ	4519
c. Submit protocol to Director, DBBS					o										AefyyQ	4520
d. Obtain HSRB clearance					o										AefyyQ	4521
e. Submit RFC to OAMS					o										AefyyQ	4522
f. Award contract						o									AefyyQ	4523
g. Transfer contract to new project							o								AefyyQ	4524
.7 Submit final project report to Director, DBBS								o							AefyyQ	4525
															AefyyQ	4526
															AefyyQ	4527
															AefyyQ	4528
															AefyyQ	4529
															AefyyQ	4530
															AefyyQ	4531
															AefyyQ	4532
															AefyyQ	4533
															AefyyQ	4534

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
.8 Submit abstract to Director, NIOSH												AefyyQ 4535
.9 Submit project records to Q.A. Unit, DBBS												AefyyQ 4536
												AefyyQ 4537
7. Work Practices for Vibration Reduction (V. Behrens, 684-8281) (100/VOG-Qfi-366)	82	82							Q	c	a	AefiyQ 4540
.1 Begin designing Test Instrumentation System (TIS)				o								AefiyQ 4541
.2 Complete survey of glove manufacturers				o								AefiyQ 4542
.3 Order gloves for testing				o								AefiyQ 4543
.4 Complete designing TIS												AefiyQ 4544
.5 Begin implementation of TIS					o							AefiyQ 4545
.6 Complete implementation of TIS						o						AefiyQ 4546
.7 Complete evaluation of TIS							o					AefiyQ 4547
.8 Complete SOP								o				AefiyQ 4548
.9 Conduct peer review									o			AefiyQ 4549
.10 Submit protocol to Director, DBBS										o		AefiyQ 4550
.11 Begin glove test											o	AefiyQ 4551
.12 Complete glove testing												AefiyQ 4552
.13 Complete data analysis												AefiyQ 4553
.14 Submit draft final report to Director, DBBS												AefiyQ 4554
.15 Submit abstract to Director, NIOSH												AefiyQ 4555
.16 Submit project records to Q. A. Unit, DBBS												AefiyQ 4556
												AefiyQ 4557
												AefiyQ 4558
												AefiyQ 4559

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	\$1000	\$1000
8. RF/Microwave Dosimetry Development (D. Conover, 684-8482) (VOG-hCa-353)(100/VOG-Qaf-353)	81	82					Q d a		
.1 Magnetic Field Probes - NBS								AeafyQ	4562
a. Submit NBS IA to Director, DBBS (1Q81)								AeafyQ	4563
b. Submit IA to OPPE (1Q81)								AeafyQ	4564
c. Award IA (2Q81)								AeafyQ	4565
d. Initiate Magnetic Field Probe design (2Q81)								AeafyQ	4566
e. Complete probe design (3Q81)								AeafyQ	4567
f. Deliver Magnetic Field Probe to NIOSH (4Q81)								AeafyQ	4568
g. Receive final IA report (4Q81)								AeafyQ	4569
h. Submit final report to Director, DBBS (4Q81)								AeafyQ	4570
i. Submit abstract to Director, NIOSH (4Q81)								AeafyQ	4571
.2 RF Power Absorption Analyzer - NBS								AeafyQ	4572
a. Submit NBS IA to Director, DBBS (1Q81)								AeafyQ	4573
b. Submit IA to OPPE (1Q81)								AeafyQ	4574
c. Award IA (2Q81)								AeafyQ	4575
d. Initiate absorption analyzer development (2Q81)								AeafyQ	4576
e. Complete design					o			AeafyQ	4577
f. Receive higher frequency RF absorption analyzer						o		AeafyQ	4578
g. Receive final IA report						o		AeafyQ	4579
h. Submit final report to Director, DBBS						o		AeafyQ	4580
i. Submit abstract to Director, NIOSH						o		AeafyQ	4581
.3 Submit progress report to Director, DBBS			o	o	o	o		AeafyQ	4582
.4 Submit final project report to Director, DBBS						o		AeafyQ	4583
.5 Submit abstract to Director, DBBS						o		AeafyQ	4584
								AeafyQ	4585
								AeafyQ	4586
								AeafyQ	4587
								AeafyQ	4588

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF
								\$1000	\$1000
9. Imminent Danger from Heat Stress in Mines (R. James, 684-8286) (VOA/nXf/305)(1.1/18.0/50.0)(100/VOA-Qfm-305)	80	83					Q b a		
.1 Consult Information Office (1Q80)								AefmQ	4591
.2 Submit progress report to Director, DBBS			o	o	o	o		AefmQ	4592
.3 Workshop on Heat Stress								AefmQ	4593
a. Complete proceedings of workshop (3Q80)								AefmQ	4594
b. Submit proceedings to Director, DBBS (3Q80)								AefmQ	4595
c. Submit abstract of proceedings to Director, NIOSH (4Q80)								AefmQ	4596
.4 Worksite Investigation								AefmQ	4597
a. Submit RFC to Director, DBBS (2Q80)								AefmQ	4598
b. Negotiate contract (4Q80)								AefmQ	4599
c. Award contract (2Q81)								AefmQ	4600
d. Contract Monitoring								AefmQ	4601
e. Obtain HSRB clearance			o					AefmQ	4602
f. Submit application for OMB clearance			o					AefmQ	4603
g. Obtain OMB clearance					o			AefmQ	4604
h. Begin summer phase of study						o		AefmQ	4605
i. Complete summer phase of study						o		AefmQ	4606
j. Start winter phase of study (1Q83)								AefmQ	4607
k. Complete winter phase of study (2Q83)								AefmQ	4608
l. Complete data analysis (3Q83)								AefmQ	4609
m. Contractor submits final report (4Q83)								AefmQ	4610
n. Submit final report to Director, DBBS (4Q83)								AefmQ	4611
o. Submit abstract to Director, NIOSH (4Q83)								AefmQ	4612
p. Submit project records to Q. A. Unit, DBBS (4Q83)								AefmQ	4613
.5 Heat Stress Guides								AefmQ	4614
a. Begin writing Guide #1 (1Q81)								AefmQ	4615
b. Submit Guide #1 for NIOSH clearance			o					AefmQ	4616
c. Issue fee for service contract for Guide #2 (4Q81)								AefmQ	4617
d. Submit Guide #2 for NIOSH clearance					o			AefmQ	4618
e. Submit Guides to Director, DBBS					o			AefmQ	4619
f. Submit Guides to Director, DCSD					o			AefmQ	4620
.6 Cardiovascular Effects of Heat Stress								AefmQ	4621
a. Initiate literature search			o					AefmQ	4622
b. Complete literature search				o				AefmQ	4623
c. Complete draft project concept					o			AefmQ	4624
d. Submit concept memorandum to Director, DBBS					o			AefmQ	4625
								AefmQ	4626
								AefmQ	4627
								AefmQ	4628
								AefmQ	4629



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF \$1000	TF \$1000	
DIVISION OF SAFETY RESEARCH										E Q 4632
10. Effects of Heat on Safe Work Behavior (Jensen 923-7454)	79	82					Q b a			E Q 4633
(VLD-abf-836)(100/VEb-Qfy-836)										EbfyyQ 4634
.1 Awarded contract No. 210-79-0021 (4Q79)										EbfyyQ 4635
.2 Initiated data collection (3Q80)										EbfyyQ 4636
.3 Submitted time and cost extension of contract to OPPE (3Q81)										EbfyyQ 4637
.4 Data collection completed 4Q81)										EbfyyQ 4638
.5 Receive draft final report from contractor			o							EbfyyQ 4639
.6 Complete technical review (evaluate & edit)				o						EbfyyQ 4640
.7 Present research findings to OSHA					o					EbfyyQ 4641
.8 Submit approved final report to NITS					o					EbfyyQ 4642
.9 Transmit abstract to Director, NIOSH					o					EbfyyQ 4643
.10 Prepare manuscript for journal publication						o				EbfyyQ 4644
.11 Complete technical review of manuscript for journal publication						o				EbfyyQ 4645
.12 Submit manuscript for publication in the appropriate journal						o				EbfyyQ 4646
In-House Assesment of Workers' Compensation Data										EbfyyQ 4647
.13 Draft report on workers' compensation data for heat induced injury				o						EbfyyQ 4648
.14 Complete technical review of report				o						EbfyyQ 4649
.15 Obtain final clearance for publication					o					EbfyyQ 4650
.16 Submit paper for publication						o				EbfyyQ 4651
										EbfyyQ 4652
										EbfyyQ 4653
										EbfyyQ 4654
										EbfyyQ 4655
										EbfyyQ 4656
										EbfyyQ 4657

## CONTROL OCCUPATIONAL SAFETY AND HEALTH PROBLEMS

NIOSH's goal, to control occupational safety and health problems, is the heart of its prevention program. Under this goal NIOSH assesses solutions to identified new and emerging problems through the disciplines of engineering, ergonomics, and industrial hygiene and safety. NIOSH investigators recommend systems to control occupational hazards, including engineering design, protective equipment, and work practices, as well as environmental and medical monitoring to detect failure in the control system. The following long-range objectives for the Nation are addressed under this goal:

### Safety

1. By 1990, workplace accidental deaths for employers with 11 or more employees should be reduced to less than 3,750 annually. (In 1978, there were 4,170 work-related fatalities for employers with 11 or more employees.)
2. By 1990, the rate of work-related disabling injuries should be reduced to 8.3 cases per 100 full-time workers. (In 1978, there were about 9.2 cases per 100 workers.)
3. By 1990, lost workdays due to injuries should be reduced to 55 per 100 workers annually. (In 1978, about 62.1 work days per 100 workers were lost.)
4. By 1990, the prevalence of occupational noise-induced hearing loss should be reduced to 415,000 cases. (In 1975, there were an estimated 462,000 cases of work-related hearing loss.)

### Respiratory Health

5. By 1990, among workers newly exposed after 1985, there should be virtually no new cases of asbestosis. (In 1979, there were an estimated 5,000 cases of asbestosis.)
6. By 1990, among workers newly exposed after 1985, there should be virtually no new cases of byssinosis. (In 1977, an estimated 84,000 cases of byssinosis were expected in active workers.)
7. By 1990, among workers newly exposed after 1985, there should be virtually no new cases of silicosis. (In 1979, an estimated 60,000 cases of silicosis were expected among active workers in mining, foundries, stone, clay and glass products, and abrasive blasting.)

8. By 1990, among workers newly exposed after 1985, there should be virtually no new cases of coal workers pneumoconiosis. (In 1974, there were an estimated 19,400 cases of coal workers' pneumoconiosis.)
9. By 1990, occupational heavy-metal poisoning (lead, arsenic, zinc) should be virtually eliminated. (Baseline data unavailable.)

#### Cutaneous Health

10. By 1990, the incidence of compensable occupational dermatitis should be reduced to about 60,000 cases. (In 1976, there were about 70,000 cases involving compensation.)

And the following FY 1982 objectives requested by DOL's NIOSH Planning Group also are considered under this goal:

#### First-Order Priority

1. Develop a system, for MSHA, to certify the performance of new types of mine dust sampling equipment.
2. Develop and improve sampling and analytical methods, for OSHA, on 2-acetylaminofluorene, propylene imine, B-propiolactone, maneb, cyanic acid, benzidine yellow, benzidine orange, monoacetyl derivatives of benzidene, osmium tetroxide, phosgene, chlorinated dibenzofurans, and asbestos.

#### Second-Order Priority

3. Assess the problems involved with protection from falls to provide the foundation for an integrated body of fall-protection standards, for OSHA, on ladder design; safety-net design and condition; life line, safety belts, and safety harness design; guard rail design; walking-working surface friction; and rest-platform spacing in long-ladder systems.
4. Establish a program, for OSHA, to address questions relating to personal protective equipment such as respirators and clothing, and to decontamination procedures.

### Third-Order Priority

5. Develop and operate a system, for OSHA, for processing and storing audiograms provided to coal miners by operators.
6. Develop a system that is accessible to all MSHA field offices for analyzing potable water samples.
7. Develop technology, for MSHA, for the control of mercury fumes and vapors in the mining industry.
8. Develop criteria, for OSHA, for physicians to use in determining an individual worker's ability to wear respirators.

## RESPIRATORS

Two recent events have focused national attention on and provided direction to the legislatively mandated NIOSH respirator program: First, a panel of recognized experts found that the MSHA/NIOSH respirator approval system needed a major upgrading of the respirator performance requirements that are published in Title 30, Code of Federal Regulations, Part 11. Second, an International Respirator Research Workshop sponsored by NIOSH, revealed needs for (1) the availability of more effective and comfortable respirators, (2) development of better respirator programs, (3) upgrading of respirator performance requirements, and (4) determination of whether the added breathing resistance created by the use of respirators can be used as a factor in determining the effect of such use upon workers with obstructed airways. In response to both of these events, NIOSH has begun a research effort to develop new respirator performance requirements. NIOSH will systematically determine the levels of protection required by respirator wearers and develop performance requirements and test procedures that will ensure that respirator wearers will obtain the protective levels they have come to expect of MSHA/NIOSH-approved respirators. At the same time, the development of better respirator programs and encouraging the availability of better respirators will be carried forward by cooperative efforts with the respirator manufacturers and users. The MSHA/NIOSH respirator approval program continues, but NIOSH is conducting an evaluation of previously approved respirators through an active field evaluation program.

### Division of Respiratory Disease Studies

DRDS will investigate the effects of respirator use (added breathing resistance) under conditions of high metabolic demand. The physiologic demands of breathing through a fixed added resistance for long time periods at low work loads and for short periods at high work loads will be evaluated under the controlled setting of the Division's exercise-testing laboratory. The results of this study will provide additional research information necessary for the establishment of criteria for determining whether a worker is medically fit to wear a respirator under the demand conditions of his or her employment.

### Division of Safety Research

DSR has assembled a basic staff of professional personnel who are knowledgeable in all areas of respiratory protection. These personnel, together with contractors and consultants as required, will

continue the MSHA/NIOSH respirator approval program, evaluate that program using field investigative techniques, and implement a strong, innovative respirator research program. Research efforts will be conducted in cooperation with industry, universities, and respirator manufacturers and will focus first on upgrading the present requirements of the existing approval regulations, 30 CFR Part 11.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES					
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000	
*****RESPIRATORS*****													D 4661
DIVISION OF RESPIRATORY DISEASE STUDIES													D 4662
1. Respirator Use Under Conditions of High Metabolic Demands (Bauer M 304-599-7223)(2.0/54.3/114.3)(100/VCC-Ddm-212)	82	83							D	c	d		C 4663
.1 Develop protocol for human subject exercise testing				o									C 4664
.2 Modification of existing facilities				o									CodmyD 4666
.3 Begin studies on human subjects													CodmyD 4667
.4 Complete studies on 1/4 of study population					o		o						CodmyD 4668
.5 Complete studies of 1/2 of study population (1Q83)													CodmyD 4669
.6 Complete studies on subjects (3Q83)													CodmyD 4670
.7 Complete data analysis (4Q83)													CodmyD 4671
.8 Submit final report and abstract to Director, NIOSH, with with copy of report and abstract to DTS (4Q83)													CodmyD 4672
													CodmyD 4673
													CodmyD 4674
													CodmyD 4675
													CodmyD 4676
													CodmyD 4677
													CodmyD 4678
2. Effects of Added Resistance to Breathing (Hodous T 304-599-7223) (VKH-eDp-217)(100/VCC-Dmn-217)	77	82							D	c	d		CcmmyD 4681
.1 Select and identify subjects					o								CcmmyD 4682
.2 Complete collection of data						o							CcmmyD 4683
.3 Complete analysis of data							o						CcmmyD 4684
.4 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS								o					CcmmyD 4685
													CcmmyD 4686
													CcmmyD 4687
													CcmmyD 4688
													CcmmyD 4689

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES	
		1Q	2Q	3Q	4Q		NPF	TF
							PY \$1000	\$1000
DIVISION OF SAFETY RESEARCH								E D 4692
3. Atmosphere Supplied Respirator Testing (Terry 923-7337)								E D 4693
(VLI-mpb-854)(7.0/50.0/260.0)(100/VEd-Dyy-854)	72	C				D b a	EdyyyD 4694	
.1 Evaluate respirators submitted for approval and extensions of approvals as required by 30 CFR, Part 11			21	42	63	84	EdyyyD 4695	
a. Evaluate 100% of minor revisions within 60 days of acceptance.			o	o	o	o	EdyyyD 4696	
b. Evaluate 75% of major submissions within 3 months of acceptance			o	o	o	o	EdyyyD 4697	
c. Evaluate 100% of major submissions within 8 months of acceptance			o	o	o	o	EdyyyD 4698	
.2 Review quality control plans for minor nonfunctional revisions			12	24	36	48	EdyyyD 4699	
a. Evaluate 80% of minor submissions within 21 days of acceptance			o	o	o	o	EdyyyD 4700	
b. Evaluate 100% of minor submissions within 45 days of acceptance			o	o	o	o	EdyyyD 4701	
.3 Evaluate 100% of available scheduled audit respirators required for annual survey			3	6	9	12	EdyyyD 4702	
.4 Perform audit respirator testing arising from field complaints.			o	o	o	o	EdyyyD 4703	
4. Air Purifying Respirator Testing, TCB (Bollinger 923-7337)								EdyyyD 4704
(VLI-mpb-853)(6.0/150.0/330.0)(100/VEd-Dyy-853)	72	C				D b a	EdyyyD 4705	
.1 Evaluate respirators submitted for approvals and extensions of approvals as required by 30 CFR 11.			18	36	54	72	EdyyyD 4706	
a. Evaluate 100% of minor submissions within 30 days of acceptance			o	o	..o	..o	EdyyyD 4707	
b. Evaluate 80% of major submissions within 3 months of acceptance			o	o	..o	..o	EdyyyD 4708	
c. Evaluate 100% of major submission within 8 months of acceptance			o	o	..o	..o	EdyyyD 4709	
.2 Review quality control plans for nonfunctional revisions			8	16	24	.32	EdyyyD 4710	
a. Review 80% of minor revisions within 30 days of acceptance			o	o	..o	..o	EdyyyD 4711	
b. Review 100% of minor revisions within 6 months of acceptance			o	o	..o	..o	EdyyyD 4712	
.3 Evaluate 100% of available off shelf audit samples			10	20	.30	.40	EdyyyD 4713	
.4 Perform audit testing arising from field complaints			o	o	o	o	EdyyyD 4714	
.5 Human Subject Selection Contract							EdyyyD 4715	
a. Initiate renewal of contract				o			EdyyyD 4716	
b. Renewal of contract					o		EdyyyD 4717	
c. Contractor establishes test pools					o		EdyyyD 4718	
d. Submit final report of 2nd year effort to the Office of the Director (4Q83)							EdyyyD 4719	
							EdyyyD 4720	
							EdyyyD 4721	
							EdyyyD 4722	
							EdyyyD 4723	
							EdyyyD 4724	
							EdyyyD 4725	
							EdyyyD 4726	
							EdyyyD 4727	
							EdyyyD 4728	
							EdyyyD 4729	
							EdyyyD 4730	
							EdyyyD 4731	
							EdyyyD 4732	
							EdyyyD 4733	
							EdyyyD 4734	
							EdyyyD 4735	
							EdyyyD 4736	
							EdyyyD 4737	
							EdyyyD 4738	
							EdyyyD 4739	



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q					NPF	TF
												\$1000	\$1000
5. Field Investigations and N.C.E. Documentation Program-FIG-(Myers 923-7331) (VLI-mpb-857)(7.0/150.0/360.0)(100/VED-Dyy-857)	81		C									EdyyyD	4742
.1 Respond by phone, letter, or report to user complaints:				o	o	o	o					EdyyyD	4743
a. 80% completed by letter or phone 5 days after receiving complaint;				o	o	o	o					EdyyyD	4744
b. 13% completed with laboratory report 30 days after completion of lab testing;				o	o	o	o					EdyyyD	4745
c. 7% completed as research reports from on-going site investigations 60 days after completion of lab analysis				o	o	o	o					EdyyyD	4746
.2 Dimensional analysis report on equipment received from from field problem complaints				o	o	o	o					EdyyyD	4747
a. 75% completed 30 days after laboratory performance testing;				o	o	o	o					EdyyyD	4748
b. 100% completed 45 days after laboratory performance testing				o	o	o	o					EdyyyD	4749
.3 Update NIOSH current actions list and distribute new list to Director, DSR, NIOSH, and Regional Offices in 5 days after update notification				o	o	o	o					EdyyyD	4750
.4 Prepare and submit to Director, DSR, stop sale letters, users notices, or other recommendations on 100% of all NIOSH certified equipment approval violations within 20 days after violation verification.				o	o	o	o					EdyyyD	4751
.5 Evaluate for completeness certifications and extension of certification application packages received by TCB and track 100% of active projects				o	o	o	o					EdyyyD	4752
a. Evaluate 75% of application packages in 20 days				o	o	o	o					EdyyyD	4753
b. Evaluate 100% of application packages in 30 days				o	o	o	o					EdyyyD	4754
.6 Computer documentation of certified equipment components (lines of data documented K=1000)				18K	36K	54K	72K					EdyyyD	4755
.7 Microprocessing of engineering documents (microprocessing steps handled)				15K	30K	45K	60K					EdyyyD	4756
												EdyyyD	4757
												EdyyyD	4758
												EdyyyD	4759
												EdyyyD	4760
												EdyyyD	4761
												EdyyyD	4762
												EdyyyD	4763
												EdyyyD	4764
												EdyyyD	4765
												EdyyyD	4766
												EdyyyD	4767
												EdyyyD	4768
												EdyyyD	4769
												EdyyyD	4770
												EdyyyD	4771
												EdyyyD	4772
												EdyyyD	4773
												EdyyyD	4774
												EdyyyD	4775

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES				
	I	C	1Q	2Q	3Q	4Q	R E U	NPF	TF	PY	\$1000	\$1000
			O C N	G H D								
6. P.P.E. Class Audits - FIG - (Myers 923-7331) (VLI-mpb-857)(100/VEd-Dyy-822)	81	82					D a a					
.1 Order equipment for audit testing												
a. APR equipment			3	6	9	12						
1. Routine			o	o	o	o						EdyyyD 4778
2. Audit arising from complaints			o	o	o	o						EdyyyD 4779
3. Audit arising from problems found in 1 and 2			o	o	o	o						EdyyyD 4780
b. ASR equipment			10	20	30	40						EdyyyD 4781
1. Routine			o	o	o	o						EdyyyD 4782
2. Audit arising from complaints			o	o	o	o						EdyyyD 4783
3. Audits resulting from problems found in 1 and 2			o	o	o	o						EdyyyD 4784
c. CMDPS equipment			1	2	3	3						EdyyyD 4785
1. Routine			o	o	o	o						EdyyyD 4786
2. Audit arising from complaints			o	o	o	o						EdyyyD 4787
3. Audits resulting from problems found in 1 and 2			o	o	o	o						EdyyyD 4788
.2 Dimensional analysis reports on equipment received from routine audits and/or complaints audits			15	30	45	60						EdyyyD 4789
a. 75% completed 30 days after lab performance testing			11	22	33	44						EdyyyD 4790
b. 100% completed 45 days after lab performance testing			4	8	12	16						EdyyyD 4791
.3 Prepare class audit reports												EdyyyD 4792
a. Prepare 60% of reports 60 days after completion of lab analysis					o	o						EdyyyD 4793
b. Prepare 100% of reports 90 days after completion of lab analysis					o	o						EdyyyD 4794
7. Audits of Used SCBA - FIG (Myers 923-7331) (VLI-mpb-857) (100/VEd-Dyy-840)	81	82					D b a					
.1 Submit RFC.			o									EdyyyD 4795
.2 Award contract					o							EdyyyD 4796
.3 Evaluation of approved configuration against actual configuration of used units "in-house"					o							EdyyyD 4797
.4 Contract testing completed (1Q83)												EdyyyD 4798
.5 Submit report to Director, DSR (2Q83)												EdyyyD 4799
8. Field Evaluation of Pesticide Respirators - FIG (Myers 923-7331) (VLI-mpb-857) (100/VEd-Dey-862)	81	82					D a a					
.1 Purchase test equipment				o								EdyyyD 4800
.2 Select survey plants and set up survey dates					o							EdyyyD 4801
.3 Conduct walk through survey						o						EdyyyD 4802
.4 Conduct and complete all field investigations						o						EdyyyD 4803
.5 Submit report to Director, DSR(2Q83)												EdyyyD 4804

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	PY	NPF \$1000	TF \$1000
9. Field P.F. for Powered Respirators - FIG - (Meyers 923-7331) (VLI-mpb-857)(100/VEd-Dyy-863)	81	82							
.1 Purchase test equipment (4Q81)							D a a	EdyyyD	4826
.2 Identify and prioritize possible survey sites (4Q81)								EdyyyD	4827
.3 Select survey sites (4Q81)								EdyyyD	4828
.4 Conduct walk through survey (4Q81)								EdyyyD	4829
.5 Conduct field surveys (4Q81)								EdyyyD	4830
.6 Complete field surveys								EdyyyD	4831
.7 Analysis of field samples								EdyyyD	4832
.8 Interim draft report to Director, DSR								EdyyyD	4833
.9 Final Report to Director, DSR, and Director, NIOSH								EdyyyD	4834
								EdyyyD	4835
								EdyyyD	4836
								EdyyyD	4837
10. Part 11 - Performance Requirements Update (Knowles 923-7335)	81	83							
(VLI-mpb-850) (5.0/450.0/600.0) (100/VEd-Dyy-850)									
.1 Complete first phase rewrite of "Part 11 Performance Requirements Update" from FY81 project efforts							D b a	EdyyyD	4840
.2 Complete indepth detailed research needs scoping report outlining in a prioritized manner the most pressing research gaps and what must be done to fill those gaps								EdyyyD	4841
.3 Complete detailed research protocols for future in-house programs as identified in scoping report								EdyyyD	4842
.4 Develop detailed research protocol for RFC and submit to Contracts Office								EdyyyD	4843
.5 Complete project plans for FY83 research efforts								EdyyyD	4844
.6 Complete in-house research progress report on activities outlined in scoping report								EdyyyD	4845
								EdyyyD	4846
								EdyyyD	4847
								EdyyyD	4848
								EdyyyD	4849
								EdyyyD	4850
								EdyyyD	4851
								EdyyyD	4852
								EdyyyD	4853
								EdyyyD	4854
								EdyyyD	4855
11. Aerosol Air Purifying Respirator Efficiency Research (Moyer 923-7335)	81	83							
(3.0/200.0/290/0) (100/VEd-Dyy-864)									
.1 Complete literature review, analysis and evaluation							D a a	EdyyyD	4858
.2 Complete preparation of research protocol								EdyyyD	4859
.3 Submit orders for all necessary equipment and supplies								EdyyyD	4860
.4 Peer review research protocol completed								EdyyyD	4861
.5 Complete first interim report of research findings								EdyyyD	4862
.6 Submit feasibility study for replacing existing test methods with new methods in 30 CFR Part 11. (3Q83)								EdyyyD	4863
.7 Finalize development of aerosol performance and efficiency model and test methods for incorporation into revised 30 CFR Part 11 (4Q83)								EdyyyD	4864
								EdyyyD	4865
								EdyyyD	4866
								EdyyyD	4867
								EdyyyD	4868
								EdyyyD	4869
								EdyyyD	4870
								EdyyyD	4871

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
										PY	\$1000
12. Respirator Sorbent Efficiency (Moyer'923-7335) (VLI-mbp-817)( 3.0/350.0/440.0)(100/vEd-Dyy-817)	81	83					D	b	a		
.1 Establish in-house laboratory testing capability contingent upon OD, NIOSH approval			o							EdyyyD	4874
.2 Prepare finalized, detailed research protocol for conduct of the project phases I and II (2 milestones indicated)				o		o				EdyyyD	4875
.3 Establish research protocol accomplishment schedule for phases I and II				o		o				EdyyyD	4876
.4 Complete final RFC and submit to Contracts Office for FY83 funding						o				EdyyyD	4877
.5 Complete draft report of findings for FY82 experimental studies, submit to OD, DSR for review						o				EdyyyD	4878
.6 Award contract (3Q83)								o		EdyyyD	4879
.7 Incorporate comments and prepare final report of findings for first year (FY82) of research project (1Q83)								o		EdyyyD	4880
.8 Submit for review report of findings for publication (2Q83)										EdyyyD	4881
										EdyyyD	4882
										EdyyyD	4883
										EdyyyD	4884
										EdyyyD	4885
										EdyyyD	4886
										EdyyyD	4887
										EdyyyD	4888
										EdyyyD	4889
										EdyyyD	4890
										EdyyyD	4891
13. Inhalation Toxicity Testing of DEHS and Corn Oil (May 443-1650) (VLI-mpb 852)(100/VEd-Dyy-865)	81	82					D	b	a		
.1 Project start (3Q81)										EdyyyD	4894
.2 Initiate acute phase of study 4Q81)										EdyyyD	4895
.3 Completion of acute phase of study						o				EdyyyD	4896
.4 Initiation of subchronic phase of study						o				EdyyyD	4897
.5 Completion of subchronic phase of study (3Q83)										EdyyyD	4898
.6 Final report submitted to NIOSH (3Q83)										EdyyyD	4899
										EdyyyD	4900
										EdyyyD	4901
										EdyyyD	4902
										EdyyyD	4903

## CONTROL SYSTEMS

The implementation of an effective hazard-prevention program in the workplace requires the development of data in many areas. The control technology program within NIOSH is attempting to document and develop effective control systems through state-of-the-art assessments and laboratory research. The production and utilization of hazardous chemicals in industry require that industry utilize techniques that control worker exposure while continuing to allow the chemicals to be used in their processes. Our goal is to seek out and document the controls' effectiveness from a total systems point of view. All aspects of the system are assessed including engineering, monitoring, work practices, and personal protective equipment.

The demonstrated effectiveness in one plant can then be used by other industries that have similar processes. An active dissemination and education program is essential to reach those professionals in training and practicing who will design and influence the purchasing of future production systems.

### Division of Physical Sciences and Engineering

The DPSE program is comprised of control technology assessments and control technology research and development.

1. The development of the Control Technology Assessment concept has evolved to a point where an expanded approach involving other disciplines should be utilized to make the studies more comprehensive. Although only the "best" technology has been previously studied, "good" technology would also be documented because of the current state of the U.S. economy. These "expanded" CTAs would simultaneously establish a range of solutions with a range of costs. There are two extreme options for conducting these studies:
  - o DPSE would take the lead in a NIOSH effort, working with DSHEFS and DRDS industrial hygienists operating from their own divisions. This would enable more measurements to be made and simultaneously establish worker exposures as well as a range of solutions. There is some precedent for this now in DPSE's joint effort with DSHEFS (in manufacturing of birth control pills, biotechnology, and electronics), and DRDS (coal liquefaction and gasification).
  - o At the other extreme, more resources would be provided directly to the DPSE budget, and the expanded CTAs would be completely a DPSE effort.

2. There also is a need for more documentation in other areas relating to worker protection:
  - o DPSE has begun a pilot effort with DBBS to include work practices in the inhouse DPSE CTA of plating and cleaning processes.
  - o Joint efforts with DSR also should be explored and implemented.
3. An expanding interaction must occur with the academic community which is educating the future engineers, designers, and managers of production systems. DPSE has:
  - o With DTMD, started some effort in this area with the Johns Hopkins Educational Resource Center which has developed a 1-week course for practicing engineers on industrial hygiene engineering control technology.
  - o Need for additional materials that impact on the regular academic curricula.

In DPSE there are essentially two synergistic aspects of the area of control technology research and development:

1. Monitoring--What needs to be done now is to expand monitoring of strategy techniques and evaluate contemporary instruments. Portable analytic instruments that can make in situ determinations of pollutants will be a powerful aid in field studies related to chemical dumps, toxic wastes, petrochemical industries, etc.
2. Control--Projects will be of limited scope so that they can be completed in a short time frame, utilizing technicians and co-ops to carry out the research planned by senior staff, based upon input from CTAs, HHEs, OSHA, labor, and industry. The ultimate goal is to provide the impetus which will result in incorporation of control techniques into a new process design, process machinery, and plant construction. There will be an effort to establish demonstration projects on a small scale to show both technical and financial feasibility, working with small businesses and State industrial groups.

#### Division of Biomedical and Behavioral Sciences

DBBS activities in control technology include: (1) toxicology studies related to the substitution of less hazardous substances for those commonly or historically used for certain operations or work

practices, and (2) evaluation of ergonomic and human factors observed during control technology assessments. With regard to the latter activity, the best engineering control system may be ineffective in protecting the worker if it is not designed for optimum use by the worker or if the worker has not been properly informed about the use of the system.

In FY 1981 studies continued on the toxicologic assessment of coal and copper slags that are used in abrasive blasting operations to replace silica sand. Also during FY 1981 three control technology assessment site visits involving electroplating operations were performed jointly with DPSE. The intent is to identify work practices and human factors considerations found to be successful in reducing workers' exposure to workplace hazards.

#### Division of Safety Research

The DSR program includes several projects that are aimed at identifying or evaluating methods for controlling the risks of recognized hazards. The program addresses the hazards faced by construction workers engaged in building construction, and machinists engaged in the operation of press brakes and mechanical power presses.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES							
		I	C	1Q	2Q		3Q	4Q	PY	NPF	TF			
										\$1000	\$1000			
*****CONTROL SYSTEMS*****										E	4907			
										E	4908			
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE										A	E	4909		
										A	E	4910		
1. Psychology in Health Risk Communication (A. Cohen, 684-8291) (VOB-nAb-268)(0.6/130.0/160.0)(.3/10/18)(100/VOB-Eyy-268)	80	84								E	c	a	AayyyE	4912
.1 Consult Information Office (1Q80)													AayyyE	4913
.2 Initiate literature review (1Q80)													AayyyE	4914
.3 Complete literature review (3Q80)													AayyyE	4915
.4 Formulate approaches for hazard communications (4Q81)													AayyyE	4916
.5 Submit progress report to Director, DBBS				o	o	o	o						AayyyE	4917
.6 Develop RFC for testing approaches				o									AayyyE	4918
.7 Hold peer review				o									AayyyE	4919
.8 Submit RFC to Director, DBBS					o								AayyyE	4920
.9 Submit RFC to OAMS					o								AayyyE	4921
.10 Award contract						o							AayyyE	4922
.11 Obtain HSRB clearance							o						AayyyE	4923
.12 Submit OMB package for clearance							o						AayyyE	4924
.13 Receive OMB clearance (2Q83)													AayyyE	4925
.14 Complete observations of effectiveness of health risk communications (4Q83) (2Q84)													AayyyE	4926
.15 Receive draft final contract report (2Q84)													AayyyE	4927
.16 Submit final report to Director, DBBS (4Q84)													AayyyE	4928
.17 Submit abstract to Director, NIOSH (4Q84)													AayyyE	4929
													AayyyE	4930
													AayyyE	4931
													AayyyE	4932
													AayyyE	4933



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES						
	I	C	1Q	2Q	3Q	4Q	O	C	N	G	H	D	PY	NPF	TF	
														\$1000	\$1000	
2. Fibrogenicity of Mineral Substitutes (L. Stettler, 684-8337) (VOT/gDg-383)(0.1/0.5/7.0)(100/VOT-Egm-383)	80	83					E	c	a					AdgmyE	4936	
														AdgmyE	4937	
														AdgmyE	4938	
.1 Hazard data sheet (H.D.S.):														AdgmyE	4939	
a. Develop H.D.S. (1Q80)														AdgmyE	4940	
b. Submit H.D.S. to Director, DBBS (1Q80)														AdgmyE	4941	
c. Submit H.D.S. to all project staff (1Q80)														AdgmyE	4942	
.2 Consult Information Office (1Q80)														AdgmyE	4943	
.3 Submit progress reports to Director, DBBS			o	o	o	o								AdgmyE	4944	
.4 Initiate pilot study to determine maximum tolerated dose (MTD). (2Q80)														AdgmyE	4945	
.5 Complete MTD study (3Q80)														AdgmyE	4946	
.6 Initiate fibrogenicity study (3Q80)														AdgmyE	4947	
.7 Perform 6-month serial sacrifice (2Q81)														AdgmyE	4948	
.8 Perform 12-month serial sacrifice (4Q81)														AdgmyE	4949	
.9 Complete 18-month serial sacrifice				o										AdgmyE	4950	
.10 Complete 24-month serial sacrifice									o					AdgmyE	4951	
.11 Complete histologic and pathology report (2Q83)										o				AdgmyE	4952	
.12 Submit final project report to Director, DBBS (4Q83)														AdgmyE	4953	
.13 Submit abstract to Director, NIOSH (4Q83)														AdgmyE	4954	
.14 Submit project records to Q. A. Unit, DBBS (4Q83)														AdgmyE	4955	
														AdgmyE	4956	
														AdgmyE	4957	
DIVISION OF PHYSICAL SCIENCES AND ENGINEERING													B	E	4959	
														B	E	4960
3. Removal of Contaminating Liquids from Surfaces (1004)-- 12/31/81--\$118,102--R. Hughes--Control														B	E	4961
7/31/84 \$55,288--G. Breur														B	E	4962
														B	E	4963
														B	E	4964
4. Control Technology Assessment of Chemical Process Batch Unit Operations (H. Van Wagenen 684-4347) (VQC-gty-406) (1.5/5.7/44.0)(100/VQC-Ehi-406)	80	83												E	a	a
														BahiyE	4966	
														BahiyE	4967	
														BahiyE	4968	
.1 Award contract (4Q81) #210-80-0071														BahiyE	4969	
.2 Complete preliminary surveys (6 completed 4Q81)														BahiyE	4970	
.3 Complete preliminary survey reports										o				BahiyE	4971	
.4 Complete in-depth survey reports (1Q83)														BahiyE	4972	
.5 Complete final report (4Q83)														BahiyE	4973	
														BahiyE	4974	
														BahiyE	4975	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
5. Control Technology Assessment of Petroleum Refinery Operations (P. Froehlich 684-4347)(VQC-gty-406)(0.2/5/11)(100/VQC-Ehi-475)	81	83					E	a	a			
.1 Award contract (2Q81) #210-81-7102											BahiyE	4978
.2 Complete preliminary surveys (4 completed 4Q81)			o								BahiyE	4979
.3 Complete preliminary survey reports				o							BahiyE	4980
.4 Complete in-depth survey reports						o					BahiyE	4981
54 Complete final report (1Q83)											BahiyE	4982
											BahiyE	4983
											BahiyE	4984
											BahiyE	4985
											BahiyE	4986
6. Engineering Assessment of Seals and Fittings (H. Van Wagenen - 684-4347)(0.5/20/35)(0.5/25/40)(100/VQC-Ehf-472)	82	84					E	a	a			
.1 Finalize RFC and identify firm(s) for cooperative research											BahfyE	4989
.2 Award contract						o					BahfyE	4990
.3 Receive final report (2Q84)											BahfyE	4991
											BahfyE	4992
											BahfyE	4993
											BahfyE	4994
											BahfyE	4995
7. Control Technology Assessment of Routine Hazardous Waste Disposal Operations in Chemicals Manufacturing (M. Anastas - 684-4347)(VQC-gtt-417)(1.0/5/35)(100/VQC-Euh-417)	81	83					E	c	a			
.1 Complete preliminary survey reports					o						BauhyE	4998
.2 Complete in-depth survey reports											BauhyE	4999
.3 Complete final report (1Q83)											BauhyE	5000
											BauhyE	5001
											BauhyE	5002
											BauhyE	5003
											BauhyE	5004
											BauhyE	5005
8. Pilot Control Technology Assessment of Chemical Processing and Reclaiming Facilities (M. Crandall - 684-4347) (100/VQC-Euh-473)	82	82					E	c	a			
.1 Complete summary of literature			o								BauhyE	5008
.2 Complete survey reports					o						BauhyE	5009
.3 Submit recommendations for additional work					o						BauhyE	5010
											BauhyE	5011
											BauhyE	5012
											BauhyE	5013
											BauhyE	5014
											BauhyE	5015
9. Control Technology Assessment of Operations Employed in Oral Contraceptive Tablet Making Processes (M. Anastas - 684-4347) (VQC-gky-415)(100/VQC-Eyy-415)	81	82					E	c	a			
.1 Complete in-depth surveys					o						BayyyE	5018
.2 Complete in-depth survey reports						o					BayyyE	5019
.3 Complete final report									o		BayyyE	5020
											BayyyE	5021
											BayyyE	5022
											BayyyE	5023
											BayyyE	5024
											BayyyE	5025

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	O	C	N	PY	\$1000	\$1000
							G	H	D			
10. Control Technology Assessment - Plating and Cleaning (J. Sheehy - 684-4295)(VQC-gth-445)(100/VQC-Eyy-445)	80	82					E	c	a			
.1 Complete in-depth plant surveys			o									BayyyE 5028
.2 Complete final plant survey reports				o								BayyyE 5029
.3 Complete final report						o						BayyyE 5030
												BayyyE 5031
												BayyyE 5032
												BayyyE 5033
												BayyyE 5034
11. Control of Styrene Vapors in Fiberglass Boat Building (W. Todd - 684-4224)(VQC-ggy-414)(1.0/5/35)(100/VQC-Ehy-414)	81	83					E	c	a			
.1 Complete preliminary survey reports						o						BahyyE 5037
.2 Complete in-depth surveys							o					BahyyE 5038
.3 Complete report on plant surveys (1Q83)												BahyyE 5039
												BahyyE 5040
												BahyyE 5041
												BahyyE 5042
												BahyyE 5043
12. Adhesive Bonding Control Technology Assessment (V. Mortimer - 684-4224)(VQC-ggy-414)(2.0/25/85)(100/VQC-Ehy-476)	81	83					E	c	a			
.1 Complete preliminary survey reports						o						BahyyE 5046
.2 Complete in-depth surveys							o					BahyyE 5047
.3 Complete in-depth survey reports (1Q83)												BahyyE 5048
.4 Complete final report (2Q83)												BahyyE 5049
												BahyyE 5050
												BahyyE 5051
												BahyyE 5052
												BahyyE 5053
13. Mercury Control Technology Assessment (A. Amendola - 684-4347) (VQC-gyy-405)(100/VQC-Eyy-405)	80	82					E	a	a			
.1 Award contract (1Q81) #210-81-7107												BayyhE 5056
.2 Complete preliminary surveys				o								BayyhE 5057
.3 Complete in-depth surveys						o						BayyhE 5058
.4 Complete final report							o					BayyhE 5059
												BayyhE 5060
												BayyhE 5061
												BayyhE 5062
												BayyhE 5063
14. Control Technology Assessment of the Ceramic (Clay) Products Industry (R. Mahon - 684-4295)(1.0/15/50)(100/VQC-Eny-477)	82	83					E	c	a			
.1 Submit final study plan				o								BanykE 5066
.2 Complete preliminary site surveys						o						BanykE 5067
.3 Complete recommended surveys (2Q83)												BanykE 5068
.4 Complete final report (4Q83)												BanykE 5069
												BanykE 5070
												BanykE 5071
												BanykE 5072
												BanykE 5073
15. Control Technology Assessment Mining and Minerals Industry Processes (Lead Ore Benefication) (F. Godbey - 684-4442) (VQC-gmu-412)(100/VQC-Eyy-412)	81	82					E	c	d			
.1 Complete preliminary survey reports				o								BapgrE 5076
.2 Complete in-depth survey reports						o						BapgrE 5077
.3 Complete final report							o					BapgrE 5078
												BapgrE 5079
												BapgrE 5080
												BapgrE 5081
												BapgrE 5082
												BapgrE 5083

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
16. Assessment of Effective Controls - Bagging Operations (T. Cooper - 684-4442)(VQC-gtu-408)(0.3/5/15)(100/VQC-Eyy-408)	81	83							E c a			
.1 Complete preliminary survey reports				o							BayyeE	5086
.2 Complete in-depth survey reports (1Q83)											BayyeE	5087
.3 Complete final report (1Q83)											BayyeE	5088
											BayyeE	5089
											BayyeE	5090
											BayyeE	5091
											BayyeE	5092
17. Control Technology Assessment - Sampling Solids and Slurries (C. Wang - 684-4442)(VQC-gtt-417)((0.2/5/11)100/VQC-Eyy-478)	80	83							E c a			
.1 Complete preliminary study plan			o								BayyeE	5095
.2 Complete preliminary survey reports					o						BayyeE	5096
.3 Complete in-depth survey reports (1Q83)											BayyeE	5097
.4 Complete final report (1Q83)											BayyeE	5098
											BayyeE	5099
											BayyeE	5100
											BayyeE	5101
											BayyeE	5102
18. Control Technology Assessment - Solid Materials Conveying (M. Klein - 684-4295)(2.1/25/90)(100/VQC-Eyn-479)	82	83							E c a			
.1 Complete study plan			o								BaynyE	5105
.2 Complete preliminary survey reports							o				BaynyE	5106
.3 Complete in-depth survey reports (2Q83)											BaynyE	5107
.4 Complete final report (3Q83)											BaynyE	5108
											BaynyE	5109
											BaynyE	5110
											BaynyE	5111
											BaynyE	5112
19. EPA IA on Indoor Air (Electronics/Formaldehyde) (J. Gideon - 684-4221)(VQC-gyy-413)(2.0/25/100)(100/VQC-Ehy-413)	80	83							E d a			
.1 Electronics Components Industry											BahyyE	5115
a. Complete preliminary survey reports				o							BahyyE	5116
b. Complete in-depth survey reports (1Q83)											BahyyE	5117
.2 Formaldehyde Manufacturing Industry											BahyyE	5118
a. Complete preliminary survey reports				o							BahyyE	5119
b. Complete in-depth survey reports							o				BahyyE	5120
c. Complete final report (1Q83)											BahyyE	5121
											BahyyE	5122
											BahyyE	5123
											BahyyE	5124
											BahyyE	5125
20. Applied Control Technology Studies (P. Caplan - 684-4442) (VQC-ghg-403)(5.4/15/170)(100/VQC-Ehy-403)	80	C							E c a			
.1 Participate in hazard control technology aspects of HHE and IWS studies			2	4	6	8					BahyyE	5128
.2 Provide written consultation to DCSD on control technology related to Criteria Documents or Hazard Reviews			1	2	3	4					BahyyE	5129
.3 Work with DTMD on professional engineering education programs											BahyyE	5130
a. Conduct site visits to appropriate universities				1	3						BahyyE	5131
.4 Develop priority areas for FY83 programs			o								BahyyE	5132
											BahyyE	5133
											BahyyE	5134
											BahyyE	5135
											BahyyE	5136
											BahyyE	5137
											BahyyE	5138
											BahyyE	5139

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
				1Q	2Q	3Q	4Q			NPF	TF
				\$1000	\$1000	\$1000	\$1000			\$1000	\$1000
21. Control Technology Analytical Support (G. Choudhary 684-4217) (VQK-uxx-427)(2.4/25/101)(100/VQK-Ehy-427)	82		C					E b a			
.1 Provide analytical support for CTA of											BbhyyE 5142
a. Plating and cleaning processes				100	250	400					BbhyyE 5143
b. Styrene and Glass Fiber Boat Building				50	100	300					BbhyyE 5144
c. Hazardous waste projects					60	150					BbhyyE 5145
d. Adhesive Bonding				155	380	630	700				BbhyyE 5146
e. Process Sampling Study				75	225	300					BbhyyE 5147
f. Solid Materials Handling				100	200	300	400				BbhyyE 5148
g. Lead Beneficiation				50	150	300					BbhyyE 5149
											BbhyyE 5150
											BbhyyE 5151
											BbhyyE 5152
											BbhyyE 5153
22. Deactivation of Hazardous Chemical Waste in the Work Place (S. Tucker, 684-4258)(3.0/40/130)(100/VQU-Euh-487)	82		83					E c a			BcuhyE 5156
.1 Study of procedures for deactivation and disposal of chemical waste solutions produced in DPSE laboratories											BcuhyE 5157
a. Present experimental protocol for study of proposed procedures				o							BcuhyE 5158
b. Complete laboratory experiments					o						BcuhyE 5159
c. Submit report to Director, DPSE							o				BcuhyE 5160
.2 Study of procedures for deactivating excess stock chemicals in DPSE laboratories								o			BcuhyE 5161
a. Complete laboratory experiments									o		BcuhyE 5162
b. Submit report to Director, DPSE (1Q83)										o	BcuhyE 5163
.3 Validate three IARC methods (4Q83)											BcuhyE 5164
											BcuhyE 5165
											BcuhyE 5166
											BcuhyE 5167
											BcuhyE 5168
											BcuhyE 5169
											BcuhyE 5170
23. Scrap Lead Reprocessing Demonstration (R. Hughes 684-4266) (VQC-geM-409)(0.3/5/18)(100/VQX-Epp-409)	81		83					E a a			BdpqrE 5173
.1 Award contract 4Q81											BdpqrE 5174
.2 Complete demonstration of four controls								o			BdpqrE 5175
.3 Complete demonstration of ten controls (3Q83)											BdpqrE 5176
.4 Transmit abstract of final report to Director, NIOSH (4Q83)											BdpqrE 5177
											BdpqrE 5178
											BdpqrE 5179
											BdpqrE 5180
24. Particulate Control Research (K. Crouch 684-4255) (3.1/35/130)(100/VQX-Eyy-496)	82		83					E c a			BdyyyE 5183
.1 Development of Criteria for Control of Grinding Operations											BdyyyE 5184
a. Develop control for brass stand grinding emissions								o			BdyyyE 5185
b. Develop recommendations for control of particulates generated during hand grinding of castings (2Q83)											BdyyyE 5186
c. Submit final report to Director, DPSE (4Q83)											BdyyyE 5187
.2 Submit protocol for wood dust control						o					BdyyyE 5188
											BdyyyE 5189
											BdyyyE 5190
											BdyyyE 5191
											BdyyyE 5192

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
25. Emerging Technologies - Lasers (K. Crouch 684-4255) (100/VQX-Eyy-500)	82	82					E	c	a			
.1 Submit PCM for FY'83 laser research program					o						BdyypE	5195
											BdyypE	5196
											BdyypE	5197
											BdyypE	5198
											BdyypE	5199
26. Push-Pull Ventilation Techniques (D. Huebener 684-4291) (100/VQX-Eyy-502)	82	82					E	c	a		BdhyE	5202
.1 Complete SPRG review for plating tank study			o								BdhyE	5203
.2 Complete criteria development for single-side draft hood				o							BdhyE	5204
.3 Complete criteria development for double-side slot hood						o					BdhyE	5205
.4 Submit PCM for FY83 and beyond research				o							BdhyE	5206
											BdhyE	5207
											BdhyE	5208
											BdhyE	5209
DIVISION OF RESPIRATORY DISEASE STUDIES												
27. Emission Characterization of Energy Processes (Koshut R 304 599-7361)(0.3/81.0/90.0)(0.3/96.9/107.4) (100/VCb-Eiy-154)	82	84					E	g	b		C	E
.1 Modify DOE Interagency Agreement for broader source characterization studies											C	E
.2 Develop protocol for component fugitive emission measurements in cooperation with DOE			o								CbiyE	5211
.3 Complete review of all available process stream contaminant composition data											CbiyE	5212
.4 Complete NIOSH sponsored component emission measurements (4Q83)						o					CbiyE	5213
.7 Submit final report and abstract to Director, NIOSH, with copy of report and abstract to DTS (4Q83)											CbiyE	5214
											CbiyE	5215
											CbiyE	5216
											CbiyE	5217
											CbiyE	5218
											CbiyE	5219
											CbiyE	5220
											CbiyE	5221
											CbiyE	5222
											CbiyE	5223
											CbiyE	5224
											CbiyE	5225
											CbiyE	5226
											CbiyE	5227
											CbiyE	5228

### OTHER PERSONAL PROTECTIVE EQUIPMENT

There are a number of multifaceted approaches to injury prevention in the workplace. Included among the varied approaches are workplace design, engineering controls, behavior modification, training, and personal protective equipment. It has often been cited that, with the increasingly tightening economic conditions, the use of PPE as an alternative to more expensive engineering controls will be an option exercised by more and more employers. PPE used commonly in workplaces include respirators, head protection (hard hats), eye protection (safety glasses), face protection (face shields), foot protection (safety shoes), hand protection (protective gloves), motion restraints (safety belts), and protective clothing in various combinations. But a question remains as to how effective such devices are in providing protection. Oftentimes the worker is provided PPE which may not be designed to meet the needs of his particular exposure situation. The choice of an appropriate protective device is a complex consideration that must incorporate a multitude of factors. Factors that are of prime concern to one occupation may be of secondary concern to another occupation. Consequently, the individual choosing PPE should be fully aware of the challenges of the work environment if effective protection is to be provided.

A series of reports on the effectiveness of eye, head, and face protection was compiled by BLS. The data which described the use of PPE by workers involved in industrial accidents were part of the Work Injury Report program. The worker received a confidential survey questionnaire which requested information concerning what he was doing at the time of the accident, what PPE he was wearing, a description of the injury, and the reason he was not wearing PPE. Failure to wear eye protection equipment was attributed to the perception by the workers that the equipment was neither practical nor necessary for their type of work while others reported that such equipment was not available for their use. Similarly, of the 774 face injuries surveyed, only nine workers were wearing face shields at the time of their accidents. Of the 1,033 head injuries surveyed, 80 percent of the injured workers were not wearing head protection.

It is evident, therefore, that not only must the design of the personal protective device be engineered to provide effective protection correlated with human injury-tolerance data, but it also must be designed in such a fashion as to be acceptable to the wearer of the device in his normal work environment. The lack of such acceptability and availability can be viewed as a major contributing factor in job injuries.

## Division of Safety Research

Activities within DSR have included work to establish test criteria and procedures designed to evaluate the performance of PPE. Such test criteria were designed to ensure that certain critical parameters characterizing the device perform in a reliable manner to provide the wearer with the protection needed. Tests were conducted on a number of protective devices on the market, including firefighters' helmets, miners' safety caps, linemen's rubber insulating gloves, women's safety-toe footwear, and flexible-fitting goggles. These tests, based on the American National Standards Institute's standards, also addressed possible improvements in test systems and were published as technical reports. However, due to resource constraints within the Division, the major emphasis of the PPE program has been redirected toward respirator research and testing and certification.

In response to the national concern regarding the exposure of workers in chemical waste dump cleanup operations, the Division has proposed a program designed to evaluate chemical protective clothing. With initial emphasis on glove material, the program would establish a standard permeation test designed to evaluate the permeability of various protective clothing materials by various hazardous chemicals. Such a permeability test could then subsequently be combined with appropriate physical test methods such as abrasion, stretching, etc. to determine the relative reliability of the protective clothing material to withstand the rigors and environments of actual use and still afford protection to the wearer.

## Division of Biomedical and Behavioral Sciences

DBBS research on cutaneous effects, vibration, bioacoustics, and cold stress includes evaluation of PPE. Studies planned for FY 1982 include:

1. Research in percutaneous absorption, which is expected to facilitate early identification of cutaneous hazards and to provide support for control technologies and protective clothing.
2. Evaluation of the protection from Raynaud's disease (white-finger disease) afforded by different glove materials.
3. Evaluation of effectiveness of different types of hearing protectors, and completion of the validation of a new, inexpensive method with workplace applicability for measuring the effectiveness of hearing protection equipment.
4. Evaluation of the protective value of different clothing ensembles for workers subjected to cold stress.



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES					
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF	
											\$1000	\$1000	
*****OTHER PERSONAL PROTECTIVE EQUIPMENT*****													G 5232
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE													G 5233
													A G 5234
													A G 5235
1. Evaluation of Earplug Effectiveness (R. Tubbs, 684-8281) (1.6/25.5/65.5)(100/VOG-Gfy-367)	82	83					G	c	a				AefyyG 5237
													AefyyG 5238
													AefyyG 5239
.1 Protocol Development and Approval													AefyyG 5240
a. Complete draft project protocol													AefyyG 5241
b. Converse peer review panel													AefyyG 5242
c. Complete final project protocol													AefyyG 5243
d. Receive SPRG approval													AefyyG 5244
e. Receive HSRB approval													AefyyG 5245
f. Monthly progress report, Director, DBBS													AefyyG 5246
.2 Subject Testing													AefyyG 5247
a. Install and inspect test equipment													AefyyG 5248
b. Locate appropriate test subjects													AefyyG 5249
c. Begin subject testing													AefyyG 5250
d. Complete subject testing (1Q83)													AefyyG 5251
.3 Data Reduction and Analysis													AefyyG 5252
a. Code and verify data for computer (2Q83)													AefyyG 5253
b. Complete statistical analysis (2Q83)													AefyyG 5254
.4 Submit publication plan (3Q83)													AefyyG 5255
.5 Submit draft for approval (3Q83)													AefyyG 5256
.6 Submit final report to Director, DBBS (4Q83)													AefyyG 5257
.7 Submit abstract to Director, DBBS (4Q83)													AefyyG 5258
.8 Submit project records to Q. A. Unit, DBBS (4Q83)													AefyyG 5259
													AefyyG 5260

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES	
	FY		1Q	2Q	3Q	4Q	PY	NPF	TF
	I	C						\$1000	\$1000
2 Insert-Type Hearing Protectors Study (B. Lempert, 684-8281) (100/VOG-Gff-365)	81	82					G b a		
.1 Contract 210-81-0031								AefffG	5263
a. Complete peer review (DSR)(1Q81)								AefffG	5264
b. Submit RFC to OAMS (1Q81)								AefffG	5265
c. Obtain HSRB approval (2Q81)								AefffG	5266
d. Award contract (210-81-3001)(2Q81)								AefffG	5267
e. Initiate field testing (2Q81)								AefffG	5268
f. Complete field testing				o				AefffG	5269
g. Submit final report to Director, DBBS and DSR					o			AefffG	5270
h. Submit abstract to Director, NIOSH					o			AefffG	5271
.2 Prepare composite report						o		AefffG	5272
.3 Submit composite report to Director, DBBS						o		AefffG	5273
.4 Prepare training module with DTMD						o		AefffG	5274
.5 Submit progress report to Director, DBBS			o	o	o	o		AefffG	5275
.6 Submit final project report to Director, DBBS						o		AefffG	5276
.7 Submit abstract to Director, NIOSH						o		AefffG	5277
.8 Submit project records to Q.A. Unit, DBBS						o		AefffG	5278
								AefffG	5279
								AefffG	5280
								AefffG	5281
								AefffG	5282
DIVISION OF SAFETY RESEARCH								E G	5284
								E G	5285
3. Attenuation Characteristics of Hearing Protectors (895)-- 4/30/83--\$29,430--D. Knowles								E G	5286
								E G	5287
								E G	5288
4. Protective Clothing Against Chemicals Evaluation Procedures (VLI-mbN-858)(5.0/300.0/450.0)(100/VEd-GhN-858)	81	C					G g a	EdhNyG	5290
.1 LANL FY81 Interagency Agreement								EdhNyG	5291
a. Submit IA to OD (2FY81)								EdhNyG	5292
b. Award of IA by OPPE (3Q81)								EdhNyG	5293
c. Review LANL's quarterly progress reports			o	o	o			EdhNyG	5294
d. Submit summary report on performance of CPC against PCB2 OD						o		EdhNyG	5295
e. Receive and review final report from LANL (1Q83)								EdhNyG	5296
f. Submit abstract to O/D (1Q83)								EdhNyG	5297
g. Submit final report to DTS (1Q83)								EdhNyG	5298
.2 Participate in ASTM F23 committee round robin validation testing of proposed standard product evaluation methods			o	o	o	o		EdhNyG	5299
.3 Answer inquiries from public and regional representatives concerning CPC			10	20	30	40		EdhNyG	5300
a. Respond to 90% within 2 working days			o	o	o	o		EdhNyG	5301
b. Respond to 100% within 10 working days			o	o	o	o		EdhNyG	5302
								EdhNyG	5303
								EdhNyG	5304
								EdhNyG	5305
								EdhNyG	5306
								EdhNyG	5307
								EdhNyG	5308

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES	
	I	C	1Q	2Q	3Q	4Q	O C N	NPF	TF
							G H D	PY	\$1000 \$1000
5. Protective Equipment Research (D. Knowles 923-7335) (4.)/250.0/370.0) (100/VEd-Gyy-818)	82	83					G a a		
.1 Complete procurement and installation of personal protective equipment laboratory test equipment					o			EdyyyG	5311
.2 Complete progress report on contracts and grants activities			o	o	o	o		EdyyyG	5312
.3 Complete background research for preparation of a NIOSH PPE research paper			o					EdyyyG	5313
.4 Prepare final report of recommendations for PPE research needs					o			EdyyyG	5314
.5 Complete data acquisition system setup, computer interface and computer programming for PPE equipment research test systems						o		EdyyyG	5315
.6 Complete proposed PPE research project protocols					o			EdyyyG	5316
.7 Complete proposed PPE research project plans						o		EdyyyG	5317
								EdyyyG	5318
								EdyyyG	5319
								EdyyyG	5320
								EdyyyG	5321
								EdyyyG	5322
								EdyyyG	5323
								EdyyyG	5324
								EdyyyG	5325
								EdyyyG	5326

## SAMPLING/ANALYSIS

This program provides sampling consultation and analytical support to field research activities within NIOSH. Information is provided for the data base used by industrial hygienists and engineers to make decisions on hazard potential of workplace exposure, the association of exposure with disease, and the effectiveness of engineering control systems.

### Division of Biomedical and Behavioral Sciences

DBBS provides clinical laboratory analyses to support field studies and all the DBBS inhouse research programs. This activity involves the analysis of blood, urine, and breath samples for the purpose of characterizing and quantitating chemical exposures of persons or laboratory animals examined in field or laboratory studies.

### Division of Physical Sciences and Engineering

DPSE's general direction of the analytical chemistry research and support effort should remain the same. However, the following change is suggested: All NIOSH calibration and maintenance activities should be consolidated with DPSE for better staff utilization and better inventory and maintenance control. A management system should be established which will enable better quality control of field instruments, reduce spare-parts inventory by standardizing equipment, and allow periodic recall of equipment to ensure that it is in proper working order. While this is being done, the determination to contract maintenance and calibration should be delayed until DSHEFS moves to Ridge.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F			RESOURCES			
				1Q	2Q	3Q	4Q	O	C	N	NPF	TF		
				G	H	D	PY	\$1000	\$1000					
*****SAMPLING/ANALYSIS*****													N	5330
DIVISION OF PHYSICAL SCIENCES AND ENGINEERING													N	5331
													B	5332
													B	5333
1. Cancer Research Analytical Support (B. Belinky 684-4220) (VQK-ubc-423)(2.0/50/110)(100/VQK-Nhy-423)	82		C							N	b	a	BbhyyN	5335
.1 Provide analyses in support of Institute Cancer Program (DSHEFS)				1.1k	2.3k	3.4k	4.2k						BbhyyN	5336
.2 Perform complete chemical characterization of acid treated coal dusts (DRDS Mutagenicity Studies for Stomach Carcinogenesis)						2	4						BbhyyN	5337
.3 Provide an average turnaround time of 35 working days for samples from cancer research				35	35	35	35						BbhyyN	5338
													BbhyyN	5339
													BbhyyN	5340
													BbhyyN	5341
													BbhyyN	5342
													BbhyyN	5343
													BbhyyN	5344
													BbhyyN	5345
2. Feasibility Study of a Mobile Analytical Laboratory for Field Support (G. Choudhary 684-4215) (100/VQK-Nuh-482)	82	82								N	a	a	BbhyyN	5348
.1 Procure mobile laboratory contract													BbhyyN	5349
a. Submit RFC to OAMS				o									BbhyyN	5350
b. Award Contract					o								BbhyyN	5351
.2 Accompany the contractor on four surveys						2	4						BbhyyN	5352
.3 Submit final report to Directors, DPSE, DSHEFS, DRDS												o	BbhyyN	5353
													BbhyyN	5354
													BbhyyN	5355
													BbhyyN	5356
													BbhyyN	5357
													BbhyyN	5358
3. Priority Analytical Support (C. Geraci 684-4231) (0.5/300/320)(0.5/300/320)(100/VQK-Nhy-483)	82	84								N	a	a	BbhyyN	5361
.1 Procure priority analytical support contract													BbhyyN	5362
a. Submit RFC to OAMS				o									BbhyyN	5363
b. Award Contract					o								BbhyyN	5364
.2 Conduct Award Fee meeting for priority analytical support contract								o					BbhyyN	5365
													BbhyyN	5366
													BbhyyN	5367
													BbhyyN	5368
													BbhyyN	5369
4. Applied Analytical Support Methodology and Investigations (J. Palassis 684-4220/C. Neumeister 684-4215)(VQK-iXX-424) (VQK-iXX-429)(4.0/100/214)(100/VQK-Nhn-424)(100/VQK-Nhy-428)	82		C							N	c	a	BbhynN	5372
.1 Characterize 20 common minerals				5	10	15	20						BbhynN	5373
.2 Complete a minerals reference manual							o						BbhynN	5374
.3 Analyze silica samples from collaborative test				24	48								BbhynN	5375
.4 Develop method for four PNA's					4								BbhynN	5376
.5 Develop unanticipated analytical methods				1			2						BbhynN	5377
													BbhynN	5378
													BbhynN	5379
													BbhynN	5380
													BbhynN	5381

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	P	M	F	RESOURCES	
				1Q	2Q	3Q	4Q							NPF	TF
				1000	1000	1000	1000							\$	\$
5. Mining Analytical Support - (M. Bolyard 684-4217) (VQK-upd-426)(3.3/125/250)(100/VQK-Nin-426)	82		C												
.1 Analyze samples from coal dust/diesel fuel inhalation study (DBBS)				120	200	320	400							BbinyN	5384
.2 Provide analytical support to DRDS				1.3k	2.8k	4.0k	5.2k							BbinyN	5385
.3 Provide analytical support to OECSP's Occupational Lung Disease project				12	24	36	50							BbinyN	5386
.4 Provide analytical support to DSR														BbinyN	5387
a. Air purifying respirators				400	800	1.2k	1.5k							BbinyN	5388
b. Quick response field investigations				50	125	175	250							BbinyN	5389
.5 Provide support to DSHEFS' Petroleum Refinery Turnaround				350			550							BbinyN	5390
.6 Procure Specialized Inorganic Measurement Contract														BbinyN	5391
a. Submit RFC to OAMS														BbinyN	5392
b. Award Contract (1Q83)														BbinyN	5393
6. Measurement Support Services - (D. Dollberg 684-4217) (VQK-uXX-422)(2.6/2000/2065)(2.6/2000/2065)(100/VQK-Nyy-422)	82	84												BbinyN	5394
.1 Coordinate analytical requests from Divisions/Offices and Regions				108	213	311	425							BbinyN	5395
.2 Maintain an average turnaround time of 10 working days for routine (contractor) samples				10	10	10	10							BbinyN	5396
.3 Maintain an average residence time of 35 days for routine (contractor) samples				35	35	35	35							BbinyN	5397
.4 Conduct award fee determination for Comprehensive Analytical Services Contract (210-81-7111DB)														BbinyN	5398
.5 Conduct weekly analytical support information exchange meetings with HETAB/IWSB/ECTB				10	20	30	40							BbinyN	5399
.6 Update DPSE Laboratory Management System (LMS). (Joint effort with MRB).														BbinyN	5400
a. Develop microfiche capability for archiving analytical reports (Data transfer from Wang--PCC)														BbinyN	5401
b. Interface Wang system with PCC for improved data transmission to LMS														BbinyN	5402
c. Develop data base for cost analysis of analytical services														BbinyN	5403
.7 Implement year 2 of CACS contract														BbinyN	5404
														BbinyN	5405
														BbinyN	5406
														BbinyN	5407
														BbinyN	5408
														BbinyN	5409
														BbinyN	5410
														BbinyN	5411
														BbinyN	5412
														BbinyN	5413
														BbinyN	5414
														BbinyN	5415
														BbinyN	5416
														BbinyN	5417
														BbinyN	5418
														BbinyN	5419
														BbinyN	5420
														BbinyN	5421
														BbinyN	5422
														BbinyN	5423
														BbinyN	5424
														BbinyN	5425

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F	RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U	PY	NPF	TF
							O C N			
7. Quality Assurance - Internal (D. Smith 684-4217) (VQK-uXX-420)(1.0/35/70)(100/VQK-Nhy-420)	82	C					N c a			
.1 Analyze PAT samples			20	40	60	80				BbhyyN 5428
.2 Monitor analytical proficiency by audit samples			32	64	96	128				BbhyyN 5429
.3 Submit quarterly report to Director DPSE			o	o	o	o				BbhyyN 5430
.4 Update AIHA accreditation					o					BbhyyN 5431
8. Research Analytical-Chemical Support for the NIOSH-EPA Diesel Exhaust/Coal Dust Animal Exposure Studies (R. Glaser, 684-4259/R. Lunsford, 684-4258)(VQU-ipB-440) (VQU-ipB-442)(1.0/15/45)(100/VQU-Nmi-440)(100/VQU-Nmi-442)	80	83					N c a			BbhyyN 5432
.1 Analyze samples from exposure chambers			70	140	210	280				BbhyyN 5433
.2 Submit report on characterization of vapor contaminants						o				BbhyyN 5434
.3 Submit report on characterization of organic-extractable portion of diesel particulate						o				BbhyyN 5435
.4 Complete monitoring of exposure chambers (1Q83)										BcmiyN 5438
.5 Submit report on monitoring of exposure chambers to study director (2Q83)										BcmiyN 5439
9. Comprehensive Laboratory Data Management (M. Abell, 684-4272)(100/VQU-Nyy-490)	82	82					N c a			BcmiyN 5440
.1 Requisition upgrade for data system			o							BcmiyN 5441
.2 Complete software structure design				o						BcmiyN 5442
.3 Complete training of chemists						o				BcmiyN 5443
.4 Submit final report to Director, DPSE						o				BcmiyN 5444
10. Characterization and Analysis of PNA's (G. Breuer 684-4430) (VQX-iBp-457)(100/VQX-Niy-457)	81	82					N c a			BcmiyN 5445
.1 Analyze PNA's from DBBS animal exposure study			24	60	84	108				BcmiyN 5446
.2 Develop model PNA sampler										BcmiyN 5447
a. Complete vapor pressure measurements of fluoranthene				o						BcmiyN 5448
b. Submit final report to Director, DPSE						o				BcmiyN 5449
										BcmiyN 5450
										BcyyyN 5453
										BcyyyN 5454
										BcyyyN 5455
										BcyyyN 5456
										BcyyyN 5457
										BcyyyN 5458
										BcyyyN 5459
										BcyyyN 5460
										BdiymN 5463
										BdiymN 5464
										BdiymN 5465
										BdiymN 5466
										BdiymN 5467
										BdiymN 5468
										BdiymN 5469
										BdiymN 5470

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES		
				1Q	2Q	3Q	4Q			NPF	TF	
										\$1000	\$1000	
11. Quality Assurance (P. Schlecht 684-4266) (VQX-UNy-458)(3.3/300/474)(100/VQX-Xyy-458)	82		C									BdyyyN 5473
												BdyyyN 5474
												BdyyyN 5475
.1 Site visit Government Laboratories						2						BdyyyN 5476
.2 Position paper to Director, DPSE. Int'l co-operation for PAT and alternative funding options						o						BdyyyN 5477
.3 Provide PAT reference samples				10k	20k	30k	40k					BdyyyN 5478
.4 Evaluate 335 industrial hygiene laboratories				305	315	325	335					BdyyyN 5479
.5 Award PAT sample production contract					o							BdyyyN 5480
.6 Submit RFC to Director, DPSE for calendar year 1984							o					BdyyyN 5481
												BdyyyN 5482
												BdyyyN 5483
12. Maintenance and Calibration Laboratory (P. Schlecht 684-4266) (VQX-uth-459)(2.7/55/140)(100/VQX-Nyy-459)	81		C									BdyyyN 5486
												BdyyyN 5487
												BdyyyN 5488
.1 Industrial hygiene instruments repaired				150	300	450	550					BdyyyN 5489
.2 Industrial hygiene instruments calibrated				125	250	375	450					BdyyyN 5490
.3 Upgrade calibration systems to improve calibration accuracy and reliability												BdyyyN 5491
a. Gas systems				o								BdyyyN 5492
b. Sound systems					o							BdyyyN 5493
.4 Institute a periodic calibration/maintenance system for DPSE field equipment							o					BdyyyN 5494
.5 Build auto cyclers/charger for Ni-Cd battery packs to improve reliability by reducing battery "memory"						o						BdyyyN 5495
												BdyyyN 5496
												BdyyyN 5497
												BdyyyN 5498
												BdyyyN 5499
DIVISION OF RESPIRATORY DISEASE STUDIES												C N 5501
												C N 5502
13. Implementation of Image Analysis of Chest X-Rays (Hankinson J 304-599-7755)(100/VCC-Nmn-218)	82	82										CcmnyN 5504
												CcmnyN 5505
												CcmnyN 5506
.1 Complete final report on research study				o								CcmnyN 5507
.2 Complete optimization of system software					o							CcmnyN 5508
.3 Complete development of system implementation evaluation protocol						o						CcmnyN 5509
.4 Begin evaluation of system with sample of film received by NIOSH						o						CcmnyN 5510
.5 Complete report on evaluation of system using subset of films received by NIOSH						o						CcmnyN 5511
												CcmnyN 5512
												CcmnyN 5513
							o					CcmnyN 5514
												CcmnyN 5515



## INSTRUMENT/METHODS DEVELOPMENT

Monitoring of the workplace environment represents one of the fundamental principles in the conduct of a successful preventive health program in the workplace. Of the thousands of chemicals being used by industry only 25 percent have established sampling and analytical methods that are validated at the recognized safe occupational exposure level. Now technology continues to be used to develop new devices and techniques that need to be investigated and evaluated before they are introduced into the industrial hygiene community. This program conducts research to develop new sampling and analytical methods as well as direct reading instruments for use in measuring potential contaminants in the workplace. This research has no direct role in intervention, but results in a tool that can be used by others to initiate intervention.

### Division of Biomedical and Behavioral Sciences

DBBS applies toxicokinetics to develop toxicologic methods for evaluating individual worker exposures. Biological monitoring methods are developed at the request of other NIOSH divisions in support of field research studies, as well as for DBBS research investigations. In FY 1981 methods were developed for a number of organic compounds, including aromatic amines, organic acids, and metabolites of styrene and MOCA in urine. Methods also have been developed for organic compounds such as pentachlorophenol in plasma or blood. Similar efforts will continue in FY 1982.

Instruments are developed as needed for measurement of the physiological effects of work conditions or for measuring the exposure condition itself. In FY 1981 instruments were designed and patented to measure the loss of fingertip sensitivity in workers with vibration disease.

### Division of Physical Sciences and Engineering

DPSE develops and validates sampling and analytic methods in support of NIOSH field studies and in response to requests from other agencies. DPSE proposes to expand monitoring strategy techniques and evaluate contemporary instruments with NIOSH base funds. Portable analytical instruments that can make in situ determinations of pollutants will be a powerful aid in field studies related to chemical dumps, toxic wastes, petrochemical industries, etc.

Because of the ever-increasing recognition of the complexity of exposure and the need for more detailed data, the method-development aspects of our work must be emphasized. The advances in passive dosimetry and sophisticated electronic equipment require that we keep pace with the state of the art.

### Division of Respiratory Disease Studies

Current techniques for measuring respiratory mechanics require considerable subject cooperation and effort and are insensitive to early changes, or require complex techniques and equipment and have large variability. DRDS will evaluate the technique of measuring pulmonary mechanics parameters using forced random noise oscillations for the potential use of this new technique in the investigation of occupational lung diseases, particularly in workers with industrial bronchitis. Potential advantages of this technique include the portability and simplicity of the equipment, the short duration of the test (about 20 seconds), and the requirement of less subject cooperation.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF \$1000	TF \$1000
*****INSTRUMENT/METHODS DEVELOPMENT*****												U 5519
												U 5520
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE												A U 5521
												A U 5522
1. Emergency Toxicological Assessment (W. Moorman, 684-8275) (1.5/12.0/55.0)(100/V00-Uyy-314)	82	83							U	c	a	AcyyyU 5524
.1 Conduct peer review			o									AcyyyU 5525
.2 Submit progress report to Director, DBBS			o	o	o	o						AcyyyU 5526
.3 Submit Hazard Data Sheets to O.D., DBBS				o								AcyyyU 5527
.4 Initiate animal exposures				o								AcyyyU 5528
.5 Complete animal exposures (1Q83)												AcyyyU 5529
.6 Complete pathology evaluations (2Q83)												AcyyyU 5530
.7 Submit final report to Director, DBBS (3Q83)												AcyyyU 5531
.8 Submit abstract to Director, NIOSH (3Q83)												AcyyyU 5532
.9 Submit project records to Q.A. Unit, DBBS (3Q83)												AcyyyU 5533
												AcyyyU 5534
												AcyyyU 5535
												AcyyyU 5536
2. Clinical-Biochemical Support Service (L. Lowry, 684-8338) (100/VOT-Uyy-389)	82	C							U	c	a	AdyyyU 5539
.1 Complete standard operating procedures for commonly used methods			o									AdyyyU 5540
.2 Complete analyses:												AdyyyU 5541
a. Per quarter, 85% of DBBS in-house research samples from experimental animals (approx. 1275/Q)			o	o	o	o						AdyyyU 5542
b. Per quarter, 80% of DBBS in-house research samples from human subjects (approx. 160/Q)			o	o	o	o						AdyyyU 5543
c. Per quarter, 80% of samples from human field research studies (approx. 160/Q)			o	o	o	o						AdyyyU 5544
.3 Perform radioisotope monitoring, research support and radioimmunoassay support services												AdyyyU 5545
a. Monitoring (safety)			o	o	o	o						AdyyyU 5546
b. Research support.			o	o	o	o						AdyyyU 5547
c. Radioimmunoassay			o	o	o	o						AdyyyU 5548
.4 Develop biological monitoring methods as requested by NIOSH research divisions												AdyyyU 5549
a. Glycol ether urine metabolites			o									AdyyyU 5550
b. Other methods as required				o	o	o						AdyyyU 5551
c. Submit developed methods for publication					o	o						AdyyyU 5552
.5 Provide professional consultation			o	o	o	o						AdyyyU 5553
.6 Submit progress report to Director, DBBS			o	o	o	o						AdyyyU 5554
.7 Submit final project report to Director, DBBS												AdyyyU 5555
.8 Submit abstract to Director, NIOSH												AdyyyU 5556
												AdyyyU 5557
												AdyyyU 5558
												AdyyyU 5559
												AdyyyU 5560
												AdyyyU 5561
												AdyyyU 5562
												AdyyyU 5563
												AdyyyU 5564
												AdyyyU 5565

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
DIVISION OF PHYSICAL SCIENCES AND ENGINEERING												
3. Monitoring Methods for Aldehydes (E. Kennedy 684-4259) (.3/5/15)(100/VQU-Uyu-484)	82	83							U	c	a	
.1 Complete stability and capacity tests				o								B U 5568
.2 Complete evaluation of method						o						B U 5569
.3 Submit method to editor, "NIOSH Manual of Analytical Methods" (1Q83)												BcyuiU 5570
												BcyuiU 5571
												BcyuiU 5572
												BcyuiU 5573
												BcyuiU 5574
												BcyuiU 5575
												BcyuiU 5576
												BcyuiU 5577
4. Inorganic Chemical Speciation (T. Carsey, 684-4272) (100/VQU-UpN-489)	82	82							U	c	a	
.1 PbO/PbS speciation												BcpNyU 5580
a. Complete method validation report					o							BcpNyU 5581
b. Submit final report to Director, DPSE						o						BcpNyU 5582
.2 Vanadium compound chemical speciation												BcpNyU 5583
a. Complete generation and recovery report					o							BcpNyU 5584
b. Submit final report to Director, DPSE						o						BcpNyU 5585
.3 Copper fume/dust speciation												BcpNyU 5586
a. Complete set-up of sample generation system				o								BcpNyU 5587
b. Complete analytical procedure					o							BcpNyU 5588
c. Submit final report to Director, DPSE						o						BcpNyU 5589
												BcpNyU 5590
												BcpNyU 5591
												BcpNyU 5592
												BcpNyU 5593
5. Inorganic Methods Development (D. Taylor, 684-4271) (VQU-iNt-433)(100/VQU-UNE-433)	79	82							U	b	a	
.1 Sampling and analytical method for determination of organic tin compounds (210-80-0066)												BcNeyU 5596
a. Submit final report to Director, NIOSH					o							BcNeyU 5597
.2 Development of sampling and analytical methods for chlorine, chlorine dioxide, and bromine (#210-80-0067)												BcNeyU 5598
a. Submit final report to Director, NIOSH												BcNeyU 5599
.3 Submit camera copy to printing management to publish Volume 8 "NIOSH Manual of Analytical Methods"												BcNeyU 5600
												BcNeyU 5601
												BcNeyU 5602
												BcNeyU 5603
												BcNeyU 5604
												BcNeyU 5605
												BcNeyU 5606
												BcNeyU 5607



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
10. Develop Certification Criteria for Mine Dust Samplers (J. Bowman 684-4430)(VQX-gNp-436)(100/VQX-UNm-436)	79	82					U	b	b			
.1 Validation of Certification Tests												
a. Transmit samplers to DSR for collaborative testing				o								BdNmyU 5663
b. Analyze results of DSR collaborative test						o						BdNmyU 5664
.2 Characterize Pump Fluctuations on Sampler Performance												BdNmyU 5665
a. Measure flow patterns of three (3) pump brands					o							BdNmyU 5666
b. Transmit recommendations to Director, DPSE						o						BdNmyU 5667
												BdNmyU 5668
												BdNmyU 5669
												BdNmyU 5670
												BdNmyU 5671
												BdNmyU 5672
11. Monitoring and Sampling Strategies for Coal Mine Dust (J. Bowman 684-4430)(VQX-hNp-450)(100/VQX-UNm-450)	81	82					U	c	a			
.1 Develop Sampling Strategies												
a. Present paper on "Sampling Strategies for Coal Mine Dust" at Int'l Symposium on Aerosols				o								BdNmnU 5675
b. Recommend new sampling strategies to Director, NIOSH for transmission to MSHA									o			BdNmnU 5676
.2 Transmit recommendations for worker participation policies and research to Director, NIOSH					o							BdNmnU 5677
												BdNmnU 5678
												BdNmnU 5679
												BdNmnU 5680
												BdNmnU 5681
												BdNmnU 5682
												BdNmnU 5683
												BdNmnU 5684
												BdNmnU 5685

## DISSEMINATE OCCUPATIONAL SAFETY AND HEALTH FINDINGS AND RECOMMENDATIONS

NIOSH's goal, to disseminate findings and recommendations on occupational safety and health problems, is NIOSH's process to develop scientific policy for preventing occupational hazards. NIOSH scientists disseminate findings by recommending governmental actions (recommend standards), or informing the public of identified problems and their solutions (research reports), or providing benefits (health hazard evaluations). Transferring information into private and public organizations through education, conferences, and joint action (governmental, management, and labor) is an integral link in the dissemination process so as to ensure prevention of identified problems on a much broader front than NIOSH has resources to accomplish. The following long-range objectives for the Nation are considered under this goal:

1. By 1985, 50 percent of all employers with more than 500 employees should have an approved plan of hazard control for all new processes, new equipment, and new installations. (Baseline data unavailable.)
2. By 1990, all employers with more than 500 employees should have an approved plan of hazard control for all new processes, new equipment, and new installations. (Baseline data unavailable.)
3. By 1985, workers should be routinely informed of lifestyle behaviors and health factors that interact with factors in the work environment to increase risks of occupational illness and injuries. (Baseline data unavailable.)
4. By 1985, all workers should receive routine notification in a timely manner of all health examinations or personal exposure measurements taken on work environments directly related to them. (Baseline data unavailable.)
5. By 1990, at least 25 percent of workers should be able, prior to employment, to state the nature of their occupational health and safety risks and their potential consequences, as well as to be informed of changes in these risks while employed. (In 1979, an estimated 5 percent of workers were fully informed.)
6. By 1990, all industrial managers should be fully informed about the importance of and methods for controlling human exposure to the important toxic agents in their work environments. (Baseline data unavailable.)

7. By 1990, at least 70 percent of primary health care providers should routinely elicit occupational health exposures as part of a patient's history and should know how to interpret the information to patients in an understandable manner. (Baseline data unavailable.)
8. By 1990, at least 70 percent of all graduate engineers should be skilled in the design of plants and processes that incorporate occupational safety and health control technologies. (Baseline data unavailable.)
9. By 1990, generic standards and other forms of technology transfer should be established, where possible, for standardized employer attention to such major common problems as chronic lung hazards, neurological hazards, carcinogenic hazards, mutagenic hazards, and teratogenic hazards, and medical monitoring requirements.

And the following FY 1982 objectives requested by DOL's NIOSH Planning Group also are considered under this goal:

First-Order Priority

1. Provide, to OSHA, information to support the issuance of standards for repetitive-motion injuries.
2. Initiate generic criteria document development, for OSHA, in high-priority industries such as pharmaceuticals (Standard Industrial Classification 283), paper (SIC 26), photo processing (SIC 7395), arts and graphics (SIC 7333), printing (SIC 27), petrochemicals (refining - SIC 2911), and laboratories.
3. Provide, to ESA, criteria for setting standards for workers' compensation on the causation and diagnosis of significant occupational diseases such as asbestosis, bysinosis, silicosis, beryllium, cadmium, and arsenic.

Second-Order Priority

4. Initiate or revise and update, for OSHA, substance-specific criteria documents on n-hexane, chlorine, formaldehyde, perchlorethylene, aromatic amines, chlorinated naphthalenes, and chlorinated paraffins.



## INFORMATION DISSEMINATION/DOCUMENT DEVELOPMENT

This is a continuing program area for NIOSH, and all the offices/divisions are involved. It is necessitated by the Institute's statutory mandates to conduct research, evaluate occupational hazards, and develop criteria that can serve as a basis for OSHA's and MSHA's regulatory activities. Inherent in these functions is the need to disseminate findings, conclusions, and recommendations. With the reduction in regulatory activities by DOL, improvement in the general state of OSH practice is, to a great extent, dependent upon voluntary action, which in turn is fostered by the availability of scientifically credible information and recommendations. These need to be made available to workers directly and to others who have responsibilities for improving workplace safety and health. Projects in this program area will focus on (1) ensuring scientific and technical quality, (2) improving methods for setting priorities, (3) expanding the audience by diversifying the types and formats of informational products, and (4) developing more efficient dissemination strategies. The results of the various Institute research efforts, from all the research divisions, are made available to the general and professional publics through publication in appropriate professional journals and government reports, and in public presentations. These output documents also include the reports resulting from the HHE programs maintained by both DSHEFS and DRDS.

In FY 1982 (and subsequent years), the DSHEFS dissemination program should continue at about the same level of output or increase slightly. In addition, beginning in FY 1982, DSHEFS will be publishing a new series of Surveillance Reports containing information on high-risk industries and occupations, four to six of which will be published each year. Each will be directed to a specific target audience (government, industry, labor, academic decision makers) depending on the nature of the hazards/health effects identified.

### Division of Standards Development and Technology Transfer

In performing its standards development and technology transfer functions, DSDTT touches upon most of the Institute's program areas. Documents developed by the Division incorporate assessments of occupational hazard by performing literature research in the program areas of physical agents, injury/trauma, cancer, reproductive hazards, neurotoxic effects, and disorders of all the major body systems. Recommendations for the control of these occupational hazards require literature research and assessments of control systems, respirators, and other personal protective equipment. DSDTT contributes to surveillance activities through its project which provides response to external requests. It also contributes to work force development by training ERC personnel in computer data-base searching techniques and by providing technical assistance and publications support.

DSDTT will maintain the Institute's information acquisition and storage systems, including the computer data bases and the libraries. Information will be disseminated through publications (e.g., criteria documents, technical reports, HHE summaries and reports), exhibits, and direct responses to requests for technical information and computer searches. Planned changes in specific services include the following:

1. The RTECS Editorial Review Board will suggest new formats so that RTECS can be used by a wider audience.
2. The Toxic Substance List for Mines will be integrated into the RTECS activity.
3. Wider accessibility to NIOSHTIC will be encouraged through licenses with data-base vendors via the National Technical Information Service, U.S. Department of Commerce.
4. A unified procurement policy for all libraries will be developed.
5. Information dissemination strategies will be reviewed to achieve greater efficiencies.

DSDTT proposes to improve development of documents by a combination of organizational and programmatic changes:

1. DSDTT will merge all document production under one branch and simultaneously create sections of the branch in Morgantown and Cincinnati. The Morgantown section will emphasize documents relating to safety and mining. The trend toward diversification of documents would be maintained and none of these documents would conform to a rigid format formerly employed in the production of criteria documents. A primary output of the Division will be criteria documents that are comprehensive assessments of occupational hazards with recommended methods for control. These documents will be usable by OSHA and MSHA for regulatory activities and by the workers and safety and health professionals who have responsibilities involving workplace hazard control. The Division also will produce other types of publications and reports that convey important scientific and technical information in formats designed specifically for an intended audience.
2. The Priorities and Research Analysis Branch will take on significantly expanded activities. In addition to recommending priorities for document development, it will make recommendations for Institute research where research gaps are identified and explore new programs in the area of emerging technologies. It also will add quantitative risk assessment to its research analysis function.

### Division of Surveillance, Hazard Evaluations, and Field Studies

In FY 1981 DSHEFS undertook a variety of efforts to actively disseminate the results of its field investigations to professionals in the OSH field and to appropriate employers and employees. Such efforts included (1) submission of over 300 reports on completed industrial hygiene and medical studies (i.e., individual plant HHE and industrywide study reports) to NTIS; (2) publication of four NIOSH technical reports, with three in press; (3) publication of 40 articles in technical journals, with 40 in press; (4) publication of 10 articles in CDC's MMWR; (5) publication of two HHE Program Summaries (summarizing the results of 66 recently completed HHEs); (6) publication of two articles in industry/labor trade journals describing hazards found and means for reducing the hazards; (7) providing 180 reports to requesters of information regarding potentially hazardous industries or agents identified in NOHS-I; and (8) giving 60 presentations pertaining to the results of DSHEFS studies before technical, academic, and professional groups.

### Division of Safety Research

The DSR activities in comprehensive safety recommendation documents will be changed to keep abreast of current research demands. Documents currently being developed will provide the best available technology for voluntary efforts to minimize the risk of injuries in the workplace.

DSR plans to take computer-stored information on worker compensation injuries, analyze it, and package it into reports that will be meaningful for public health officials, researchers, professional associations, and industry/occupation interest groups. DSR, in conjunction with DSDTT, also plans to publish comprehensive recommendations for the control of hazards in industrial processes.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED	COMPLETION	O C N	P M F	R E U	RESOURCES											
							I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
																	\$1000	\$1000
*****INFORMATION DISSEMINATION/DOCUMENT DEVELOPMENT*****																		
DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES																		
1. Information Dissemination Models for High Risk Groups (Dave Sundin 513-684-2706) (100/VMO-Hyy-619)	81	82															H 5689	
																	H 5690	
																	D 5691	
																	D 5692	
																	DeyyyH 5694	
																	DeyyyH 5695	
																	DeyyyH 5696	
																	DeyyyH 5697	
																	DeyyyH 5698	
																	DeyyyH 5699	
																	DeyyyH 5700	
																	DeyyyH 5701	
																	DeyyyH 5702	
																	DeyyyH 5703	
																	DeyyyH 5704	
																	DeyyyH 5705	
																	DeyyyH 5706	
																	DeyyyH 5707	
																	DeyyyH 5708	
																	DeyyyH 5709	
																	DeyyyH 5710	
																	DeyyyH 5713	
																	DeyyyH 5714	
																	DeyyyH 5715	
																	DeyyyH 5716	
																	DeyyyH 5717	
																	DeyyyH 5718	
																	DeyyyH 5719	
																	DeyyyH 5720	
																	DeyyyH 5723	
																	DeyyyH 5724	
																	DeyyyH 5725	
																	DeyyyH 5726	
																	DeyyyH 5727	
																	DeyyyH 5728	
																	DeyyyH 5729	
																	DeyyyH 5730	
																	DeyyyH 5731	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
DIVISION OF SAFETY RESEARCH												
4. Ongoing Safety Criteria Documents (Pettit 923-7574) (VLF-mbN-842)(5.0/933.0/1083.0)(VEc-HyN-842)	81	85							H	b	a	E H 5734
.1 Oil and Gas Document												E H 5735
a. Conduct external review meeting			o									EcyNyH 5736
b. Conduct Division review meeting				o								EcyNyH 5737
c. Conduct Director's review meeting					o							EcyNyH 5738
d. Final deliverable						o						EcyNyH 5739
.2 Pre-Cast Concrete Document												EcyNyH 5740
a. Conduct external review meeting				o								EcyNyH 5741
b. Conduct Division review meeting				o								EcyNyH 5742
c. Conduct Director's review meeting					o							EcyNyH 5743
d. Final deliverable						o						EcyNyH 5744
.3 Fabricated Metals Document												EcyNyH 5745
a. Conduct project officer review meeting			o									EcyNyH 5746
b. Conduct external review meeting				o								EcyNyH 5747
c. Conduct Division review meeting					o							EcyNyH 5748
d. Conduct Director's review meeting						o						EcyNyH 5749
e. Final deliverable						o						EcyNyH 5750
.4 Establish list of candidate subjects for new documents			o									EcyNyH 5751
.5 Coordinate meeting w/OSHA, DCDS AND DSR - analyze data on candidates			o									EcyNyH 5752
.6 Select 3 subjects				o								EcyNyH 5753
.7 Develop RFP - Submit/OAMS				o								EcyNyH 5754
.8 Award contract (1Q83)												EcyNyH 5755
.9 Identify documents with safety impact for DSR			1	2	3							EcyNyH 5756
in-house effort -- coordinate with DCDS/other divisions (roofing, welding, etc.)												EcyNyH 5757
												EcyNyH 5758
												EcyNyH 5759
												EcyNyH 5760
												EcyNyH 5761
												EcyNyH 5762
												EcyNyH 5763
												EcyNyH 5764



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	R E U			NPF	TF	
							O	C	N			
							G	H	D	PY	\$1000	\$1000
6. Relationship of Worker Casualties to Fire Protection Strategies (Bochnak 923-7574) (VLF-nby-848)(0.8/25.0/49.0)(100/VEc-Hyy-848)	81	82						H	a	a		
.1 Meetings at USFA and other sites			I	2	3	4					EcyyyH	5807
.2 Report meeting results			1	2	3	4					EcyyyH	5808
.3 Identify computer outputs for analysis with USFA assistance (4Q81)											EcyyyH	5809
.4 Access data with USFA assistance											EcyyyH	5810
.5 Review raw data			o								EcyyyH	5811
.6 Develop study design for analysis and coordinate with SSB			o								EcyyyH	5812
.7 Analyze data and coordinate with SSB				o							EcyyyH	5813
.8 Draft final report								o			EcyyyH	5814
.9 Critique and coordinate results of final report with SSB and USFA								o			EcyyyH	5815
.10 Final report								o			EcyyyH	5816
.11 Critique and approve final report								o			EcyyyH	5817
.12 Publish report (1Q83)								o			EcyyyH	5818
											EcyyyH	5819
											EcyyyH	5820
											EcyyyH	5821
											EcyyyH	5822
											EcyyyH	5823
											EcyyyH	5824
											EcyyyH	5825
7. Safety Information Profiles (Pettit 923-7574) (VLF-nbN-844)(100/VEc-HyN-844)	80	82							H	b	a	
Initiate coordination meetings NIOSH Divisions/OSHA			2								EcyNyH	5828
.2 Determine criteria for selection of profile candidates, and report to DSR Director NIOSH/OSHA			o								EcyNyH	5829
.3 Evaluate profile candidates - DSR/DCDSD			o								EcyNyH	5830
.4 Data analysis/candidates - SSB/DSR			o								EcyNyH	5831
.5 Selection of profile subjects with approval of Directors, DSR/DCDSD				o							EcyNyH	5832
.6 Draft profiles submitted to DCSD, OD, DPSE, and external peer reviewers for review and comment					o	o					EcyNyH	5833
.7 Final profiles submitted to Director, DSR								o			EcyNyH	5834
											EcyNyH	5835
											EcyNyH	5836
											EcyNyH	5837
											EcyNyH	5838
											EcyNyH	5839
											EcyNyH	5840

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000	
8. General Industries Applications of Mine Safety Technology (Stanevich 599-7574) (2.0/55.0/115.0)(100/VEc-Hyy-804)	81	83					H g a					
.1 Meet with MSHA; develop scope of interagency agreement			o	o								EcyyyH 5843
.2 Coordination with DRDS and DCOSD			o		o							EcyyyH 5844
.3 Training of DSR staff			o		o	o						EcyyyH 5845
.4 Site visits												EcyyyH 5846
a. Surface and underground mines				o	o	o						EcyyyH 5847
b. Mine safety research centers				o	o							EcyyyH 5848
c. University laboratories			o	o	o	o						EcyyyH 5849
.5 Study protocol submitted to DSR review				o								EcyyyH 5850
.6 Study protocol submitted to Peer Review				o								EcyyyH 5851
.7 Interagency and other clearances obtained from CDC				o								EcyyyH 5852
.8 Award Interagency Agreement				o								EcyyyH 5853
.9 Phase I report on identification of problem areas, correlation of mine hazards with general industries, and summary of mine safety technology successes												EcyyyH 5854
a. Submit for DSR review							o					EcyyyH 5855
b. Peer and consultant review							o					EcyyyH 5856
c. Submit for publication (3Q83)												EcyyyH 5857
.10 Phase II report on recommendations for applications to general industry safety and design of studies and/or methodologies for demonstration projects in general industries												EcyyyH 5858
a. Submit for DSR review (1Q83)												EcyyyH 5859
b. Peer and consultant review (2Q83)												EcyyyH 5860
c. Submit for publication (3Q83)												EcyyyH 5861
												EcyyyH 5862
												EcyyyH 5863
												EcyyyH 5864
												EcyyyH 5865
												EcyyyH 5866
												EcyyyH 5867
												EcyyyH 5868
												EcyyyH 5869
												EcyyyH 5870



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F				RESOURCES			
	I C		PLANNED		COMPLETION				O C N	NPF	TF	
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
9. Effects of Safety Tasks on Injury Rates (Simons 923-7574) (1.0/2.5/32.5)(100/VEc-Hyy-805)	80	83					H	b	a			
.1 Send questionnaire for peer review			o								EcyyyH	5873
.2 Peer review of statistical analysis techniques			o								EcyyyH	5874
.3 RFC to Contracts			o								EcyyyH	5875
.4 Computer programming packages selected				o							EcyyyH	5876
.5 Computer programming completed				o							EcyyyH	5877
.6 Award contract					o						EcyyyH	5878
.7 Monthly reports received						1		4			EcyyyH	5879
.8 OMB clearance obtained								o			EcyyyH	5880
.9 Questionnaire mailing								o			EcyyyH	5881
.10 Second mailing of questionnaires to nonrespondents (1Q83)											EcyyyH	5882
.11 Receipt of final tabulation or results (2Q83)											EcyyyH	5883
.12 Close of contract (2Q83)											EcyyyH	5884
.13 Completion of initial analysis (2Q83)											EcyyyH	5885
.14 Computer program revised (if necessary) (2Q83)											EcyyyH	5886
.15 Review of report - first draft (3Q83)											EcyyyH	5887
.16 Final report complete (4Q83).											EcyyyH	5888
											EcyyyH	5889
											EcyyyH	5890
											EcyyyH	5891
											EcyyyH	5892
10. Field Demonstration-Recommended Safety Practices-Confined Spaces (Pattit 923-7574) (2.0/300.0/360.0)(100/VEc-Hyy-846)	80	84					H	b	a			
.1 Receipt of proposed course content & performance objectives (Task Order deliverable)			o								EcyyyH	5895
.2 Peer Review of task order deliverable by DSR & DTMD			o								EcyyyH	5896
.3 Meeting between Project Reactor Group (industry and labor supporters) and NIOSH to define extent of interest in participating in study			o								EcyyyH	5897
.4 Submit draft RFC for field demonstration for peer review - DSR, NIOSH Divisions, external			o								EcyyyH	5898
.5 Submit request for funding study through NIOSH planning channels			o								EcyyyH	5899
.6 Submit RFC to OAMS				o							EcyyyH	5900
.7 Award contract						o					EcyyyH	5901
											EcyyyH	5902
											EcyyyH	5903
											EcyyyH	5904
											EcyyyH	5905
											EcyyyH	5906
											EcyyyH	5907
											EcyyyH	5908
											EcyyyH	5909
											EcyyyH	5910

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											O	C
8. General Industries Applications of Mine Safety Technology (Stanevich 599-7574) (2.0/55.0/115.0)(100/VEc-Hyy-804)	81	83					H	g	a			
.1 Meet with MSHA; develop scope of interagency agreement			o	o							E	5843
.2 Coordination with DRDS and DCOSD			o		o						E	5844
.3 Training of DSR staff			o		o	o					E	5845
.4 Site visits											E	5846
a. Surface and underground mines				o	o	o					E	5847
b. Mine safety research centers				o	o						E	5848
c. University laboratories			o	o	o	o					E	5849
.5 Study protocol submitted to DSR review				o							E	5850
.6 Study protocol submitted to Peer Review				o							E	5851
.7 Interagency and other clearances obtained from CDC				o							E	5852
.8 Award Interagency Agreement				o							E	5853
.9 Phase I report on identification of problem areas, correlation of mine hazards with general industries, and summary of mine safety technology successes											E	5854
a. Submit for DSR review								o			E	5855
b. Peer and consultant review								o			E	5856
c. Submit for publication (3Q83)											E	5857
.10 Phase II report on recommendations for applications to general industry safety and design of studies and/or methodologies for demonstration projects in general industries											E	5858
a. Submit for DSR review (1Q83)											E	5859
b. Peer and consultant review (2Q83)											E	5860
c. Submit for publication (3Q83)											E	5861
											E	5862
											E	5863
											E	5864
											E	5865
											E	5866
											E	5867
											E	5868
											E	5869
											E	5870

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF	
							G	H	D	PY	\$1000	\$1000
9. Effects of Safety Tasks on Injury Rates (Simons 923-7574) (1.0/2.5/32.5)(100/VEc-Hyy-805)	80	83					H	b	a			
.1 Send questionnaire for peer review			o							EcyyyH	5873	
.2 Peer review of statistical analysis techniques			o							EcyyyH	5874	
.3 RFC to Contracts			o							EcyyyH	5875	
.4 Computer programming packages selected				o						EcyyyH	5876	
.5 Computer programming completed				o						EcyyyH	5877	
.6 Award contract					o					EcyyyH	5878	
.7 Monthly reports received						1		4		EcyyyH	5879	
.8 OMB clearance obtained								o		EcyyyH	5880	
.9 Questionnaire mailing								o		EcyyyH	5881	
.10 Second mailing of questionnaires to nonrespondents (1Q83)										EcyyyH	5882	
.11 Receipt of final tabulation or results (2Q83)										EcyyyH	5883	
.12 Close of contract (2Q83)										EcyyyH	5884	
.13 Completion of initial analysis (2Q83)										EcyyyH	5885	
.14 Computer program revised (if necessary) (2Q83)										EcyyyH	5886	
.15 Review of report - first draft (3Q83)										EcyyyH	5887	
.16 Final report complete (4Q83).										EcyyyH	5888	
										EcyyyH	5889	
										EcyyyH	5890	
										EcyyyH	5891	
										EcyyyH	5892	
10. Field Demonstration-Recommended Safety Practices-Confined Spaces (Pettit 923-7574) (2.0/300.0/360.0)(100/VEc-Hyy-846)	80	84					H	b	a			
.1 Receipt of proposed course content & performance objectives (Task Order deliverable)			o							EcyyyH	5895	
.2 Peer Review of task order deliverable by DSR & DTMD			o							EcyyyH	5896	
.3 Meeting between Project Reactor Group (industry and labor supporters) and NIOSH to define extent of interest in participating in study			o							EcyyyH	5897	
.4 Submit draft RFC for field demonstration for peer review - DSR, NIOSH Divisions, external			o							EcyyyH	5898	
.5 Submit request for funding study through NIOSH planning channels			o							EcyyyH	5899	
.6 Submit RFC to OAMS				o						EcyyyH	5900	
.7 Award contract						o				EcyyyH	5901	
										EcyyyH	5902	
										EcyyyH	5903	
										EcyyyH	5904	
										EcyyyH	5905	
										EcyyyH	5906	
										EcyyyH	5907	
										EcyyyH	5908	
										EcyyyH	5909	
										EcyyyH	5910	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U O C N G H D	RESOURCES	
		1Q	2Q	3Q	4Q			NPF	TF
				\$1000	\$1000				
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS								F H	5913
								F H	5914
11. International Activities (Bursenos, 443-3136) (VCA-nXy-878) (1.5/0.4/0.473) (100/VCA-Hyy-878)	71 C					H f a		FFyyyH	5915
								FFyyyH	5916
								FFyyyH	5917
.1 Arrange for second U.S.-Finnish Scientific Symposium scheduled to be held in Finland								FFyyyH	5918
a. Receive NIOSH abstracts and form committee to select appropriate papers			o					FFyyyH	5919
b. Finalize agenda			o					FFyyyH	5920
c. Finalize abstracts of NIOSH presentations				o				FFyyyH	5921
d. Coordinate travel arrangements for NIOSH participants				o				FFyyyH	5922
e. Receive final texts of NIOSH presentations				o				FFyyyH	5923
f. Hold symposium					o			FFyyyH	5924
g. Publish Proceedings						o		FFyyyH	5925
.2 Complete agreement with ILO, UNEP and WHO for NIOSH support to the International Programme on Chemical Safety			o					FFyyyH	5926
.3 Cooperative Agreement with WHO Programme of Action for Workers' Health								FFyyyH	5927
a. Coordinate activities in WHO/NIOSH Workplan for period July 1981 to June 1982			o	o	o	o		FFyyyH	5928
b. Receive annual report of progress from WHO					o			FFyyyH	5929
c. Project Officer site visit and development of 1982-1983 Workplan					o			FFyyyH	5930
.4 Initiate and negotiate Memorandum of Understanding with Swedish Work Environment Fund			o					FFyyyH	5931
.5 PL-480 Research Projects								FFyyyH	5932
a. Number of projects completed			1	2	4			FFyyyH	5933
b. Number of final reports received including projects completed last year			1	2	3	5		FFyyyH	5934
c. Number of abstracts received from NIOSH Project Officers and transmitted to NIOSH Director one month after receipt of final report				1	2	3		FFyyyH	5935
.6 Coordinate completion of occupational safety and health portion of U.S.-China Bilateral Agreement for Health Cooperation								FFyyyH	5936
a. Meet with Director, NIOSH and Director, DRDS to discuss NIOSH activities under the Agreement			o					FFyyyH	5937
b. Arrange for U.S. delegation to China to negotiate work- plan to present to U.S.-China Joint Committee				o				FFyyyH	5938
c. Participate in U.S.-China Joint Committee Meeting					o			FFyyyH	5939
.7 Coordinate implementation of occupational safety and health portion of U.S.-Polish Agreement								FFyyyH	5940
a. Arrange for assignment of scientists from DBBS to Institutes of Occupational Medicine in Lodz and Sosnowiec				o				FFyyyH	5941
								FFyyyH	5942
								FFyyyH	5943
								FFyyyH	5944
								FFyyyH	5945
								FFyyyH	5946
								FFyyyH	5947
								FFyyyH	5948
								FFyyyH	5949
								FFyyyH	5950
								FFyyyH	5951
								FFyyyH	5952
								FFyyyH	5953
								FFyyyH	5954
								FFyyyH	5955
								FFyyyH	5956
								FFyyyH	5957
								FFyyyH	5958

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N			RESOURCES			
	FY	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
	I C								\$1000	\$1000	
b. Arrange for assignment of scientists from Poland to NIOSH			o								FFyyyH 5959
											FFyyyH 5960
.8 Arrange visits for foreign visitors and delegations to NIOSH with appropriate staff in Atlanta, Morgantown, and/or Cincinnati		o	o	o	o						FFyyyH 5961
											FFyyyH 5962
.9 Attend meetings at PHS level in preparation for Joint Committee Meetings under bilateral agreements with Poland, Yugoslavia, USSR, Egypt, China, Nigeria and Mexico		o	o	o	o						FFyyyH 5963
											FFyyyH 5964
10 Update paper on "Current State of NIOSH International Activities"				o							FFyyyH 5965
											FFyyyH 5966
11 Submit FY 1983 Travel Plan to CDC						o					FFyyyH 5967
											FFyyyH 5968
12 Update accession list of final reports and publications from PL-480 research						o					FFyyyH 5969
											FFyyyH 5970
13 Develop white paper on coordination of OSH activities in developing countries with overall CDC public health activities in developing countries for FY 1983					o						FFyyyH 5971
											FFyyyH 5972
											FFyyyH 5973
											FFyyyH 5974
											FFyyyH 5975

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U O C N G H D	RESOURCES	
		1Q	2Q	3Q	4Q			PY	TF
								\$1000	\$1000
12. Occupational Health and Medical Care (Casey, 443-4770) (VCA-uXy-880) (2.7/0.200/0.282) (100/VCA-Hyy-880)	79	C					H c a		
.1 NHSC Activities								FFyyyH	5978
a. Meet quarterly with NHSC Project Officer			o	o	o	o		FFyyyH	5979
b. Provide orientation of occupational safety and health for new head, BHPDS and NHSC			o					FFyyyH	5981
c. Participate in 4 Regional Inservice Conferences					o			FFyyyH	5982
d. Participate in 4 NHSC orientation conferences					o			FFyyyH	5983
e. Promote attendance of NHSC physicians at Occupational Medicine Course in Atlanta in November			o					FFyyyH	5984
f. Write 2 articles for Notes on Occupational Safety and Health			o		o			FFyyyH	5985
.2 Private Occupational Health Services Delivery								FFyyyH	5986
a. Meet or talk quarterly with OHMO, GHAA, AGPA, and SBA			o	o	o	o		FFyyyH	5987
b. Determine with OHMO five additional HMOs which would be good candidates for an OS&H program			o					FFyyyH	5988
c. Contact 5 additional identified HMOs to offer technical assistance and occupational health orientation			2	5				FFyyyH	5989
d. Develop news articles for OHMO monthly publications								FFyyyH	5990
.01 HMOs and Occupational Health					o			FFyyyH	5991
.02 Occupational Safety and Health in Primary Care Settings					o			FFyyyH	5992
e. Develop Memorandum of Understanding with SBA to explore ways to help small business with OS&H			o					FFyyyH	5993
f. Submit MOU to OPPE				o				FFyyyH	5994
g. Obtain signatures of concurrence on SBA-NIOSH MOU				o				FFyyyH	5995
h. Send two NIOSH speakers to AGPA conference on OS&H in October (at AGPA invitation and expense)			o					FFyyyH	5996
i. Establish liaison with new AGPA section on Occupational Medicine				o				FFyyyH	5997
j. Check various data sources for census of OS&H providers				o				FFyyyH	5998
k. Develop initial list					o			FFyyyH	5999
l. Submit list to AOMA, AMA, etc. for review					o			FFyyyH	6000
m. Finalize list and submit for NIOSH publication (1st Q, FY 1983)					o			FFyyyH	6001
.3 BHS/PHS Activities								FFyyyH	6002
a. Transfer quarterly funds to BMS for PHS Hospital Center			o	o	o	o		FFyyyH	6003
b. Conduct 1 site visit and receive briefing of PHS Hospital Center Activities						o		FFyyyH	6004
c. Receive FY 1981 annual progress report from PHS Hospital Center			o					FFyyyH	6005
d. Receive FY 1981 annual financial report from PHS Hospital Center			o					FFyyyH	6006
.4 Promoting Health - 1990 Objectives								FFyyyH	6007
a. Establish internal NIOSH coordinating committee related				o				FFyyyH	6008
								FFyyyH	6009
								FFyyyH	6010
								FFyyyH	6011
								FFyyyH	6012
								FFyyyH	6013
								FFyyyH	6014
								FFyyyH	6015
								FFyyyH	6016
								FFyyyH	6017
								FFyyyH	6018
								FFyyyH	6019
								FFyyyH	6020
								FFyyyH	6021
								FFyyyH	6022
								FFyyyH	6023

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F		RESOURCES		
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
										G	H

- to the 1990 objectives
- b. Develop list of existing research projects
- c. Review and compare lists for completeness and accuracy
- d. Prepare analysis and report for utilizing existing sources
- e. Contact agencies participating in 1990 objectives
- f. Hold meeting of research agencies to discuss setting up of Interagency Task Force
- g. Submit format and participation agreement to OPPE/OD (1st Q, FY 1983)

FFyyyH	6024
FFyyyH	6025
FFyyyH	6026
FFyyyH	6027
FFyyyH	6028
FFyyyH	6029
FFyyyH	6030
FFyyyH	6031
FFyyyH	6032
FFyyyH	6033
FFyyyH	6034

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				O	C	N	G	H	D	PY	RESOURCES	
				1Q	2Q	3Q	4Q								NPF	TF
															\$1000	\$1000
DIVISION OF STANDARDS DEVELOPMENT AND TECHNOLOGY TRANSFER														G	H	6037
														G	H	6038
13. Development of Criteria and Recommendations--	70	C									H	b	a		GbyyyH	6039
Document Development (D. West 513/684-8302)															GbyyyH	6040
(VID-nNX-077, 078, 088 & 089)(100/VID-Hyy-089)															GbyyyH	6041
.1 RF/Microwave Radiation (CD)															GbyyyH	6042
a. Complete evaluation and review of document references				o											GbyyyH	6043
b. Submit document for 1st level review					o										GbyyyH	6044
c. Submit document for 2nd level review						o									GbyyyH	6045
d. Submit document for 3rd level review							o								GbyyyH	6046
e. Final document submitted to Director, NIOSH								o							GbyyyH	6047
.2 Crystalline Silica (Technical Report)															GbyyyH	6048
a. Submit document for 3rd level review									o						GbyyyH	6049
b. Final document submitted to Director, NIOSH										o					GbyyyH	6050
.3 Dinitrotoluene (CD)															GbyyyH	6051
a. Acquire and evaluate new information															GbyyyH	6052
b. Submit document for 1st level review															GbyyyH	6053
c. Submit document for 2nd level review															GbyyyH	6054
d. Submit document for 3rd level review															GbyyyH	6055
e. Final document submitted to Director, NIOSH															GbyyyH	6056
.4 Styrene (CD)															GbyyyH	6057
a. Acquire and evaluate new information															GbyyyH	6058
b. Submit document for 1st level review															GbyyyH	6059
c. Submit document for 2nd level review															GbyyyH	6060
d. Submit document for 3rd level review															GbyyyH	6061
e. Final document submitted to Director, NIOSH (1Q83)															GbyyyH	6062
.5 Welding, Brazing & Thermal Cutting (CD)															GbyyyH	6063
a. Develop work plan															GbyyyH	6064
b. Acquire and evaluate new information															GbyyyH	6065
c. Submit document for 1st level review															GbyyyH	6066
d. Submit document for 2nd level review															GbyyyH	6067
e. Submit document for 3rd level review															GbyyyH	6068
f. Final document submitted to Director, NIOSH (1Q83)															GbyyyH	6069
.6 Foundries (CD)															GbyyyH	6070
a. Acquire and evaluate new information															GbyyyH	6071
b. Submit document for 1st level review															GbyyyH	6072
c. Submit document for 2nd level review (1Q83)															GbyyyH	6073
d. Submit document for 3rd level review (1Q83)															GbyyyH	6074
e. Final document submitted to Director, NIOSH (2Q83)															GbyyyH	6075
.7 Methyl Halides (CD)															GbyyyH	6076
a. Acquire and evaluate new information															GbyyyH	6077
b. Submit document for 1st level review															GbyyyH	6078
c. Submit document for 2nd level review															GbyyyH	6079
d. Submit document for 3rd level review															GbyyyH	6080
e. Final document submitted to Director, NIOSH															GbyyyH	6081
															GbyyyH	6082



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
		I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
												\$1000	\$1000
.8 Trinitrofluorenone (CIB)												GbyyyH	6083
a. Submit document for 1st level review				o								GbyyyH	6084
b. Submit document for 2nd level review					o							GbyyyH	6085
c. Final document submitted to Director, NIOSH												GbyyyH	6086
.9 Glycol Ethers (CIB)												GbyyyH	6087
a. Submit document for 1st level review				o								GbyyyH	6088
b. Submit document for 2nd level review					o							GbyyyH	6089
c. Final document submitted to Director, NIOSH						o						GbyyyH	6090
.10 Asbestos: Asbestos Exposure During Clutch Assemblies (Technical Report)												GbyyyH	6091
a. Acquire and review new information						o						GbyyyH	6092
b. Submit document for 1st level review							o					GbyyyH	6093
c. Submit document for 2nd level review								o				GbyyyH	6094
d. Final document submitted to Director, NIOSH									o			GbyyyH	6095
.11 Ethylene Dibromide (CIB)												GbyyyH	6096
a. Submit document for 2nd level review				o								GbyyyH	6097
b. Final document submitted to Director, NIOSH					o							GbyyyH	6098
.12 PCB Transformer Fires (Technical Report)												GbyyyH	6099
a. Acquire and evaluate new information				o								GbyyyH	6100
b. Submit document for 1st level review					o							GbyyyH	6101
c. Submit document for 2nd level review						o						GbyyyH	6102
d. Final document submitted to Director, NIOSH							o					GbyyyH	6103
.13 Ethanol Interaction (CIB)												GbyyyH	6104
a. Reassign to new project officer and review prior drafts and literature				o								GbyyyH	6105
b. Prepare final Branch draft					o							GbyyyH	6106
c. Submit for Division review						o						GbyyyH	6107
d. Prepare draft for Director's review							o					GbyyyH	6108
.14 Unidentified CIB												GbyyyH	6109
a. Acquire and evaluate new information						o						GbyyyH	6110
b. Submit document for 1st level review							o					GbyyyH	6111
c. Submit document for 2nd level review								o				GbyyyH	6112
d. Final document submitted to Director, NIOSH									o			GbyyyH	6113
.15 Unidentified CIB												GbyyyH	6114
a. Acquire and evaluate new information						o						GbyyyH	6115
b. Submit document for 1st level review							o					GbyyyH	6116
c. Submit document for 2nd level review								o				GbyyyH	6117
d. Final document submitted to Director, NIOSH									o			GbyyyH	6118
.16 Cobalt (CD)												GbyyyH	6119
a. Final document submitted to Director, NIOSH				o								GbyyyH	6120
.17 Cadmium (CD Update)												GbyyyH	6121
a. Determine document format					o							GbyyyH	6122
b. Complete literature update						o						GbyyyH	6123
c. Submit document for 1st level review							o					GbyyyH	6124
d. Submit document for 2nd level review								o				GbyyyH	6125
e. Submit document for 3rd level review									o			GbyyyH	6126

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES	
	I	C	1Q	2Q	3Q	4Q	R	E	U
							O	C	N
							G <td>H <td>D </td></td>	H <td>D </td>	D
							PY	\$1000	\$1000
f. Final document submitted to Director, NIOSH (1Q83)									
.18 RF Sealers (Worker Information Bulletin)							G	b	y
a. Complete literature review									
b. Submit document for 1st level review									
c. Submit document for 2nd level review									
d. Final document submitted to Director, NIOSH									
.19 Mill Reagents (Information Bulletin)							G	b	y
a. Complete revisions of final Division draft and submit to Director, NIOSH									
b. Prepare approved copy for printing and distribution									
.20 Alkaline Dusts(Alert)							G	b	y
a. Reassign to new project officer & review prior drafts and literature									
b. Prepare final Branch draft									
c. Submit for Division Review									
d. Prepare draft for Director NIOSH									
.21 Hazardous Waste(Worker Bulletin)							G	b	y
a. Prepare and submit purchase order									
b. Award contract									
c. Receive contractor's 1st report									
d. Receive camera ready draft from contractor									
e. Submit draft and prepare transmittal letters for Director's approval									
f. Prepare transmittal package for printing and distribution									
.22 Benzidine Cogener Dyes (Worker Bulletin)							G	b	y
a. Prepare transmittal letters and submit draft for Director's approval									
b. Prepare camera ready copy and transmittal package for printing and distribution									
.23 Residential Waste Collection (Worker Bulletin)							G	b	y
a. Print and distribute									
.24 DEHP (Special Hazard Review)							G	b	y
a. Prepare camera ready copy and transmittal letters									
b. Print and distribute									
.25 Radiation in Mines CD							G	b	y
a. Acquire and evaluate new information									
b. Submit document for 1st level review									
c. Submit document for 2nd level review									
d. Submit document for 3rd level review(1Q83)									
e. Final document submitted to Director, NIOSH (2Q83)									
.26 Asbestos (Mining) (CD)							G	b	y
a. Decide on analytical methods gaps									
b. Develop risk assessment									
c. Complete reviews									
d. Complete Document (2Q83)									
.27 Silica (Mining) (CD)							G	b	y

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
a. Decide if task 3 can be performed				o							GbyyyH	6175
b. Identify personnel from within NIOSH to assist in the project				o							GbyyyH	6176
c. Complete a summary of health effects information					o						GbyyyH	6177
d. Complete 1st draft of a recommended standard					o						GbyyyH	6178
e. Complete external review						o					GbyyyH	6179
f. Submit for Division review						o					GbyyyH	6180
.28 Resource Recruitment						o					GbyyyH	6181
a. Identify candidates for 10 vacancies			7	3							GbyyyH	6182
b. Interview candidates for 10 vacancies			7	2	1						GbyyyH	6183
c. Make candidate selections			7	2	1						GbyyyH	6184
.29 Contracts for Document Development											GbyyyH	6185
a. Submit Technical Evaluation, Chromium				o							GbyyyH	6186
b. Submit Business Evaluation, Chromium				o							GbyyyH	6187
c. Award Task Order C, Chromium					o						GbyyyH	6188
d. Submit Technical Evaluation, Acrylic Acid, Esters				o							GbyyyH	6189
e. Submit Business Evaluation, Acrylic Acid, Esters				o							GbyyyH	6190
f. Award Task Order D, Acrylic Acid, Esters					o						GbyyyH	6191
.30 FY83 New Documents											GbyyyH	6192
a. Receive priority profile for four new Criteria Documents from PRAB					o						GbyyyH	6193
b. Submit literature search request to TIB						o					GbyyyH	6194
c. Receive literature search from TIB						o					GbyyyH	6195
e. Submit Director's draft to Director, NIOSH					o						GbyyyH	6196
											GbyyyH	6197
											GbyyyH	6198
											GbyyyH	6199
											GbyyyH	6200
											GbyyyH	6201
											GbyyyH	6202

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
		1Q	2Q	3Q	4Q			NPF	TF
		\$1000	\$1000	\$1000	\$1000			\$1000	\$1000
14. Technical Information (T. Schoenborn 513-684-8326) (VSL-pyy-744 & 742)(100/VSL-Hyy-742)	70	C					H g a		
.1 Maintenance of Information Support Capabilities.								GdyyyH	6205
a. Submit P.O. agreements for Non-Fedlink information services (FY-83).								GdyyyH	6206
1. Interactive Sciences Corporation (ISC)								GdyyyH	6207
2. Institute for Scientific Information (ISI)								GdyyyH	6208
3. Chemical Abstracts (CA)								GdyyyH	6209
b. Submit IA to Federal Library Committee (FLC) Fedlink for data base support (FY-83)								GdyyyH	6210
1. Lockheed Information Service (LIS)								GdyyyH	6211
2. Bibliographic Retrieval Service (BRS)								GdyyyH	6212
3. Systems Development Corporation (SDC)								GdyyyH	6213
4. New York Times Information Services (NYTIS)								GdyyyH	6214
5. Politechs/EIES								GdyyyH	6215
6. Research Library Info. Network (RLIN)								GdyyyH	6216
7. Online Computer Library Center (OCLC)								GdyyyH	6217
8. Mead Data Corp. (NEXIS)								GdyyyH	6218
c. NTIS Interagency Agreement (30k)								GdyyyH	6219
1. Send IA to OPPE								GdyyyH	6220
2. Execute IA								GdyyyH	6221
d. Transfer FY82 IA Funds (69.5k)								GdyyyH	6222
.2 Technical Information Assistance								GdyyyH	6223
a. Requests received from internal sources								GdyyyH	6224
b. Requests completed for internal sources								GdyyyH	6225
c. Requests received from external sources								GdyyyH	6226
d. Requests completed for external sources								GdyyyH	6227
e. Requests referred to other NIOSH staff								GdyyyH	6228
.3 Current Awareness & Document Support Retrieval Services								GdyyyH	6229
.4 Tracking of Data Base Usage								GdyyyH	6230
a. % of funds used for Fedlink data bases								GdyyyH	6231
b. % of funds used for non-Fedlink information services								GdyyyH	6232
c. % of funds used for PCC costs								GdyyyH	6233
.5 Evaluation of Information Services								GdyyyH	6234
a. Develop Internal Evaluation Method in Cooperation with OPPE								GdyyyH	6235
								GdyyyH	6236
								GdyyyH	6237
								GdyyyH	6238
								GdyyyH	6239
								GdyyyH	6240
								GdyyyH	6241
								GdyyyH	6242
								GdyyyH	6243
								GdyyyH	6244
								GdyyyH	6245
								GdyyyH	6246
								GdyyyH	6247
								GdyyyH	6248
								GdyyyH	6249
								GdyyyH	6250

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F			RESOURCES		
	PLANNED		COMPLETION		R E U			NPF	TF	
	I	C	1Q	2Q	3Q	4Q	O C N	PY	\$1000	\$1000
b. Complete Evaluation Method				o					GdyyyH	6251
c. Complete Evaluation of Information Services						o			GdyyyH	6252
.6 External Dissemination									GdyyyH	6253
a. Exhibits									GdyyyH	6254
1. Provide information exchange via scientific conference			2	4					GdyyyH	6255
									GdyyyH	6256
									GdyyyH	6257
									GdyyyH	6258
2. Support exhibit staffed by other NIOSH staff			2	5	11	12			GdyyyH	6259
b. Publications Dissemination									GdyyyH	6260
1. Letter requests									GdyyyH	6261
Domestic			9k	18k	24k	36k			GdyyyH	6262
Foreign			1.5k	3k	4.5k	6k			GdyyyH	6263
									GdyyyH	6264
									GdyyyH	6265
2. Telephone requests			700	1.4k	2.1k	2.8k			GdyyyH	6266
									GdyyyH	6267
									GdyyyH	6268
3. Bulk and special requests			50k	100k	150k	200k			GdyyyH	6269
4. Inventory of NIOSH pub. warehouse						o			GdyyyH	6270
5. Distribution of Notices of Availability									GdyyyH	6271
a. Internal			1	2	3	4			GdyyyH	6272
b. External			1	2	3	4			GdyyyH	6273
									GdyyyH	6274
									GdyyyH	6275
									GdyyyH	6276
6. Update Mailing List			3	6	9	12			GdyyyH	6277
.7 Internal Information Services									GdyyyH	6278
a. Library									GdyyyH	6279
1. Book cataloging & shelving/distribution			300	600	900	1.2k			GdyyyH	6280
									GdyyyH	6281
									GdyyyH	6282
2. Serials check-in & distribution			3.0k	6.0k	9.0k	12k			GdyyyH	6283
3. In-house requests for articles									GdyyyH	6284
a. Supplied in-house			1.0k	2.0k	3.0k	4.0k			GdyyyH	6285
									GdyyyH	6286
b. Supplied inter-library			600	1.2k	1.8k	2.4k			GdyyyH	6287
									GdyyyH	6288
c. Supplied for profiles			100	200	300	400			GdyyyH	6289
									GdyyyH	6290
d. Supplied for CIB's			75	150	225	300			GdyyyH	6291
									GdyyyH	6292
e. Supplied for Research Analysis			125	250	375	500			GdyyyH	6293
									GdyyyH	6294
f. Supplied for criteria documents			1.5k	3.0k	4.0k	5.0k			GdyyyH	6295
									GdyyyH	6296

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
4. Number of translation requests completed				150		300					GdyyyH	6297
b. Acquisitions											GdyyyH	6298
Acquisition of contract deliverables for Contract File			20	40	60	80					GdyyyH	6299
											GdyyyH	6300
c. Conduct in-house information service seminars			2	4	6	8					GdyyyH	6301
d. Update information resources pamphlet						0					GdyyyH	6302
.8 Publication Distribution Contract											GdyyyH	6303
a. Award Contract				0							GdyyyH	6304
b. Quarterly Reports Received					1	2					GdyyyH	6305
c. Submit Contract Renewal						0					GdyyyH	6306
.9 Purchase CIS/ILO Annual Microfiche File						0					GdyyyH	6307
.10 TRAINS (Translation Information System)											GdyyyH	6308
a. Input translations			150	300	450	600					GdyyyH	6309
b. Provide searches			10	20	30	40					GdyyyH	6310
.11 Library Contract (if funds are available)											GdyyyH	6311
a. Submit to Contracts Office			0								GdyyyH	6312
b. Award Contract						0					GdyyyH	6313
											GdyyyH	6314
OFFICE OF THE DIRECTOR											K H	6315
											K H	6316
15. Information (D. Van Brunt, 443-2100)	81	81									K H	6317
(VAA-pXX-005)(100/VAA-pXX-005)											KKyyyH	6318
											KKyyyH	6319
											KKyyyH	6320
											KKyyyH	6321
											KKyyyH	6322

## WORK FORCE DEVELOPMENT

The NIOSH mission established by the Occupational Safety and Health Act (Public Law 91-596) is two-fold in scope: Section 20 of the Act mandates the NIOSH research function, and Section 21 mandates the training and education function. Section 22 establishes and defines the Institute function to carry out the purposes of Sections 20 and 21. The Research Results Implementation Program is designed and developed to implement Section 21 of the Act by increasing the numbers and competence of the OSH work force.

NIOSH is set up primarily as a prevention-oriented research institute responsible for identifying occupational hazards, conducting research and field studies on these problems, and conveying the results to OSHA, MSHA, other Federal agencies, and the OSH professional community at large. Research-results implementation activities are based on the premise that research results and field study information are of limited value unless they are actually applied to the protection of workers. NIOSH as a research institute has two major objectives: to produce significant, valid information, and to get this information out to the workplace where it can be used to improve workplace conditions and protect the worker. The latter objective is a primary one because the research, no matter how good, cannot be effective until translated into action programs. This NIOSH program provides the mechanism for NIOSH research to be brought to bear upon prevention, intervening before worker exposure occurs.

This NIOSH program with its subactivities of technical training and education, curriculum development and technology transfer, manpower assessment, and educational resource development is an OSH hazard "prevention" program which meshes in with the DHHS agency-wide research-in-prevention initiative and, at the same time, carries out one of the two mandates of the NIOSH mission.

### Division of Training and Manpower Development

Continuing Education -- NIOSH conducts technical training courses for the Department, for other Federal, State, and local government agencies, and for the private sector including OSH practitioners in industry, management representatives, and labor unions. Courses are provided to new NIOSH personnel for orientation and to existing staff members for maintenance of competence and career development.

In 1970, the Act established a tuition-free training program within NIOSH. Since 1973, the Institute's training program has been conducted on a reimbursable, self-sustaining basis. In FY 1974, the first year of reimbursable training, 50 courses were presented, 1,100 professionals were trained, and the

Institute realized over a quarter of a million dollars in tuition fees. The number of trainees trained directly by NIOSH steadily increased until 1977 when mechanisms were developed with outside organization to provide "indirect" training to meet the ever-increasing demand. The Educational Resource Center Grant Program contributed a large part to the indirect training efforts. In FY 1981, the ERC programs, coupled with the Institute's own direct training program, trained over 11,000 OSH practitioners.

In FY 1981, special customized training courses were presented to the U.S. Navy (Portsmouth, N.H.; Pearl Harbor; Guam), State of Colorado Industrial Commission, State of Nevada Workers' Compensation Board, DHHS's Office of Health and Safety, GSA, the American Foundrymen's Society, and the Foundry Workers Labor Union. In addition, cooperative training courses for NIOSH staff were conducted with three NIOSH office/divisions (OPPE, DSDTT, and DPSE). Also, a course on job stress factors and the hazards associated with the use of video display terminals was presented to State of New York white collar personnel by DTMD in conjunction with staff support from DBBS. Visitors from several foreign governments were received and training opportunities were explored and arrangements made to accommodate foreign students in future NIOSH and ERC-sponsored courses. The Vocational-Industrial Arts OSH Training Program, developed by NIOSH under an interagency agreement with OSHA, was presented by NIOSH staff and consultants in four regional locations.

In FY 1982, NIOSH will again offer a full schedule of short courses in industrial hygiene, occupational safety, industrial toxicology, occupational health nursing, and occupational medicine at the Cincinnati headquarters and in the field. Courses will be conducted by the direct mechanism using DTMD faculty supported by research division staffs and by the indirect mechanisms. ERC continuing education courses are expected to exceed 200. Special courses will be conducted for NIOSH personnel including environmental epidemiology and industrial hygiene for physicians (DSHEFS), respiratory protection quantitative fit testing for toxic effects inhalation study workers (DBBS), and training for NIOSH supervisory and clerical staff on VDT Workplace Hazards (presented jointly with DBBS). Specialized training to outside organizations will include State agencies and OSHA New Directions Grantees, labor unions, and the Federal sector, including MSHA, OSHA, and DHHS agencies. Special emphasis this year will be given to DOD, particularly the engineering disciplines and OSH officers. Training consultation to foreign governments and accommodation of foreign visitors in NIOSH courses will continue. The Pulmonary Function Testing Training Course Approval System will be maintained as required under the Cotton Dust Standard, and a system evaluation study will conclude with a final report in the fourth quarter. The vocational/industrial arts educational program will be expanded to other regions of the country through train-the-trainer sessions. An initiative in specialized, new technology training programs for industrial firms will incorporate the recent findings and recommendations of the NIOSH research divisions.



Curriculum Development -- The outputs of most research organizations are, by their specific nature, aimed at or appeal to a very limited audience. Furthermore, the reporting format is designed in a manner that meets the need for publication in technical journals. It is through the assimilation and correlation of facts and information produced through the Institute's research program that the OSH field more appropriately deals with the exposure of employees to hazards in the workplace. The curriculum development activity custom designs programs that present bodies of knowledge to meet the needs of various disciplines at varying levels of complexity. A train-the-trainer program to introduce and sensitize science teachers to the hazards of their working environment has resulted in the training of over 100,000 secondary school teachers in the last 3 years at a cost of little more than one dollar (\$1.00) per trainee. Not only has this program been extremely cost beneficial but its impact has resulted in major curriculum changes in recently published high school science texts. A series of audiovisual presentations on the problems of asbestos removal from school buildings was developed jointly with OSHA, EPA, and NCI. The series consisted of an overview of the problem, a program on personnel and medical monitoring, and a program on sample screening (Kupel-Kim Method). Over 1,000 copies of these programs were disseminated through NIOSH, EPA, and OSHA for loan in conducting contractor training sessions.

Several instructional modules were developed in FY 1981 that represent a direct relationship to NIOSH research output. One example is a video tape related to control technology assessment on the subject of pesticide formulation, a look at the state of the art, entitled "First Consideration." Another is a video tape about the problem of vibrating tools and the physical effects produced by these tools on workers and a discussion of the diagnostic procedures used in uncovering Reynaud's syndrome. Two slide/tape programs on occupational dermatoses, generally accepted to represent 50 percent of all occupationally related health problems, were disseminated, one designed for the health professional, the other for the lay person.

The major thrust again this year will be the development of educational materials in conjunction with the NIOSH research divisions based on significant research outputs and/or special training needs for their personnel. The activities proposed represent translation of current high-priority Institute research projects into easily utilizable information for dissemination to broader audiences than the audience for which most research reports are traditionally designed. The impact of this plan should be such that the necessary changes will be made in hazardous workplace situations jointly by management and worker representatives to eliminate or reduce the potential of workers to injury and illness.

Educational Resource Development--The OSH Act calls for an adequate supply of resources; i.e., qualified personnel and educational/informational programs to carry out the purposes of the Act. The educational resource development activity investigates and employs strategies and mechanisms to assess these resource requirements and continually evaluates current programs. Ongoing assessment of OSH professionals identifies trends toward and gaps between manpower needs and supply/demand. A primary use for this information to more effectively utilize Institute funding and expertise is to foster and support educational and training programs in the academic and non-Federal sectors.

Over the past 4 years, the Institute has conducted research investigations relating to manpower supply and demand. Since the early 1970s, NIOSH training grants have provided a progressively increasing pipeline of highly qualified graduates to serve as educators, researchers, or practitioners in the OSH field. Numerous other institutions received NIOSH non-financial assistance to develop new educational programs. Since 1977 ERC outreach activities to new, emerging programs have been significantly increased. NIOSH has a continuing program of promoting the OSH field as a career choice to pre-baccalaureate students as well as to workers who are seeking early or mid-career change. Career brochures, academic program directories, continuing education schedules, and the like are distributed widely to support guidance counseling and recruitment efforts.

In FY 1982, the Institute will continue to administer and monitor all training grants, including the twelve ERCs. The OSH Labor Market Contract awarded in FY 1981 will be monitored and completed. The educational consultation and technical assistance to academic and similar institutions will continue both intramurally and through ERC outreach programs. Special consideration will be given to investigation of alternative funding sources for educational programs. The NIOSH OSH Career Guidance and Information Service also will continue. A symposium on occupational health nursing will be designed and conducted in joint sponsorship with NIOSH research divisions and ERC nursing programs. The efforts to impact key non-OSH professionals and disciplines through their educational systems will continue with programs designed to influence schools of engineering and schools of business. As a followup to the self-evaluation instrument for the electric power industry, a research study will be initiated jointly with DBBS to determine the effect of training and other influences on work practices and hazard occurrences in a public utility.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
				1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF		
												\$1000	\$1000		
*****WORK FORCE DEVELOPMENT*****													K	6325	
													K	6326	
DIVISION OF TRAINING AND MANPOWER DEVELOPMENT													H	K	6327
													H	K	6328
1. Continuing Education (E. Leininger 684-8228) (VUI-210-792) (6.9/66/364)(100/VUI-Kyy-792)	71	C								K	b	a	HayyyK	6330	
													HayyyK	6331	
													HayyyK	6332	
.1 Maintain Institute's direct training program													HayyyK	6333	
.a Present Industrial Hygiene programs			7	14	20	24							HayyyK	6334	
.b Present Occupational Safety programs				1	4	7							HayyyK	6335	
.c Present Occupational Health Nursing program					1								HayyyK	6336	
.2 Coordinate and Support ERC Continuing Education Programs													HayyyK	6337	
.a Publish ERC Course Schedules			1		2								HayyyK	6338	
.b Conduct Annual Meeting of ERC Continuing Education Coordinators					0								HayyyK	6339	
.c Provide on-site assistance			0	0	0	0							HayyyK	6340	
.3 Provide training to other NIOSH Divisions													HayyyK	6341	
.a Provide Environmental Epidemiology Course to DSHEFS (North Carolina ERC)			0										HayyyK	6342	
.b Provide Industrial Hygiene Training to DSHEFS Physicians						0							HayyyK	6343	
.c Provide Respiratory Protection quantitative fit testing training to DBBS staff					0	0							HayyyK	6344	
.d Provide training on VDT hazards to NIOSH staff (Joint with DBBS)					0	0							HayyyK	6345	
													HayyyK	6346	
													HayyyK	6347	
													HayyyK	6348	
.4 Provide training to outside organizations													HayyyK	6349	
.a Present courses to State Agencies and New Direction Grantees									0				HayyyK	6350	
.b Present courses to Federal Agencies									0				HayyyK	6351	
.5 Provide training support to foreign governments			0	0	0	0							HayyyK	6352	
.6 Administer the Pulmonary Function Testing Training Course Approval Program													HayyyK	6353	
.a Review and Approve/Disapprove Applications			0	0	0	0							HayyyK	6354	
.b Evaluate Course Approval System													HayyyK	6355	
.1 Monitor contract; review contractor reports			0	0	0								HayyyK	6356	
.3 Receive Final Report											0		HayyyK	6357	
.7 Continue vocational/industrial arts occupational safety and health program for secondary school teachers ((Joint with OSHA)													HayyyK	6358	
.a Provide assistance to 4 regions for presentation of courses			1	2	3	4							HayyyK	6359	
													HayyyK	6360	
													HayyyK	6361	
													HayyyK	6362	
													HayyyK	6363	
.8 Conduct specialized training for industry													HayyyK	6364	
.a Present training courses			0	0	0	0							HayyyK	6365	
													HayyyK	6366	
													HayyyK	6367	
													HayyyK	6368	

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
		1Q	2Q	3Q	4Q			NPF	TF
		\$1000	\$1000	\$1000	\$1000			\$1000	\$1000
2. Materials Development (N.J. Berberich 684-8241) (VUH-211-782)(11/490/750)(100/VUH-Kyy-782)	76	C					K b a		
.1 Develop a continuing educational program on the hazards of confined spaces entry. (DSR)								HbyyyK	6371
.a Review existing document and preliminary planning report			o					HbyyyK	6372
.b Complete development instructional program materials (1QFY83).								HbyyyK	6373
.c Pilot test program at several sites with at least 3 different target audiences (4QFY83)								HbyyyK	6374
.d Assess the pilot test program (1QFY84)								HbyyyK	6375
.e Present final course package to Director DTMD (2QFY84)								HbyyyK	6376
.2 Develop an instructional program on the problems related to disposal of hazardous wastes (DPSE, DSHEFS)								HbyyyK	6377
.a Complete review existing materials; submit course outline to Director DTMD for P.O.I.				o				HbyyyK	6378
.b Complete development of instructors outline					o			HbyyyK	6379
.c Complete student text(s) (1QFY83)						o		HbyyyK	6380
.d Pilot Test (3QFY83)								HbyyyK	6381
.e Present final course package to Director DTMD (4QFY83)								HbyyyK	6382
.3 Develop continuing educational program--Engineering control of the occupational health hazards in the dry cleaning industry. (DPSE)								HbyyyK	6383
.a Develop instructional materials				o				HbyyyK	6384
.b Pilot presentation					o			HbyyyK	6385
.c Complete instructors resource guide						o		HbyyyK	6386
.d Train-the-Trainer Session (1QFY83)								HbyyyK	6387
.4 Develop and update academic courses for upper level undergraduate engineering students. (DPSE)								HbyyyK	6388
.a Develop and present new course at Purdue University				o				HbyyyK	6389
.b Update present course and present at Ohio State University						o		HbyyyK	6390
.c Develop cooperative program with other schools of engineering					1	2		HbyyyK	6391
.5 Design and develop an advanced course on respiratory protection. (DSR)								HbyyyK	6392
.a Complete review content of existing course			o					HbyyyK	6393
.b Develop instructors outline					o			HbyyyK	6394
.c Complete Student Text						o		HbyyyK	6395
.d Pilot test							o	HbyyyK	6396
.e Present final course to Director DTMD (1QFY83)								HbyyyK	6397
.6 Complete development of a series of audiovisual modules reflecting current research outputs of NIOSH								HbyyyK	6398
.a Hazards associated with spray painting and coating (DPSE)				o				HbyyyK	6399
.b Hazards associated with R.F. heaters and sealers (DBBS)					o			HbyyyK	6400
.c Recommendations on working at V.D.T. (DBBS)						o		HbyyyK	6401
.d Problems of disposal of Hazardous Wastes materials and							o	HbyyyK	6402
								HbyyyK	6403
								HbyyyK	6404
								HbyyyK	6405
								HbyyyK	6406
								HbyyyK	6407
								HbyyyK	6408
								HbyyyK	6409
								HbyyyK	6410
								HbyyyK	6411
								HbyyyK	6412
								HbyyyK	6413
								HbyyyK	6414
								HbyyyK	6415
								HbyyyK	6416

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I	C	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES			
			1Q	2Q	3Q	4Q	PY	NPF	TF	\$1000	\$1000		
dump cleanups (DPSE)												HbyyyK	6417
.e Assessing reproductive hazards in the workplace (DBBS, DSHEF)							o					HbyyyK	6418
.f Correlation of industrial hygiene and engineering careers (DPSE)							o					HbyyyK	6419
.7 Revision of NIOSH syllabus and other curriculum materials												HbyyyK	6420
.a Submit draft materials from contractors to review panel			o	o	o	o						HbyyyK	6421
.b Select contractors for revision of existing units in text (1QFY83)			o	o	o	o						HbyyyK	6422
.c Review draft materials												HbyyyK	6423
.d Submit revised materials for printing (1QFY84)												HbyyyK	6424
												HbyyyK	6425
												HbyyyK	6426
												HbyyyK	6427
												HbyyyK	6428



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES			
	FY	I C		1Q	2Q	3Q	4Q	PY	NPF	TF	
									\$1000	\$1000	
engineering education at annual meeting of American Institute of Chemical Engineers											HcyyyK 6477
.2 Serve as Program Chairman, Environmental Engineering Division, American Society for Engineering Education for session on OSH engineering education at 1982 annual conference						o					HcyyyK 6478
.3 Initiate contact with technical societies to promote interest						1	2				HcyyyK 6479
.c Conduct engineering control technology workshops											HcyyyK 6480
.1 Publish proceedings of 2nd workshop						o					HcyyyK 6481
.2 Develop position papers for 3rd workshop							o				HcyyyK 6482
.3 Conduct 3rd workshop (1QFY83)											HcyyyK 6483
.7 Determination of Effects of Training and other Factors on Work Practices in Electric Utility Industry (Joint with DBBS)											HcyyyK 6484
.a Identify worker population			o								HcyyyK 6485
.b Administer self-assessment instruments				o							HcyyyK 6486
.c Correlate pre/post test results with safety/accident/injury data					o						HcyyyK 6487
.d Recommend appropriate training, education and information programs to correct deficiencies in workers skill, performance and knowledge levels							o				HcyyyK 6488
.8 Develop OSH Programs with Schools of Business											HcyyyK 6489
.a Develop cooperative arrangements with National Safety Management Society			o								HcyyyK 6490
.b Initial contact with academic business programs				o							HcyyyK 6491
.c Prepare report on status of and recommendations for OSH content in business school curricula							o				HcyyyK 6492
											HcyyyK 6493
											HcyyyK 6494
											HcyyyK 6495
											HcyyyK 6496
											HcyyyK 6497
											HcyyyK 6498
											HcyyyK 6499
											HcyyyK 6500
											HcyyyK 6501
											HcyyyK 6502
											HcyyyK 6503
											HcyyyK 6504

## ADMINISTER INSTITUTE PROGRAMS

NIOSH's goal, to Administer Institute Programs, is the process for providing the means for setting and meeting Institute objectives. Under this goal NIOSH manages direct research and intervention "to ensure, insofar as possible, every working man and women in the Nation both safe and healthful working conditions and to preserve our human resources." The means for reaching this end include facilities, funds, and people, and a system of planning, coordination, administration, and accountability for these resources.



## ADMINISTRATION OF INSTITUTE PROGRAMS

### Office of the Director, NIOSH

The Office of the Director, in providing management leadership for the National Institute for Occupational Safety and Health, plans, directs, and coordinates the national program to develop and establish recommended OSH standards and to conduct research, training, technical assistance, and related activities to ensure safe and healthful working conditions for working men and women.

Each NIOSH office/division carries out related functions to respond to the administrative needs of NIOSH, and to manage its own resources. Administrative functions of the individual office/divisions include development and implementation of their individual policies, ensuring adherence to NIOSH policies and goals, and establishing priorities in, and management of, their projects within the various program areas. Each office/division also supports the others with its specialized expertise as needed, and several provide support services to the entire Institute.

### Office of Administrative Management Services

OAMS supports the total Institute with services including finances; personnel activities; procurement and control of properties, equipment, and services; establishment of policies and procedures; and technical leadership and guidance.

### Office of Program Planning and Evaluation

OPPE plans and coordinates the development of the strategy and philosophy of operation of the Institute regarding mission and objectives, conducts policy analyses, conducts or participates in special studies for program planning and evaluation, and conducts the necessary control functions to ensure operational compliance toward program objectives within the Institute. Program planning will be developed to provide adequate control over resources and performance. OPPE will develop a project management system to evaluate variances in cost and technical performance as well as variances in project scheduling. Program review will be tailored to monitor and analyze these variances. Program planning also will be based on opportunities to intervene in economic, legal, and technical processes to prevent hazards in the workplace. Policy analysis will provide baseline information on these processes and permit special assessment of possible intervention targets.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F			RESOURCES			
	I	C	1Q	2Q	3Q	4Q	O	C	N	NPF	TF
			G	H	D	PY	\$1000	\$1000			
*****ADMINISTRATION OF INSTITUTE PROGRAMS*****											W 6508
											W 6509
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE											A W 6510
											A W 6511
1. Administration of DBBS Activities (B. Johnson, 684-8465) (100/VOA-Wyy-303)(100/V00-Wyy-348)(100/VOB-Wyy-284) (100/VOG-Wyy-355)(100/VOT-Wyy-390)	82	82					W	c	a		AAyyyW 6512
											AAyyyW 6513
											AAyyyW 6514
											AAyyyW 6515
.1 Submit Quarterly Program Progress Reports			o	o	o	o					AAyyyW 6516
.2 Personnel Evaluations											AAyyyW 6517
a. Completion of evaluations for 80 (approx.) Civil Servants				o		o					AAyyyW 6518
b. Completion of evaluations for 18 Commissioned Officers				o		o					AAyyyW 6519
.3 Receive final report and submit report to Director, NIOSH for 0 completed projects											AAyyyW 6520
											AAyyyW 6521
.4 Receive final report and submit report to Director, NIOSH for 21 projects to be completed this year											AAyyyW 6522
											AAyyyW 6523
a. Machine-Paced Stress in Postal Workers						o					AAyyyW 6524
b. Neurotoxicity of Ethylene & Propylene Oxide						o					AAyyyW 6525
c. Whole Body Vibration: Health Effects						o					AAyyyW 6526
d. Phase Shifts and Stressor Effects						o					AAyyyW 6527
e. Behavioral-Ergonomic Support for HHEs						o					AAyyyW 6528
f. Fibrogenicity & Pulmonary Carcinogenesis				o							AAyyyW 6529
g. Carcinogenicity of Aromatic Amines-Azo Dyes						o					AAyyyW 6530
h. Inhalation Toxicity of Organic Oxides						o					AAyyyW 6531
i. Chronic Toxicity of Insulation Materials						o					AAyyyW 6532
j. Metabolism of Azo Dyes to Aromatic Amines			o								AAyyyW 6533
k. Clinical-Biochemical Support Service							o				AAyyyW 6534
l. Diagnostic & Research Pathology Services							o				AAyyyW 6535
m. Particulate and Tissue Analysis Support							o				AAyyyW 6536
n. Animal Husbandry Support Service							o				AAyyyW 6537
o. Inhalation Toxicology Service and Research							o				AAyyyW 6538
p. Clinical Chemistry Service and Research Support-HHEs							o				AAyyyW 6539
q. Impact-Impulse Noise Data Base							o				AAyyyW 6540
r. Work Practices for Vibration Reduction							o				AAyyyW 6541
s. RF/Microwave Dosimetry Development							o				AAyyyW 6542
t. Health Hazard Evaluatins of Physical Agents							o				AAyyyW 6543
											AAyyyW 6544
.5 Accumulated spending of non-personnel funds by organizational unit and Program by quarter for the Fiscal Year. (K)			x.xk	x.xk	x.xk	x.xk					AAyyyW 6545
											AAyyyW 6546
											AAyyyW 6547
a. Office of the Director											AAyyyW 6548
											AAyyyW 6549
b. Applied Psychology and Ergonomics Branch											AAyyyW 6550
											AAyyyW 6551
c. Experimental Toxicology Branch											AAyyyW 6552
											AAyyyW 6553

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY		PLANNED COMPLETION				P M F R E U O C N			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
											\$1000	\$1000
d. Physical Agents Effects Branch											AAyyyW	6554
e. Technical Support Branch											AAyyyW	6555
f. Neurotoxic Effects											AAyyyW	6556
g. Stress-Related Disorders											AAyyyW	6557
h. Reproductive Effects											AAyyyW	6558
i. Standards Development											AAyyyW	6559
j. Injury/Trauma											AAyyyW	6560
k. Physical Agents											AAyyyW	6561
l. Health Hazard Evaluations											AAyyyW	6562
m. Cardiovascular Disorders											AAyyyW	6563
n. Cancer											AAyyyW	6564
o. Cutaneous Disorders											AAyyyW	6565
p. Instrument/Methods Development											AAyyyW	6566
q. Lung Disorders											AAyyyW	6567
r. All Others											AAyyyW	6568
s. Other Personal Protective Equipment											AAyyyW	6569
t. Administration of Institute Programs											AAyyyW	6570
.7 Review DBBS Safety Committee Report			o	o	o	o					AAyyyW	6571
.8 Conduct Q. A. audits of research projects			3	6	9	12					AAyyyW	6572
.9 Submit progress report to NTP			o	o	o	o					AAyyyW	6573
.10 Review DBBS projects with other Divisions			o	o	o	o					AAyyyW	6574
.11 Conduct review of HHE/TA activities			o	o	o	o					AAyyyW	6575
.12 Conduct NTP Working Group meeting			o	o	o	o					AAyyyW	6576
.13 Provide statistical consultation			8	16	24	32					AAyyyW	6577
.14 Submit final report to Director, NIOSH						o					AAyyyW	6578
											AAyyyW	6579
											AAyyyW	6580
											AAyyyW	6581
											AAyyyW	6582
											AAyyyW	6583
											AAyyyW	6584
											AAyyyW	6585
											AAyyyW	6586
											AAyyyW	6587
											AAyyyW	6588
											AAyyyW	6589
											AAyyyW	6590
											AAyyyW	6592
											AAyyyW	6593
											AAyyyW	6594
											AAyyyW	6595
											AAyyyW	6596

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES		B	W	
		1Q	2Q	3Q	4Q			NPF	TF			
								\$1000	\$1000			
DIVISION OF PHYSICAL SCIENCES AND ENGINEERING												
2. Administrative Support for DPSE Research (W. Haag 684-4321) (VQA-uXy-402)(100/VQA-Wyy-402)	82	82										6599
						W g a						6600
.1 Quarterly Program Review			o	o	o	o						6601
.2 Personnel Evaluations												6602
a. Complete evaluation CO personnel			o									6603
b. Complete evaluation CS personnel					o							6604
.3 Accumulate spending of nonpersonnel funds by organiza- tional unit and program by quarter			o	o	o	o						6605
.4 Submit quarterly EEO report			o	o	o	o						6606
.5 Receive and submit final report for FY81 completed projects			3	7								6607
.6 Receive and submit reports to Director, NIOSH, for projects to be completed in FY82			o	o	o	16						6608
												6609
												6610
												6611
												6612
												6613
												6614

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F			RESOURCES			
		I	C	1Q	2Q	3Q	4Q	R E U		PY	\$1000	\$1000
								O	C			
							G	H	D			
DIVISION OF RESPIRATORY DISEASE STUDIES												C W 6617
3. Office of the Director-Division Management (Merchant J 304 599-7474)(VKA-vDp-103)(100/VCC-Wbd-103)	81	C										C W 6618
.1 Personnel evaluations												CCmyyW 6619
a. Complete COEPR evaluations for Commissioned Corp personnel												CCmyyW 6620
b. Complete evaluations for Civil Service personnel												CCmyyW 6621
.2 Receive American College of Radiology (210-81-2101-JC) quarterly reports												CCmyyW 6622
.3 Submit report to NIOSH EEO Officer												CCmyyW 6623
.4 Monitor timely distribution of Division non-personnel funds by Branch (cumulative x 1000)												CCmyyW 6624
a. OD												CCmyyW 6625
b. LIB												CCmyyW 6626
c. CIB												CCmyyW 6627
d. EPI												CCmyyW 6628
e. EIB												CCmyyW 6629
f. EPB												CCmyyW 6630
.5 Monitor submission of Division RFC's to contracts office												CCmyyW 6631
a. ACR-210-81-2101 incremental funding												CCmyyW 6632
b. Task Order Data Processing 210-81-1010												CCmyyW 6633
c. Case Location Services-New contract												CCmyyW 6634
d. Renew IA NIOSH/SSA												CCmyyW 6635
e. Renew IA NIOSH/IRS												CCmyyW 6636
f. Renew IA NIOSH/NCHS												CCmyyW 6637
g. Task Order Data Entry-Programming (MSB)												CCmyyW 6638
h. Phthalic Anhydride-Laboratory Assessment												CCmyyW 6639
i. IA Component Emission Measurements												CCmyyW 6640
j. Synfuel Process Technical Review												CCmyyW 6641
k. Demonstration Plant Design-Review												CCmyyW 6642
l. Body Fluids Bioassay Task Order-Gasification												CCmyyW 6643
m. Body Fluid Bioassay Task Order-Liquefaction												CCmyyW 6644
n. Cytogenic Screening-Liquefaction												CCmyyW 6645
o. Technical Support IA-Oil Shale												CCmyyW 6646
p. Society Occupational Environmental Health (103)												CCmyyW 6647
q. American College of Chest Physicians (103)												CCmyyW 6648
r. Institute of Occupational Medicine (189)												CCmyyW 6649
.6 Provide technical monitoring to NIOSH grants												CCmyyW 6650
a. Occupational Cause of Pulmonary Fibrosis (992)												CCmyyW 6651
S.A. Olenchock												CCmyyW 6652
b. Antigens for Detecting Industrial Hypersensitivity (865)												CCmyyW 6653
S.A. Olenchock												CCmyyW 6654
.7 Monitor project peer review												CCmyyW 6655
.8 Receive final reports from DRDS FY81 projects and submit												CCmyyW 6656

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F			RESOURCES				
		I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
												\$1000	\$1000

to Director, NIOSH, through program analyst  
 .9 Receive final reports for FY82 end date projects and submit  
 copies of abstract to Director, NIOSH, wit copy of report  
 and abstract to DTS

12

21

CCmyyW 6663  
 CCmyyW 6664  
 CCmyyW 6665  
 CCmyyW 6666  
 CCmyyW 6667

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
	I	C	1Q	2Q	3Q	4Q	PY	NPF \$1000	TF \$1000	
DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES										D W 6670
										D W 6671
4. Technical Management (DSHEFS) (Phil Landrigan 513-684-2427) (14.0/100.0/500.0)(100/VMA-Wyy-522)(100/VMR-Wyy-680)	81	C								DDyyyW 6672
										DDyyyW 6673
										DDyyyW 6674
A. Extend case location contract					o					DDyyyW 6675
B. Extend computer contracts.					o					DDyyyW 6676
C. Conduct/project progress reviews.			o	o	o	o				DDyyyW 6677
D. Develop program and project plans for the next fiscal year in compliance with NIOSH planning guidance.						o				DDyyyW 6678
E. Review and stimulate training including long-term training for Division/Office staff.			o	o	o	o				DDyyyW 6679
F. Assist local Administrative Officer in areas including energy conservation, space, safety and health problems, equipment utilization, etc.			o	o	o	o				DDyyyW 6680
G. Provide requests for contract action to OAMS as approved in annual program and project plans.										DDyyyW 6681
H. Review contract monitoring with Branch on quarterly basis. Identify problem areas and consult with contracting officer.			o	o	o	o				DDyyyW 6682
I. Develop annual merit pay plans.			o							DDyyyW 6683
J. Review progress on merit pay plans.			o	o	o	o				DDyyyW 6684
K. Nominate O/D staff for awards.			o	o	o	o				DDyyyW 6685
L. Complete CS performance evaluations.				o						DDyyyW 6686
M. Complete Commissioned Officer evaluations.			o							DDyyyW 6687
N. Conduct staff meetings with Branch Chiefs.			o	o	o	o				DDyyyW 6688
O. Review monthly status of funds for all projects generally and the O/D as an organization.			o	o	o	o				DDyyyW 6689
P. Report EEO activities quarterly, i.e. recruitment, career development, etc.			o	o	o	o				DDyyyW 6690
Q. Complete Division portion of Annual Report.			o							DDyyyW 6691
R. Complete final reports.			o							DDyyyW 6692
2. Case comparison study of parental employment			129	259	392	532				DDyyyW 6693
3. NOHS-II Survey Manual					o					DDyyyW 6694
4. NOHS-II Sample Design Report						o				DDyyyW 6695
5. NOHS-II Data Editing Report							o			DDyyyW 6696
6. Registry-based occupational cancer surveillance								o		DDyyyW 6697
7. Disability Survey - 1st strategy report			o							DDyyyW 6698
8. Disability Survey - occ. charac. '75-'76				o						DDyyyW 6699
9. Disability Survey - disability '69-76					o					DDyyyW 6700
10. Disability Survey - 2nd strategy report						o				DDyyyW 6701
11. Occupational Mortality in Washington State							o			DDyyyW 6702
12. Information dissemination models - reproductive								o		DDyyyW 6703
13. Information dissemination models - synergistic									o	DDyyyW 6704
14. Material locator system										DDyyyW 6705
15. Poison control centers										DDyyyW 6706
16. Abrasive blasting										DDyyyW 6707

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
17. Uranium enrichment						o					DDyyyW	6716
18. Uranium millers				o							DDyyyW	6717
19. Uranium miners					o						DDyyyW	6718
20. TEL - Ind. Hyg.			o								DDyyyW	6719
21. New Agents-III (Paraquat)					o						DDyyyW	6720
22. New Agents-III (Vanadium)						o					DDyyyW	6721
23. Formaldehyde - Ind. Hyg.						o					DDyyyW	6722
24. Tanning - Ind. Hyg. (Vegetable)				o							DDyyyW	6723
25. Automotive Wood Die (ind. Hyg)			o								DDyyyW	6724
26. Version D Life Table				o							DDyyyW	6725
27. Ind. Epid. Exercises					o						DDyyyW	6726
28. Worker notification						o					DDyyyW	6727
29. Pulp and paper - Mort.			o								DDyyyW	6728
30. Pulp and paper - ind. hyg.						o					DDyyyW	6729
31. Dow case control study						o					DDyyyW	6730
32. Health Hazard Evaluations			125	250	375	500					DDyyyW	6731
33. Biological hazards					o						DDyyyW	6732
S. Criteria Documentation, Standards Support and Research Grants											DDyyyW	6733
1. Evaluate and participate on research grants.			5	10	15	20					DDyyyW	6734
2. Submit RFA's for research grants to OECSP.			1	2	3	4					DDyyyW	6735
3. Complete input to criteria documents, CIB's, etc.			2	4	6	8					DDyyyW	6736
4. Complete support to OSHA and MSHA for hearings, etc.			1	2	3	4					DDyyyW	6737
5. Complete support and testimony for congressional hearings.			1	2	3	4					DDyyyW	6738
T. Quarterly projections of person-years.			48.8	97.6	146	195					DDyyyW	6739
U. Quarterly projections of free funds.			2.5k	3.5k	4.4k	5.2k					DDyyyW	6740
											DDyyyW	6741
											DDyyyW	6742
											DDyyyW	6743
											DDyyyW	6744
											DDyyyW	6745
											DDyyyW	6746
											DDyyyW	6747
											DDyyyW	6748



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED	COMPLETION	O C N	P M F	R E U	RESOURCES											
							I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF
																	\$1000	\$1000
<b>DIVISION OF SAFETY RESEARCH</b>																		
5. Testing and Certification Branch Management (Campbell 923-7331) (VLI-mbp-852)(5.0/200.0/350.0)(100/VEd-Wyy-852)	72	C																E W 6751
.1 Prepare and submit for publication revised certified equipment list																		E W 6752
.2 Issue approvals, denials, stop sales, and recalls			37	74	111	148												EdyyyW 6753
.3 Summary report on certification issues																		EdyyyW 6754
.4 Complete 100% of rewrite of administrative portion of CFR II and submit to Director, DSR																		EdyyyW 6755
.5 Receive Phase II laboratory modification approval for respirator research and field investigation program from OD																		EdyyyW 6756
.6 Complete draft of systems manual defining the operating procedures for evaluation and certification of respirators																		EdyyyW 6757
.7 Submit recommendations regarding the inactivation, termination or reactivation of sound level meter program																		EdyyyW 6758
6. Safety Division Management(Oppold 923-7595) (VLA-vpb-802)(8.0/250.0/490.0)(100/VEE-Wyy-802)	77	C																EdyyyW 6759
.1 Personnel Evaluations																		EdyyyW 6760
a.Completion of evaluations for 54 civil service personnel																		EdyyyW 6761
b.Completion of evaluations for 17 commissioned officers																		EdyyyW 6762
.2 All hands briefing meetings																		EdyyyW 6763
.3 Nominate appropriate staff for recognition at Annual Award Ceremony.																		EdyyyW 6764
.4 Submit EEO report to NIOSH EEO Officer																		EdyyyW 6765
.5 Receive final reports and submit reports to Director, NIOSH for projects to be completed this year.																		EdyyyW 6766
a. Safety Surveillance Branch			1	3	5	10												EdyyyW 6767
b. Accident and Injury Epidemiology Branch				1	8	9												EdyyyW 6768
c. Standards and Consultation Branch			1	1	1	7												EdyyyW 6769
d. Testing and Certification Branch						4	6											EdyyyW 6770
.6 Spend Non-Personnel funds--(allocations by Branch X 1000)																		EEyyyW 6773
a. Office of Director			48	100	152	200												EEyyyW 6774
b. Safety Surveillance Branch			22	346	379	565												EEyyyW 6775
c. Accident and Injury Epidemiology Branch			75	104	133	138												EEyyyW 6776
d. Standards and Consultation Branch			38	74	262	289												EEyyyW 6777
e. Testing and Certification Branch			590	752	995	.1k												EEyyyW 6778
																		EEyyyW 6779
																		EEyyyW 6780
																		EEyyyW 6781
																		EEyyyW 6782
																		EEyyyW 6783
																		EEyyyW 6784
																		EEyyyW 6785
																		EEyyyW 6786
																		EEyyyW 6787
																		EEyyyW 6788
																		EEyyyW 6789
																		EEyyyW 6790
																		EEyyyW 6791
																		EEyyyW 6792
																		EEyyyW 6793
																		EEyyyW 6794

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES			
		I	C	1Q	2Q			3Q	4Q	NPF	TF
										\$1000	\$1000
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS									F W 6797		
7. NIOSH Extramural Coordination and Special Projects (Bridbord, 443-6437) (VCA-uXy-873) (5.4/0.135/0.302) (100/VCA-Wyy-873)	76	C							F W 6798		
						W c a			FFyyyW 6799		
									FFyyyW 6800		
									FFyyyW 6801		
									FFyyyW 6802		
.1 Perform Institute Extramural Coordination									FFyyyW 6803		
a. Represent Institute on Intra-and Inter-agency Committees									FFyyyW 6804		
National Commission on Cancer, Heart and Lung Disease			o	o	o	o			FFyyyW 6805		
HHS Digestive Diseases Coordinating Committee									FFyyyW 6806		
Committee to Coordinate Environmental and Related Programs									FFyyyW 6807		
White House Task Force on Pain									FFyyyW 6808		
Ad Hoc Working Group on Dermatology									FFyyyW 6809		
1990's Task Forces									FFyyyW 6810		
Smoking Task Force									FFyyyW 6811		
b. Human Subjects Review Board (HSRB)									FFyyyW 6812		
Hold meetings of NIOSH Human Subjects Review Board			3	6	9	12			FFyyyW 6813		
c. Interagency Agreements									FFyyyW 6814		
.01 Transfer funds accordingly as spelled out in AFIP Agreement			o	o	o	o			FFyyyW 6815		
.02 Complete agreement with EPA for National Commission on Cancer, Heart and Lung Diseases and transfer funds accordingly						o			FFyyyW 6816		
.2 Special Projects									FFyyyW 6817		
a. Hold Fourth Annual NIOSH Scientific Symposium (Continuing Education Courses)			o						FFyyyW 6818		
b. Develop plans for Fifth Annual NIOSH Scientific Symposium				o					FFyyyW 6819		
c. Hold Occupational Medicine Conference for NIOSH EIS Officers and other staff			o						FFyyyW 6820		
d. Participate in CDC EIS Conference					o				FFyyyW 6821		
e. Develop paper outlining approach for book on "Differential Diagnoses for Occupationally Related Diseases"					o				FFyyyW 6822		
f. Revise Project Concept Memo for Occupational Health Center for Lung Disease				o					FFyyyW 6823		
g. Coordinate NIOSH input into review of Environmental Impact Statements			o	o	o	o			FFyyyW 6824		
									FFyyyW 6825		
									FFyyyW 6826		
									FFyyyW 6827		
									FFyyyW 6828		
									FFyyyW 6829		
									FFyyyW 6830		
									FFyyyW 6831		
									FFyyyW 6832		
									FFyyyW 6833		
									FFyyyW 6834		
									FFyyyW 6835		
									FFyyyW 6836		
									FFyyyW 6837		
									FFyyyW 6838		

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U PY	RESOURCES	
		1Q	2Q	3Q	4Q			NPF	TF
								\$1000	\$1000
8. Office Management (Bridbord, 443-6437) (VCA-vXy-872) (2.0/0.15/0.073) (100/VCA-Wyy-872)	81	C					W c a		
.1 Personnel Evaluations								FFyyyW	6841
a. Completion of evaluations for 20 Civil Servants					o			FFyyyW	6842
b. Completion of evaluations for 3 Commissioned Officers					o			FFyyyW	6843
.2 Receive terminal reports from TA's and submit abstracts to Director, NIOSH on 21 completed research grants			10		21			FFyyyW	6844
.3 Number of publications appearing in scientific journals from NIOSH grant supported research			o	o	o	o		FFyyyW	6845
.4 Receive final reports and submit abstracts to Director, NIOSH on 3 Special Foreign Currency Research Projects				1	2	3		FFyyyW	6846
.5 Accumulated spending of non-personnel funds by organization unit and program by quarter for the Fiscal Year			o	o	o	o		FFyyyW	6847
.6 Submit Quarterly EEO Report to NIOSH EEO Officer			o	o	o	o		FFyyyW	6848
								FFyyyW	6849
								FFyyyW	6850
								FFyyyW	6851
								FFyyyW	6852
								FFyyyW	6853
								FFyyyW	6854
								FFyyyW	6855
								FFyyyW	6856

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES			
		I	C	1Q	2Q			3Q	4Q	NPF	TF
										\$1000	\$1000
<b>DIVISION OF STANDARDS DEVELOPMENT AND TECHNOLOGY TRANSFER</b>											
9. Program Management (R. Lemen 513/684-8302) (VIA-vNX-712, 722, 723, 724, & 082)(100/VIA-Myy-082)	70	C								G W 6859 G W 6860 GayyyW 6861 GayyyW 6862 GayyyW 6863 GayyyW 6864 GayyyW 6865 GayyyW 6866 GayyyW 6867 GayyyW 6868 GayyyW 6869 GayyyW 6870 GayyyW 6871 GayyyW 6872 GayyyW 6873 GayyyW 6874 GayyyW 6875 GayyyW 6876 GayyyW 6877 GayyyW 6878 GayyyW 6879 GayyyW 6880 GayyyW 6881 GayyyW 6882 GayyyW 6883 GayyyW 6884 GayyyW 6885 GayyyW 6886 GayyyW 6887 GayyyW 6888 GayyyW 6889 GayyyW 6890 GayyyW 6891 GayyyW 6892 GayyyW 6893 GayyyW 6894 GayyyW 6895 GayyyW 6896 GayyyW 6897 GayyyW 6898 GayyyW 6899 GayyyW 6900 GayyyW 6901 GayyyW 6902 GayyyW 6903 GayyyW 6904	
.1 Hold monthly Division project progress reviews			o	o	o	o					
.2 Prepare quarterly progress reports for OPPE			o	o	o	o					
.3 Submit final program plans to Director, NIOSH for FY83											
.4 Submit final project plans to OPPE for FY83											
.5 Prepare quarterly status report for Division			o	o	o	o					
.6 Prepare monthly financial status reports for Division			o	o	o	o					
.7 Nominate appropriate staff for recognition at annual awards ceremony						o					
.8 Complete personnel evaluations on merit pay commissioned officers and civil service employees						65					
.9 Respond to requests for evaluation of health information in support of OSHA enforcement activities			5	10	15	20					
.10 Provide scientific support on special projects to Office of Director			1	2	3	4					
a. Submit RFC for Consultant Services Contract				o	o						
b. Award Contract					o						
.11 Submit EEO report quarterly			1	2	3	4					
.12 Utilize Division human resources within 90% of allocation rate (PY)			21.2	42.4	63.6	84.8					
.13 Obligate Division Financial resources within 90% of project expenditure rate (\$1000)			960	1.9m	2.9m	3.9m					
.14 Submit recommendation Documents to Institute Director Office											
a. Criteria Documents				1	2	4					
b. Current Intelligence Bulletins			1	2	3	4					
.15 Perform statistical developmental research:											
a. Produce drafts of 3 of 5 chapters for a NIOSH textbook, "Sampling the Occupational Environment", (Leidel, Busch, and Lynch). 20 chapter total				o	o	o					
b. Assist in the development of a statistical protocol for respiratory quantitative fit testing											
.01 Submit RFC for Statistical Consultant Contract				o							
.02 Review bids					o						
.03 Award Contract						o					
.04 Site visits to monitor contract						o					
.05 Receive progress reports						o					
.06 Receive final report April, 1983											
c. Develop statistical sampling strategies for asbestos and											

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES					
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF	
											\$1000	\$1000	
another material			o			o							GayyyW 6905
d. Review research proposals by providing Executive Officer support for the Statistical Project Review Group (SPRG). Monitor and report quarterly on SPRG activities			o	o	o	o							GayyyW 6906 GayyyW 6907 GayyyW 6908 GayyyW 6909
e. Arrange 4 peer interaction seminars or short courses			1	2	3	4							GayyyW 6910
f. Provide 36 consultation days to scientists as NIOSH statistician liaison			9	18	27	36							GayyyW 6911 GayyyW 6912 GayyyW 6913
g. Perform statistical reviews of 6 manuscripts													GayyyW 6914
.01 two for NIOSH scientists and contractors				1		2							GayyyW 6915 GayyyW 6916
.02 Four for Archives of Environmental Health (as Consulting Editor			1	2	3	4							GayyyW 6917 GayyyW 6918
.16 Maintain and update OSH Guidelines													GayyyW 6919 GayyyW 6920
a. 20 new topics identified and work initiated			4	8	15	20							GayyyW 6921 GayyyW 6922
b. 20 updates or completion of new topics to Guidelines			2	5	10	20							GayyyW 6923
c. Submit RFC for Guidelines Contract Work				o									GayyyW 6924
d. Award Contract					o								GayyyW 6925 GayyyW 6926

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U PY	RESOURCES	
		1Q	2Q	3Q	4Q			NPF	TF
		\$1000	\$1000	\$1000	\$1000			\$1000	\$1000
DIVISION OF TRAINING MANPOWER DEVELOPMENT								H W	6929
10. Program Management and Support (A. Stevens 684-8221) (100/VUA-Wyy-762)(3.5/830/)	76 C					W e a		H W	6930
								HHyyyW	6931
								HHyyyW	6932
								HHyyyW	6933
.1 Provide administration of Division Program and Projects								HHyyyW	6934
.a Finalize Program Plan for FY 82 and submit to OPPE			o					HHyyyW	6935
.b Conduct FY83 Planning								HHyyyW	6936
.1 Strategic Planning Session (NIOSH)			o					HHyyyW	6937
.2 Initial FY83 Program Planning (NIOSH)								HHyyyW	6938
a. Prepare and submit Program Concept Memo				o				HHyyyW	6939
b. Prepare and submit Project Concept Memo				o				HHyyyW	6940
c. Participate in Project Concept Review (NIOSH)					o			HHyyyW	6941
.3 FY83 Program Plan completed					o			HHyyyW	6942
.4 FY83 Project Plans completed						o		HHyyyW	6943
.c Program Progress Reporting								HHyyyW	6944
.1 4QFY81 Program Progress Report preparation and submission and review			o					HHyyyW	6945
.2 1QFY82 Program Progress Report preparation, submission and review				o				HHyyyW	6946
.3 2QFY82 Program Progress Report preparation, submission and review					o			HHyyyW	6947
.4 3QFY82 Program Progress Report preparation submission and review						o		HHyyyW	6948
.d Prepare and submit Annual Reports to Congress (OH&S Act and Mining Act)						o		HHyyyW	6949
								HHyyyW	6950
								HHyyyW	6951
								HHyyyW	6952
.2 Provide Personnel Management								HHyyyW	6953
.a Review Division Staffing, recruitment and staff development plans with EEO Officer					o			HHyyyW	6954
.b Hold all hands meeting with Division Staff, one meeting to include NIOSH Director or his representative		1	2	3	4			HHyyyW	6955
.c Arrange for job-related training for Division staff, including attendance at specialty field related meetings (for at least 50% staff)		3	7	12	15			HHyyyW	6956
.d Finalize Performance Plans (under Employee Performance Management System)								HHyyyW	6957
.1 Conduct interim evaluations								HHyyyW	6958
.2 Conduct final evaluation (1QFY83)						o		HHyyyW	6959
.e Review and adopt or change current MPS Work Plans for Supervisors, to be used in FY82								HHyyyW	6960
.1 Conduct interim evaluation								HHyyyW	6961
.2 Conduct final evaluation						o		HHyyyW	6962
.f Conduct rating and review and submit Commissioned Officer Efficiency Reports								HHyyyW	6963
.e Prepare and submit Award Recommendations								HHyyyW	6964
.3 Coordination of DTMD Activities with and support for other								HHyyyW	6965
								HHyyyW	6966
								HHyyyW	6967
								HHyyyW	6968
								HHyyyW	6969
								HHyyyW	6970
								HHyyyW	6971
								HHyyyW	6972
								HHyyyW	6973
								HHyyyW	6974

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F R E U O C N G H D			RESOURCES		
		I	C	1Q	2Q	3Q	4Q	PY	NPF	TF	
									\$1000	\$1000	
NIOSH O/D's									HHyyyW	6975	
.a Review Criteria Documents and Profiles, manuscripts, reports, contract proposals, etc. for other O/D's			10	20	30	40			HHyyyW	6976	
.b Provide DTMD personnel for participation in Special Activities/Committees, etc. (HSRB, Long Term Training Committee, NIOSH Residency Committee, etc)			2	5	8	10			HHyyyW	6977	
.4 Maintain Liaison with other Federal Agencies, Professional Associations, Unions, Trade Associations, Academia									HHyyyW	6978	
.a Monitor TVA IA; receive reports and advise OPPE/ Director NIOSH on maintenance/modification/termination of agreement						o			HHyyyW	6979	
.b Meet with OSHA Office of Training and Education to coordinate training/education activities				1		2			HHyyyW	6980	
.c Meet with MSHA to plan/review joint training/education activities				1		2			HHyyyW	6981	
.d Provide for assistance, development of joint projects etc. with OSHA, BOM, EPA, GSA, etc.*							o		HHyyyW	6982	
.5 Maintain Liaison with Foreign Nations									HHyyyW	6983	
.a Receive visitors as scheduled by OD NIOSH (est. 6 visitors/delegations)			o	o	o	o			HHyyyW	6984	
.b Arrange for exchange of training/education procedures, materials etc.			c	o	o	o			HHyyyW	6985	
.c Provide assistance, development of joint projects, etc.*									HHyyyW	6986	
.6 Administer free funds allocations (K)									HHyyyW	6987	
.a Office of the Director			7	13	19	26			HHyyyW	6988	
.b Direct Training Branch			61	88	126	156			HHyyyW	6989	
.c Curriculum Development Branch			108	215	306	355			HHyyyW	6990	
.d Educational Resource Development			198	210	294	332			HHyyyW	6991	
.e Training Grants					7M	7M			HHyyyW	6992	
.f Total Free Funds			274	526	.745	7.86			HHyyyW	6993	
*This will be done on an "as requested" basis. No positive action will be taken by DTMD, response will be made as appropriate, eg. as required by OD, NIOSH									HHyyyW	6994	
									HHyyyW	6995	
									HHyyyW	6996	
									HHyyyW	6997	
									HHyyyW	6998	
									HHyyyW	6999	
									HHyyyW	7000	
									HHyyyW	7001	
									HHyyyW	7002	
									HHyyyW	7003	
									HHyYyW	7004	
									HHyyyW	7005	
									HHyyyW	7006	
									HHyyyW	7007	
									HHyyyW	7008	
									HHyyyW	7009	
OFFICE OF ADMINISTRATIVE AND MANAGEMENT SERVICES									J W	7011	
									J W	7012	
11. Administrative Services Branch-Rockville (M.Cramer,443-1646) (VGC-vXX-042)(100/VGC-vXX-042)(VGC-vXX-052) (100/VGC-vXX-052)	81	81							W c a	JayyyW	7013
										JayyyW	7014
										JayyyW	7015
										JayyyW	7016
12. Administrative Services Branch-Cincinnati (A. Hollmeyer, 684-8236) (VGD-vXX-043)(100-VGD-vXX-043)(VGD-vXX-053) (100/VGD-vXX-053)	81	81							W c a	JayyyW	7017
										JayyyW	7018
										JayyyW	7019
										JayyyW	7020
										JayyyW	7021

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES					
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000	
13. Administrative Services Branch-Morgantown (C.Dalton, 923-7126) (VGB-vXX-054)(100/VGB-vXX-054)(VGB-vXX-055) (100/VGB-vXX-055)(VGB-vXX-056)(100/VGB-vXX-056) (VGB-vXX-057)(100/VGB-vXX-057)(VGB-vXX-058) (100/VGB-vXX-058)	81	81					W	c	a		JayyyW	7022	
											JayyyW	7023	
											JayyyW	7024	
											JayyyW	7025	
											JayyyW	7026	
											JayyyW	7027	
											JayyyW	7028	
14. Financial Management Branch-Rockville (D.Boyd,443-1518) (VGE-vXX-036)(100/VGE-vXX-035)(VGE-vXX-035) (100/VGE-vXX-036)	81	81					W	c	a		JbyyyW	7029	
											JbyyyW	7030	
											JbyyyW	7031	
											JbyyyW	7032	
15. Financial Management Branch-Cincinnati R. Scheve, 684-8277 (VGE-vXX-037)(100/VGE-vXX-037)	81	81					W	c	a		JbyyyW	7033	
											JbyyyW	7034	
											JbyyyW	7035	
											JbyyyW	7036	
16. TAPS (D.Boyd, 443-1518) (VGE-vXX-038)(100/VGE-vXX-038) (VGE-vXX-032)(100/VGE-vXX-032)	81	81					W	c	a		JbyyyW	7037	
											JbyyyW	7038	
											JbyyyW	7039	
											JbyyyW	7040	
17. Management Systems, ADP-Cincinnati (L. Catlett) (VGP-vXX-048)	81	81					W	c	a		JcyyyW	7041	
											JcyyyW	7042	
											JcyyyW	7043	
18. Management Svstems Branch (P.Bengtson,443-3227) (VGP-vXX-044)(100/VGP-vXX-044)(VGP-vXX-049) (100/VGP-vXX-049)(VGPvXX-050)(100/VGP-vXX-050) (VGP-vXX-048)(100/VGP-vXX-048)	81	81					W	c	a		JcyyyW	7044	
											JcyyyW	7045	
											JcyyyW	7046	
											JcyyyW	7047	
											JcyyyW	7048	
19. Procurement, Grants & Property Management (M. Stitely, 443-3440) (VGJ-vXX-039)(100/VGJ-vXX-039) (VGJ-vXX-060)(100/VGJ-vXX-060)	81	81					W	c	a		JdyyyW	7049	
											JdyyyW	7050	
											JdyyyW	7051	
											JdyyyW	7052	
											JdyyyW	7053	
20. Office of the Director, OAMS (R. Coene, 443-1697) (VGA-vXX-033)(100/VGA-vXX-033)	81	81					W	c	a		JJyyyW	7054	
											JJyyyW	7055	
											JJyyyW	7056	
21. Internal Safety Management (J. Dixon, 684-8391) (VGA-vXX-034)(100/VGA-vXX-034)	81	81					W	c	a		JJyyyW	7057	
											JJyyyW	7058	
											JJyyyW	7059	
OFFICE OF THE DIRECTOR											K	W	7060
											K	W	7061
22. Institute Policy (R. Coene, 443-1530) (VAA-vXX-003)(100/VAA-vXX-003)(VAA-vXX-002) (100/VAA-vXX-002)(VAA-aXk-010)(100/VAA-aXk-010) (VAA-vXX-006)(100/VAA-vXX-006)(VAA-aBd-009) (100/VAA-aBd-009)(VAA-vXX-012)(100/VAA-vXX-012)	81	81					W	c	a		KKyyyW	7062	
											KKyyyW	7063	
											KKyyyW	7064	
											KKyyyW	7065	
											KKyyyW	7066	
											KKyyyW	7067	



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	PY	\$1000	\$1000
23. Equal Employment Opportunity (M. Bell, 443-3744) (VAA-vXX-004)(100/VAA-vXX-004)	81	81					W	c	a			
											KKyyyW	7068
											KKyyyW	7069
											KKyyyW	7070
24. Long Term Training (F. Dense) (VAA-vXX-002)	81	81					W	c	a			
											KKyyyW	7071
											KKyyyW	7072
											KKyyyW	7073
25. Labor Liaison Activities (R. Dobbin) (VAA-vXX-006)	81	81					W	c	a			
											KKyyyW	7074
											KKyyyW	7075
											KKyyyW	7076
26. Facilities Planning and Engineering Services (J. Coble) (VAA-vXX-012)(100/VAA-vXX-012)	81	81					W	c	a			
											KKyyyW	7077
											KKyyyW	7078
											KKyyyW	7079
OFFICE OF PROGRAM PLANNING AND EVALUATION											L	W
											L	W
27. Planning (S. Fishman, 443-6467) (VEA-100-022) (100/VEA-Wyy-022)	71	C					W	c	a			
											LayyyW	7083
											LayyyW	7084
											LayyyW	7085
											LayyyW	7086
.1 Complete final tasks for FY1983 budget											LayyyW	7087
a. Submit to Director OPPE a briefing for OMB hearing on FY1983 budget (Oct)				o							LayyyW	7088
b. Develop budget overview and assist OAMS in developing Congressional Submission (Jan) and in developing a briefing book for Congressional hearings on FY1983 budget (Feb)					o						LayyyW	7089
											LayyyW	7090
											LayyyW	7091
											LayyyW	7092
.2 Complete NIOSH Program Plan for FY1982											LayyyW	7093
a. Submit final plan to Director, OPPE				o							LayyyW	7094
b. Submit publication plan to Communications Committee for FY1982 Program Plan (Nov)				o							LayyyW	7095
											LayyyW	7096
.3 Develop policies for FY1984 budget request											LayyyW	7097
a. Submit background papers for FY1984 budget to Director OPPE (Jan)					o						LayyyW	7098
											LayyyW	7099
b. Submit to OAMS approved policies for request to CDC (Feb)					o						LayyyW	7100
.4 Develop NIOSH Program Plan for FY1983											LayyyW	7101
a. Submit to Director OPPE a review of Division Program Memoranda (Feb)					o						LayyyW	7102
											LayyyW	7103
b. Submit proposed program guidance for FY1983 to Director OPPE (April)						o					LayyyW	7104
											LayyyW	7105
c. Submit to Director OPPE a review of project concept memoranda (June)							o				LayyyW	7106
											LayyyW	7107
d. Submit to Director OPPE a review of project plans (Sept)								o			LayyyW	7108
.5 Submit to OAMS an update manpower management system (Jan)											LayyyW	7109
.6 Special Assignments (e.g. 1980 objectives, health research principles, health research priorities)			1	2	3	4					LayyyW	7110
											LayyyW	7111
											LayyyW	7112

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	RESOURCES		
		1Q	2Q	3Q	4Q		NPF	TF	
							PY \$1000	\$1000	
28. Evaluation (A. Pezaro, 443-4366) (VEA-vXy-023) (100/VEA-Wyy-023)	71 C					W c a			LbyyyW 7115
									LbyyyW 7116
									LbyyyW 7117
.1 Prepare quarterly program analysis		o	o	o	o				LbyyyW 7118
.2 Interagency agreements									LbyyyW 7119
a. Number received		10	25	40	50				LbyyyW 7120
b. Percent processed within 10 workdays		90	90	90	90				LbyyyW 7121
.3 FRA clearances									LbyyyW 7122
a. Number received from Divisions		3	6	9	12				LbyyyW 7123
b. Percent forwarded to CDC within 10 workdays		100	100	100	100				LbyyyW 7124
c. Report to Director, OPPE on those in process		1	2	3	4				LbyyyW 7125
d. Submit information collection budget to OMB			o						LbyyyW 7126
e. Submit report to CDC on use of NIOSH generic clearances					o				LbyyyW 7127
f. Respond to information requests from CDC on OMB activities		4	8	12	16				LbyyyW 7128
.4 Unsolicited Proposals									LbyyyW 7129
a. Number received		10	20	30	40				LbyyyW 7130
b. Percent reviewed and summarized within 45 days		90	90	90	90				LbyyyW 7131
.5 Evaluations									LbyyyW 7132
a. Surveillance									LbyyyW 7133
.1 Submit protocol to Director, OPPE		o							LbyyyW 7134
.2 Initiate data collection			o						LbyyyW 7135
.3 Complete data collection				o					LbyyyW 7136
.4 Complete data analysis				o					LbyyyW 7137
.5 Submit draft final report to Director, OPPE				o					LbyyyW 7138
.6 Submit final report to Director, NIOSH					o				LbyyyW 7139
b. Control Technology Assessment									LbyyyW 7140
.1 Submit protocol to Director, OPPE			o						LbyyyW 7141
.2 Initiate data collection				o					LbyyyW 7142
.3 Complete data collection					o				LbyyyW 7143
.4 Complete data analysis					o				LbyyyW 7144
.5 Submit draft final report to Director, OPPE					o				LbyyyW 7145
.6 Submit final report to Director, NIOSH					o				LbyyyW 7146
c. Evaluation of NIOSH Impact on Workers									LbyyyW 7147
.1 Submit RFC to OAMS		o		o					LbyyyW 7148
.2 Award contract (CDC)				o					LbyyyW 7149
.3 Monitor contract			o		o				LbyyyW 7150
.4 Review draft of final report (3Q83)					o				LbyyyW 7151
.5 Transmit final report to Director, NIOSH and make appropriate recommendation (4Q83)					o				LbyyyW 7152
.6 Complete peer-review evaluation					o				LbyyyW 7153
.7 Complete special projects assigned by Director, OPPE		o	o	o	o				LbyyyW 7154
.8 Tracking									LbyyyW 7155
a. Institute's final reports		1	2	3	4				LbyyyW 7156
b. Action items developed at NIOSH/OSHA meeting in 1Q		o	o	o	o				LbyyyW 7157
c. Accuracy of administrative services projects		o	o	o	o				LbyyyW 7158
d. Institute's manuscript submission		o	o	o	o				LbyyyW 7159
									LbyyyW 7160

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	PLANNED COMPLETION				P M F			RESOURCES					
		I	C	1Q	2Q	3Q	4Q	O	C	N	PY	\$1000	\$1000	
				G	H	D								
e. Action items developed at NIOSH/MSHA/BOM meeting in 2Q				o	o							LbyyyW	7161	
f. Program milestones generated by GAO reports on HHE and cancer programs			o	o	o	o						LbyyyW	7162	
g. HHE and ERC milestones for CDC's PED's system												LbyyyW	7163	
h. OMS tracking of HHE program milestones (CDC/ASPE)			o	o	o	o						LbyyyW	7164	
i. Action items developed for Divisions during quarterly review			o	o	o	o						LbyyyW	7165	
j. Review all RFC submissions			o	o	o	o						LbyyyW	7166	
												LbyyyW	7167	
												LbyyyW	7168	
												LbyyyW	7169	
29. Office Management OPPE (M. Myers, 443-4364) (VEA-vXy-025) (100/VEA-Wyy-025)	80	C										W c a	LLyyyW	7172
.1 Review training plans for office employees				o	o	o						LLyyyW	7173	
.2 Complete Commissioned Officer Evaluations			2	2	2	2						LLyyyW	7174	
.3 Complete Merit Pay Plans			0	3	3	3						LLyyyW	7175	
.4 Complete Merit Pay evaluations				o	o	o						LLyyyW	7176	
.5 Complete Civil Service evaluations					o	o						LLyyyW	7177	
.6 Accumulated Spending of Non-personnel funds by Branch			30.9	106	170	226						LLyyyW	7178	
a. Office Management			11.8	35.2	49.3	56.2						LLyyyW	7179	
b. Planning and Program Development			11.8	20.3	25.9	30						LLyyyW	7180	
c. Evaluation and Control			7.3	60.4	94.7	140						LLyyyW	7181	
.7 Accumulated Use of Full-Time Equivalent			6.0	9.0	13.0	17.0						LLyyyW	7182	
a. Permanent full-time			3.0	6.0	8.0	10.0						LLyyyW	7183	
.8 Meet Office milestones (percent)												LLyyyW	7184	
a. Planning and Program Development			50	50	50	50						LLyyyW	7185	
b. Evaluation and Control			50	50	50	50						LLyyyW	7186	
												LLyyyW	7187	
												LLyyyW	7188	
												LLyyyW	7189	

## ALL OTHER PROGRAM AREAS

### Office of Extramural Coordination and Special Projects

Research and Demonstration Grants--This OECSP program area, by the very nature of the grants program which cuts across all the OSH field, does not break out into a single program area. Priorities had been set earlier for grants in the OSH areas of reproductive effects and occupational skin diseases. Other efforts had been considered in the areas of mining, respiratory protection, and delivery of OSH services through health maintenance organizations (occupational health and medical care), but announcements have been held up because of restrictions in funding. Announcements under consideration and in various stages of development are the areas of center grants (program project grants), training new investigators, support for Ph.D.-thesis students, support for conferences with other Federal agencies and professional organizations, cardiovascular disease studies, curriculum development for schools of engineering (including chemical), ergonomics, registry of occupational lung diseases, and a textbook on differential diagnosis of occupationally related diseases.

It is expected that OECSP will be able to expand its promotion of interest in occupational health among physicians through recent increased working relationships with the American Academy of Preventive Medicine which will provide OECSP with the results of their recent survey of physicians who practice preventive medicine, occupational medicine in particular.

Needs for Expansion--Efforts toward expansion of several of OECSP's ongoing activities that have indicated this need include: additional resources for research grants; liaison and information exchange with other Federal agencies (recent Presidential Executive Order); involvement, bilaterally and multilaterally, in international programs; strategies to increase involvement of traditional health care providers in delivery of OSH services; participation in conferences on subjects that have had limited attention, such as human subjects review; dissemination of information and technical assistance to the private sector; and investigation of potential resources, governmental and private sector, in support of NIOSH research and demonstration efforts.

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
				1Q	2Q	3Q	4Q			NPF	TF
										\$1000	\$1000
*****ALL OTHER*****											X 7193
DIVISION OF BIOMEDICAL AND BEHAVIORAL SCIENCE											X 7194
											A X 7195
											A X 7196
1. Diagnostic & Research Pathology Services (D. Groth, 684-8361) (100/VOT-Xyy-386)	82		C					X c a			AdyyyX 7198
.1 Complete SOPs for common methods				o							AdyyyX 7199
.2 Perform animal autopsies (approx. 300/Q)				o	o	o	o				AdyyyX 7200
.3 Prepare histopathology slides (approx. 3400/Q)				o	o	o	o				AdyyyX 7201
.4 Prepare tissue sections for electron microscopy (approx. 150/Q)				o	o	o	o				AdyyyX 7202
.5 Perform hematology tests (approx. 125/Q)				o	o	o	o				AdyyyX 7203
.6 Submit progress reports to Director, DBBS				o	o	o	o				AdyyyX 7204
.7 Submit final project report to Director, DBBS							o				AdyyyX 7205
.8 Submit abstract to Director, NIOSH							o				AdyyyX 7206
2. Particulate and Tissue Analysis Support (L. Stettler, 684-8337) (100/VOT-Xyy-387)	82		C					X b a			AdyyyX 7207
.1 Submit progress report to Director, DBBS				o	o	o	o				AdyyyX 7208
.2 Submit RFC to OAMS (trace elemental analysis)				o							AdyyyX 7209
.3 Award contract							o				AdyyyX 7210
.4 Complete microprobe analyses of 85% of samples per quarter (4000/Q)				o	o	o	o				AdyyyX 7211
.5 Complete particle size analyses of 85% of samples per quarter (25/Q)				o	o	o	o				AdyyyX 7212
.6 Complete EM evaluation of tissue sections, 85% per quarter (25/Q)				o	o	o	o				AdyyyX 7213
.7 Submit final report to Director, DBBS							o				AdyyyX 7214
.8 Submit abstract to Director, NIOSH							o				AdyyyX 7215
											AdyyyX 7216
											AdyyyX 7217
											AdyyyX 7218
											AdyyyX 7219
											AdyyyX 7220
											AdyyyX 7221
											AdyyyX 7222
											AdyyyX 7223
											AdyyyX 7224
											AdyyyX 7225
											AdyyyX 7226
											AdyyyX 7227
											AdyyyX 7228
											AdyyyX 7229
											AdyyyX 7230
											AdyyyX 7231

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES	
				1Q	2Q	3Q	4Q			NPF	TF
										\$1000	\$1000
3. Animal Husbandry Support Service (J. Lal, 684-8360) (100/VOT-Xyy-385)	81		C					X c a			
.1 Develop hazard data sheet (H.D.S) (1Q81)										AdyyyX	7234
.2 Submit H.D.S. to Director, DBBS (1Q81)										AdyyyX	7235
.3 Submit H.D.S. to all project staff (1Q81)										AdyyyX	7236
.4 Develop RFC (1Q81)										AdyyyX	7237
.5 Complete peer review process (2Q81)										AdyyyX	7238
.6 Submit RFC to Director, DBBS (2Q81)										AdyyyX	7239
.7 Submit RFC to OAMS (2Q81)										AdyyyX	7240
.8 Submit progress reports to Director, DBBS				o	o	o	o			AdyyyX	7241
.9 Award contract					o					AdyyyX	7242
.10 Perform animal husbandry services and contract management				o	o	o	o			AdyyyX	7243
.11 Provide supplemental training of animal caretakers and DBBS staff				o	o	o	o			AdyyyX	7244
.12 Submit final project report to Director, DBBS							o			AdyyyX	7245
.13 Submit abstract to Director, NIOSH							o			AdyyyX	7246
										AdyyyX	7247
										AdyyyX	7248
										AdyyyX	7249
										AdyyyX	7250
										AdyyyX	7251

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY	I	C	PLANNED COMPLETION				P M F R E U O C N			RESOURCES				
				1Q	2Q	3Q	4Q	G	H	D	PY	NPF	TF		
												\$1000	\$1000		
4. Inhalation Toxicology Service and Research (A. Khan, 684-8356) (100/VOT-Xyy-379)	82		C						X	b	a			AdyyyX	7254
														AdyyyX	7255
														AdyyyX	7256
.1 Award service contract (RFC 210-81-6108-DR)														AdyyyX	7257
.2 Complete development of Standard Operating Procedures														AdyyyX	7258
.3 Comparative Cardiac Toxicity of Inhaled Amines (V00 339)														AdyyyX	7259
a. Initiate 90-day exposures:														AdyyyX	7260
(1) Allylamine														AdyyyX	7261
(2) Triethylamine														AdyyyX	7262
b. Complete exposures:														AdyyyX	7263
(1) Allylamine														AdyyyX	7264
(2) Triethylamine														AdyyyX	7265
c. Complete pilot study:														AdyyyX	7266
(1) Amine #3														AdyyyX	7267
(2) Amine #4														AdyyyX	7268
d. Initiate 90-day exposures:														AdyyyX	7269
(1) Amine #3														AdyyyX	7270
(2) Amine #4														AdyyyX	7271
e. Complete 90-day exposures:														AdyyyX	7272
(1) Amine #3														AdyyyX	7273
(2) Amine #4														AdyyyX	7274
.4 Pulmonary Hypersensitivity of Industrial Metals (VOT 329)														AdyyyX	7275
a. Complete pilot study:														AdyyyX	7276
(1) Platinum														AdyyyX	7277
(2) Chlorine														AdyyyX	7278
b. Initiate subchronic exposures:														AdyyyX	7279
(1) Platinum														AdyyyX	7280
(2) Chlorine														AdyyyX	7281
c. Complete exposures:														AdyyyX	7282
(1) Platinum														AdyyyX	7283
(2) Chlorine														AdyyyX	7284
d. Complete pilot study:														AdyyyX	7285
(1) Vanadium														AdyyyX	7286
(2) Ozone														AdyyyX	7287
e. Initiate subchronic exposures:														AdyyyX	7288
(1) Vanadium														AdyyyX	7289
(2) Ozone														AdyyyX	7290
f. Complete exposures:														AdyyyX	7291
(1) Vanadium (2Q83)														AdyyyX	7292
(2) Ozone (2Q83)														AdyyyX	7293
.5 Emergency Toxicologic Assessment (V00)														AdyyyX	7294
a. Chemical I:														AdyyyX	7295
(1) Complete pilot study														AdyyyX	7296
(2) Complete repeated dose study														AdyyyX	7297
(3) Initiate 90-day exposures														AdyyyX	7298
(4) Complete 90-day study														AdyyyX	7299

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				O C N G H D	P M F R E U O C N G H D	RESOURCES		
		1Q	2Q	3Q	4Q			PY	NPF	TF
								\$1000	\$1000	
b. Chemical II:								AdyyyX	7300	
(1) Complete pilot study				o				AdyyyX	7301	
(2) Complete repeated dose study				o				AdyyyX	7302	
(3) Initiate 90-day exposures				o				AdyyyX	7303	
(4) Complete 90-day study.					o			AdyyyX	7304	
.6 Initiate automation program for inhalation toxicology facility.								AdyyyX	7305	
a. Chronic inhalation laboratory			o					AdyyyX	7306	
b. High Hazard Inhalation laboratory				o				AdyyyX	7307	
c. Acute inhalation laboratory				o				AdyyyX	7308	
.7 Complete training of inhalation toxicology personnel		o	o	o	o			AdyyyX	7309	
.8 Submit progress reports to OD, DBBS		o	o	o	o			AdyyyX	7310	
.9 Submit final project report to OD, DBBS					o			AdyyyX	7311	
.10 Submit abstract to Director, NIOSH					o			AdyyyX	7312	
								AdyyyX	7313	
								AdyyyX	7314	
<b>DIVISION OF RESPIRATORY DISEASE STUDIES</b>								C X	7316	
								C X	7317	
5. Task Order Medical Services Contract (Spransy G 304-599-7387) (VKL-bDX-182)(100/VCa-Xmy-182)	81	C					X a b	CamyyX	7319	
								CamyyX	7320	
								CamyyX	7321	
.1 Initiate task order for medical support services in support of Division field cohort studies			1	3	5	7		CamyyX	7322	
.2 Receive survey data and monitor tasks			o	o	o	o		CamyyX	7323	
								CamyyX	7324	
6. Animal & Exposure Facility-Support (Major P 304-599-7256) (VKC-cDd-123)(100/VCd-Xdg-123)	81	C					X b a	CddgyX	7325	
								CddgyX	7326	
.1 Order equipment for inhalation facility			o					CddgyX	7327	
.2 Install equipment for inhalation facility					o			CddgyX	7328	
.3 Calibrate equipment for inhalation facility						o		CddgyX	7329	
.4 Monitor support contract, FY81/82				o	o	o		CddgyX	7330	
.5 Monitor support (1,2,3,4Q83)								CddgyX	7331	
.6 Monitor support contract (1,2,3,4Q84)								CddgyX	7332	
								CddgyX	7333	
								CddgyX	7334	
								CddgyX	7335	
								CddgyX	7336	
								CddgyX	7337	
7. Computer Support (Boyce L 304-599-7306) (VKQ-uDX-232)(100/VCe-Xmn-232)	70	C					X b b	CemnyX	7340	
								CemnyX	7341	
.1 Process medical exam data			o	o	o	o		CemnyX	7342	
.2 Programming HHE's			o	o	o	o		CemnyX	7343	
.3 Programming research			o	o	o	o		CemnyX	7344	
.4 Data entry			o	o	o	o		CemnyX	7345	
								CemnyX	7346	
								CemnyX	7347	



PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				PLANNED COMPLETION				P M F			RESOURCES				
	I	C	1Q	2Q	3Q	4Q	G	H	D	O	C	N	PY	NPF	TF	
														\$1000	\$1000	
DIVISION OF SURVEILLANCE, HAZARD EVALUATIONS AND FIELD STUDIES																
8. Biological Hazards in the Workplace (Larry Elliott 513-684-2876) (100/VMH-Xdd-575)	81	82								X	c	a				
A. Initiate walk-through surveys (1Q81).														D	X	7350
B. Complete walk-through surveys.														D	X	7351
C. Complete industrial hygiene reports.														DbdddX		7352
D. Complete final report and transmit abstract to Director, NIOSH and copy to DTS.														DbdddX		7353
														DbdddX		7354
														DbdddX		7355
														DbdddX		7356
														DbdddX		7357
														DbdddX		7358
														DbdddX		7359
														DbdddX		7360
														DbdddX		7361

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY I C	PLANNED COMPLETION				P M F R E U O C N G H D	PY	RESOURCES		
		1Q	2Q	3Q	4Q			NPF	TF	
								\$1000	\$1000	
OFFICE OF EXTRAMURAL COORDINATION AND SPECIAL PROJECTS										F X 7364
9. Research and Demonstration Grants (Moshell, 443-4493) (VCE-tXy-875) (0/2.2/2.2) (100/VCE-Xyy-875) (VCE-tXy-874) (9/0.115/0.375) (100/VCE-Xyy-874)	71 C					X e a				F X 7365 FayyyX 7366 FayyyX 7367 FayyyX 7368 FayyyX 7369 FayyyX 7370 FayyyX 7371 FayyyX 7372 FayyyX 7373 FayyyX 7374 FayyyX 7375 FayyyX 7376 FayyyX 7377 FayyyX 7378 FayyyX 7379 FayyyX 7380 FayyyX 7381 FayyyX 7382 FayyyX 7383 FayyyX 7384 FayyyX 7385 FayyyX 7386 FayyyX 7387 FayyyX 7388 FayyyX 7389 FayyyX 7390 FayyyX 7391 FayyyX 7392 FayyyX 7393 FayyyX 7394 FayyyX 7395 FayyyX 7396 FayyyX 7397 FayyyX 7398 FayyyX 7399 FayyyX 7400 FayyyX 7401 FayyyX 7402 FayyyX 7403 FayyyX 7404 FayyyX 7405 FayyyX 7406 FayyyX 7407 FayyyX 7408 FayyyX 7409
.1 Program Development										
a. Develop a research program project grants effort										
.01 Develop a request for applications for approval by Director, NIOSH and CDC			o							
.02 Publish and distribute announcement				o						
.03 Receive and acknowledge letters of intent from potential applicants responses to inquiries					o					
.04 Develop a review panel for applications and make arrangements for meeting						o				
.05 Site visit applicants							o			
.06 Conduct review meeting								o		
.07 Conduct secondary review of approvals									o	
.08 Prepare funding recommendation packages										o
b. Publish and distribute FY 1981 annual report for information/public relations										
.01 Update summaries for continuations with input from Technical Advisors			o							
.02 Prepare summaries of new FY 1981 awards			o							
.03 Prepare program summary information			o							
.04 Develop final camera ready copy and gain approval to publish			o							
.05 Publish and distribute				o						
.2 Program Monitoring and Evaluation										
a. Training and Orientation for TAs										
.01 Conduct training sessions for NIOSH Technical Advisors in Cincinnati			o	o	o					
.02 Develop final draft of Technical Advisor's handbooks			o							
.03 Publish and distribute TA handbook			o							
b. Renewals and Extension Requests for non-competitive grants										
.01 Number of reviews of progress reports coordinated with TAs			1	4	10	21				
.02 Number of requests for time extensions reviewed				3		7				
.03 Number of type 5 justifications prepared			1	4	10	21				
c. Prepare project summaries and accomplishments										
.01 Number of final reports received			10		15	30				
.02 Number of project accomplishment summaries coordinated with grantee and TA				10	21					
.03 Number of project summaries prepared				10	21	23				
.3 Grant Application Review and Funding										

PROJECT OBJECTIVE DESCRIPTION - MILESTONES - PROJECT OFFICER	FY				P M F				RESOURCES			
	PLANNED		COMPLETION		R E U				NPF	TF		
	I	C	1Q	2Q	3Q	4Q	O	C	N	PY	\$1000	\$1000
a. Conduct secondary review process			o								FayyyX	7410
.01 Prepare packages and conduct secondary review			o	o	o						FayyyX	7411
.02 Prepare funding packages for Types 1 & 2			o	o		o					FayyyX	7412
b. Safety and Occupational Health Study Section											FayyyX	7413
.01 Percent grant applications received and sent to reviewers 2 months prior to meeting			100	100	100						FayyyX	7414
.02 Hold Study Section meetings			o	o	o						FayyyX	7415
.03 Research and demonstration grant applications reviewed			60	70	55						FayyyX	7416
.04 Training grant applications reviewed			2	4	1						FayyyX	7417
.05 Grant applications approved (percent)											FayyyX	7418
- Research and Demonstration			25	25	25						FayyyX	7419
- Training			30	30	30						FayyyX	7420
- Total			25	25	25						FayyyX	7421
.06 Percent summary statements completed for printing within 30 days (December 30)				75	75	100					FayyyX	7422
c. Review of ERC applications											FayyyX	7423
.01 Develop review procedures and panel of reviewers			o								FayyyX	7424
.02 Publish request for applications			o								FayyyX	7425
.03 Number of letters of intent received				30							FayyyX	7426
.04 Number of applications received					20						FayyyX	7427
.05 Hold pre-review Study Section meeting					o						FayyyX	7428
.06 Conduct site visits						30					FayyyX	7429
.07 Conduct Study Section review of applications						o					FayyyX	7430
d. Finalize ad hoc reviewers roster				o							FayyyX	7431
e. Update Study Section membership											FayyyX	7432
.01 Complete and publish Study Section members handbook			o								FayyyX	7433
.02 Orient new members			o								FayyyX	7434
.03 Prepare and receive Institute clearance for nomination packages for seven new members					o						FayyyX	7435
f. Submit I.A. with NIH to OPPE for DRB Processing and Review Support Services			o								FayyyX	7436
g. Submit appropriate grants for HSRB review prior to funding decisions			o	o	o						FayyyX	7437
.4 Program Management											FayyyX	7438
a. Develop strategies for expanding research grant dollars through cooperation with other agencies/organizations				o							FayyyX	7439
											FayyyX	7440
											FayyyX	7441
											FayyyX	7442
											FayyyX	7443
											FayyyX	7444
											FayyyX	7445
											FayyyX	7446
											FayyyX	7447

DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
CENTERS FOR DISEASE CONTROL  
NATIONAL INSTITUTE FOR OCCUPATIONAL SAFETY AND HEALTH  
ROBERT A. TAFT LABORATORIES  
4676 COLUMBIA PARKWAY, CINCINNATI, OHIO 45226

---

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE. \$300

Special Fourth Class-Book



POSTAGE AND FEES PAID  
U.S. DEPARTMENT OF HHS  
HHS 396

DHHS (NIOSH) Publication No. 82-108