Uploaded to VFC Website

November 2012

This Document has been provided to you courtesy of Veterans-For-Change!

Feel free to pass to any veteran who might be able to use this information!

For thousands more files like this and hundreds of links to useful information, and hundreds of "Frequently Asked Questions, please go to:

Veterans-For-Change

Veterans-For-Change is a 501(c)(3) Non-Profit Corporation
Tax ID #27-3820181

If Veteran's don't help Veteran's, who will?

We appreciate all donations to continue to provide information and services to Veterans and their families.

https://www.paypal.com/cgi-bin/webscr?cmd=_s-xclick&hosted_button_id=WGT2M5UTB9A78

Note: VFC is not liable for source information in this document, it is merely provided as a courtesy to our members.

Item ID Number	05713 ☐ **Not Scanned**
Author	
Corporate Author	
Report/Article Title	Draft Minutes of the Meeting on May 8, 1987, Science Panel of the Agent Orange Working Group (AOWG) with attachments
Journal/Book Title	
Year	1987
Month/Day	
Color	☐
Number of Images	16
Description Notes	Attachments include: Letter from Ronald W. Hart, Chairman, Agent Orange Working Group (AOWG) Science Panel, to Peter E. M. Beach regarding Agenda for May 6, 1987 meeting, Serum Levels of 2,3,7,8 -TCDD table, Worker Participation survey tables, Memorandum to Ronald W. Hart, from Director, Center for Environmental Health, Department of Health and Human Services, regarding NIOSH Proposal for OMB Approval to Proceed with Phase II of Dioxin Study, dated April 29, 1987, Letter to Marilyn A. Fingerhut, NIOSH, CDC,DHHS, from Ronald W. Hart, regarding Phase II of Dioxin Study, dated May 6, 1987, and Letter to Ronald W. Hart, from Mark J. Scally, Acting Director, Agent Orange Projects, Center for Environmental Health, regarding review by AOWG of CDC TCDD Validation Study

* * * * D R A F T * * * *

MINUTES OF THE MEETING ON MAY 6, 1987
SCIENCE PANEL OF THE AGENT ORANGE WORKING GROUP

The Science Panel met from 2:05 p.m. until 3:05 p.m. in Room 729G of the Humphrey Building in Washington, D.C. Dr. Ronald W. Hart, Director of the National Center for Toxicological Research and Chairman of the AOWG Science Panel, presided. Members and guests present at the meeting are listed on the attached sign-in sheet (#1).

An agenda was distributed and is attached (#2). The minutes of the February 10, 1987 Science Panel meeting were approved as modified and circulated.

NIOSH PHASE I REPORT: Dr. Marilyn Fingerhut, NIOSH, introduced her co-workers from NIOSH and ATSDR. She gave a brief overview and history of the project. The purpose of this interim report of Phase I has to address concerns expressed by OMB and to request approval from OMB to proceed to Phase II of the NIOSH Dioxin Morbidity and Reproductive Study of U.S. Chemical Workers. The report and support documents were circulated to the Science Panel members prior to this meeting. Dr. Fingerhut introduced the project manager, Dr. Marie Haring Sweeney, who discussed several additional and replacement tables (attachment #3). The new tables included data collected and compiled since the main body of the report was distributed to the Science Panel members.

The discussion of the report was overwhelmingly positive and complimentary toward the NIOSH staff. Dr. Carl Keller, NIEHS, asked about the basis of the TCDD serum level in the first table of the additional handout; Dr. Fingerhut responded that the ppt level is on a lipid-adjusted basis. The positive correlation between the TCDD serum level and both the number of days worked at the NJ plant ($p < 0.05$) and the cumulative exposure rating ($p < 0.03$) was discussed. Dr. Keller pointed out an apparent discrepancy for worker #11 between the calendar years worked and number of days worked; Dr. Fingerhut said it would be checked and corrected. Worker #11 also is abberant when comparing the cumulative exposure rating and the TCDD serum levels. Dr. Sweeney quickly went through the other replacement tables indicating that they supported the original tables with just a few more individuals added to the totals. The discussion brought out that the participants in this study were only paid $300 to take the physical exam at Lovelace Medical Foundation in Albuquerque, New Mexico. Dr. Jerome Bricker, DOD, inquired about the two high values in Attachment 8 of the NIOSH documentation; Dr. Fingerhut indicated that these two individuals probably worked with the "still-bottoms" which contained the highest levels of TCDD in the plant. The two workers who had worked longer but had lower TCDD levels were plant supervisors. Dr. Don Barnes, EPA, suggested that the write-up for OMB concern #2 could be strengthened by emphasizing the controls more than was done; Dr. Al Young, OSTP, supported this suggestion. Dr. Hart inquired about Dr. Vernon Houk's, CDC, suggestion that since plasma levels may be used as biological markers of exposure, the number of

controls may be able to be reduced (attachment #4); Dr. Fingerhut responded that they had considered this possibility but to keep the statistical power at an acceptable level for most comparisons, they preferred to keep the number of controls at the same level as workers. Dr. Barnes inquired about funding and timing for Phase II; Dr. Fingerhut stated that the funding was being applied for in mid-June along with the OMB request for approval. She anticipated a completion of the project in late 1989 or early 1990, if there is no delay in approval and funding of Phase II. Dr. Hart asked for and received a motion to accept and endorse the NIOSH report; the approval was unanimous. It was suggested that a letter to Dr. Fingerhut, indicating the Science Council approval of the report and recommendation to proceed to Phase II as soon as possible, would be appropriate. This letter was drafted and hand-carried to OMB by Dr. Al Young immediately after the meeting (attachment #5).

TCDD HALFLIFE STUDY: Dr. George Stebbing, DOD, reported briefly that 209 Ranch Handers had donated blood for this project. His understanding was that all the samples had been analyzed but he didn't recall the exact numbers at this time. He felt that Dr. Houk would report the findings as soon as they were available.

AO PROJECT STATUS REPORT: Dr. John Young, NCTR, reported that the majority of the updates have been completed, including those that were received today. There are a few outstanding that will be turned in soon. The online computer system is still being setup but will not be accessible until after the written report is produced and approved by the AOWG Domestic Council. A draft copy of the complete report will be circulated to the Science Panel members who contributed to the document to assure that the proper information has been included.

NEXT SCIENCE PANEL MEETING: A tentative date of Tuesday, August 25th, has been set to review the CDC AO Validation Study report. Dr. Mark Scally, CDC, has requested this meeting and will distribute the report toward the end of July (attachment #6). [The meeting was subsequently changed to Thursday, August 6th.]

NEW/OLD BUSINESS: Dr. Julianne Byrne, NCI, reported that Dr. Robert Miller is recovering from a heart attack and should be going home from the hospital soon. Dr. Miller has had a rough time, but is hopefully on the road to recovery. Dr. Hart expressed the feelings of the Science Panel by wishing Dr. Miller a speedy recovery.

Dr. Al Young inquired as to Dr. Hart's contact with the NATO dioxin efforts and felt that Dr. Hart should be the AOWG representative to the NATO group. Dr. Hart agreed to that suggestion and stated that he would keep the Science Panel informed. Dr. Don Barnes is also involved with the NATO effort.

Dr. Barclay Shepard, VA, reported that the VA Mortality Study had been submitted for publication with JAMA and the reviewers comments were being presently addressed. In accordance with the Science Panel procedure of reviewing studies prior to publication, Dr. Shepard will distribute the report just prior to the JAMA publication. If possible, a special Science Panel meeting will be called to discuss the report or the discussion may be included with the August meeting if the timing is appropriate.

Ms. Helen Gelband, OTA, inquired as to the likelihood of the Science Panel reviewing the TCDD halflife study data. Dr. Hart felt that it would be desirable and indicated he felt that Dr. Houk would present the data as soon as it was available. There was some discussion as to the possiblity that the halflife data would be presented along with the Validation Study data.

Dr. Shepard inquired as to the status of the NIOSH Mortality Study; Dr. Fingerhut indicated that the data collection phase probably would be completed and submitted to internal NIOSH review by the end of this year.

Dr. Peter Beach informed the Science Panel members that Dr. Shepard had been presented with an agency distinguished service award at the AOWG Domestic Council meeting of April 14. This may be Dr. Shepard's last Science Panel meeting as his present VA appointment ends on June 10th. Dr. Hart expressed his appreciation to Dr. Shepard and invited him to future meetings in either an official or unofficial capacity.

Having no other business to address, the meeting was adjourned at 3:05 p.m.

Prepared by John F. Young, Ph.D. _____
Executive Secretary
AOWG Science Panel DATE: May 6, 1987

Approved by Ronald W. Hart, Ph.D. _____
Chairman
AOWG Science Panel DATE: May 6, 1987

#1

Agent Orange Science Panel

May 6, 1987

Signature	Agency	Telephone Number
Ron Hart	NCTR	541-4317
John Young	✓	541-4304
Don Barnes	EPA	382-2897
Johanne Byrne	NCI	496-4947
P. Beech	IOS	245 6156
Ellen Quarand	OTA	226-2070
Neil Holtzman	OTA	226-2070
Barclay M. Shepard	VA	233-2781, -2184
Carl Keller	NIEHS	FTS-496-3511
George Stebbins	DOD	(202) 695-6800
Jerome G. Bricker	OASD(HA), DoD	423-4821
Bill Halperin	NIOSH	684-4203
Marie Haring Sweeney	NIOSH	684-4411
Marilyn Fingerhut	NIOSH	684 4411
Wendy C. Kaye	ATSDR	(404) 454-0700
Michael Griffith	ATSDR	404 454-4630
Peter Sherman	ATSDR	(404) 454-4630
Al Young	OSTP	395-3225

#2

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Food and Drug Administration

Phone: (501) 541-4000
(FTS) 542-4000

April 8, 1987

National Center
For Toxicological Research
Jefferson AR 72079

Dr. Peter E.M. Beach
Executive Secretary
Division of Veterans Affairs
Office of the Under Secretary
Room 632-P, HHH Building
200 Independence Avenue, S.W.
Washington, D.C. 20201

Dear Peter:

The next meeting of the Science Panel of the Agent Orange Working Group will be held on Wednesday, May 6, 1987 at 2:00 p.m. in Room 729G of the Humphrey Building in Washington, D.C. ASH Conf. Rm

The agenda will include the following items:

		Lead Person
1)	Phase I of the NIOSH Medical Study of Dioxin Exposed Workers [a document will be distributed by April 29th]	Marilyn Fingerhut
2)	TCDD Halflife Study - Update and comments on protocol	Vernon Houk
3)	AO Project Status Reports	John Young

If you have any comments or additions, please contact John Young at 501/541-4304 (FTS 790-4304).

We will attempt to limit the meeting to one hour as usual.

Sincerely,

for Ronald W. Hart, Ph.D.
Chairman, AOWG Science Panel
Director, NCTR

SERUM LEVELS OF 2,3,7,8-TCDD (~~whole weight basis~~ lipid-adjusted) IN FOURTEEN PHASE I PARTICIPANTS

	Age	Calendar Years Employed	# Days Worked at NJ Plant	Cumulative Exposure Rating	TCDD Serum levels (ppt)	Average TCDD levels (ppt)
Referents						
1.	44		0		3	
2.	50		0		4	
3.	43		0		4	
4.	64		0		8	
5.	63		0		13	
6.	59		0		17	
						8.4
Workers						
7.	47	6/05/61 - 9/08/61	68	6.04	8	- lab tech
8.	44	6/14/65 - 3/01/67	446	39.73	28	- chemist
9.	64	8/13/56 - 5/09/58	210	58.45	44	
10.	63	5/01/52 - 8/17/56	1121	3851.86	545	
11.	52	→ 9/30/67 - 8/01/69 ↔	1062?	58.45	→ 360	- ?
12.	61	8/05/54 - 2/01/60	1389	1664.25	174	
13.	59	9/24/51 - 4/22/66	3726	4152.22	280	
14.	64	4/01/53 - 9/09/68	4029	371.33	343	
						254.6

$c^2 = .62$, $p < .05$

$c^2 = .7$, $p < .03$

Final Table 8

#32

ATTACHMENT 9

Table 1

Participation of Workers in the In-Home Interviews

		April 1	April 24
1.	Workers Requested to Participate in the in-home interview.	73	74
2.	Worker interviews completed.	68	70
	Workers deceased. (proxy interviews)	2	2
	Workers medically unable to complete the in-home interview. (proxy interviews)	3	3
3.	Workers refused interview.	3	3
4.	Overall participation rate as of April, 1987.	93.2% (68/73)	94.6% (70/74)
5.	Worker interviews scheduled but not completed.	2	1
6.	Anticipated participation rate.	95.9% (70/73)	96.0% (71/74)

Table 2

Participation of Workers in the Medical Examination

	April 1	April 24
1. Workers invited during interview to participate in Medical Exam (does not include 2 deceased).	66	68
2. Workers scheduled for or completed medical examination.	52	56
3. Workers to be scheduled for examination	5	1*
4. Workers refused medical examination.*	9	11
5. Participation rate for completed exam as of April, 1987.	78.8% (52/66)	82.4% (56/68)
6. Anticipated participation rate	86.4% (57/66)	83.8% (57/68)

* One interviewed worker has agreed to participate in the examination, but because funding permits only 56 workers to be examined during Phase I, this worker will be examined in Phase II.

** Reasons for refusals:

Physically or mentally incapacitated	5	5
Unavailable due to work conflict	1	1
Unavailable (other reasons)	1	1
Refused	2	4

Table 3

Participation of Referent in the In-Home Interview and Medical Examination

	April 1	April 24
1. Total number of workers for whom referents have been sought.	44	51
2. Number of matched referents agreeing to participate in the interview and the examination.	44 (100%)	51 (100%)
3. Total number of matched individuals requested to participate in the interview and the examination.	101	110
4. Total # matched individuals requested to participate / # participating referents	101/44 = 2.3	110/51 = 2.2
5. Number of matched referents scheduled for or completed medical examination as of April, 1987.	30	41*

*Funding permits 48 referents to be examined during Phase I. Other Phase I referents who agree to participate in the examination, will be examined in Phase II.

ATTACHMENT 10 (Update)

May 6, 1987

In Attachment 10 of the package we sent to you, we evaluated the comparability of the study participants for three variables: education, current income and self-perceived health status for 63 workers, 38 referents and 18 nonrespondents for whom we had received completed interviews, as of April 1. Although prior to the interview the workers and referents are matched by age ($\pm$ 5 years), race, gender and resident community of the worker, we wished to determine how well the study participants were matched relative to other sociodemographic factors.

Using the Chi^2 statistic, we found that the workers and referents who participated in the demographic and occupational history interview were similar for all three characteristics. Likewise, we found that the 38 participating referents were similar to the 18 nonrespondents who were identified as eligible referents but who refused to participate in the study.

We performed a reanalysis of these same sociodemographic characteristics using interview data for 63 workers, 47 referents and 27 nonrespondents received as of May 1. Again there were no statistically significant differences between workers and referents and referents and nonrespondents relative to educational level, income and self-perceived health status.

#4

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service
Centers for Disease Control

Memorandum

24-25

Rec'd 5/4/87

Date April 29, 1987

From Director
Center for Environmental Health

cc: J. Young

Subject NIOSH Proposal for OMB Approval to Proceed to Phase II of the NIOSH Dioxin Morbidity and Reproductive Study of the US Chemical Workers

To Ronald W. Hart, Ph.D.
Chairman, Agent Orange Science Panel

I have reviewed the NIOSH document and had some phone discussion with Marilyn Fingerhut. I strongly support the continuation of the study. The serum dioxin levels from the pilot phase, for which Dr. Fingerhut will provide the numbers available, suggest that with biological markers, exposured and non-exposed categories and variation inbetween can be identification.

John: to be discussed at AOSP meeting this wk. by myself if Vern or rep. is not there - please remind me of same.

In addition, since there appears possible a biological marker of exposure now, Dr. Fingerhut may want to relook at the numbers of controls and the power calculations to see if they remain appropriate. It is my understanding that because of the potential of misclassification the numbers of controls were increased. They may not be necessarily decreased now, but at least the issue should be revisited before the final protocal.

necessity for

Vernon N. Houk, M.D.
Assistant Surgeon General

#5

DEPARTMENT OF HEALTH & HUMAN SERVICES
Public Health Service
Food and Drug Administration
National Center for Toxicological Research
Jefferson, AR 72079

May 6, 1987

Dr. Marilyn A. Fingerhut
Chief
Epidemiology Section I
Industrywide Studies Branch
Division of Surveillance, Hazard
Evaluations and Field Studies
NIOSH/CDC/DHHS
Robert A. Taft Laboratories
4676 Columbia Parkway
Cincinnati, OH 45226-1998

Dear Dr. Fingerhut,

On May 8, 1987 the Science Panel of the DHHS Agent Orange Working Group met in the HH Humphrey Building in Washington, D.C. to discuss your document entitled "Request for OMB Approval to Proceed to Phase II of the NIOSH Dioxin Morbidity and Reproductive Study of U.S. Chemical Workers". It is the opinion of the Science Panel that your experience with Phase I of this study has strongly indicated that Phase II should be initiated as soon as possible without any lag time between phases.

The Science Panel felt that your document adequately addressed the three major concerns of OMB.

1) Exposure model: Extensive work has gone into developing the exposure model prior to the initiation of the work. Detailed work experience categories were defined and used to calculate exposure indices for individual workers. Detailed questionnaires were designed to check and compare with these work record exposure indices. Levels of TCDD measured in serum of participants demonstrate clearly that the workers are highly exposed and the referents have only background levels of TCDD. The high correlation reported in the CDC adipose tissue/blood level TCDD study (Correlation of 2,3,7,8-tetrachlorodibenzo-p-dioxin in adipose tissue and serum in humans, 6th International Conference on Chlorinated Dioxins and Related Compounds, Sept 16-19, 1986, Fukuoka, Japan) justifies the use of serum as a measure of exposure.

2) Controls: Adequate controls have been found to balance the worker population. The method of choosing and evaluating the controls is well designed and implemented. The Science Panel has no reservations concerning NIOSH's ability to locate and utilize an adequate number of controls in Phase II of the study.

3) Survey instruments: The questionnaires, interview procedures, and medical exams are sound. The checks and cross-checks are designed to minimize errors and locate discrepancies in the various pieces of data. Sufficient data is being gathered to make the correlation between exposure and health effects.

The Science Panel would like to commend you, your staff, and contractors on the timeliness and quality of Phase I. We wish to encourage the minimization of the transition from Phase I into Phase II of this study.

Sincerely,

Ronald W. Hart, Ph.D.
Chairman, AOWG Science Panel
Director, NCTR

#6

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Centers for Disease Control
Atlanta GA 30333

April 27, 1987

Rec'd
5/1/87

Dr. Ronald W. Hart
Chairman, AOWG Science Panel
Director, National Center for Toxicological Research
Country Road #3
Jefferson, Arkansas 72079

Dear Dr. Hart:

The purpose of this letter is to update you on the progress of the Centers for Disease Control's (CDC) TCDD Validation Study and to discuss the timeframe for the Agent Orange Working Group (AOWG) Science Panel review of the final report from this study.

The interviews and medical examinations, which include the collection of blood for TCDD analysis, have proceeded very well with respect both to the time schedule and participation rates. Research Triangle Institute completed the interview component on February 28, 1987; interviews were completed on 840 veterans, representing an 87.5% participation rate. The medical examination component will be completed on May 1 and approximately 750 veterans will have been examined, representing a response rate of over 70%. To date, there have been only four examined veterans who were not able, for medical reasons, to provide the blood specimen necessary for TCDD analysis. The laboratory analyses of the blood specimens at CDC is also proceeding on schedule.

Since all aspects of this study are progressing on a timely basis, CDC will submit the study's final report to AOWG Science Panel during the week of July 27-31, 1987, as originally scheduled. We would ask that you set up an expedited review of this report during the month of August 1987, if possible. CDC's staff will be available for presentation and/or discussion of this report as necessary, with the exception of the week August 17-21 when the American Statistical Association is holding its annual meeting.

I look forward to hearing from you once you have established the dates for the ~~OTA~~ AOWG review. Thank you for your cooperation in this matter.

John
Prepare response for my signature & coordinate as needed.
Ronald

Sincerely yours,

Mark J. Scally

Mark J. Scally
Acting Director
Agent Orange Projects
Division of Chronic Disease Control
Center for Environmental Health

cc: Mr. Robert L. Raclin
Ms. Hellen Gelband
Dr. Vernon N. Houk

DOMESTIC POLICY COUNCIL
AGENT ORANGE WORKING GROUP
SCIENCE PANEL DISTRIBUTION LIST

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. Ronald W. Hart
Chairman, Science Panel
Director, National Center for Toxicological Research
Jefferson, AR 72079
FTS 790-4517 or (501) 541-4517

Dr. John F. Young
Executive Secretary, Science Panel
Director, Division of Reproductive and Developmental Toxicology
National Center for Toxicological Research
Jefferson, AR 72079
FTS 790-4304 or (501) 541-4304

Dr. Peter E.M. Beach
Executive Secretary
Division of Veterans Affairs
Office of the Under Secretary
Room 632-P, HHH Building
200 Independence Avenue, S.W.
Washington, D.C. 20201
FTS 245-2210 or (202) 245-6156

Dr. James S. Dickson, III
Senior Advisor for Environmental Affairs
Office of the Assistant Secretary for Health
Department of Health and Human Services
200 Independence Avenue, S.W.
Room 701-H, HHH Building
Washington, D.C. 20201
FTS 245-6811 or (202) 245-6811

Dr. Marilyn Fingerhut
Section Chief
NIOSH - EPI I
4676 Columbia Parkway
Mail Stop R-15
Cincinnati, OH 45226
FTS 684-4411 or (513) 841-4411

Dr. Peter Greenwald
Director, Division of Cancer Prevention and Control
National Cancer Institutes, NIH
Building 31, Room 4432
Bethesda, MD 20892-3100
FTS 496-6616 or (301) 496-6616

Dr. Vernon Houk
Director, Center for Environmental Health
Centers for Disease Control
1600 Clifton Road, N.E.
Chamblee, Building 27
Atlanta, GA 30333
FTS 236-4111 or (404) 452-4111

Dr. Carl Keller
Agent Orange Working Group
Epidemiologist, NIEHS
Room 2B55, Building 31
National Institutes of Health
Bethesda, MD 20205
FTS 496-3511 or (301) 496-3511

Dr. Robert W. Miller
Chair, Advisory Committee
Clinical Epidemiology Branch
National Cancer Institute - NIH
Room 8C41, Landow Building
Bethesda, MD 20817
FTS 496-5785 or (301) 496-5785

Dr. Julianne Byrne
Clinical Epidemiology Branch
National Cancer Institute - NIH
Room 8C41, Landow Building
Bethesda, MD 20817
FTS 496-4947 or (301) 496-4947

Dr. David Rall
Director, National Institute of Environmental Health Services
P.O. Box 12233
Research Triangle Park, NC 27709
FTS 629-3201 or (919) 541-3201

OFFICE OF THE PRESIDENT

Dr. Alvin Young
Senior Policy Analyst
Office of Science Technology Policy
New Executive Office Building
Room 5005
Washington, D.C. 20500
FTS 395-3125 or (202) 395-3125

ENVIRONMENTAL PROTECTION AGENCY

Dr. Donald Barnes
Senior Science Advisor to the
Assistant Administration for
Pesticides and Toxic Substances
U.S. Environmental Protection Agency
401 M Street, S.W., (TS788)
Washington, D.C. 20460
FTS 382-2897 or (202) 382-2897

CONGRESSIONAL OFFICE OF TECHNOLOGY ASSESSMENT (OBSERVER)

Ms. Hellen Gelband
Analyst
Office of Technology Assessment
United States Congress
Washington, D.C. 20510
(202) 226-2070

DEPARTMENT OF DEFENSE

Colonel George Stebbing, M.D.
OASD/HA/PA & QA
The Pentagon, Room 3D372
Washington, D.C. 20301-1200
FTS 695-6800 or (202) 695-6800

Dr. Jerome G. Bricker
6000 Cable Avenue
Camp Springs, MD 20746-3824
(301) 423-4821

DEPARTMENT OF AGRICULTURE

Dr. Phillip Kearney
Chief, Pesticide Degradation Lab
U.S. Department of Agriculture
BARC - West
Building 050 - Room 100
Beltsville, MD 20705
(301) 344-3533

DEPARTMENT OF LABOR

Mr. Stephen Mallinger
Deputy Director for the Director
of Technical Support
U.S. Department of Labor
OSHA
200 Constitution Avenue, S.W.
Room N-3651, FPB
Washington, D.C. 20210
FTS 523-7047 or (202) 523-7047

VETERANS ADMINISTRATION

Dr. Barclay Shepard (10B/A0)
Director, Agent Orange Projects
Office
VA Central Office
810 Vermont Avenue, N.W.
Washington, D.C. 20240
FTS 373-2751

Dr. Han K. Kang
Director
VA Office of Environmental
Epidemiology (10B/A02)
Riddell Building
1730 K Street, N.W. - Suite 401
Washington, D.C. 20006-3868
FTS 653-1891 or (202) 653-1891

DEPARTMENT OF STATE

Dr. Charles E. Brodine
Assistant Medical Director for
Environmental
Health and Preventive Medicine
Office of Medical Services, M/MED
Department of State, Room 4253
Washington, D.C. 20520
FTS 647-5337 or (202) 647-5337