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July 12, 1974

Warren R. Muir, Ph.D.
Executive Office of the President
Council on Environmental Quality
722 Jackson Place N.W.
Washington, D.C. 20006

Dear Dr. Muir:

Due to the press of time, I am sending the tables you requested from Dr. Johnson directly to you, with copies to him.

We were unable to provide the person-years data because our program is such that we would have had to run it once for each cell in the table. It could be done, but not in the availabl time. The distribution of Table 9 can be used to get a rough estimate of person-years of observation for those not found, up to the date when they terminated, by assuming that date of hire and date of termination are uniformly distributed over time.

You will notice that we changed the time interval 0-4 to 1-4, since every worker in our study had at least one year in an exposed job.

I hope this arrives in time to be of use to you.

Yours sincerely,

William R. Gaffey, Ph.D.
Director of Health and
Epidemiological Studies

WRGjl
enc.

ASI 00007244

TABLE 1

DEATHS FROM MALIGNANT NEOPLASMS, BUCCAL CAVITY AND PHARYNX, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	5		4		1											
1-4	1		1													
5-9																
10-14	2		2													
15-19																
20-24	2		1		1											
25-29																
≥30																

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TABLE 2

DEATHS FROM MALIGNANT NEOPLASMS, DIGESTIVE ORGANS AND PERITONEUM, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	7	12	1	1	1	2	3	4	1	2	1	1		2		
1-4	1		1													
5-9		1				1										
10-14	2	1					2	1								
15-19	2	3			1		1	1		2						
20-24	1	4		1		1		2	1							
25-29	1	2									1	1		1		
≥30		1												1		

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TABLE 3

DEATHS FROM MALIGNANT NEOPLASMS, RESPIRATORY SYSTEM, VCM EPIDEMIOLOGY STUDY, BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI), AND YEARS FROM DATE OF HIRE TO DATE OF DEATH*

Years, Hire to Death	Years Exposed															
	Total		1-4		5-9		10-14		15-19		20-24		25-29		≥30	
	EI		EI		EI		EI		EI		EI		EI		EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	11	13	2	1	4	1	2	2	3	6		2				1
1-4		1		1												
5-9	2		2													
10-14	1	1				1	1									
15-19	3	5			2			1	1	4						
20-24	3	4			1				2	2		2				
25-29																
≥30	2	2			1		1	1								1

*Excludes one person (employed 5-9 years) with duration and level of exposure unknown.

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TABLE 4

DEATHS FROM MALIGNANT NEOPLASMS, GENITAL ORGANS, VCM EPIDEMIOLOGY STUDY, BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI), AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	2	1			1			1	1							
1-4																
5-9																
10-14																
15-19																
20-24	1	1			1			1								
25-29	1								1							
≥30																

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TABLE 5

DEATHS FROM MALIGNANT NEOPLASMS, URINARY ORGANS, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	1				1											
1-4																
5-9																
10-14																
15-19																
20-24																
25-29	1				1											
≥30																

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TABLE 6

DEATHS FROM MALIGNANT NEOPLASMS, OTHER AND UNSPECIFIED SITE, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	9	8	1	1	2	1	1	1	2	4	2		1	1		
1-4																
5-9	1				1											
10-14		2				1		1								
15-19	1	2							1	2						
20-24	3	2	1							2	2					
25-29	3						1		1				1			
≥30	1	2		1	1									1		

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TABLE 7

DEATHS FROM LEUKEMIA AND ALEUKEMIA, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	1	2		1	1	1										
1-4		1		1												
5-9	1				1											
10-14																
15-19																
20-24		1				1										
25-29																
≥30																

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TABLE 8

DEATH FROM LYMPHOSARCOMA, LYMPHATIC AND HEMATOPOIETIC TISSUES, VCM EPIDEMIOLOGY STUDY,
BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI),
AND YEARS FROM DATE OF HIRE TO DATE OF DEATH

Years, Hire to Death	Years Exposed															
	Total EI		1-4 EI		5-9 EI		10-14 EI		15-19 EI		20-24 EI		25-29 EI		≥30 EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	1	5		1	1			2		2						
1-4																
5-9		1								1						
10-14		2						2								
15-19	1				1											
20-24		2		1						1						
25-29																
≥30																

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TABLE 9

DISTRIBUTION OF 1256 WORKERS LOST TO FOLLOW-UP, VCM EPIDEMIOLOGY STUDY, BY YEARS EMPLOYED IN VC EXPOSED AREAS, LEVEL OF EXPOSURE INDEX (EI), AND TOTAL YEARS WORKED IN PLANT*

Total Years Worked	Years Exposed															
	Total		1-4		5-9		10-14		15-19		20-24		25-29		≥30	
	EI		EI		EI		EI		EI		EI		EI		EI	
	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5	<1.5	≥1.5
Total	500	754	364	581	95	128	25	31	14	13	2	1				
1-4	295	564	295	564												
5-9	123	132	41	11	82	121										
10-14	33	35	7	3	4	3	22	29								
15-19	32	16	11	1	5	1	3	1	13	13						
20-24	8	4	4	2	2	1			1		1	1				
25-29	6	2	4		2	1		1								
≥30	3	1	2			1					1					

*Includes two persons (worked 1-4 years) with duration and level of exposure unknown.

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