

REPOSITORY Dermantown RCCOLLECTION # 7731BOX No. 2/8 3689

May 7, 1965

OS:HP:WTD

FOLDER MHS 2.2 Radiation
Special Cases

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 Radiological Protection Division >> United Kingdom Atomic Energy Authority
 Harwell, Didcot, Berkshire, England

Dear Ken:

Thank you for the information you sent me following Mr. Ed Vallario's message to you at Vienna. Since that time, you or Andrew McLean may have seen Dave Bruner and thereby know better what I am attempting to do.

Really, our friend Leo Goodman this time has indirectly done some good, although it means a great deal of work. You may be familiar with the fact that for the last few years, Leo has been passing out to selected individuals copies of a looseleaf collection he has put together, gathered from various and sundry sources. This is entitled "A Study of Case Histories of Atomic Energy Accidents." It has three general divisions: (1) "Partial List of Accidents Involving Radiation;" (2) "Some Atomic Reactor Accidents;" (3) "Atomic Science Fatalities." The first division has some 700 separate entries each with date, "type of accident" such as "plutonium contamination" or "chemical explosion in explosives storage igloo," etc., city, state or country, but he only has about 100 of these in which he includes a descriptive excerpt as from a newspaper article, Nuclear Safety article, AEC Annual Report, etc. Division two has 117 entries with the same relatively small percentage of back-up statements. Division three includes 60 individuals involved in 48 events but only about 30 have back-up information attached.

This Spring, Leo presented a copy to an Assistant Secretary of Labor and, in so doing, assisted in forcing the situation that, at the next Congressional Hearings, the AEC will probably be asked just how many and what are the true facts -- not alone for our Operating Contractors, but also for licensees, Department of Defense, and other non-controlled users both in this country and abroad.

We have recently brought up-to-date our Operating Contractor experience and I am enclosing a copy for you. In this revision, I have attempted to add the medical cause of death or injuries received, as well as the nature of the accident and safety factors that were mentioned in prior issues.

OFFICE ▶						
SURNAME ▶						MHS 3-9
DATE ▶						

K. P. Duncan

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May 7, 1965

I am also trying to gather all prior experiences. Leo's material does not contain many of our reported accidents or fatalities -- on the other hand, he lists some he claims are pertinent that do not appear in our lists. In addition, our legal people are trying to gather all claims cases, whether withdrawn, disallowed, settled out of court, or gone to or awaiting trial.

Through this exercise, I hope to establish: (1) repository register in my office of all available information and; (2) to develop a system to receive pertinent new information in the future with emphasis on the medical and temporary, eventual and permanent disability aspects of such cases.

I am attaching three lists, each corresponding to one of Leo's divisions. If you think it possible, I would appreciate what you can send me about the U.K. cases and what you might know about the other European or Asiatic ones mentioned.

You will note from the attached division 3 list, "Fatalities," that I cannot identify "John Doe" at Aldermaston on May 13, 1959. I presume the February 26, 1959 names are the TNT explosion cases.

Incidentally, at a Workmen's Compensation Labor-Management meeting this past week, I was told by a member of the New York firm of Woodward and Fondilier (A. William Larson, President) that they understood from reliable U.K. sources (names or types not given) that the UKAEA was planning to throw away certain radiation exposure and/or medical records that you have been keeping, and also that you are planning decentralizing a large number of records. This did not sound right to me -- can you enlighten me as to whether there is any truth in these statements and perhaps who has made them?

Our "Correlation Study of Lifetime Health Experiences of AEC Contractors' Workers and Occupational Radiation Received" is well underway with Thomas Mancuso, M.D., as principal investigator assisted by a top-level team from the University of Pittsburgh Graduate School of Public Health.

Do excuse this long and bulky letter. Many thanks for any information you can send me.

Best personal regards,

Sincerely yours,

William T. Doran, M.D.
Division of Operational Safety

Enclosures:			
OFFICE ▶	1. Pamphlet, "Operational Accidents"	OS:HP	
SURNAME ▶	2. 3 lists, as stated above	DORAN/egw	
AIR MAIL		5/7/65	

DIVISION I
PARTIAL LIST OF ACCIDENTS INVOLVING RADIATION

<u>1963</u>	<u>TYPE OF ACCIDENT</u>	<u>CITY</u>	<u>STATE COUNTRY</u>
May 2	Unprotected radioactive capsule on bridge	Roch. Kent	Eng.
<u>1962</u>			
Jul. 24	Radioactive waste falls on road	Kirkby in Furness	Eng.
Apr. 14	Children played with radioactivity	Witten-Ruhr	Ger.
Mar. 15	Radioactive material lost	Gateshead	Eng.
Mar. 13	Radioactive load burned	Calgary	Eng.
Feb. 5	Radioactive powder stolen	Sainsborough	Eng.
Jan. 15	CEA lab fire	Mortagne s/S	France
<u>1961</u>			
Dec. 6	Accidental irradiation of hand		Ger.
Dec. 1	Capsule of Co 60 stolen	London	Eng.
Nov. 15	Plutonium spilled on hand	Harwell	Eng.
Oct.	Employee contaminated hands with Sr-90	Harwell	Eng.
Sep. 22	Contamination through cut glove	Harwell	Eng.
May. 15	Overexposure of two technicians	Aldermaston	Eng.
April	Contamination of a room	Berlin	Ger.
<u>1960</u>			
Dec. 24	Radioactive U.S. package found on beach	Ille Molene	France
Aug. 21	Cylinder of radioactive cesium stolen	Nice	France
Aug. 17	Explosion	Aldermaston	Eng.
Mar. 15	Overexposure of two technicians	Saclay	France

1099000

1958

Oct. 6	Irradiated fuel elements fell from truck		Eng.
Sep. 1	Iridium capsule found by children		Eng.
Jul.	Fire in nuclear lab	Canberra	Austra.
Jun.	Uranium solution containers broken		Eng.
Jun.	Fire in separation plant	Marcoule	France
Jan. 19	Iridium container lost in transport	London	Eng.
May 29	Fire in parcel room containing thorium	London	Eng.
May 19	Explosion at Herald reactor	Aldermaston	Eng.
May 12	Uranium oxide container broken		Eng.
Feb. 15	Steel container explosion spreads radioactivity		Eng.
Jan. 27	Glove box release of radioactivity	Aldermaston	Eng.
Jan. 23	Ir 192 lost during transport	Quaregnon	Belgium
Jan. 18	Radioactive solution stolen	Paris	France
Jan. 6	Iridium capsule lost		Eng.

1958

Dec. 9	Container opened during loading	London	Eng.
Nov. 22	Overexposure of 30 workers, Nuclear Engineering Charlton		Eng.
Nov. 12	Fire at atom station. Chapter Cross Atom. Pwr Sta. Dunfrieshire		Eng.
Nov. 11	Children playing with uranium salt capsules	Hamburg	Ger.
Mar. 20	Fire	Aldermaston	Eng.
Jan. 21	Lost iridium 192 handled by several persons	Dortmund	Ger.
Jan. 16	Fire in hot box	Harwell	Eng.

1957

1099001	Windscale #1, burning fuel elements	Windscale	Eng.
	Inhalation of I 131	Harwell	Eng.

1956

Aug. 23	Radioactive gold exposed in railway station	London	Eng.
Jun.	Contamination from Sr 90 and Y 90	Harwell	Eng.

1955

Dec. 8	Exposure to Co 60	Melbourne	Austri.
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1951

Dec. 4	Fire in uranium casting section	Springfields	Eng.
Jan. 8	Fire in uranium billet store	Springfields	Eng.

1961

April	Co 60 stolen from Int'l Fair	Milan	Italy
Dec. 19	JRR-1, release to containment	Tokai Mura	Japan
Oct. 15	Reactor power surge, Institute of Nuclear Sciences	Vinca	Yug.
Sep. 6	Release of contaminated water	Halden	Norw.

DIVISION II

SOME ATOMIC REACTOR ACCIDENTS

<u>DATE</u>	<u>REACTOR</u>	<u>TYPE OF ACCIDENT</u>	<u>PLACE</u>	<u>REFERENCE</u>
<u>1962</u>				
Oct.-Dec.	KDF-1	Loading machine jammed	Loire Val., Fr.	NU 1/31/63:5
Jul.	Bradwell	Leaky superheater	Bradwell, Eng.	NU 7/19/62:2
<u>1961</u>				
	Triton	Fuel cladding rupture	Font.aux Roses, Fr.	IAEA-RS:102
	Dounreay	Coolant gas entrainment	Dounreay, Scot.	ATOM 12/62:309
Sep. 2	Calder Hall	Pwr line short circuit	Calder Hall, Eng.	CDCPRA 7/1/62
<u>1960</u>				
	EL-2	Cell rupture	Saclay, France	IAEA-RS:106
Sep. 19	G-2	Co 2 leak	Marcouls, France	CDCPRA 7/1/62
Jul. 6	G-2	Fuel canal rupture	Marcouls, France	NU 7/14/60
Apr. 19	JEEP	Leak in heavy water tank	Kjeller, Norway	IAEA-RS:105
Mar.	BER	Pump breakdown	Berlin-Hannover, Ger.	CDCPRA 7/1/62
Mar.	Tackettle	Research reac. breakdown	W.Baria, Ger.	NU 4/14/60:5
Mar. 15	ALIXE	Two technicians overexp.	Saclay, France	RS:97:RS Vol. 5#2: 172
Jan.	Dounreay	Sodium slay in coolant	Dounreay, Scot.	NE 9/62:352
<u>1959</u>				
Dec. 31	Hinkley Pt.	Turbine rm. cylinder explen.	Hinkley Pt., Eng.	CDCPRA 7/1/62
Nov. 10	AGN-211	Fuel matrix failed	Basel, Swita.	Doctet 50-88,103
Jan. 20	BR-2	Fire during construction	Mol, Belgium	CDCPRA 7/1/62
Feb.	G-2	Co 2 leak	Marcouls, France	CDCPRA 7/1/62
Feb. 16	EL-2	Fuel element rupture	Saclay, France	Neel. 3/60:85
<u>1958</u>				
Dec. 27	EL-2	Fuel element failure	Saclay, France	Neel. 3/60:85

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Dec. 15	EL-3	Helium leak to reactor hall	Saclay, France	PHE 1962:120
Nov.	Saphir	Leak in the bowl	Murenlingen, Switz,	CDCPORA 7/1/62
Nov. 14	EL-3	Radial beam tube release	Saclay, France	PHE 1962:120
Sep. 6	BHWB	Rel. of contaminated water	Malden, Norway	CDCPORA 7/1/62
Jul.	FEM	Defect. element contam. air	Munich, Germany	IAEA-RS:101
Jun. 28	Calder Hall	Elec. gen. turbine failure	Calder Hall, Eng.	ATOM 8/58:8
April 13	EL-3	Fuel element failure	Saclay, France	Nacl. 3/60:82ff
Mar. 9	EL-3	Reactor nitrogen released	Saclay, France	PHE 1962:120
Feb. 7	EL-3	Radioactive dust release	Saclay, France	PHE 1962:121

1957

Dec. 23	Saphir	Air pollution	Murenlingen, Switz.	2nd UNC-P260
Nov. 26	EL-2	Converter meltdown	Saclay, France	Nacl. 3/60:82ff
Oct. 10	Windscale #1	Burning fuel elements	Windscale, Eng.	NS 12/59:55
Oct. 6	EL-2	Fuel element rupture	Saclay, France	IAEA-RS:100
Jun. 12	EL-2	Converter water leak	Saclay, France	PHE 1962:121
<u>1956</u> Oct. 26	G-1	Fuel ele. partial burning	Marcoule, France	2nd UNC-P/1180
Jun.	EL-2	Contamination of coolant	Saclay, France	IAEA-RS:99
May 3	Windscale #1	Leak	Windscale, England	CDCPORA 7/1/62

1955

Feb.	JKEP	Uranium oxidized	Kjeller, Norway	1st UNC.V.2:262
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1954

Jul.	Windscale #1	Spontaneous energy rel.	Windscale, England	A/CONF P/1518:4,5
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1952

Sep.	10 Windscale #1	Accidental release	Windscale, Eng.	Cmd. 471,7/58:8
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<u>1959</u>				
Dec. 8	JRR-1	Release to containment	Tokai, Mura Japan	Wael. 2/60:26
Sep. 28	APEARA	Gamma exposures	India	IAEA-RS:39
<u>1958</u>				
Nov.	DR-2	Defects in the graphite	Riso, Denmark	CDCPRA 7/1/62
Oct. 15	ZRR*	Power surge	Vinca, Yugo.	Int. Bul. 4/60:85
<u>1957</u>				
Dec.	JRR-1	Fuel element leak	Tokai, Mura, Japan	CDCPRA 7/1/62
Dec. 4	DR-2	30 holes in reactor vessel	Riso, Denmark	CDCPRA 7/1/62
<u>1953</u>				
May/1111	RFT*	Uran. rod covering failure	Soviet Union	1st URC.V.2:248
	RFT*	Ruptured coil	Soviet Union	PRE 1956:136

DIVISION III

ATOMIC SCIENCE FATALITIES

<u>DATE</u>	<u>FATALITY</u>	<u>PLACE</u>
1959 <u>1959</u>		
May 13	"John Doe"	Aldermaston, England
Feb.	"John Doe"	Marseule, France
Feb. 26	Terence Bishop, James Mallin	Aldermaston, England
<u>1957</u>		
Dec.	Dr. Douglas Whittaker	Aldermaston, England
<u>1958</u>		
Oct. 16	Mr. Vranic	Vinca, Yugoslavia

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