

UNCLASSIFIED

MANHATTAN

This document consists of 5 Page(s) No. 2 of 2 Copies, Series A

SCIENTIFIC RESEARCH & DEVELOPMENT PERSONNEL

(Please PRINT or TYPE. Answer all questions fully. If "None", so indicate. If space is insufficient attach additional sheets as necessary.)

MR

- 1. NAME: FUCHS Klaus E.J.
Last First Middle Initial
- 2. PRESENT ADDRESS: P. O. Box 1663 Santa Fe, New Mexico
No. and Street City State
- 3. PLACE WHICH YOU REGARD AS YOUR "HOME TOWN": Birmingham, England
City State
- 4. PLACE OF BIRTH: Russelheim, Germany 5. DATE OF BIRTH: Dec. 29, 1911
City State or Country Month Day Year
- 6. FAMILY: List the following members of your family, even though deceased:

	NAME	HOME ADDRESS (City & State)	OCCUPATION
FATHER	<u>Emil Fuchs</u>	<u>Berlin, Germany</u>	<u>Prof. of Theology</u>
MOTHER	<u>Else Fuchs</u>	<u>deceased</u>	
SPOUSE	<u>None</u>		
BROTHERS (B)	<u>(B) Gerhard Fuchs</u>	<u>Davos-Platz, Switzerland</u>	<u>Invalid</u>
SISTERS (S)	<u>(S) Elisabeth Kattovsky</u>	<u>deceased</u>	
CHILDREN (C)	<u>(B) Kristel Heineman</u>	<u>Cambridge, Mass.</u>	<u>housewife.</u>
(Designate after each name B, S, or C)			

FINAL DETERMINATION
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 L. M. Redman
 FEB 11 81
 5/19/87

- 7. MILITARY SERVICE: List your military service and that of members of your family listed above:

NAME	BRANCH OF SERVICE	DATE	TO
<u>None</u>			

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 PER DOC REVISION
 YEARS 1973

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 1. Laws 4-15-2007
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8. ELEMENTARY AND HIGH SCHOOL EDUCATION:

NAME OF SCHOOL	LOCATION (CITY & STATE)	YEARS	
		FROM	TO
Humanistisches Gymnasium	Eisenach, Germany	1921	1930

9. UNDERGRADUATE EDUCATION:

COLLEGE OR UNIVERSITY	LOCATION (CITY & STATE)	MAJOR FIELD	DEGREE	YEARS	
				FR	TO
U. of Leipzig	Leipzig, Germany	Math.		'30	'31
U. of Kiel	Kiel, Germany	Math.		'31	'32
U. of Berlin	Berlin, Germany	Math.		'33	'33
U. of Bristol	Bristol, England	Theo. Physics	Ph.D.	'33	'36

10. GRADUATE EDUCATION:

COLLEGE OR UNIVERSITY	LOCATION (CITY & STATE)	MAJOR FIELD	DEGREE	YEARS	
				FR	TO
Univ. of Bristol	Bristol, England	Theoretical		'36	'37
Univ. of Edinburgh	Edinburgh, Scotland	Physics	D.Sc.	'37	'41

11. FELLOWSHIPS, SCHOLARSHIPS, INTERNSHIPS, TEACHING ASSISTANTSHIPS, HOSPITAL RESIDENCIES: (See No. 17)

FIRM OR INSTITUTION	LOCATION (CITY & STATE)	TITLE	YEARS	
			FR	TO
Carnegie Trust Fund	Edinburgh, Scotland	Research Fellow	'39	'40

12. HONORARY DEGREES:

COLLEGE OR UNIVERSITY	LOCATION (CITY & STATE)	DEGREE

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13. MEMBERSHIP IN HONORARY AND PROFESSIONAL SOCIETIES:

SOCIETY	CLASS OF MEMBERSHIP	YEARS		OFFICE HELD & YEAR
		FR	TO	
The Institute of Physics (England)	Fellow	'43		

14. LISTING IN "AMERICAN MEN OF SCIENCE", "WHO'S WHO" AND SIMILAR PUBLICATIONS:

PUBLICATION	EDITION OR YEAR

15. OFFICES HELD IN NATIONAL SOCIAL AND FRATERNAL ORGANIZATIONS:

ORGANIZATION	OFFICE	YEAR

16. PRINCIPAL HOBBIES:

17. FULL TIME TEACHING APPOINTMENTS WITH COLLEGES AND UNIVERSITIES:

COLLEGE OR UNIVERSITY	LOCATION (CITY & STATE)	TITLE	YEARS	
			FR	TO

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18. LIST LAST THREE TECHNICAL OR RESEARCH POSITIONS PRIOR TO CONNECTION WITH THE MANHATTAN ENGINEER DISTRICT:

DESCRIPTION OF POSITION OR DUTIES	FIRM OR INSTITUTION	LOCATION	TITLE	YEARS	
				FR	TO
Carnegie Research Fellow	Univ. of Edinburgh	Scotland		'39	'40
Research Ass't	Department of Scientific And Industrial Research	London		'41	'43

19. PUBLICATIONS: List principal scientific contributions in the form of publications, inventions, and patents prior to connection with the Manhattan District.

Publications on the following subjects:

- Electron theory of metals (Cohesion, Elasticity)
- Theory of Condensation and allied subjects.
- Nuclear theory.
- Quantum Field theory.

20. TECHNICAL OR RESEARCH WORK FOR, ON, OR IN CONNECTION WITH THE PROJECT NOW UNDER THE SUPERVISION OF THE MANHATTAN DISTRICT: (Include work performed under auspices of NDRC, OSRD, etc., prior to establishment of Manhattan District)

FIRM OR INSTITUTION	LOCATION (CITY & STATE)	TITLE	DATES	
			FR(MO&YR)	TO(MO&YR)
Brit. Supply Mission	New York, N.Y.	Technical Officer	12/43	6/44
Brit. Supply Mission	Project "Y"	"	6/44	date filled

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20. (Continued)

DETAILED DESCRIPTION OF WORK PERFORMED (Do not use code symbols. Use actual names of materials, processes, etc.)

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Theoretical research in England for the "Directorate of Tube Alloys", department of Scientific and Industrial Research.

Research as consultant to the Kellex Corporation New York:

In the diffusion plant for the production of the isotope uranium 235 the uranium hexafluoride passes through several thousand stages which are all interdependent on each other. Conventional measures of pressure and flow control are completely inadequate to control such a complicated system and I developed the theory of the control system of such a plant, which was further amplified by the research group of Kellex and applied to the operation of the diffusion plant. Also I developed the theory of the effect of the remaining pressure and flow fluctuations on the performance of the diffusion plant and advised Kellex on steps that could be taken to minimize losses of performance.

Research as member of the "Implosion group" of the theoretical division at Los Alamos: I developed the theory of the jets observed in non-lens implosions, the elimination of which is necessary in order to make the type of implosion workable. I directed the work on the theory of the hydrodynamical processes in the initiator for the implosion bomb, and worked on other implosion problems.

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DATE June 27, 1945

Klaus Fuchs
Signature

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