

1/24/83

DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

'83 JAN 24 P3:06

In the Matter of)	
)	
UNITED STATES DEPARTMENT OF ENERGY)	
)	
PROJECT MANAGEMENT CORPORATION)	Docket No. 50-537
)	
TENNESSEE VALLEY AUTHORITY)	
)	
(Clinch River Breeder Reactor Plant))	

APPLICANTS' TRANSCRIPT CORRECTIONS

The United States Department of Energy and Project Management Corporation, for themselves and on behalf of the Tennessee Valley Authority (the Applicants), hereby submit these transcript corrections, which consist of errors in transcription or typing, and request that they be incorporated in the record of these proceedings.

CORRECTIONS

<u>PAGE</u>	<u>LINE</u>	<u>NOW READS</u>	<u>SHOULD READ</u>
1282	11,23	CRBR-3	CRBRP-3
1292	9	Corporations	Corporation
1292	18	Argon	Argonne
1295	20	th is	this
1296	24	portentially	potentially
1311	8	CVA's	CDAs
1325	8	in	and
1325	8	CRBR-3	CRBRP-3
1325	9	actions	sections
1325	16	decay removal	decay heat removal
1327	17	CRBR-3	CRBRP-3
1337	8	desparately	desperately
1341	25	suddently	suddenly
1350	2	addmited	admitted
1352	24	interrogatory	interrogator- tories
1352	25	interrogatory	interrogator- tories

PAGE	LINE	NOW READS	SHOULD READ
1361	11	inclusion	conclusion
1378	21	reduce the	reduced
1378	21	reduced whole core heat removal	Reduced Whole Core Heat Removal
1378	22	shutdown heat removal systems	Shutdown Heat Removal Systems
1378	22	insert	initial
1379	5	reduced whole core heat removal	Reduced Whole Core Heat Removal
1379	6	shutdown heat removal systems	Shutdown Heat Removal Systems
1381	22	desig	design
1381	24	evaluate to	evaluate, to
1382	4	testimony and in	testimony, and in
1383	5	doubled	double
1383	8	are there	there are
1384	15,18	in	an
1385	24	in	an
1387	23-25	The answer to this question seems to be missing.	
1392	7	of the	of--the
1392	15	anyway	any way
1393	6	necessary and would	necessary, it would
1468	16	Nord	Nort
1476	13	accident	accidents
1476	15	at	as
1483	14	emphasized	emphasize
1484	21	in	and
1484	21	fast flux test facility	Fast Flux Test Facility
1487	6	lis	list
1488	5	Denise DeCaffey	Denise to Caffey
1488	18	testimony, in the	testimony, and the
1489	17	.11	100.11(a)
1491	10	does	dose
1491	22	specififally	specifically
1494	16	possible	impossible
1495	13	flow of block- ages	flow block- ages
1496	15	miracle	numerical
1498	8	projects	project's
1499	5	That the ... of DBA's	The ... of these DBAs
1499	6	available	envelop all
1499	19	on the	in the

PAGE	LINE	NOW READS	SHOULD READ
1501	7	defens	defense
1502	12	FFTF in the	FFTF, in the
1502	13	in SEFOR in- cluded	in SEFOR, in- cluded
1505	16	advisory com- mittee on reactor safe- guards	Advisory Com- mittee on Reactor Safe- guards
1505	18,20	Dixon	Dickson
1505	21,23	Dixon	Dickson
1506	5	Dixon	Dickson
1506	16,19	Dixon	Dickson
1506	19	don't that	don't know that
1506	16	Dixon	Dickson
1533	1	ture	true
1533	11	onthe	on the
1535	13	group	loop
1537	15	42, we've	42. We've
1541	25	contain	containing
1542	16	PWR	BWR
1542	24,25	Clinch River is that the	(no para- graph)
1542	24,25	delete period, continue with 25, "is ..."	
1550	21	plant, but to	plant, to
1554	3	federal	general
1557	22	mechanic's	mechanics
1558	2	mechanis	mechanics
1563	6,10	Phoenix	Phenix
1564	13	Phoenix	Phenix
1565	11	Phoenix	Phenix
1583	10	either of the other four	any of the other three
1587	6	answe-	answer
1588	17	divers	diverse
1590	12,22	decayed	decay
1593	3	no	not
1594	20	nor an auxiliary	nor auxiliary
1595	20	form	requirement
1595	21	source avail- able.	available source.
1596	3	desing	design
1596	13	in multiple failures	multiple failures

PAGE	LINE	NOW READS	SHOULD READ
1596	5	signle	single
1596	9	of failure,	failure,
1596	8,9	act of	active
1596	13	in	a
1600	1	cover	covered
1600	5	feasability	feasibility
1606	18	indentify	indemnify
1608	22	supposed	suppose
1609	10	that	where
1609	21	sudden	sodium
1613	22	operation	operator
1615	15	fist	first
1616	18	second "the"	to
1617	25	withour	without
1620	17	useday	Tuesday
1620	21	nontheless	nonetheless
1633	14	LAWRENCE W. DEITRICH	L. WALTER DEITRICH
1638	23	likelihood or	likelihood-- or
1646	17	had	head-
1647	18	plan	plant
1648	3	project office	Project Office
1648	7	consider where	consider failures where
1649	13	a	an
1652	13	ceiling	sealing
1655	3	no, it	I don't know. It
1657	8	in	on
1657	12	documented at least in part in	documented, at least in part, in
1659	12	generator con- denser cooling	generator, condenser, cooling
1659	20	actually	actuate
1659	24	cooler	heat trans- port path
1659	24	temperature	(delete)
1659	7,10,18	Witness Brown	Witness O'Block
1660	10,24	Witness Brown	Witness O'Block
1660	5	controlled	control
1661	2,10,15,24	Witness Brown	Witness O'Block
1661	6	exasperate (sic)	exacerbate
1662	10,18	Witness Brown	Witness O'Block

PAGE	LINE	NOW READS	SHOULD READ
1663	2	The	They
1663	4	report.	reports.
1664	20	line absorber	line, absorber
1667	17	contro	control
1672	24	conducted West- inghouse	conducted at Westinghouse
1673	5	scram	scrams
1674	23	possible design	possible, design
1675	5	accomodate	accommodate
1682	7	larged	larger
1683	19	in	on
1683	19	particular of	particular-- of
1684	4	ists	istics
1686	10	Susanna	Susana
1691	22	start	stop
1692	1	document	documented
1693	17	rapidaly	rapidly
1694	5	water	what are
1695	10	motor	order
1697	3	indocporated	incorporated
1697	4	HCDAR	HCDA
1700	19-20	fast flux test facility	Fast Flux Test Facility
1700	20	Phoenix	Phenix
1708	2	rod and	rodded
1714	5	the reactor	the primary reactor
1714	10	reactor	system
1720	12	-seconday	-secondary
1724	3	indetermining	in deter- mining
1724	9	absolute	absolutely
1724	14	there were	(deleted)
1727	1	auziliary	auxiliary
1727	7	colling	cooling
1727	25	liguid	liquid
1728	17	phase	base
1731	16	to	do
1739	12	dosess	doses
1742	15	testimony. We	testimony if we
1749	5	heat	feed
1750	12	and	in
1751	5	been through	been, through
1752	16	programatic	programmatic
1754	22	dose? That	dose that
1765	19	results	result
1777	14	and	...a
1779	5	as	on

PAGE	LINE	NOW READS	SHOULD READ
1783	22	you'r	you're
1786	16	assume	assumed
1789	1	HCDAs	HDCAs
1790	20	document	document
1791	5	CRBRP Volume 3	CRBRP-3,
1803	11	on	in
1803	17	basic	basis
1803	18	marginal	margin
1804	6	with	both
1804	18	off-site	oxide
1805	7	top	TOP
1805	10	will	or a
1810	11	Energetic	Energetics
1811	6	SMBDB	SMBDB
1811	13	relying the	relying on the
1813	2	contaminant	containment
1816	5	spargy	sparging
1822	15	lanthanites	lanthanides
1824	17	; in Case 2 that	in Case 2, that
1824	18	polonium	polonium
1826	17	-- whatever	-- took whatever
1828	16	whick	which
1828	19	have extended	have, extended
1828	20	structure what	structure, what
1830	24	double	noble
1833	8	Pn-240	Pu-240
1834	25	facilities, plus	facilities. Plus,
1834	14	a	on
1834	20	LMFPR	LMFBR
1836	8	design basis accident	Design Basis Accident
1836	9	envelope.	Envelope.
1837	23	754 will in fact	7.5.4 will, in fact,
1837	17,20	fail	failed
1837	22	fail	failed
1838	2	as	of
1839	3	calcaulations	calculations
1840	13-22	Strawbridge quoted twice;	Deitrich omitted.
1842	21	atmosphers	atmospheric
1843	20	suddently	suddenly
1846	20	move	remove
1847	11	many	any
1847	23	heat	steam

PAGE	LINE	NOW READS	SHOULD READ
1848	15	liquid metal engineering center	Liquid Metal Engineering Center
1848	25	pipng.	pipng
1849	1	(no new paragraph or sentence)	
1850	17	Following ordinate and whereas	following ordinate. And areas
1850	7	sometng	something
1852	24	considerably	considerable
1863	20	analyze them	analyze them,
1863	21	metallurgically,	metallurgically test
1863	5	involute	involved
1863	19	cupons	coupons
1864	5	cupons	coupons
1865	8	up to the	onto the
1866	17,18	Delete "--not a	fission gas--"
1870	10	GMI	TMI
1871	5	double	noble
1871	15	term that	term. That
1873	2	achieve	achieved
1873	24	consisted	consistent
1875	3	to be, as Mr.	to be. As Mr.
1876	4	in the time	in time
1878	4	cetera, those	cetera. Those
1878	6	condidions	conditions
1878	15	calcuatlions	calculations
1880	9	CLARE:	STRAWBRIDGE:
1881	9	process but analyses	process. But analyses
1881	1	CLARE	STRAWBRIDGE
1881	7	truly	to
1881	13,14	delete "twenty-four hours, which we found"	
1881	15	assessments, you	assessments. You.
1884	17	I'm	I am
1887	5,6	inh tax res int	Inhalation Toxicology Research Institute
1887	11	institute	Institute
1887	17	institute	Institute
1888	4	come	comes
1889	15	in the	pen to
1891	16	Thyroidwithin	Thyroid within
1891	16	understandin	understanding

PAGE	LINE	NOW READS	SHOULD READ
1893	15	to respond
1894	20	correct	clarify
1910	25	ICRP	ICRP-2
1911	23	LAI's	ALI's
1912	1	waiting	weighting
1912	15	The model does employ numbers which....	The model doesn't employ numbers which....
1915	13	ICRP	ICRP-
1915	25	Then we draw back in terms of ICRP-26 and	These are then used with ICRP-26 which contains
1915	9-11	It is animal data. It is human clinical data. It is autopsy data, epidemiological data	It contains animal data, human clinical data, human autopsy data and epidemio- logical data.
1916	1	there which are	(delete)
1918	1	in	(delete)
1918	2	or potential	change as a
1919	5	soon gives you a	to a
1919	25	of those	problems being addressed
1920	1-4	that come immediately to mind that jump out that say that--you know, that there's some- thing that I've got a great concern about if we don't get -- you know -- some- thing that's	(delete and add) that are
1972	11	o	to

<u>Page No.</u>	<u>Line No.</u>	<u>Now Reads</u>	<u>Should Read</u>
4950	5	LAWRENCE W. DEITRICH	L. WALTER DEITRICH
4966	5	LAWRENCE W. DEITRICH	L. WALTER DEITRICH
4967	2	Safety	Safety and
4970	10	beings	begins
4970	16	respcer	respect
4979	23	is	if
4981	11	brith	birth
4985	23	BY WITNESS DEITRICH	BY WITNESS CLARE
4986	11	BY WITNESS DEITRICH	BY WITNESS CLARE
4991	25	on	in
4992	1	have you	you have
4993	6	in	and
4998	1	frequency failure	frequency of failure
5001	1	Sovient	Soviet
5002	17	leak	lead
5005	1	system	system
5005	20	reidrect	redirect
5022	4	but	by
5022	9	you	You
5038	24	disclosed	enclosed
5057	2	not	no
5059	3	close	coast
5060	23	actual	natural
5074	22	trictly	strictly
5078	16	issues.	issue.
5090	10	Allen Walters	Alan Waltar
5090	12	Allen Walters	Alan Waltar
5090	13/14	Allen Walters	Alan Waltar
5094	8	Allen E. Walter	Alan E. Waltar
5094	22	consequent	consequence

5096	4	Allen E. Walter	Alan E. Waltar
5096	14	Allan Walter	Alan Waltar
5097	1	stimulant	simulant
5103	3	convensional	conventional
5105	22	pressure-type	pressure-time
5139	8	post	proposed
5152	22	cetera.	cetera,
5152	22	That	that
5152	22	Ventori	Venturi
5154	12	mock-ups	mark-ups
5154	13	there	that
5157	2	for	or
5157	5	does	dose
5158	11	conversation	conversion
5158	23	conversation	conversion
5158	25	converstion	conversion
5159	3,11	meteorological	meteorological
5159	18	does	dose
5160	8,14	meteorological	meteorological
5160	21	items	iodine
5168	10	occasions	equations
5170	10	equations methodology	equations and methodology
5171	16	seal	steel
5181	5	anlyses	analysis
5182	8	differe	differ
5186	20	feasbile	feasible
5191	12	NCDA's	HCDA's
5192	21	CEA	CDA
5203	15	working the respirstor	working in respirators
5204	12	dose in ground	dose from ground
5213	7,9,11	Ameresium	Americium
5213	10	This has been	It has been
5217	17	far	for
5238	11	Sectors	Sector
5242	16	rows	rose

5257	4	LAWRENCE W. DEITRICH	L. WALTER DEITRICH
5259	12	LAWRENCE W. DEITRICH	L. WALTER DEITRICH
5261	17	requirements	requirement
5263	16	sodium	system
5264	14	moving	removing
5265	6	product,	product
5268	7	knack	NaK
5268	10	pumped	dumped
5281	15	particular	particulate
5281	18	and there hence	and hence
5281	19	particular	particulate
5304	10	are big tanks	are in big tanks
5305	2	if	is
5305	12	ORO	ORR
5318	14	repressurizing	overpressurizing
5319	2	actions	accidents
5319	19	address is	address it
5320	6	Or the	Our
5327	17	philosophy	velocity
5327	21	deposition philosophy	deposition velocity
5334	18	prtected	protected
5336	2	active	reactive
5337	8	IA checks	IHX
5340	19	aprt	apart
5343	22	Clare	Strawbridge
6291	14	acronisms	acronyms
6297	14	cooled generators	cooled steam generators
6298	6-7	available.	available, incorporated...
		Incorporated...	
6299	18	tubes we	tubes. We
6299	19	equipment. The	equipment, the
6300	5	out	at
6300	14	be--have	be--or have
6300	21	welding and	welding. And
6300	23	flow loose vibration	flow induced vibration

6301	25	on	a
6302	6	LWR which, to a degree has 757 tubes,	LWR. It has roughly 757 tubes,
6302	8	we believe on	I believe one
6302	12	into.	into play.
6303	7	To avoid the	I'd like to avoid a
6303	11	unit is one	unit, one
6303	20	your question, in	your question in
6303	21	differences	differences
6303	24	to	by far
6304	11	series tests	series of tests
6304	16	operation,	operation and
6304	17	20 years R and D test	20 years of R&D and test
6304	22	do is, we will	do first is, we will
6304	24	in 1983	in the 1983
6305	7	at temperature	and at temperature
6306	20	1985 and 1986	1985
6306	22	E-Tech where we are	ETEC where we are
6307	1	You begin preparing tests in '87,	You'd begin conducting tests in 1987,
6307	3	in the	into the
6307	4	those.	those units.
6307	5	'88	1988
6307	6	the units	the plant units
6307	8	estimate	estimate a
6307	9	project to	project, to
6307	15	that's	it's
6307	23	Your question is a system	Your question was, is there a system?
6307	25	to during	during
6308	2	have as to	have so it may
6308	13	components of	component or
6309	6	regulations, and in particular any environ-	regulations. And in particular, any environ-

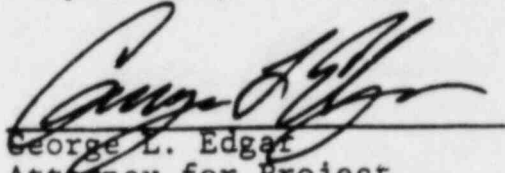
6309	7	to LMFBR's.	of LMFBR's.
6309	8	and measuring their physical and	and physically measuring their
6310	3	regulations.	regulations."
6310	10	that just	that was just
6310	11	to the environmental	to environmental
6311	12	materials	material
6311	15	to for	to details for
6311	17	that.	it.
6311	21	can for	can, for
6311	22	gories distinguish and document. First	gories, distinguish and document first
6312	13	in here we are using those	here that we are using those data
6312	14-15	large developmental plant	Large Developmental Plant
6314	8-9	allow it to pass through in order	allow such material to pass through, in order
6314	14-15	high temperature, sodium and fuel debris that would be within the core catcher in order	high temperature sodium and fuel debris that would be within the core catcher, in order...
6315	23	air bags in	air packs in
6319	8	power,	power
6319	10	objectives	objectives,
6319	16	project. Again, the--	project, again,
6319	18	jectives after	jectives. After
6321	6	asking program	asking about program
6321	17	in its	and its
6321	19	program project	program and project
6322	4	That's--To me, yes, that's	That to me is
6322	5	program	program and
6325	13	answer.	question.

6325	1	as a	from a
6326	2	as said	as I said
6327	11	means and whether it be	means, and whether it could be
6327	13	can't--	can't answer.
6333	23	that	that,
6333	24	aggregate	aggregate,
6338	3	significantly	significantly or
6342	18	we	it
6342	23	we would meet as	we made would meet as
6343	8	plan	plant
6347	20-21	large developmental plant	Large Developmental Plant
6348	6	that which	that plant which
6349	6	gneral	generally the
6350	11	in the Page	on the pages
6350	15	technillogical	technological
6351	21-22	large developmental plant	Large Developmental Plant
6351	24	reguel	refuel
6352	4	exvessel transfer machine	ExVessel Transfer Machine
6352	9	for that is	is
6352	10	megawatt or 25,500	megawatt or 2550
6352	13	again, of	again, because of
6352	18	large	larger
6354	21	the--we	that--as we
6354	22	testimony	testimony,
6354	23	LMFBR but I	LMFBR. But, I
6357	9	data in any manner	data, in any manner,
6359	8	when we talk about	where we talk about,
6359	9	phase, having	phase, of having
6359	21	project with	project office with
6360	21	the both cooperative	the cooperative
6360	23	has	have

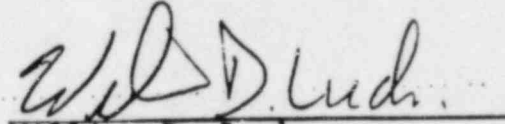
6361	12	those in	those qualify in
6362	7	Rowe	Roe
6363	10	in diameter	diameter
6363	20	amount of	amount of
6363	23	way	way,
6363	25	shops	shop
6364	16	I don't know the bigger	I don't know. The bigger
6365	15	anyplace	any place
6365	19	boilding	boiling
6366	9	occur	occurs
6369	12	don'	don't
6369	21	inacceissible	inaccessible
6370	2	say categorically	say that categorically
6370	5	after to	after an accident to
6370	7	of	for
6371	8	design	design.
6371	22	such as event-purge	such as a vent-purge
6374	5	NCDA	HCDA
6382	12	Reading gain is as one	Breeding gain is one
6382	14	over	in
6382	16	cor	core
6382	25	facilities that we have give	facilities, give
6383	21	isotopes--plutonium	isotopic plutonium
6385	7	EBR-2	EBR-II
6385	9	from the fuel	from the core
6386	10	things	thing
6386	23	base, and to	base. And to,
6386	24	used would	used, it would
6388	12	at a larger	from a larger
6391	1	this operation FFTF	this operation of FFTF,
6391	2	continued	and continued
6392	1	Rowe	Roe
6392	2	Oradale	Oradell

6392	9-10	Walsh	Waltz
6392	12	illustration Figure 2	illustration in Figure 2
6392	13	get our picture	get in a picture
6392	14	immense, but the	immense; the
6393	6	breeding	breeder
6393	21	Can't make that with	I can't make that correlation with
6394	19	LRLMFBR	LMFBR
6394	20	process and	process. And
6395	2	have on the	have the
6395	5	generally design is	generally find is
6395	6	advantage one	advantage, one
6395	7	whole and	whole. And
6395	8	out in here	out here
6395	11	materials	materials,
6395	18	incorporation	incorporated
6395	25	differences	difference
6396	2	designs and we find that in	designs. And we find that in
6396	7	it	there
6399	20	unprotected	unprotected
6403	15	that could	that I could
6403	15	clearly the	clearly
6403	15	statement that	that statement
6403	18	-- you've	-- and you've
6405	13	go to	going to
6472	4	megajewel	megajoule
6473	12	megajewel	megajoule
6473	14	megajewel	megajoule
6504	20	captured residence	capture resonance
6513	6	dealsy	delays
6515	14	things	thinks

Respectfully submitted,



George L. Edgar
Attorney for Project
Management Corporation



William D. Luck
Attorney for the
Department of Energy

DATED: January 24, 1983

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
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UNITED STATES DEPARTMENT OF ENERGY)
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PROJECT MANAGEMENT CORPORATION) Docket No. 50-537
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TENNESSEE VALLEY AUTHORITY)
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(Clinch River Breeder Reactor Plant))
)

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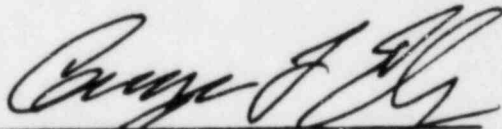
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