

6/26/81

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)	Docket No. 50-70
GENERAL ELECTRIC COMPANY)	Operating License
(Vallecitos Nuclear Center -)	No. TR-1
General Electric Test Reactor)	(Show Cause)

SHOW CAUSE HEARING
TRANSCRIPT CORRECTIONS

<u>Page</u>	<u>Line</u>	<u>Correction</u>
227	2	Change "laboratory" to "vibratory"
227	13	Change "techtonics" to "tectonics" Add "I" after "end,"
227	22	Delete "that"
227	25	Change "to which West" to "west of which"
228	5	Following "with the" add "far plate"
228	8	Delete "of"
228	17	Change "maximum magnitude" to "msimum credible magnitude"
228	19	Change "features as" to "features regarded as"

8106300488

<u>Page</u>	<u>Line</u>	<u>Correction</u>
228	20	Change "maximum event" to "maximum credible event"
229	4	Change "Santa Susanna" to "Santa Susana"
229	17	Change "order and rela-" to "order. Rela-"
229	18	Change "that is a much" to "that it is a much"
229	22	Change "techntononic" to "tectonic"
234	18	Change "views" to "view"
235	24	Change "Terra" to "TERA"
237	24	Change "life" to "light"
238	13	Change "The part" to "Part"
239	21	Change "at" to "that"
244	11	Change "techtonic" to "tectonic"
245	4	Delete comma
245	5	Change "confidence" to "competence"
245	15	Delete "to"
245	16	Add period after "area". Delete "so that".
245	19	Change "phenomena problems" to "phenomena and problems"
255	10	Change "Van Mark" to "Vanmarcke"
267	15	Change "projects" to "project"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
291	12	Change "movement" to "moment"
291	13	Change "movement" to "moment"
292	1	Change "movement" to "moment"
292	25	Change "probably" to "probably not"
295	4	Change "our" to "are"
296	15	Delete "of the"
296	18	Insert "the absence of" between "with" and "any"
298	24	Change "means" to "needs"
299	10	Change "techtonic" to "tectonic"
304	16	Change "is" to "as" and delete "of"
305	4	Delete "we"
305	17	Change "on" to "of"
309	3	Change "empiracle" to "empirical"
309	9	Change "spread, plotted" to "spread of plotted"
316	14	Change "Schlieman" to "Schlemon" and on several following pages
316	15	Change "stratographic" to "stratigraphic"
323	2	Change "and" to "in"
334	13	Should read: "That was why it was not included."
351	6	Should read: "wedge of clay"
351	9	Change "escarp" to "a scarp"
351	23	Change "on more than" to "on no more than"
352	19	Change "approximately" to "approximate"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
358	8	Change "or" to "of"
358	22	Should read: "It was a movement which occurred previously."
359	18	Should read: "I believe the other explanation was no offset at all."
370	1	Change "strategraphy" to "stratigraphy"
389	23	Change "trench" to "trend"
391	16	Change "feature" to "future"
391	17	Change "no" to "two"
395	11	Change "you" to "the"
396	5	Change "ones" to "once"
396	6	Delete first "random"
398	10	Change "and" to "to"
407	7	Add "...any <u>loss of lateral</u>"
408	7	Change "equation" to "shear"
409	5	Change "the" to "in"
415	5	Change "Lakewood" to "Lakeview"
421	4	Change "in echelon" to "en echelon"
431	21	Change "techtonic" to "tectonic"
431	24	Change "techtonic" to "tectonic"
432	6	Change "techtonic" to "tectonic"
432	15	Change "techtonic" to "tectonic"
435	20	Change "Harding" to "Meehan"
435	24	Change "whether" to "where"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
435	25	Add: "exists after scientists"
436	7	Change "Harding" to "Meehan"
437	15	Add: comma after "matter,"
437	20	Change "regard" to "regarding"
437	21	Delete "that"
438	1	Add comma after "view,"
439	8	Add comma after "are,"
439	10	Change "incline" to "inclined"
440	12	Change "and" to "that"
442	9	Change "accumulated" to "cumulative"
442	10	Change "accumulating" to "cumulative"
445	18	Change "mottled" to "modeled"
445	21	Change "mottled" to "modeled"
446	6	Change "ailures" to "failures"
452	2	Change "obstruct" to "disrupt"
457	9	Change "due" to "do"
459	16	Change "neat" to "new"
460	20	Change "L" to "1"
462	10	Insert "of" between "independent"
464	25	Change "they" to "we"
478	15	Change "expresses" to "expressions"
479	10	Change "most" to "almost"
493	4	Change "might" to "maybe"
496	4	Change "again" to "now"
496	5	Change "soild" to "soil"
496	8	Insert "upon" between "graph" and "which"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
507	18	Change "how" to "where"
507	24&25	Should read: "westernmost fault shown on the map which is the Hayward fault and several other areas on the map."
508	2	Delete "a so-called" Replace with "the"
508	6	Insert "all earthquakes of magnitude less than 4" after "map"
509	3	Change "waive" to "wave"
509	8	Change to "type of first motion determined from seismological measurements"
509	23	Add: "either strike-slip or thrust mechanisms."
510	20	Change "is" to "as"
510	23&24	Change to "over 80 different earthquakes from worldwide locations which correlate"
511	1	Delete "the thing is"
511	2	Change "a" to "the"
511	10	Change "5 - 6 meters" to "0.5 - 0.6 meters"
527	13	Change "grading" to "gradient"
529	15	Change "Brun" to "Brune"
	16	Change "forthcome yet" to "been received yet"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
537	12	Change "McEvely" to "McEvelly "
544	23	Change "fice" to "far"
550		Change "Richard Kovach" to "Robert Kovach"
553	3	Change "chart" to "Sharp"
553	8	Delete "California Division"
553	9	Change "of Mines and Geology" to "U.S. Department of Commerce"
553	24	Delete "many times"
554	19	Change "--" to "the data after"
555	1	Delete "and"
555	2	Delete "using"
576	15	Change "Kovachs" to "Kovach"
584	2	Change "situations which" to "situations in which"
588	16	Change "and" to "but"
590	14	Change "Mara" to "Mare"
593	3	Delete "Southern"
621	23	Insert "Imperial Valley earthquake data" between "the" and "require"
635	10	Change "Milindi" to "Melendy"
642	8	Change "waive" to "wave"
643	24	Change "of very" to "very"
646	5	Change "albeing" to "albeit"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
648	3	Delete apostrophe
648	4	Delete apostrophe
648	22	Change "Big Ben" to "Big Bend"
649	4	Change "off" to "away from"
650	7	Delete "and"
651	11	Change "pleato" to "pleito"
662	13	Change "S-T" to "S-P"
684	21	Change "mind mind" to "my mind"
691	12	Change "E wave" to "P wave"
701	22	Change "waive" to "wave"
1906	5	Insert "and" between "criterion" and "design"
1906	6	Change "panel" to "panels"
1907	1	Change "scarmmed" to "scrammed"
1910	11	Delete "all of"
1910	19	Delete "themselves"
1910	23	Delete "themselves"
1911	14	Insert a comma after "capacity"
1912	8	Delete "sizes"
1912	9	Delete "of the"
1912	14	Change "structure" to "foundation soil"
1914	1	Change "stationery" to "stationary"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
1915	2	Change "New modifications" to "Modifications"
1917	3	Delete "each edge at"
1917	9	Change "Well, so we" to "We"
1918	3	Change "control rod," to "and control rod"
1919	17	Change "train" to "crane"
1920	4	Insert a period following the last word on the line ("boundary.")
1920	5	Delete "nearby and near in". Delete the semicolon after the word "in".
1920	5	Capitalize the word "There" to begin a new sentence.
1921	2	Delete the word "the" at the beginning of line 2.
1921	2	Insert "loading" after "inertia."
1926	2	Delete "and"
1926	3	Delete all after "structure"
1929	7	Change the word "filter" to "fuel"
1931	5	Change "loads" to "loads in compression,"
1931	5	Change "concrete" to "concrete is quite high"
1931	6	Delete
1931	15	Change "UVC" to "UBC"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
1932	3	Change "capability. That" to "capability, that"
1932	7	Change "does" to "does meet"
1932	17	Change "geometry," to "geometry, and"
1933	19	Change "--" to "to"
1948	6	Insert the word "the" between the words "that's" and "restraint"
1950	24	Change "phases" to "faces"
1952	13	Change "that" to ". That"
1953	8	Delete "on"
1953	15	Change "an" to "in"
1953	19	Change "recognizing" to "recognize"
1954	23	Delete "or a half"
1955	2	Change "stress you" to "cause stresses"
1956	2	Delete "and the" after "aluminum"
1956	8	Change "--is" to "three to"
1957	11	Change "indicate" to "the conclusion"
1960	6	Change "are used" to "are typically used"
1961	20	Change "bend" to "bent"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
1962	1	Change "bend" to "bent"
1962	9	Change "crushed" to "crush"
1963	5	Insert "Q. Where is the location of the drain connection for reservoirs?"
1966	3	Delete "that wall would"
1966	4	Delete "be"
1966	4	Delete "and"
1966	16	Change "surface" to "surface the wall could be damaged."
1968	3	Change "think" to "think it is worthwhile"
1968	3	Change the comma to a period
1968	4	Delete "that we use"
1968	24	Delete "physically"
1970	7	Change "no" to "only moderate"
1970	8	Delete "at the"
1970	9	Delete "essentially the same number with"
1970	10	Change "only slight" to "only moderate"
1970	10	Delete ", a few percent,"
1971	16	Change "would" to "could"
1972	14	Change "that" to "the"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
1976	9	Change the word "smapling" to "sampling"
1976	18	Change "instrumented, as" to "instrumented used tri-axial triggers. As"
1977	3	Change the word "canted" to "wanted"
1990	5	Change "Wilkes" to "Welch"
1994	16	Change "it" to "there".
1994	19	Change "hallo," to "hailer,"
1994	20	Change "hallo," to "hailer,"
1994	24	Change "circumstance" to "circumstances"
1995	1	Change "Curran" to "Kern"
1995	4	Change "direction" to "directionality"
1995	4	Delete the word "fix"
1997	11	Insert "in" after "finds". Delete "--" at end of line
1998	13	Change "sufficial" to "surficial"
1998	17	Delete "subsoil" and insert in its place two words "soft soil"
1998	18	Change the word "sufficial" to "surficial"
1999	5	Change "Golden Gate the rupture" to "Golden Gate. The rupture"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
2002	5	Change "Broley" to "Brawley"
2002	11	Change "Broley" to "Brawley"
2002	16	Change "Broley" to "Brawley"
2002	21	Change "Broley" to "Brawley"
2005	5	Change "technique" to "techniques"
2005	18	Change "Gosley" to "Gazli"
2006	5	Change "Shebolyn" to "Shebalyn"
2006	9	Change "Gosley" to "Gazli"
2006	16	Change first word "and" to "are"
2007	15	Change "strikeingly" to "strikingly"
2007	19	Change "fources," to "forces,"
2007	23	Delete the fourth word "that"
2008	3	Delete the word "as" following the word "question"
2008	18	Add "and" between "electrical" and "small"
2020	5	Change "of" to "or"
2020	6&7	Insert "is" after the first word "now". In Line 7 change comma after word "lot" to a period. Capitalize word "In"
2021	6	Change "Heyward" to "Hayward"
2021	13	Change "Heyward" to "Hayward"
2021	18	Change "Heyward" to "Hayward"
2022	1	Delete "or" following "for"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
2024	20	Insert "was" following "actually,"
2027	14	Change "Heyward" to "Hayward"
2027	15	Change "Heyward" to "Hayward"
2027	21	Change "Heyward" to "Hayward"
2031	22	Change "seismologic" to "seismological"
2036	8	Change "Nicuaragua" to "Nicaragua"
2036	16	Change the last word from "strike" to "site"
2044	8	Change "alludes" to "eludes"
2045	2	Change "big earthquakes? But there" to "big earthquakes but there"
2045	3	Change punctuation after the word "say" from a period to a question mark "say?"
2046	17	Change "Bank of America" to "Banc Centrale"
2049	2	Delete "that" preceding "is"
2050	19	Insert "them" following word "increase"
2051	11	Delete "to" following the word "prefer".
2052	5	Change "gith" to "right"
2057	7	First figure on line 7. Change from ".12g" to "1.12g"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
2060	21	Change "personally" to "closely"
2072	12	Change "Leek" to "Lick"
2073	14	Delete "that" preceding "Figure" (Should only be one "that")
2073	20	Change "Kovatch" to "Kovach"
2073	24	Insert "--" between "fixed" and "because"
2073	25	Insert "--" between "stations" and "within"
2074	2	Insert "--" between "graphs" and "the". Delete the comma following the word "graphs"
2074	2	Insert "--" between "changing." and "But"
2074	12	Change "focil" to "foci"
2075	17	Change "Th-t" to "That"
2083	4	Delete "that question"
2083	8	Change "it is" to "the response is"
2083	10	Delete "to me"
2083	15	Change "and" to "the motion of"
2083	16	Change "amplified" to "highly amplified"

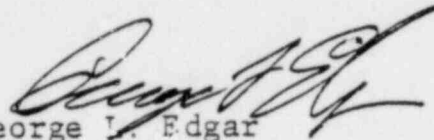
<u>Page</u>	<u>Line</u>	<u>Correction</u>
2083	18	Change "in" to "and"
2086	13	Change "Th-t" to "That"
2094	24	Change "spectra" to "spectral"
2095	25	Change "hull" to "shell"
2108	8	Insert "of" after "frequency"
2113	20	Delete "are"
2113	20	Change "seeing" to "see"
2117	17	Change "has" to "have"
2119	2	Change "from" to "for"
2119	4	Change the word "taks" to "takes"
2123	9	Insert the word "I" between the words "as" and "am"
2124	15	Delete "basically"
2126	7	Delete "of the reactor,"
2127	23	Delete "the failure,"
2128	13	Change "wall" to "wall perpendicular to the wall"
2129	11	Change "are" to "is"
2137	16	Change the word "operated" to "irradiated"
2139	14	Insert the word "and" between the words "canal" and "pool"
2141	10	Insert the word "of" between the words "failure" and "parts"

<u>Page</u>	<u>Line</u>	<u>Correcction</u>
2141	16	Change the fourth word "in" to "and"
2143	4	Following the word "reactor," insert the word "and" (<u>i.e.</u> , "reactor, and in the reactor")
2143	24	<u>Change the word</u> "issuance" to "exposure"
2159	14	Change "motions, in" to "motions, design criteria are developed. In"
2159	25	Change "criteria, but" to "criteria. But"
2160	8	Change "near" to "at"
2160	8	Change "at" to "below"
2160	13	CHange "of" to "at"
2161	4	Change "or arrive" to "as appropriate"
2161	6	Change "frequency" to "frequencies"
2161	7	Change "frequency" to "frequencies"
2161	8	Change "is" to "are"
2161	16	Change "put" to "output"
2162	25	Change "P" to "peak"
2163	5	Change "those" to "these criteria"
2163	6	Change "acceleration, and I" to "acceleration. I"
2163	9	Change "that" to "these far field criteria motions"
2164	14	Delete "by"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
2164	17	Delete "of space"
2165	19	Change "to form" to "of the form"
2165	23	Change "off" to "of"
2165	23	Change "wall. That is" to "wall, that is,"
2165	24	Change "Certainly" to "Certainly, it would be"
2166	1	Change "both" to "two "
2167	15	Change "those" to "these"
2166	23	Change "use" to "use as a criterion"
2168	1	Change "high," to "higher,"
2168	2	Change entire line to "number"
2168	3	Delete entire line
2168	15	Change "lower" to "lower load"
2171	2	Change "That is, the" to "The"
2171	3	Delete "the center of gravity"
2171	7	Change "that" to "as"
2171	8	Change "part" to "path"
2171	8	Change "in" to "and"
2171	23	Change "and" to "in"
2175	3	Change "February 2tth" to "February 25th"
2179	1	At the beginning of the line, insert "was" before "lost"
2179	2	Change "what" to "that"
2218	9	Change "cooland" to "coolant"
2218	10	Change "conctainment" to "containment"

<u>Page</u>	<u>Line</u>	<u>Correction</u>
2218	21	Change "C" to "seized"
2258	22	Change "findings" to "buildings"
2278	12	Change "vice" to "vise"
2281	10	Change "of" to "to"
2285	9	Change "The entire" to "Part of the"

Respectfully submitted,



George L. Edgar
Attorney for
General Electric Company

Of Counsel:

Morgan, Lewis & Bockius
1800 M St., N.W.
Washington, D.C. 20036

DATED: June 26, 1981

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
GENERAL ELECTRIC COMPANY) Docket No. 50-70
(Vallecitos Nuclear Center -) Operating License
General Electric Test Reactor) No. TR-1
(Show Cause)

CERTIFICATE OF SERVICE

I hereby certify that the foregoing has been served as of this date by personal delivery or first class mail, postage prepaid, to the following:

Herbert Grossman, Esq., Chairman
Atomic Safety and Licensing Board Panel
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Richard G. Bachmann, Esq.
OELD
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555

Dr. George A. Ferguson
School of Engineering-Howard University
2300 - 6th Street, N. W.
Washington, D. C. 20059

Daniel Swanson, Esq., OELD
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dr. Harry Foreman
Director of Center for
Population Studies
University of Minnesota
Minneapolis, Minnesota 55455

Docketing & Service Section
Office of the Secretary
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555
(original and 3 copies)

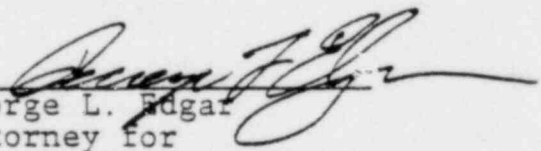
Rep. Ronald V. Dellums, M.C.
Attention: H. Lee Halterman, Esq.
201 13th Street - Room 105
Oakland, California 94617

Atomic Safety and Licensing
Board Panel
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555

Glenn W. Cady, Esq.
Carniato & Dodge
3708 Mt. Diablo Blvd., Suite 300
Lafayette, California 94549

Atomic Safety and Licensing
Appeal Board
U. S. Nuclear Regulatory
Commission
Washington, D. C. 20555

Edward A. Firestone, Esq.
General Electric Company
Nuclear Energy Division
175 Curtner Avenue
San Jose, California 95125
(Mail Code 822)


George L. Edgar
Attorney for
General Electric Company

Dated: June 26, 1981