UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

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AGO 16 A10 :27

F OF SECR BEFORE THE ATOMIC SAFETY AND LICENSING BOARD BERVILL BRANCH In the Matter of HOUSTON LIGHTING & POWER 8 Docket Nos. 50-498 OL 44 COMPANY, ET AL. 50-499 OL WHEN Jakab con (South Texas Project, Units 1 § and 2) August 6, 1982

> APPLICANTS' MOTION TO INCORPORATE TRANSCRIPT CORRECTIONS

The Applicants have reviewed the hearing transcripts to date in this proceeding and hereby request that the Board adopt and incorporate their proposed transcript corrections. Applicants' proposed corrections are appended to this motion as Attachment A.

The transcript from the last week of hearings (June 15-17, 1982) was extremely poor and an inordinately large portion of the proposed corrections are to these volumes. Several transcript pages during this period are so garbled that statements made by witnesses on cross-examination are incomprehensible (pages 10405, 10444, 10460, 10462, 10468-71, 10476-9, 10487-91, 10498, 10533-34, 10549-50, 10557, 10562, 10565, 10567-68, 10619-20, 10642, and 10651). Applicants have discussed these pages with their witnesses and the proposed corrections reflect the witnesses' best recollection of the answers given. With the exception of

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these pages, the proposed corrections generally reflect common transcription errors in spelling, names of individuals, occasional omissions of words and words or phrases which sound similar to other words or phrases.

In Applicants' copy of the transcript for May 14, 1981, the direct testimony of Mr. Don Jordan, admitted by the Board at Tr. 1223, was not bound into the transcript. Applicants understand that Mr. Jordan's testimony is also missing from the Staff's transcript copy, but that the copy on file at the NRC's Docketing and Service Section does include this testimony. While we believe that the Docketing and Service Section's copy is the "official transcript," to ensure that the record is complete and that all parties have a copy of this testimony, Applicants have appended to this motion, as Attachment B, a true and correct copy of Mr. Jordan's testimony as modified by the Board at Tr. 1222-23.

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that "Applicants' Motion to Incorporate Transcript Corrections" has been served on the following individuals and entities by deposit in the U.S. Mail, first class, postage prepaid or by courier delivery where indicated by an asterisk on this 6th day of August, 1982.

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ATTACHMENT A

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PROPOSED TRANSCRIPT CORRECTIONS

Page	Line	Change
771	25	"Mr. Amerol" to "Mr. Amaral"
772	21	"Obrea" to "Oprea"
773	17	"JUDGE BECKHHOEFER" to "JUDGE BECHHOEFER"
873	9	"an opposite" to "inapposite"
883	1	"you" to "us"
883	5	"ETS Nuclear" to "EDS Nuclear"
883	12	"ETS Nuclear" to "EDS Nuclear"
885	6	"in" to "and"
885	17	"complaints" to "compliance"
887	3	"NCFR" to "10 CFR"
888	17	"NCFR" to "10 CFR 50"
888	20	"NCFR" to "10 CFR 50"
902	2	"performance" to "conformance"
915	3	"compounders" to "components"
919	13	"plan" to "plant"
921	16	"N&S" to "ANS"
922	8	"free-loop" to "three-loop"
925	3	"steamship line" to "steam supply"
925	14	"actions, and order" to "actions in order"
933	10	"Scott" to "Stone"
1054	3	"seasonal" to "seasoned"

Page	Line	Change
1055	4	"Mr. Cohen Robinson" to "Mr. Cloin Robertson"
1055	17	"Mr. Robinson" to "Mr. Robertson"
1055	20	"Mr. Robinson" to "Mr. Robertson"
1056	8	"Mr. Robinson" to "Mr. Robertson"
1092	24	"vial" to "via"
1100	20	"assurance of the department" to "assurance department"
1139	10	"parts" to "audits"
1248	5	"later" to "labor"
1258	4	"reflect" to "reflected"
1264	22	"Mr. Beehan" to "Mr. Feehan"
1312	22	"Don Coart" to "Don Cowart"
1313	3	"Don Coart" to "Don Cowart"
1313	9	"Don Coart" to "Don Cowart"
1314	8	"Don Coart" to "Don Cowart"
1314	9	"Don Coart" to "Don Cowart"
1314	10	"Don Coart" to "Don Cowart"
1314	11	"Don Coart" to "Don Cowart"
1314	21	"Don Coart" to "Don Cowart"
1364	20	"I may" to "it may"
1376	12	"they would stop" to "they were stopped"
1401	3	"we can have" to "we can and have"
1408	16	After "should" insert "not"

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-2-

	Page	Line	Change
	1418	22	"acts" to "facts"
	1471	20	"competent" to "confident"
	1518	12	"MR. REIS" to "MR. JORDAN"
	1549	18	"Ford" to "Florida"
	1550	20	"The Granville" to "Grand Gulf"
	1573	5	"i_nally" to "probably"
	1614	1,3	"aspirations" to "aspersions"
	1714	74	"on-site" to "off-site"
	1750	8	"implement" to "Supplement"
	1752	15	"Clement" to "Klimist"
	1752	17	"collective" to "corrective"
	1763	19	"By Witness Amaral" to "By Witness Frazar"
	1767	14	"slow" to "spot"
	1787	11	"problematic" to "programmatic"
	1788	per !!	"an act" to "MAC"
	1791	9	"problematic" to "programmatic"
	1791	13	"problematic" to "programmatic"
14	179 Jer province		"problematicly" to "programmatically"
	1794	8-9	"You misunderstand the Criterian" to "You misunderstand. The Criterion"
	1794	15	"instructions procedures and" to "instructions, procedures, and"
	1794	23	"Criterian" to "Criterion"
	1805	2	"addendum" to "and the"
	1808	18	"a form to" to "a failure to perform or"
	1821	5	"essence" to "acceptance"

Page	Line	Change
1831	11	"problem" to "program"
1850	3	"be over to the" to "another"
1953	24	"assurance had" to "assurance organization had"
1984	9	"standards in the new plan" to "Standard Review Plan".
2066	11	"Tom Warner" to "Tom Warnick"
2066	15	"Mr. Warner" to "Mr. Warnick"
2067	10	"Mr. Warner" to "Mr. Warnick"
2069	2	"I do remember ASTC" to "I am a member of ASQC"
2074	13	"Aloverde" to "Palo Verde"
2078	25	"Marguilo" to "Marguglio"
2079	1	"to the present level and the consumers" to
		"to the project level at Consumers"
2113	19	"Manny Munson" to "Manning Muntzing"
2116	3	"AT&T" to "IT&T"
2118	10	"Ford" to "Florida"
2155	11	"manage" to "measure"
2155	13	"criteria within that are not" to "criteria are within that or not"
2155	22	"faulty" to "for quality"
2156	3	"engineering construction" to "engineering and construction"
2156	25	delete "issues"
2157	7	"they're all" to "there are "
2158	8	"preparation" to "penetration"

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-4-

Page	Line	Change
2158	18	"dows" to "dowels"
2164	16	"agitate" to "cogitate"
2177	15	"Appeasement" to "Assessment"
2182	22	"part, part of" to "part part"
2183	17	"St. Lucy" to "St. Lucie"
2183	18	"Baldwin" to Brunswick"
2227	4	"personnel, and all" to "personnel in all"
2227	5	"post-evaluation" to "post-placement evaluation"
2227	6	"I set in at every one of them up to that point in time." to "We sat in at every one of them. Up to that point in time "
2227	7	"It" to "it"
2243	11	"Manny Musing was the NARR" to "Manning Muntzing was with NRR"
2244	18	Insert "not" after "did"
2248	16	"tem-building" to "team-building"
2254	4	"Fidel" to "Godel"
2341	1	"Wessle" to "Wessel"
2341	10	"Wessle" to "Wessel"
2341	25	"Wessle" to "Wessel"
2342	20	"didn't" to "don't" after "frankly"
2342	22	"Wessle" to "Wessel"
2367	6	"3" to "III"

-5-

Page	Line	Change
2367	21	"accomplied and complated are" to "accomplished and contemplated represent"
2384	15	delete "s" from "mills," retain comma, add "or" after comma
2384	16	add "any of" after "virtually"
2384	22	add "and" after comma
2384	24	add the first sentence "It's a very frustrating experience." to the previous paragraph
2384	25	delete "it's"
2385	1	"harassment, intimidation" to "harassment or intimidation"
2386	16	"in my judgment that" to "that in my judgement"
2395	9	"term" to "time"
2403	1-2	"criteria during" to "criteria. During"
2403	2	"procedures." to "procedures-"
2404	7	insert a comma after "are"
2405	1	insert "to" after "so"
2405	17	"chielding" to "shielding"
2405	20	"safet" to "safety"
2478	1	add "be" before "of"
2478	2	"Perpahs" to "Perhaps"
2482	12	"been" to "built"
2484	6	"Shipping Port" to "Shipping-port"
2484	7	"Shipping Port" to "Shipping-port"
2512	11	"INFO" to "INPO"
2512	13	"light" to "Light"

Page	Line	Change
2512	13	"company" to "Company"
2512	18	"engineers" to "engineering"
2513	20	"light" to "Light"
2513	20	"company" to "Company"
2550	10	"JL&P" to "HL&P"
2552	13	"management analysis company" to "Management Analysis Company"
2552	21	"campaigns as well as" to "campaigns. As well,"
2558	17	"statement," to "statement."
2558	18	"if we" to If we,"
2558	18	"basis see" to "basis, see"
2568	4	"that" to "than"
2591	21	"Bill" to "81-11"
2698	19	" SHR-10030 on the" to " SHR-1000-03-0 on the"
2699	20	"Arentina" to "Argentina"
2702	4	"Hamford" to "Hanford"
2702	7	"Hamford" to "Hanford"
2702	10	"Hamford" to "Hanford"
2702	11	"Hamford" to "Hanford"
2720	15	"Hamford" to "Hanford"
2722	17	"Bent" to "Bernt"
2732	18	"Bent" to "Bernt"
2733	19	"Bent Bettersson" to "Bernt Pettersson"
2724	1	"Bent" to "Bernt"
2735	2	"And I put back samples" to "And I brought back samples"

Page	Line	Change
2736	21	"what that a" to "was that a"
2742	23	"There was also nearby some area" to "There was also a nearby sump area"
2750	3	"ETR's" to "DTR's"
2765	5	"Hamford" to "Hanford"
2786	15	"liquefaction. When the pour pressure and the water equals, the effect is stress between the grains." to "liquefaction when the pore pressure in the water equals the effective stress between the grains."
2802	24	"WITNESS KIRKLAND" to "WITNESS WILSON"
2803	3	"pounds per cubic foot, if you" to "pounds per cubic foot. If you"
2806	18	"pore pressure can build up it's so" to "pore pressure can't build up, it's so"
2819	11	"Bent" to "Bernt"
2825	10	"modulus in damping" to "modulus and damping"
2830	25	"CCE-2," to "CCP-2,"
2834	17	"twenty more passes" to "twenty or more passes"
2843	19	"I views PTL" to "I viewed PTL"
2870	25	"PIR's" to "EIR's"
2878	7	"WITNESS KIRKLAND" to "WITNESS WILSON"
2878	16	"WITNESS KIRKLAND" to "WITNESS WILSON"
2910	11	"Mr. Briskin, and you" to "Mr. Briskin. Can you"
2930	14	"areview" to "a review"

-8-

Page	Line	Change
2937	4	"(E)" to "(e)"
2938	25	"(E)" to "(e)"
2947	4	"TIENESS" to "WITNESS"
2963	23	"the days" to "to day's"
2965	20	"part of" to "prior to"
2984	3	"By Witness Jordan" to "By Witness Frazar"
2994	20	"and" to "of"
3007	24	"Boner" to "Bohner"
3007	25	"B&" to "B&R"
3008	2	"Voner" to "Bohner"
3009	4	"Boner" to "Bohne."
3009	18	"Boner" to "Bohner"
3009	20	"INC" to "I&C"
3009	20	"Mr. Boner" to "Mr. Bohner"
3009	22	"INC" to "I&C"
3009	25	"INC" to "I&C"
3021	10	"aware" to "award"
3072	10	"ASTM-8588" to "ASTM-A588"
3072	13	"or" to "of"
3072	15	"cord" to "cored"
3105	3	"VAR" to "B&R"
3177	5	"Bonson" to "Bahnson"
3191	8	"April. The" to "April of the"
3192	11	"discussed" to "described"

-9-

Page	Line	Change
3193	6	"on sight" to "on-site"
3213	13	"5498" to "50-498"
3213	13	"5499" to "50-499"
3218	12	"in" to "and"
3231	25	"Zions" to "Ziants"
3244	3	"complexities training" to "complexities and training"
3249	8	"quality" to "quantity"
3264	6	"judgments" to "adjustments"
3265	5	"his" to "this"
3267	14	"INSTAB (phonetic)" to "N stamp"
3267	24	"standar" to "standard"
3290	20	"By Witness" to "By Witness Frazar"
3292	12	"over" to "cover"
3349	21	"without" to "with our"
3349	22	"we" to "would"
3361	4	"AXELRAD" to "HAGAR"
3362	16	"ask him testimony" to "ask him to testify"
3370	22	"crieterion" to "criteria"
3380	9	delete "Atomic"
3387	4	"matters" to "materials"
3403	3	"the nuclear" to "nuclear power"
3403	6	"the nuclear" to "nuclear power"
3410	3	"it" to "say"
3416	l	"date" to "8"

Page	Line	Change
3416	2	"date" to "8"
3419	13	"that's degrees," to "that's a matter of degree,"
3423	16	"need" to "needed"
3437	20	"Q." to "A."
3450	14	" in" to "excavation for"
3490	10	"plan" to "planned"
3491	9	"pre-component" to "each component,"
3493	17	"mamed" to "named"
3493	24	"going" to "doing"
3534	15	"it" to "it in"
3560	14	"allocation" to "altercation"
3563	7	"engineer" to "engineering"
3564	9	"investigations" to "recommendations"
3566	23	"program" to "support"
3580	4	"investments" to "investigations"
3582	20	"with" to "in"
3601	21	"safeguard" to "safety"
3602	17	"happenings" to "potential"
3602	24	"to" to "by"
3602	25	"that" to "our"
3603	1	"concern of" to "concern for"
3603	1	delete "of" after "reporting"
3603	2	"the reporting it" to "a problem"
3603	2	delete "the" after "take"

-11-

Page	Line	Change
3603	4	"and we will do" to "and that we will do"
3610	6	insert "not" after "did"
3611	24	"thoroughly, and moreover" to "thoroughly. Moreover"
3612	7	"job, and when" to "job. When"
3612	18	"but that objective" to "that such objective"
3643	13	"26" to "24"
3644	7	"26" to "24"
3662	10	"now" to "how"
3669	15	"easter" to "eastern"
3677	5	delete "When"
3677	5	"he were" to "Were he"
3763	10	"simple," to "simple"
3854	21	"flaw" to "law"
3860	22	after "my" insert "way"
3967	12	"Maine" to "Main"
3967	25	"1956" to "1957"
4065	1	"leaderman" to "lead man"
4097	3	after "HL&P" insert "audit"
4243	18	"requisites" to "prerequisites"
4243	21	"requisites" to "prerequisites"
4253	4	"was" to "has"
4253	8	"if" to "is"
4263	9	"sign off" to "sign up"
4309	16	insert "Brown & Root" after "Brunswick"
4318	4	insert "report" after "inspector"

Page	Line	Change
4332	14	"Janacke" to "Janecke"
4332	18	"that" to "them"
4332	13	"Janacke" to "Janecke"
4382	23	"NM" to "interim"
4426	8	"Fortay" to "Forte"
4427	16	"UC" to "QC"
4427	25	"Fortay" to "Forte"
4438	9	"commissioned" to "Commission"
4484	10	"fired" to "hired"
4517	3	"EDM" to "PDM"
4546	18	"median" to "medium"
4546	20	delete "deficient"
5042	4	"Why I used" to "Why he used"
5079	6	"NR" to "B&F."
5107	2	"Bechtel" to "VEPCO"
5116	18	"true" to "through"
5120	25	"reort" to "report"
5129	9	"prior" to "priority"
5129	20	insert "1" after "Item"
5139	18	insert "we" after "that"
5142	7	"FPR's" to "FCR's"
5142	15	"FPR" to "FCR"
5142	25	"NCR" to "FCR"
5143	3	"NCR" to "FCR"

Page	Line	Change
5163	21	"no" to "not"
5173	6	"ANSI 45.212" to "ANSI N45.2.12"
5210	l	"frequency has developed also the" to "frequency was developed also from the"
5225	14	"TEU" to "CEU"
5237	22	"ladder" to "liner"
5238	8	"penetrations" to "penelrations,"
5247	15	"engineering" to "construction"
5254	17	"bottle" to "model"
5264	18	"BCN's" to "DCN's"
5284	10	"fill" to "field"
5285	15	"either" to "ever"
5322	5	"EDWIN" to "EDWARD"
5369	22	"in-organizational" to "organizational"
5407	12	"and" to "as"
5433	19	"BRISKIN" to "TURNER"
5433	23	"BRISKIN" to "TURNER"
5434	5	"BRISKIN" to "TURNER"
5436	11	"and Mr. Dood" to "to Mr. Dodd"
5439	10	"Dood" to "Dodd"
5454	17	"about of" to "about April of"
5463	3	"heaily" to "heavily"
5475	17	"excepts" to "accepts"
5676	8	"oncurrent" to "concurrent"
5684	25	"he" to "the"
5689	11	"plan" to "planned"

Page	Line	Change
5689	13	"are" to "were"
5696	16	"GOLDEBERG" to "GOLDBERG"
5705	8	"memorandnum" to "memorandum"
5713	25	"Mr. I.T. Morrow" to "Mr. I.P. Morrow"
5717	23	"qualified" to "quantify"
5730	18	"cnacelled" to "cancelled"
5734	7	"St. Lucy" to "St. Lucie"
5762	9	"did" to "didn't"
5779	17	"we" to "the"
5779	18	"with" to "which"
5931	14	"It was overall" to "I was overall"
5949	2	"true talking of tests" to "crew talking tests"
6081	4	"structly by the " to "strictly by the "
6118	7	"new" to "in"
6370	11	"replaced" to "a preplaced"
6398	17	"sheer" to "shear"
6398	22	"during in that concrete" to "during placement of that concrete"
6431	14	"really got any serious voids." to "really got any serious voids at the liner."
6494	15	"Leasure" to "Lazear"
6526	4	"steel" to "field"
6564	12	"bottle" to "hollow"
6565	22	"of the frequency" to "and the frequency"
6586	25	"Surrell" to "Suresh"
6592	1	"left" to "lift"

Page	Line	Change
6597	6	"RCV" to "RCB"
6763	25	"fix" to "mix"
6769	8	delete "and that"
6787	7	"doing" to "during"
6804	22	"complex" to "a preplacement"
6805	25	first "from" to "for"
6806	5	"done was made" to "did was to require"
6816	15-16	delete "water-proofingwith release to"
6837	1	"MURPHY" to "ARTUSO"
6854	11	"lion" to "line"
6856	12	"tensile" to "pencil"
6875	7	"prompt" to "pre-empt"
6880	10	"a" to "it"
6906	16- 17	"that it is not necessary to have a durable structure without it" to "that it is not necessary to have memberane W.P to have a durable structure"
6909	11	"pending" to "bending"
6910	7	"or" to "of"
7035	10	"You just can't" to "You just can't avoid them."
7051	13	"paces" to "cases"
7051	16	"end dams" to "end Anchorages"
7052	9	"ARTUSO" to "MURPHY"
7053	10	"design" to "test"
7056	19	missing word is "strains"
7060	7	"any lastic creeps" to "inelastic creeps"
7073	9	"1.118" to "1.18"

Page	Line	Change
7088	23- 24	"batch-in-place" to "batching and placing"
7110	23	"ship" to "chip"
7189	5	"ARTUSO" to "HERNANDEZ"
7213	11	"pour" to "port"
7220	21	"requires" to "complies"
7514	4	"Prjject" to "Project"
7516	1	"fueld" to "fuel"
7519	5	"amdnemdnts" to "amendments"
7660	12	"Know" to "Known"
7663	1	"By code" to "By code,"
7663	2	"reastons" to "reasons"
7664	2	delete "ask"
7683	21	"basis" to "basic"
7714	24	"tracing" to "training"
7722	7	"we" to "were"
7725	19	"bunch" to "punch"
7725	22	"many" to "mini-"
7726	5	"does" to "Do"
7727	1	"authrized" to "authorized"
7740	17	"varous" to "various"
7789	2	"that that what" to "that. What"
7792	22	"Trask" to "Task"
7793	9	"head" to "heard"
7798	6	"before the checklist" to "before, the checklists"
7798	7	"preprinted. Implementation" to "preprinted. On an implementation"

-17-

Page	Line	Change
7813	1	above the line insert "By Mr. Sinkin"
7815	3	"deficienct" to "deficient"
7816	17	"think" to "thick"
7817	24	"assistant" to "Assistant"
7817	25	"engineering project manager" to "Engineering Project Manager"
7820	17	"civil engineering" to "Civil Engineering"
7822	3	"Hill" to "Hills"
7901	15	"D - FW" to "DFW"
7901	6	"criterions" to "criteria"
7967	5	"clibrated" to "calibrated"
7967	24	"processing, pressing material." to "processing, processing materials."
8354	20	"No. 2" to "No. 5"
8362	3	"Curry" to "Perry"
8365	8	"requested" to "sequestered"
8503	7	"Don Hale" to "John Nail"
8596	7	"sand" to "air"
8634	11	"I'm construction" to "you're construction"
8652	17- 18	"ANSI, in 45.2.6" to "ANSI N45.2.6"
8652	25	"ANSI, in 45.2.6" to "ANSI N45.2.6"
9267	14	"I did" to "I didn't"
9315	18	insert "when" after "that"
9315	19	insert a comma after "identified"
9315	19	delete the period after "items"
9315	20	"Their" to "their"

Page	Line	Change
9532	23	"that every" to "that. Every"
9949	11	"Q." to "A."
9996	2	"statement" to "stipulation"
10120	12	"insurance" to "assurance"
10125	14	"Appendix B criteria" to "In Appendix B criteria"
10154	20	"PSI/ISA" to "PSI/ISI"
10189	13	"identify" to "identified"
10189	13	"scheduler" to "schedular"
10189	18	"scheduler" to "schedular"
10190	19	"plant and dry facility" to "Clinton Drive facility"
10217	2	"N45211" to "N45.2.11"
10247	13	"the memorandum" to "the manual"
10281	4	"Rutter" to "Ratter"
10281	6	"Rutter" to "Ratter"
10288	6	"unrealted" to "unrelated"
10290	1	"formerly" to "formally"
10296	2	"Appendix 8," to "Appendix A,"
10307	11	"addition" to "edition"
10404	21	"Company" to "accompanying"
10404	23	"will be performed will be supplied" to "will be performed (will be supplied)"
10405	2	"possible" to "topical"
10405	3	"standard procedures" to "standards and procedures"
10405	3	"to the complete" to "to complete the"

Page	Line	Change
10405	5	"compliance" to "conforming"
10405	6	"representational" to "organizational"
10405	12	"reports described in" to "report describing"
10405	13	"corporated" to "corporate"
10405	14- 15	"Pechtel" to "Bechtel" and Bechtel Power Corporation or other associated companies" should be in quotation marks
10405	17	"recognized" to "recognizes"
10405	17	"assistance" to "existence"
10409	22- 23	"Distributors" to "Experience"
10414	17	"trying to try to regroup HL&P, according to" to "and Brown & Root and HL&P brought into"
10414	18	delete "as far as"
10414	25	delete "basic"
10415	14	delete "to make it easier"
10418	11	"proper" to "improper"
10426	16	"John B." to "John V."
10430	9	"non-performance report" to "non-conformance reports"
10431	13	"fields" to "steel"
10434	24	"private" to "project"
10437	1	"SALP" to "soil"
10437	5	"Bechtell" to "Bechtel"
10443	5	"hundred design" to "under-designed"

Page	Line	Change
10443	16	add comma after "it"
10443	19	"trade" to "tray"
10444	10	"transient" to "transition"
10444	11	"documents and in" to "documents. In"
10444	12	"transient time" to "transitional times"
10444	13	"not" to "not yet"
10444	13	"effectively." to "effectively completed."
10444	14	"through" to "though under"
10444	14	"control and in" to "control. In"
10444	15	"contained" to "contain"
10445	4	"vat" to "batch"
10445	6	add comma after "construction"; lower case "addressing."
10445	7	"complete" to "completion"
10445	7	"drawing" to "drawings"
10445	9	add "i.e. or that is" before "actually."
10446	1	delete "to"
10449	16	"5055-E" to "50.55(e)"
10449	18	"flexible" to "reportable"
10454	9	"mainly" to "management team"
10454	15	"we may not" to "have been in"
10455	23	"an applicant" to "applicable"
10456	17	delete "come in"

Page	Line	Change
10459	24	"programs" to "problems"
10460	3	insert "in" before "trying" and "work," to "work."
10460	4	"that's" to "That's"; "came" to "come"; and "construction" to "the Construction Manager"
10460	6	insert "we" before "eliminated"
10460	7	"weaknesses. This is a Quality engineering area" to "weaknesses where Brown & Root was having the most difficulty which was in the engineering area."
10460	8	insert "This" before "principally" and "that they had engineered and" to "as engineer. Another area where"
10460	9	"had difficulties" to "were having difficulties was" and insert "the" before "sequence"
10460	10	delete "those problems were"
10460	11	"support and nonetheless" to "support."
10460	12- 13	delete both lines
10460	21	"Officer, we received" to "Officer. We received,"
10460	23	delete "we did"
10460	24	delete "receive"
10461	24	"alternative" to "alternatives"
10462	2	"projected" to "projects"
10462	5	insert "with" before "Quality"
10462	7	"project or combinations of many reasons" to "project, for a combination of many reasons,"
10462	8	"reputation and we decided that what" to "reputation. We decided that it"

-22-

Page	Line	Change
10462	9	"useful if our" to "useful, if" and "select" to "separate"
10462	10	"constructor management in" to "construction management. In"
10462	13	"for that" to "for. Then"
10462	15	"and" to "to" and "competence" to "confidence"
10462	22	"The" to "For the"; insert "that" after "work; and "as in" to "ASME"
10462	24	insert "of" after "parcel" and "code, and in" to "Code. In"
10462	25	delete "the" before "effective" and "the Quality" to "to have a Quality"
10463	4	"Non-" to "Non-ASME"
10467	14	"April" to "June"
10467	20	"in" to "and"
10467	23	"a considerable amount of" to "considerable"
10467	24	"this" to "the" and delete "very well"
10467	25	"recognized coherent" to "six month construc- tion"
10468	2	"what I call some construction discipline" to some of what I call construction discipline", and insert "a" before "detailed"
10468	3	"schedules that they had worked out in" to "schedule which had been developed in a logical and" and delete" pre."
10468	4	"clude some" to "stop" and "prematurely at the expense of" to "prematurely. The work planned"
10468	5-6	delete both lines and substitute "was based on what appropriately sequenced work could be supported with associated engineering pre- requisites."

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Page	Line	Change
10468	7	"Well, some of the prerequisities availability" to "Some of the prerequisities' availability was"
10468	8	"nature that if engineering got a certain project out," to "nature. If engineering issued the prerequisite,"
10468	9	"thereafterwords, so in" to "thereafter. In"
10468	10	"in that meeting," to "at the meeting" and insert "that" after "was".
10468	11	"their work" to "the construction schedule, which" and "expense," to "expense and"
10468	13	"ments, which" to "ments. Those were"
10468	14	insert "in" before "deciding" and "in fact be. When" to "perform."
10468	16	"that that" to "that their"
10468	17	delete the line
10468	18	"the responsible plan the weren't following." to "Project Management Team had developed the plan."
10468	19	insert "a" before "satisfactory"
10468	20	"were" to "for"
10468	21	delete the line and replace with "months to come was of even greater dismay. They did not anticipate"
10468	22	"to be any need" to "any" and "range" to "rate"
10468	23	"in South Texas" to "on South Texas for the next 12 to 18 months."
10468	24	"blank" to "bleak"

-24-

Page	Line	Change
10468	25	"play" to "plague"
10468	9	"thereafterwards" to "thereafter"
10468	11	add ", but" after "effort"
10468	20	add "for" after "approximately"
10468	24	"blank" to "black"
10468	25	add "in" after "play"
10469	1	delete "you know"
10469	2	add comma after "with"; add comma after "course"
10469	6	"came from the record issue" to "became apparent" and "continues" to "continued"
10469	7	"these" to "additional"
10469	8	"track so we had" to "track. So we met"
10469	10	"and who had" to "to discuss the problem. It was"
10469	11	"omnibus" to "ominous"
10469	19 - 20	between the lines insert "BY WITNESS LEX"
10469	23	"Bectel" to "Bechtel"
10470	2	"Liberty" to "Limerick"
10470	5	"stand" to "stand-"
10470	8	"Liberty" to "Limerick"
10470	9	"possible" to "possibly"
10470	14	"is" to "does"
10470	14	"isthat" to "is that"
10470	17	"Assurance while" to "Assurance. While"

Page	Line	Change
10470	17	"independency" to "independent"
10470	17	delete "the" before "Quality"
10470	19	"activities is" to "activities, he is"
10470	19	"responsible" to "responsibility"
10470	21	add "and" after "organization"
10470	24	"Branch" to "Reinsch"
10471	6	"prospective" to "perspective"
10471	7	"has" to "is"
10471	8	"falacies" to "fallacies"
10471	8	"he might think" to "in my thinking"
10471	15	add "and" after "engineering"
10471	16	"Egineering" to "Engineering"
10471	17	delete comma after "place"
10471	18	"day to dayproject" to "day-to-day project"
10471	22	"deviations" to "evaluations"
10471	23	"mentioned" to "mention"
10471	24	"delete comma after "review"
10472	4	add "its" after "and"
10472	5	"attribute" to "contribute"
10472	19	"merely" to "nearly"
10472	24	"Distributors" to "Description"
10473	2	"to be or has" to "to be done or which has"
10473	2	insert comma after "already"

-26-

Page	Line	Change
10473	3	"with the" to "with and"
10473	4	"complaince of" to "compliance to"
10473	5	"our" to "NRC"
10473	21	"surmounted" to "semantic"
10473	22	"here from" to "here. From"
10473	22	"prospective" to "perspective"
10473	23	". We" to ", we"
10473	25	"truck" to "work or task"
10474	2	"in a" to "and"
10474	2	"local" to "global"
10474	3	"responsiblity" to "responsibility is"
10474	4	"and remained" to "and that remains"
10475	18	"that Bechtel participated " to "what Bechtel projected"
10475	19	"work, but the plan projected literally to get this job" to "work. Literally what they projected to get the job"
10475	20	"I think so that would compare" to "I think, it compares"
10475	21	"alluded to where Brown & Root were involved in the" to "associated with Brown & Root's"
10476	2	replace "of" with "to be"
10476	3	"reasons principally the level of management" to "reasons. Principally the staffing 1"
10476	б	"the capacity of their attempt" to "their capability"

-27-

Page	Line	Change
10476	7	"a methodology" to "an unusual methodology"
10476	14	"that had they" to "that if they had"
10476	16	Add period after "it"
10476	17	Capitalize "but"
10476	18	"pretty unsophisticated and certainly they weren't optimum" to "a pretty unsophisticated and certainly less than optimum approach"
10476	19	"this done, so to carry out the burden using these" to "the job done. Therefore to perform the work using crude"
10476	20	Add "of" after "case"
10476	21	"and since a large segment" to "Bechtel. Since a large number"
10476	22	"that I think attributed" to "I think that contributed"
10476	24	"systems to "procedures"
10476	25	Add "the" before "pressures"
10477	5	"construction and start-up test Manager" to "Project Start-up and Test Manager"
10477	10	"construction and start-up test Manager" to "Project Start-up and Test Manager"
10477	22	"it is our organiza-" to "in our project organiza-"
10477	23	"manager's responsibility" to "a manager responsible"
10477	24	"manager under that manager who has" to "manager. Under that manager are"
10477	24-25	"supervises" to "supervisors"

-28-

Page	Line	Change
10477	25	Delete both "and"s
10477	25	"engineers and they in turn have support" to "engineers. They in turn have supporting"
10477	25	"disciplines" to "discipline"
10478	2	"incorporated in the plant in" to "components in the plant. In"
10478	3	"person," to "person"
10478	3	'project. We" to "project for other areas of activity."
10478	б	'out that area" to "out work in that area"
10478	7	"to HL&P" to "consistent with HL&P"
10478	7	"to provide" to "in the"
10478	8	"is" to "are"
10478	8	"by" to "to"
10476	9	"that the" to "and that the"
10478	11	"the endeavor" to "we endeavor"
10478	12	"honor" to "monitor"
10478	12	"Bechtel'sperformance" to "Bechtel's performance"
10478	12	"a" to "the"
10478	13	delete line
10478	12	"a" to "the"
10478	13	delete line
10478	21	"Sinker's" to "Sinkin's"
10478	24	"maintained" to "ascertained"

-29-

Page	Line	Change
10479	1	"the prime" to "a pipe"
10479	1	"leters" to "inches"
10479	5	insert comma after "organization"
10479	7	"will" to "may"
10479	9	"disposition at" to "disposition the report at"
10479	9	"views" to "approves"
10479	9- 10	"as his deposition" to "as-built location"
10479	10	"The first thing" to "On the other hand,"
10479	11	"Bechtel " to "ASME Class I System"
10480	14	"have" to "had"
10480	16	"done" to "did"
10480	18	add comma after "anyone"
10481	3	add comma after "came"; add comma after "say"
10481	7	"capabilities" to "capability"
10481	12	"interim play which is" to "inter-play with"
10481	13	"compound" to "component"
10482	4	"parcipitated" to "precipitated"
10482	5	"are" to "have"
10482	11	"so" to "no"
10482	14	add "are" after "you"
10483	3	"in '73" to "in addition to"
10483	8	"thought" to "talked"

- 201

Page	Line	Change
10483	16	add "evaluations" before ""
10483	18	"inquired" to "acquired"
10483	21	add "people" after "skilled"
10484	12	"the" to "their"
10484	18	add "for" after "earmark"
10484	19	"that" to "them"
10484	21	"vurtually" to "virtually"
10486	5	add "to" after "track,"
10486	13	"participant" to "sufficient"
10486	14	"down" to "out"
10487	1	"in" to "and"
10487	2	delete "in the more disciplined area of management"
10487	3	"to" to "into"
10487	3-4	delete "but the construction nature"
10487	4	"we felt with those areas improved that" to "We felt if those areas could be improved"
10487	5	"would do the job, that" to "could do the job. That"
10487	5	"the construction" to "that construction"
10487	6	delete "and"
10487	6	"before" to "in"
10487	10	"to" to "too"
10487	11	"would" to "relative to"
10487	11	"help" to "helped"

- Page Line Change
- 10487 12 "of" to "on"

10487 13 insert "was" after "that"

- 10487 14 "having in the area, we did not have problem with the quality" to "had in this area. But we did not have a problem with the quality of"
- 10487 15 "instruction" to "construction"
- 10487 18 "disposition because the engineering" to "disposition and because of this engineering"
- 10487 20 insert "a" before "factor"

10488 4 "correct, that" to "correct."

- 10488 5 "with confidence" to "its contractor"
- 10488 6 "in" to "by"

10488 8 "continues" to "continued"

- 10488 9 add comma after "involved"; delete "to"
- 10488 13 "number" to "numbers"; "was" to "were"
- 10488 13 add period after "know"; capitalize "more"
- 10488 14 "do and it got into that because of its concern" to "do. And HL&P got into that because of its concern for"
- 10488 15 "of" to "with"; "they were" to "HL&P was"
- 10488 16 "its" to "the"
- 10488 17 "our" to "its"
- 10488 20 "as far as" to "with any"
- 10488 25 insert "and" after "engineering"

Page	Line	Change
10488	15	"of" to "with"; "they were" to "HL&P was"
10488	15	"flustration" to "frustration"
10488	16	"its" to "the"
10488	17	"our" to "its"
10488	20	"as far as" to "with any"
10488	25	insert "and" after "engineering"
10489	2	delete "the following of"
10489	3	"business owing today the increased responsibility that licensing" to "business. Owing today to the increased responsibility that a licensee"
10489	4	add "a" after "what"
10489	5	"going" to "got"
10489	6	"going butthe" to "going. But the"
10489	9	"contact" to "Contractor"
10489	12	insert comma after "developed"
10489	13	"responsibilitydefined interface relation- ships, in" to "responsibility, defined interface relationships. In"
10489	14	insert "and" before "provided"; insert "them" after "provided"
10489	15	"NRC these" to "NRC. These"
10489	16	insert "and" before "approval"
10489	18	"activity, we" to "activity. We"
10489	20	"way Bechtel" to "way to interface with"
10489	21	"site" to "side"; add comma after "say"
10489	22	"the find" to "we find"
10489	22	"their system atic" to "they are systematic"
10489	22	insert "problems" after "systematic"

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-33-

Page	Line	Change
10489	23	insert "is" after "there"
10489	23	"expects" to "is expected"
10489	25	"we're" to "we have"
10490	1	"between the" to "between"
10490	2	"Assurance construction" to "Assurance and Construction"
10490	3	"accept" to "inspect"; insert "in a" before "particular"
10490	4	"displaying" to "dismaying"
10490	6	"things that" to "things, then"
10490	7	"all become 100 percent they" to "almost become 100 percent. We"
10490	8	insert "problems based on" after "identified"
10490	9	insert "to change" before "that"; delete "there"
10490	21	insert "as to imply" before "that we're"
10490	23	insert "find HL&P to" after "will"
10490	24	"we've" to "they have"
10491	2	delete "The contractor,"; capitalize "The"
10491	5	delete "so"; add "and that"
10491	6	"not at the expense" to "not to the extent"
10491	7	"explain" to "expend"
10491	8	"to the management on getting the job, because the utilities are" to "any management effort on getting the job done right, because the utility is there"
10491	10	"could" to "can"

Page	Line	Change
10491	11	insert "but" before "that"; "getting" to "attempting"
10491	12	"wedon't" to "we don't"
10491	13	add period after "perform"
10491	14	"so" to "So"
10491	16	"on" to "one"
10493	8	"Ophrey" to "Oprea"
10494	6	"of the" to "of a"
10494	11	"preplan" to "preplanned"
10494	23	"with" to "of"
10495	1	add "a" after "requires"
10498	13- 15	Delete text and insert "replacement must be obtained. First of all, we will not have the ability to replace them even if a desired change is within our control; however, in many cases if the individual resigns and we have no control of it,"
10498	16	add "still" after "will"
10501	4	"a person" to "a position"
10502	2	"that" to "they"
10506	5	"being" to "be"
10506	21	"Amarol" to "Amaral"
10507	1	"Amarol" to "Amaral"
10507	4	"Amarol" to "Amaral"
10507	13	"Amarol" to "Amaral"
10507	23	"press" to "pass"
10511	3	"pubmic" to "public"
10511	4	"fram" to "frame"

Page	Line	Change
10514	11	"whole" to "hold"
10516	5	add "if" after "us"
10521	7	"Fehan" to "Feehan"
10521	9	"Fehan" to "Feehan"
10521	10	"that" to "about"
10521	12	"alternatives and I" to "alternatives. I"
10521	14	"alternatives and I' to "alternatives. I'
10521	16	"the" to "that"; :frame, and that" to "frame. That"
10521	17	delete "at least"
10522	18	"Roth" to "Roe"
10524	4	"LEX" to "GOLDBERG"
10524	23	"Amarol" to "Amaral"
10524	25	"Amarol" to "Amaral"
10525	15	add "he" after "correct,"
10526	5	"point to" to "point go to"
10531	20	"construction" to "constructing"
10532	5	insert "Quality" after "HL&P's"
10532	9	"receive" to "reserve"
10532	12	"appropriately" to "operability"
10533	17	insert quotation marks around "procedure for resolving disputes"
10533 - 34	21-4	Delete text and insert "levels. I am respon- sible for settling disputes within my own organization. Disputes within Bechtel, or between Bechtel and Ebasco, might be referred to Mr. Goldberg only if they got beyond my capability to resolve.

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Page Line Change

If our QC inspector did not agree that preparations for a placement conformed to specifications, he would not sign the pour card, the pour would not proceed, and the dispute would be escalated to management attention right at that point."

- 10536 14 "decision to" to "decisions on"
- 10542 21 "Mr. Eehan" to "Mr. Feehan"
- 10543 15 "Mr. Axelrad" to "Mr. Gutterman"
- 10544 1 "Houston Light & Power" to "Houston Lighting & Power"
- 10544 2 "Houston Light & Power" to "Houston Lighting & Power"
- 10544 4 "Houston Light & Power" to "Houston Lighting & Power"
- 10544 16 "list" to "testimony"
- 10546 12 delete "okay"; change comma to period
- 10546 15 "All right." to "Right."
- 10546 21 "first of the sentence." to "first line of the sentence."
- 10547 4 insert "page" before "23"
- 10547 12 "46, the" to "46. The"
- 10547 13 "begins" to "reading"
- 10547 24 "Housting" to "Houston"
- 10548 9 "Housting" to "Houston"
- 10549 4 "GOLDBERG" to "DEWEASE"
- 10549 6 delete "named"

Page	Line	Change
10549	11	"Accounts" to "Science in Mechanical"
10549	11	insert "he" after "1975,"
10549	12	insert "a" after "as"
10549	13	delete "the"
10549	14	"unitsboiler reactor units." to "boiling water reactor units."
10549	15	"Unit" to "Nuclear"
10549	16	"Valley plant responsible" to "Valley Authority plant. Where he was responsible"
10549	16	"second level" to "Section XI"
10549	16	"second level" to "start-up"
10549	16	delete "all the"
10549	17	insert comma after "engineering"
10549	17	delete "and all the"
10549	18	insert period after "program"
10549	18	delete "and"; capitalize "He"
10549	21	"an" to "the"
10549	21	insert period after "Supervisor"
10549	21	delete "and"
10549	22	capitalize "He"
10549	22	"14th, which his" to "14th. His"
10549	23	"at the" to "as a"
10549	24	"operation" to "operator"
10550	1-7	delete text and insert "to 1979. He was responsible for training at the company and for refueling the plant. He did other jobs

2000

-38-

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Page	Line	Change
		in the area of operations and in security. He was also the fire brigade chief."
10550	8	delete "the" after "left" and "the" after "to"
10550	10	insert comma after "supervisor"
10550	17	"Have" to "Are"
10550	21	insert period after "direction"
10550	21	delete "and"; capitalize "They"
10551	10	"with the" to "that I"
10551	11	"plant" to "am"
10551	12	"Advising" to "Advisory"
10551	14	"or its equivalent for" to "for equipment or"
10551	14- 15	"In the Texas activity" to "In the course of this activity"
10551	17	delete "at meetings"
10551	22	"remember" to "member"
10551	22	"remember" to "member"
10551	22	"Quality Issue" to "Industry"
10551	23-24	delete "with this group of which I am a member is"
10551	25	"to go out and" to "which INPO uses to"
10553	1	delete "reflecting"
10553	1-2	"reflecting a future amendment to those FSAR's also?" to "reflecting in a future amendment to the FSAR?"

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-39-

Page	Line	Change
10553	9	"with" to "of"
10553	10	"Board, for this instance, which results" to "Board. This results"
10553	16	"No. objection" to "No objection."
10553 your"	23	"Mr. Dewease, your" to "Mr. Dewease, does
10553	24	"the organization" to "the present organization"
10554	3	"and the plant" to "and when the plant"
10554	3	insert "time the" after "the"
10554	5	"any in your" to "any changes in your"
10555	2	insert period after "today"
10555	2	delete "but an offer is out"
10555	3	delete line
10555	9	insert "down" after "shut"
10555	12	"" to "?"
10555	14	insert comma after "authority"; insert comma after "person"
10555	15	"happens to be the only" to "is the senior"
10555	25	"equivocal" to "critical"
10556	2	insert comma after "Currently"
10556	3	delete "and"
10556	3	insert hyphen between "hands" and "on"
10556	5	"looking at" to "working"
10556	9	"chain" to "senior"
10556	9	insert period after "operator"; delete "so"; capitalize "They"

Page	Line	Change
10556	10	"months and to continue they will," to "months.
10000	10	To continue,"
10556	12	insert comma after "basis"; insert comma after "year"; insert period after "experience"
10556	13	capitalize "recognizing"
10556	13	delete "next two"
10556	14	delete "so"
10556	16	delete "themselves"
10556	17	"Gary" to "Jerrold"
10556	24	"median" to "advisory"
10557	3	"MIC's" to "NRC's"
10557	4	delete "application and the NBA's input"; insert "long term is that" after "position"
10557	5	insert "should" before "become"
10557	6	"while" to "it is proposed"; "would mean you are in" to "with an engineer on shift"
10557	7	delete "trouble"; "know but" to "know. But"
10557	9	"shift in which MIC is" to "shift, which NRC has"
10557	11	delete comma; "invest until" to "is that"
10557	12	delete comma; insert "should have" after "personnel"
10557	12	add period after "responsibility"; capitalize "when"
10557	13	insert comma after "that"; "It" to "it"
10557	14	"people that you" to "people. You"
10557	15	insert "him" after "on"; add "while being the STA." after "functions"

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-41-

Page	Line	Change
10557	17	"It" to "That"; insert comma after "STA"
10557	18	"is a career path and we" to "career path. We"
10557	19	"class" to "type"; delete "the"
10557	20	"operation" to "operations"
10557	21	delete "responsibility"
10559	7	"coal" to "total"
10559	8	delete "section of the"
10559	23	delete "right"
10560	9	"system and it" to "system. It"
10560	12	insert period after "operating"
10560	13	delete "and"; capitalize "The"
10560	21	"you use" to "unit"
10560	25	delete "but what we will do"; capitalize "As"
10561	2	"of" to "at"
10561	3	"capacities" to "responsibilities"
10561	5	change comma to period; capitalize "We"
10561	7	delete "after that past,"
10561	7	"background so" to "background. So"
10561	16	"union" to "junior"
10561	17	"or the oneor the two" to "are the"
10561	18	"major" to "senior"
10561	25	delete entire line

-42-

Page	Line	Change
10562	1	delete line
10562	2	delete "experienced to operate the plant"
10562	4	"both classified supervisors" to "and a supervisor."
10562	6	"be that first person. Now he may be by the time he gets" to "be on the first unit. Now he may be qualified by the time we get"
10562	7	"will" to "may"
10562	8	"two but" to "two. But"
10562	9	"as" to "and"
10562	9	delete "will have thehe"; insert "who" after "person"
10564	9	"but we look" to "when we get"
10565	3	delete comma
10565	3	insert ", in" after "have"
10565	3	insert "licensed" after "additional"
10565	3	"operators" to "operator."
10565	4	delete "license."; capitalize "It"
10565	10	"the STA it isn't necessary" to "does not necessarily have"
10565	11	delete "certain" after "have"
10565	13	"provided" to "provides"
10565	13	insert period after "expertise"; delete "and they will"
10565	14	delete "surely cover what they want"
10565	15	insert "engineering" before "ETMA"
10565	16	"the" to "that"; add period after "relationship"

-43-

Page	Line	Change
10565	17	delete "what isit is"; "generic" to engineering"
10565	18	"provides strong" to "applies thermal"
10565	19	"over into" to "to"
10565	22	"old spectoral" to "broad spectrum"
10565	24	"an" to "the"
10566	20	"simple" to "similar"
10566	24	"completion" to "review"
10566	25	delete "that" before ""
10567	1	"50" to "activity"
10567	2	delete "design"; insert "" between "room" and "that"
10567	3	delete first "that"
10567	5	insert period after "fuel"
10567	5	"which" to "That"
10567	7	insert period after "concern"
10567	7	delete "and"; capitalize "There"
10567	12	"I believe the first of '83, that year, of '83" to "about the middle of '83."
10567	21	"the design" to "Zion"
10567	22	"the Westinghouse" to "a Westinghouse"
10567	22	"the time, so" to "Zion. So"
10567	23	delete "and bring the simulatogo ahead"
10568	5	delete "and"

-44-

Page Line Change

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10568	6	"out, ours" to "out the instrument holes. Ours"
10568	7	"hardware in the" to "hardwired into the"
10568	8	"you, so what" to "you. So the"
10568	9	add comma after "folks"; add "to it" after "accustomed"
10568	11	add period after "anyhow"; capitalize "so"
10568	12	"modifications" to "modification"
10568	13	"parallel" to "ahead"
10568	15	"changes, so" to "changes. So"
10568	21	"that and that" to "that. That"
10568	21	"have the" to "have it plant"
10568	24	"easy" to "easily"
10568	25	delete "mine"
10569	6	"that would be, yes, sir, and they would," to "and"
10569	6	insert "be" after "on,"
10569	7	"maintain it" to "maintained"
10570	7	"the thought" to "my thoughts"
10570	8	change comma after "HL&P" to period
10570	10	delete "been in"
10570	16	insert period after "problem"; capitalize "It"
10570	17	"themselves and I come" to "themselves. I came"

Page	Line	Change
10570	17	"doesn't" to "didn't"
10570	20	insert comma after "business"
10571	5	"quality" to "Quality Assurance"
10571	7	insert comma after "is"; insert comma after "though"
10571	8	delete "that"
10571	8	insert "it" after "see"
10571	9	"ability" to "capability"
10571	11	"in recognition of" to "dependent upon the"
10571	14	"architech engineer" to "architect/engineer"
10571	17	"assurety" to "the Project,"
10571	18	"who could" to "that would"
10571	18	"these" to "this"
10571	19	"serve and" to "serve to"
10571	20	"reviews and it" to "reviews. It"
10571	20	insert "when" after "assistance"
10572	6	delete "this"
10572	7	delete "context as an audit"
10572	22	insert comma after "San Antonio"
10572	24	"not previously" to "no previous"
10583	10	"South Texas" to "HL&P"
10583	23	"Ferme (ph.)" to "Fermi"
10585	2	"question" to "objection"

-46-

Page	Line	Change
10587	4	"topic on the" to "topical"
10600	3	"orgaization" to "organization"
10607	1	"describe" to "assess"
10607	14	"WITNESS GEIRGER" to "WITNESS GEIGER"
10607	15	"all" to "audit"
10610	8	"instance" to "instant"
10610	22	"the normalized" to "the data normalized"
10611	1	delete "of service,"
10611	13	"Ebasco's" to "HL&P's"
10611	22	"?" to "50"
10612	1	"you" to "I"
10612	11	"one, a" to "one"
10612	12	"others I" to "others. I"
10612	13	"use the" to "use the"
10612	14	"purpose," to "purpose"
10612	14-15	"would be to identify the trend that is the period of which may be in." to "be to identify any trend that is the result of discrepancies which may be in and of themselves."
10613	7-8	"I think you could make a better decision as to whether, if you know, you spent \$1,000 performing welding, or \$10,000." to "I think you could make a better decision as to whether discrepancies are significant if you know if you spent 1,000 hours performing welding or 10,000."
10615	13	"specifications" to "investigations"
10615	15&16	"Brown & Root in fact was generated by far-we did a few." to "Brown & Root in fact generated by far the majority, we did a few."

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-47-

Page Line Change

- 10615 24 "use" to "do"
- 10615 25 "non constructive" to "nondestructive"
- 10616 1 "of course" to "auditors"
- 10616 18 "access" to "assess"
- 10616 24 "project? QA or" to "Project QA audit"
- 10616 24&25 "Are you speaking of projects? QA or its staff?" to "Are you speaking of Project QA or HL&P's staff?"
- 10617 2 Delete "services"
- 10617 3 Also, insert "now" between "number" and "is"
- 10618 25 ". . . fact that as owners and representatives, the owners of quality. . ." to ". . . fact that as owners and representatives of the other owners for quality."
- 10619 1,2,&3 ". . . assurance and I felt that this was indeed my responsibility to assure that everyone was performing safety work on South Texas and acceptable quality to Bechtel and Ebasco and any other subcontractor." to ". . . assurance I felt it was indeed my responsibility to assure that everyone performing safety-related work on South Texas provided acceptable quality; Bechtel and Ebasco and any other subcontractor."
- 10620 2 "work, and also" to "work. And also"
- 10620 3 "it" to "and"
- 10620 4 "through" to "approve"
- 10620 12 "progressive" to "aggressive"
- 10620 15 "redundent" to "redundant"

10620 17 "redundent inspectionmeans" to "redundant inspection means"

Page	Line	Change
10620	20	"performing" to "conforming"
10620	24	"pourer" to "pour"
10620	24	"concret" to "concrete"
10621	11	"and" to "hand"
10622	19	"would" to "will"
10622	20	"would" to "will"
10623	23	"Maybrook" to "Baybrook"
10624	2	"Maybrook" to "Baybrook"
10625	8	"proven" to "improved"
10625	14	"Keeting" to "Keating"
10625	25	"assistant" to "existing"
10627	1	"area" to "A/E"
10627	11	"surveying" to "upgrading"
10630	15	"QA staff, and I use the example of people for example, do not." to "QA staff who would not."
10630	20	"that the staff" to "to staff the"
10630	23	"comparisons on a gratuitous basis" to "compar- isons."
10630	24	"and" to "at"
10632	15	"KRISHA" to "HAWN"
10633	4	"placed" to "replaced"
10633	5	"some" to "one"
10633	5	Delete "some staff" to "one contract"
10634	12	"probably change and our thinking." to "probably and a rethinking of the staff."

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Page	Line	Change
10634	15	Insert "with" before "Bechtel"
10634	15	"believe" to "have"
10635	5	"major for" to "major actions for"
10635	6	"quality approved" to "safety-related"
10635	7	"limitation" to "implementation"
10635	8	Delete "for"
10635	8	After "reinspections" add "what I would characterize"
10635	8	Delete "characterized"
10635	25	"successful ultimately" to "successful. Ultimately"
10636	12	"of NCRs" to "of the NCR"
10637	3	"framework are" to "framework and are"
10639	1	"educational experience" to "educational or experience"
10639	2	"that require" to "if we can provide"
10639	6	"agency" to "educational"
10640	24 - 25	"Of each individual who currentlyalludes to his current certification" to "Of each individual who currently holds a certification"
10641	22	"as" to "per"
10641	23	"is" to "are"
10642	1	"Here is how do we decide when something is trend that needs to be" to "Here is how do we decide when something is a trend, or that needs to be"
10642	3	Delete "if"

Page	Line	Change

10642	6	"Identify a bogging, if you willsay bogging this way we've got " to "Identify a	
		bogie, if you will To say that if you exceed the bogie, we've got "	

- 10642 20 "Why they are --. . " to "Why they are occuring. .
- 10643 17 "(WITNESS Krisha)" to "(WITNESS Hawn)"

10647 8 "Amoral" to "Amaral"

10648 3 "Amoral" to "Amaral"

10648 6 "Amoral" to "Amaral"

10648 12 "Amoral" to "Amaral"

- 10649 18 "implementation of review" to "implementation review"
- 10651 1-6 Delete all six lines and substitute the following: "The normalization of the data is designed to overcome the source of shortcomings that exist without normalization. However, it does not preclude any investigation of the number of defects which occur in any given process."
- 10651 12 "man house" to "man hours"
- 10651 21 Delete "or activator"
- 10651 22 "planning" to "management"
- 10651 23 "manhouse" to "man hours"
- 10666 21 "completed before any" to "completed. Any"
- 10670 7 "we can" to "you need"
- 10670 9 "one" to "contention"
- 10671 4 "the --" to "the sua sponte rule --"
- 10676 14 "agree whether" to "argue whether"

Page Line Change

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10676	14	"agree with that" to "agree that"
10711	1	"labor" to "waiver"
10711	8	"what" to "to"
10711	9	"observed from" to "preserved"
10718	11	"Mr. Madson" to "Mr. Madsen"
10718	17	"Mr. Madson" to "Mr. Madsen"

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UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of:

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HOUSTON LIGHTING & POWER COMPANY, ET AL.

Docket Nos. 50-4980L 50-4990L

(South Texas Project, Units 1 & 2)

TESTIMONY ON BEHALF OF HOUSTON LIGHTING & POWER COMPANY, ET AL.

OF

MR. DON D. JORDAN

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of:

HOUSTON LIGHTING & POWER COMPANY, ET AL.

Docket Nos. 50-4980L 50-4990L

Attachment B

(South Texas Project, Units 1 & 2)

TESTIMONY OF DON D. JORDAN

Q. 1 Please state your name and occupation.

A. 1 I am Don D. Jordan, President and Chief Executive Officer of Houston Lighting & Power Company (HL&P).

Q. 2 Please describe your educational and employment background.

A. 2 I received a BBA degree in industrial management from the University of Texas in 1954. I received a law degree in 1969 from the South Texas College of Law.

I have been employed by HL&P since 1954. I joined the Company as a Power Consultant in the Marketing Department and served in a number of administrative positions of increasing responsibility. In November 1971, I was elected Vice President and Assistant to the President. Since then I have been elected to the following positions: Group Vice President

-2-

in January 1973; Board of Directors in April 1974; President and Principal Administrative Officer in December 1974; and President and Chief Executive Officer in April 1977.

Q. 3 What is the purpose of your testimony?

A. 3 My purpose is to convey to this Board, the Nuclear Regulatory Commission, and the public our corporate commitment to the safe construction and operation of the South Texas Project (STP) and my personal commitment to that objective.

I am acutely aware that this Board has been instructed by the Commission to inquire into HL&P's managerial competence and character as they affect our ability to safely complete and operate the STP. These questions are extremely serious. My testimony will describe some of the steps we have taken to assure that STP meets all applicable regulatory requirements. These matters will be discussed in much more detail in the testimony of other witnesses we will be presenting.

I believe the facts as set forth in my testimony, as well as the testimony of others, will demonstrate that we appreciate the magnitude of the task at STP, that we are equal to it and that there is not, and never has been, any serious question as to our corporate integrity or competence.

Q. 4 As a matter of background, describe HL&P's business.

A. 4 We generate, transmit and distribute electric energy in an area of approximately 5000 square miles in the

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Texas Gulf Coast region. Houston is the largest city in our service area; we also serve 157 smaller cities, villages and communities. We operate generating stations with an installed net capacity of 12,115 MWe. We are the nation's sixth largest utility in terms of electrical sales, and we employ more than 8,000 people.

Q. 5 Is HL&P subject to regulation by various governmental entities?

A. 5 Yes. HL&P is subject to regulation by the Public-Utilities Commission of Texas and also by 82 incorporatedmunicipalities most of which continue to exercise original jurisdiction over HL&P's rates and services. Our activities are also regulated by many other state and federal agencies with important safety and environmental responsibilities including EPA, the Corps of Engineers and, of course, the -NRC.

Q. 6 Have business conditions over the past decade had -a significant effect on HL&P?

A. 6 Yes. HL&P has seen, and is still seeing, an
incredible increase in the number of customers we serve.
During the 1970s the population of our service area grew by
more than a million, and the number of customers rose by
almost 350,000. The average annual increase in customers
since 1977 has been about 70,000.

-4-

This enormous growth has required that we undertake a major construction program. The urgency of this task was underscored by the fact that in 1975, when the construction permits for STP were issued, virtually our entire system was dependent on natural gas as a fuel. As fuel prices rose and restrictions on the use of natural gas became law, the Company began vigorous efforts to change its generating system mix to a combination of coal, lignite and nuclear fuel. STP is a major component of our generation expansion program. The importance of the Project to the welfare of our region cannot be overemphasized.

Q. 7 Who are the executives of HL&P responsible to you for activities associated with the South Texas Project?

A. 7 The HL&P executives with primary responsibility are our Executive Vice President, Mr. George W. Oprea, and our Vice President, Nuclear Engineering and Construction, Mr. Jerome H. Goldberg. These senior executives are with me today and will present testimony on aspects of the Project for which they are responsible.

Q. 8 How did you react to the NRC's enforcement action last year?

A. 8 Let me say, first, that Mr. Oprea kept me apprised of the progress of the NRC's investigation and of the interim findings of that investigation in late 1979 - early 1980. In particular, he informed me of his meetings with representatives of Region IV of the NRC's Office of Inspection and Enforcement and their preliminary conclusions.

Nevertheless, I was deeply disturbed by NRC Investigation Report 79-19 and the findings reflected in the Notice of Violation and the Order to Show Cause. Mr. Oprea and I went to Washington immediately after issuance of the Notice of Violation and Order to Show Cause to meet with Mr. Stello, NRC Director of Inspection & Enforcement. I was impressed by the concern which Mr. Stello and his staff expressed regarding the performance at the STP and it was following that meeting that I made the organizational changes I will describe later. The advice I received from Mr. Oprea and our advisors was that, although issue might be taken with details in the NRC Investigation Report (and the significance, from a safety standpoint, of many of the violations), careful study of the underlying causes indicated a need for management improvements which had to be faced squarely. Of greatest importance was the expansion and restructuring of our quality assurance/quality control organization. These changes will be described in detail in the testimony of Mr. Oprea, Mr. Frazar and Mr. Amaral.

Q. 9 Were you kept advised of the Company's response to the NRC's Show Cause Order?

-6-

A. 9 Mr. Oprea kept me informed of the approach being taken by the Company on all major aspects of the response. I was particularly interested in the question of how best to organize the QA/QC function, the first item identified for study in the NRC's Order. I met with Mr. Oprea and we discussed various organizational alternatives. The testimony of Mr. Oprea and Mr. Amaral discusses the pros and cons of each alternative. I concurred with Mr. Oprea for the reason stated in his testimony, that third party inspection had serious drawbacks. I shared Mr. Oprea's conclusion that a strengthened QA/QC organization on the part of both HL&P and Brown & Root, Inc. (B&R) is essential and we have taken major steps in this direction.

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As part of our response to the NRC's Order, I decided to assign our most senior engineering-oriented executive, Mr. Oprea, to essentially full-time service on the STP. His broad range of experience in all of the Company's engineering related activities is now largely focused solely on the STP. Mr. Oprea began his essentially full-time involvement in the Project in the summer of 1980 and that involvement will continue for an indefinite period.

I also approved moving the head of our corporate QA department to the STP site with full time responsibility for the Project, reporting directly to Mr. Oprea.

-7-

Q. 10 Has HL&P taken other steps to strengthen its organization for construction and operation of STP?

A. 10 Yes. These are discussed in detail in Mr. Oprea's testimony. I would like, however, to highlight one step which has added significantly to our corporate capability. After an intensive search, in which I actively participated over many months, we obtained the services of a highly experienced nuclear engineer with vast management experience in nuclear construction to assume major responsibility for the STP. Mr. Jerome H. Goldberg, a former Vice-President of Stone & Webster, is now our Vice President for Nuclear Engineering and Construction, and his involvement is already making a difference in our management of the Project.

Q. 11 What is your reaction to the charge that HL&P has "abdicated its responsibility" to its contractors for STP or failed to keep itself knowledgeable about necessary construction activities.

A. 11 I do not feel it is fair to state that HL&P "abdicated its responsibility" to its contractors or failed to keep itself knowledgeable.

As discussed in more detail in Mr. Oprea's testimony, HL&P had established a substantial team of technical and engineering personnel to manage the STP, particularly in quality-related functions. Mr. Oprea and I communicated

frequently and there was nothing to indicate that there was any significant problem in QA/QC or, more generally, in our NRC compliance record. The NRC findings, however, did trigger a wide-ranging review of the adequacy of our management of the STP from which we have profited.

With our fossil projects, we had found that good results could be achieved in constructing generating facilities by placing upon the contractor substantial responsibility for the construction of a generating facility that met standards of safety and reliability. We recognized from the outset, however, that nuclear construction required more active participation by the owner. This has become increasingly apparent over the years in our STP program and has resulted in the assignment of more highly qualified and motivated people in large numbers, as well as training and re-training in the importance of quality performance.

I am persuaded that HL&P is fully aware of the absolute necessity of providing guidance and programmatic direction to our contractors and that the changes we have instituted are having the desired effect of making our presence felt in almost every phase of their work. Our recruiting program is aimed at further strengthening our role and visibility as Project manager. Our prospects are for an even stronger organization, and I expect further improvements in performance.

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Q. 12 Do you intend to play a continuing role in the oversight of STP?

A. 12 Yes. I will continue to stay in touch with the other officers of the Company who are concerned with the Project, particularly Mr. Oprea and Mr. Goldberg. In addition, I will continue to receive and review the regular written reports prepared by the B&R and HL&P staff -- the Consolidated Monthly Reports, as they are known.

Last year I participated in a "Quality College" program given by Mr. Philip Crosby, a noted quality assurance consultant. That experience reemphasized to me the unique importance of "building quality into" STP. I should note that it has been a published policy of HI&P that a strong, independent quality assurance function shall be a point of every nuclear or fossil plant project. That policy, as published in all company QA Manuals, is attached. (Attachment No. 1).

I have also attended as many meetings as possible of the STP Management Committee (consisting of representatives of all of the co-owners) at which progress and problems are reviewed. I will continue to do so.

I and other chief executive officers of our co-owners have met periodically with B&R management to review the status of the Project. In the period since the NRC enforcement action, I have been in frequent communication with B&R

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management. In joint meetings of the senior executives of HL&P and B&R, including their President, I have expressed my concerns and emphasized my commitment to correcting the conditions noted by the NRC and to assure that the Project meets our safety and reliability goals. I intend to remain in close touch with B&R management.

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I will also continue to attend the significant hearings and proceedings related to the Project, such as the meeting held in August 1980 in Bay City by the NRC's Office of Inspection and Enforcement.

Q. 13 Do you have any concluding remarks?

A. 13 Yes. I believe that we have made marked improvements in STP in response to our own heightened sensitivity to the complexities of a nuclear project and, frankly, as a result of the NRC's enforcement action. I am not saying that our problems are completely behind us. That would be unrealistic in a job which depends for its success on thousands of human interactions each day. I can say, however, that we will meet head-on any instance in which professional discipline breaks down or full cooperation and candor among the crafts, supervision and management are impaired.

The extraordinary importance of the Project to each of the co-owners of the Project and to the public from both a power supply and safety standpoint will demand continued vigilance. I believe, however, that we can proceed with

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increased assurance that STP activities will be carried out in accordance with approved plans and procedures and in full compliance with regulatory requirements.

T.HUDSON:10:A



Houston Lighting & Power Company

P.O. Box 1700 Houston, Texas 7700

December 9, 1974

To All Officers and Department Heads:

A Quality Assurance Program has been authorized for implementation within the Houston Lighting & Power Company. This Program defines requirements and provides methods of positive quality control in all engineering, procurement, construction, and operation activities associated with the Company's nuclear and fossil power plants. The scope of the Program encompasses all applicable requirements of the Code of Federal Regulations, ASME Boiler and Pressure Vessel Code, and other appropriate industry recognized codes and standards.

The authority to implement the requirements of the Quality Assurance Program is delegated to the Manager - Quality Assurance who has the complete support of the Company's Executive Management and will, by organizational arrangement, be kept free from cost and scheduling influences. His authority, as defined in this Program Manual, extends to all quality assurance activities performed by and for Houston Lighting & Power Company. Decisions made by the Manager - Quality Assurance on such matters are made in the name of this Company, and may be overruled only by the Executive Vice President.

D. D. Jordan President