UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

THE ATOMIC SAFETY AND LICENSING BOARD

Marshall E. Miller, Esquire, Chairman Dr. Kenneth A. McCollom, Member Dr. Hugh C. Paxton, Member

| In the Matter of | ) |
| :--- | :--- |
| PORTLAND GENERAL ELECTRIC COMPANY | ) |
| (Trojan Nuclear Plant) | Docket No. $50-344 \mathrm{SP}$ |
|  | (Control Building) |

ORDER REGARDING TRANSCRIPT CORRECTIONS
(May 22, 1980)

A large number of errors are contained in the transcript of the evidentiary hearing held in this proceeding March 31-April 3 and April 16-17, 1980, covering pages $3640-4828$. The following corrections are therefore to be made in such transcripts:

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr . Reference | Correction |
| :---: | :---: |
| 3643 , Line 3 | Change "Barbara" to "Robert" |
| 3647 , Line 20 | Change "on resolved" to "unresolved" |
| 3654 , Line 9 | Change "post" to "the proposed" |
| 3655 , Line 12 | Insert "it" after "that" |
| 3656 , Line 5 | Change "Molijay" to "Myle J." |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr . Reterence | Correction |
| :---: | :---: |
| 3656 , Line 22 | Change "constructural" to "structural" |
| 3663 , Line 14 | Change "SCR's" to "SER's" |
| 3667 , Line 14 | Change "bulletin" to "document" |
| 3670, Line 4 | Delete, "the prehearing conference" |
| 3675 , Line 20 | Change "after" to "as to" |
| 3680 , Line 17 | Change "Morgan" to "Oregon" |
| 3681 , Line 13 | Change "and" to "in" |
| 3681, Line 18 | Following "questions?" add "A. No." |
| 3683, Line 3 | Change "Morgan" to "Oregon" |
| 3683, Line 12 | Change "procedure" to "proceeding" |
| 3683, Line 25 | Change "questions to answers" to "answers to questions" |
| 3684, Line 18 | Change "Veal" to "Beale" |
| 3684, Line 19 | Change "engineering" to "Engineering Manager" |
| 3686, Line 3 | Change "were placed" to "for Plates" |
| 3686, Line 7 | Change "why" to "part of" |
| 3687, Line 9 | Change "see from fine" to "find" |
| 3689, Line 24 | Change "Bess" to "Bettis" |
| 3694 , Line 3 | Change "pretrial" to "prefiled" |
| 3694, Line 12 | Change "that a " to "for the" |
| 3694, Line 13 | Change "has revised to" to "as revised through" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3695 , Line 4 | Change "as been supplemented" to "submitted" |
| 3696, Line 20 | Change "through" to "to" |
| 3696, Line 23 | Change "revolution" to "evolution" |
| 3698 , Line 10 | Change "bill" to "submittal" |
| 3699, Line 13 | Add "responding to" before "matters"; change "in identifying" to "identified" |
| 3699, Line 14 | Change "to" to "at the"; put a period after "conference" and then begin a new sentence with "As I understand it," |
| 3699, Line 16 | Place a comma after "condition"; delete "As I understand it" |
| 3699, Line 25 | Place a period after "that"; capitalize the letter "f" in "from" |
| 3701, Line 5 | Change "License's condition" to "License conditions" |
| 3701, Line 8 | Change "License's" to "License" |
| 3702 , Line 19 | Change "and" to "then"; insert "have" before "N" |
| 3702 , Line 20 | Change "it" to "the wall" |
| 3705 , Line 2 | Change "end" to "ends" |
| 3705, Line 3 | Change "end" to "N" |
| 3705, Line 9 | Insert "part" after "upper" |
| 3705, Line 19 | Change "46. The" to " 46 , the" |
| 3707, Line 5 | Change "these the steel" to "the steel plate which" |
| 3707, Line 17 | Change "bit of" to "better" |
| $\begin{aligned} & 3708 \text {, Lines } 23 \\ & \text { and } 24 \end{aligned}$ | Change "in" to "N" |
| $3709 \text {, Lines } 13$ and 22 | Change "in" to "N" |
| 3709, Line 23 | Change "typing" to "tying" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference ${ }^{\text {ar }}$ | Correction |
| :---: | :---: |
| $\begin{aligned} & 3710 \text {, Lines } 3 \\ & \text { and } 14 \end{aligned}$ | Change "in" to "N" |
| 3710 , Line 5 | Delete "followed with the construction" |
| 3711, Line 22 | Insert "when" before "we" |
| 3712, Line 4 | Change "in" to " N " |
| 3712, Line 5 | Change "plates" to "placed" |
| 3712 , Line 22 | ```Insert "of the" before "Chairman"; remove the period; add the word "that" befcre "it"``` |
| 3713, Line 19 | Change "eight" to "78" |
| 3713 , Line 23 | Change "and the question" to "in the answer" |
| 3716, Line 4 | Change "chasted" to "chased" |
| 3716, Line 6 | Change "by" to "for" |
| 3717 , Line 3 | Change "destruct" to "be struck" |
| 3717, Line 17 | Change "that with the" to "have other" |
| 3721, Line 8 | Change "work" to "wood" |
| 3721 , Line 15 | Change "SCR" to "SER" |
| 3721 , Line 16 | Change "Ewing" to "Viewing" |
| 3724 , Line 4 | Change "obtained" to "contained" |
| 3724 , Line 25 | Add "equipment" after "safety-related" |
| 3725 , Line 23 | Change "--" to "spectra" |
| 3726 , Line 4 | Change "remove" to "move" |
| 3726 , Line 5 | Change "spectres" to "spectra" |
| 3726, Lines 6, <br> 7,10 and 18 | Change "spectre" to "spectra" |
| 3726 , Line 8 | Change "--" to "and components." |
| 3726 , Line 10 | Change "forward" to "floor" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3726 , Line 11 | Change "in" to "on" |
| 3726, After Line 18 | Insert "A. Yes" |
| 3726 , Line 19 | Insert "Q." before "Mr." |
| 3726 , Line 20 | Insert "be" before "modified" |
| $\begin{aligned} & 3727 \text {, Lines } 1 \\ & \text { and } 13 \end{aligned}$ | Change "trace" to "trays" |
| 3727 , Line 18 | Change "whole" to "floor" |
| 3728 , Line 1 | Change "trace" to "tray" |
| 3728 , Line 3 | After "imposed?" insert "A. Yes. Q." |
| 3730 , Line 1 | Change " 20 " to " 21 " in both instances |
| 3731, Line 18 | Change "5" to "6" |
| 3732, Lines 20 and 21 | Delete "the modification of" |
| 3733, Line 15 | Insert "acceptarie after "finds" |
| 3734, Line 6 | Change "ub iyr orioised" to "in our proposed" |
| 3736, Line 3 | Insert "be" after "conceivably"; change "generate it" to "generated" |
| 3737 , Line 20 | Change "graph" to "grout" |
| 3738, Line 8 | Change "contract" to "content" |
| 3741 , Line 10 | Change "Broeh1" to "Anderson" |
| 3741 , Line 13 | Change "Q." to "Mr. Axelrad" |
| 3742 , Line 4 | Change "is still" to "has"; change "into (earth's pristine)" to "the instrumentation" |
| 3743 , Line 3 | Insert "the River and" following "parallel" |
| 3743 , Line 4 | Change "with" to "will follow"; after "River's" add "direction" |
| 3743 , Line 18 | Change "a-typical" to "is typical" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| 3744 , Line 3 | Change "coast" to "Irojan" |
| :---: | :---: |
| 3745, Line 6 | Insert "annunciator" after "shock" |
| 3745 , Line 8 | Delete "in size" |
| 3747, Line 22 | Change "rught" to "proof" |
| 3757, Line 4 | Change "pipes" to "plates" |
| 3760, Line 12 | Change "four" to "for" |
| 3760, Line 15 | Change "gravit" to "grouted" |
| $\begin{aligned} & 3760 \text {, Lines } 17 \\ & \text { and } 21 \end{aligned}$ | Change "gravit" to "grout" |
| 3760, Line 20 | Change "gravit-in" to "grouted in" |
| 3760 , Line 24 | Change "ground" to "grouted" |
| 3760, Line 25 | Remove parentheses |
| 3761, Line 1 | Change "even raises the" to " 8 is raised into" |
| 3761 , Line 3 | Change "in" to "and" |
| 3762 , Line 22 | Change "C of our" to "CFR" |
| 3762 , Line 23 | Change "that it" to "what" |
| 3762 , Line 24 | Change "not" to "no" |
| 3764, Line 15 | Change "inaccessible" to "accessible" |
| 3764, Line 17 | Change " $a$ " to "adding" |
| 3767 | Nonexistent page |
| 3769, Line 7 | Insert "room" after "document" |
| $\begin{aligned} & 3769 \text {, Lines } 9 \\ & \text { and } 10 \end{aligned}$ | Change "for your" to "after the prehearing"; change "a" to "as to the"; insert "in an area" after "people" |
| 3769, Line 19 | Change "projecting" to "protection" |
| 3770, Line 19 | Change "base" to "bay" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3772, Lines 7 through 9 | Change "common tip" to "diamond-tipped" |
| 3774, Line 3 | Change "Somebody illustrated" to "this is illustrated in" |
| 3774, Line 18 | Change "surface" to "service" |
| 3775, Lines 15 and 20 | Change "surface" to "service" |
| 3775, Line 18 | Change "deal of case backup" to "yellow case backhoe" |
| 3775, Line 25 | Change " 8 " to " A " |
| 3776, Line 16 | Change "drawing" to "drilling" |
| 3777, Line 2 | Change "surveyor's" to "survey" |
| 3778, Line 1 | Change "miss the" to "may hit" |
| 3778, Line 9 | Change "situated" to "safety" |
| 3780 , Line 4 | Change "..." to "drilled hole" |
| 3780 , Line 12 | Change "hole" to "whole" |
| 3780 , Line 19 | Change "45.(d)" to "45 feet"; change "Anderson" to "White" |
| 3782 , Line 1 | Delete "frequent"; delete "to" |
| 3782 , Line 2 | Change "thick" to "diameter" |
| 3783 , Line 4 | Change "NSAR" to "FSAR" |
| 3783, Line 15 | Change "Excess" to "Access" |
| 3785 , Line 18 | Change "married to insulated wire" to "American Insulated Wire" |
| 3788, Line 9 | Change "complete" to "plate" |
| 3788 , Line 21 | Delete "bent" |
| 3783, Line 5 | Change "vacant" to "wide flange" |
| 3789, Line 9 | Change "counter" to "column" |
| 3789 , Line 23 | Change "tubing" to "uoving" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3790, Line 9 | Delete "vault" |
| 3790 Line 18 | Change "grafting" to "grouting" |
| $\begin{aligned} & 3790, \text { Lines } 18 \text {, } \\ & 19 \text { and } 21 \end{aligned}$ | Change "spaces" to "spacers" |
| 3790, Line 22 | Insert "Q." before "But"; change "graft..." to "grout dams" |
| 3790, Line 24 | Change "grafted down washers" to "grout dams" |
| $\begin{aligned} & 3791, \text { Lines } 2 \\ & \text { and } 4 \end{aligned}$ | Change "Graftings" to "Grout dams" |
| ```3792, Lines 4, 5 and 6``` | Change "guard" to "guide" |
| 3794 , Line 22 | Change "sites nuclear" to "seismically" |
| ```3796, Lines 5 and 7``` | Delete "hidden" |
| 3796, Line 22 | Change "boring" to "lowering" |
| 3797, Lines 11 and 14 | Change "three" to "through" |
| 3797, Line 13 | Change "cord" to "core" |
| 3797, Line 22 | Change "(a)" to " B "; change " $\mathrm{X}-\mathrm{L}$ " to "HEXCEL" (all references in the transcript to "HL" or "XL", although not iisted here, should be considered to refer to "HEXCEL") |
| 3799, Line 11 | Change "imply" to "simply" |
| 3800, Line 9 | Change "curbing" to "cribbing" |
| 3800 , Line 13 | Change "floor" to "piece" in both instances |
| 3801-3880 | Nonexistent pages |
| 3881, Line 6 | At the end of this line insert "for an" |
| 3881 , Line 17 | Delete "heretical" |
| 3883, Line 20 | Change "addition" to "condition" |
| 3884, Line 9 | After "Axelrad:" insert "There was no proposed license condition." |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3886 , Line 17 | Change "crosses discussion" to "has been discussed" |
| 3886, Line 22 | Change "three in five" to "one, three and five" |
| 3887, Line 22 | Insert a period after "percent"; capitalize "ia" |
| 3887, Line 23 | Insert a comma after "this" |
| 3887 , Line 24 | Lower case the " T " in "There" |
| 3888, Line 1 | Change "depression" to "compression" |
| 3888, Line 2 | Change "that is less than" to "much less" |
| 3888 , Line 3 | Change "pressure" to "compression" |
| 3888 , Line 19 | Change "to" to "as has" |
| 3889, Line 1 | Change "in" to "N" |
| 3889, Line 25 | Change "You" to "I" |
| 3890, Line 9 | Change "for" to "or" |
| 3891, Line 21 | Change "plan" to "plant" |
| 3891, Line 22 | Delete "of the plan" |
| 3893, Line 5 | Change "98" to "9A" |
| 3894 , Line 9 | Change "blanch" to "flange" |
| 3894, Line 15 | Change "count" to "column" |
| 3895 , Line 19 | Delete "both" |
| 3895 , Line 20 | Delete "and the" |
| 3896, Line 7 | Change "swanded (?)" to "slotted" |
| 3896, Line 19 | Change "white flanch" to "wide slange" |
| 3897, Line 15 | Change "on up" to "up to" |
| 3897 , Line 22 | Change "The" to "Then" |
| 3898 , Line 12 | Insert "keep" between "to" and "the plates" |
| 3898, Line 19 | Change "formed" to "swung" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3899, Line 8 | Change "great" to "grade" |
| 3899, Line 17 | Change "Ashial (?)" to "AASHTO" |
| 3900, Line 8 | Change "H" to "A" |
| 3900, Line 24 | Change "burden" to "vertical" |
| 3900, Line 25 | Change "concrete" to "complete"; change "weeping" to "rigging" |
| 3901, Line 2 | Insert "inch" after "half" |
| 3901, Line 4 | Change "H" to " A " |
| 3902, Line 2 | Change "PTE" to "PGE" |
| $\begin{aligned} & 3902 \text {, Lines } 5 \\ & \text { and } 6 \end{aligned}$ | Change "effective rule" to "factor" |
| 3902, Line 18 | Change "Anderson" to "McCollom" |
| 3902, Line 19 | Change "45" to " 25 "; change "reading" to "rating" |
| 3902, Line 25 | Change "evaluating" to "evaluated" |
| $\begin{aligned} & 3903 \text {, Lines } 3 \\ & \text { and } 4 \end{aligned}$ | Change "filler" to "failure" |
| 3903, Line 5 | Insert a comma after "sliding"; change "die (?) potential" to "diagonal tension" |
| 3903, Line 10 | Delete "basis"; change "construction" to "capacity" |
| 3903, Line 11 | Change "sure" to "shear" |
| 3903, Line 15 | Insert "percent" after " 3.5 "; change "Walka (?)" to "wall" |
| 3903, Lines 16 , 21 and 23 | Change "rebarb" to "rebar" |
| 3903, Line 17 | Delete the period and "It" |
| 3903, Line 23 | Change "in" to "by" |
| 3903, Line 24 | Delete "considering because that consumes" |
| 3903, Line 25 | Change "assuming severance" to "because it assumes damage" |

MARCH 31, 1980 TRANSCRIPT CORRECTIONS

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    Tr. Reference
3904, Line 1
    Change "rebarb" to "rebar"
3904, Line 7 Change "sheer" to "shear" (all references in the transcript
    to "sheer" should be so changed)
3904, Line 21 Change ""two 10" to ".2"
3905, Line 2 Change "sylinders" to "cylinders"
3905, Line 7 Change "case" to "cast"
3905, Line 10 Change "D" to "day"
3905, Line 11 Change "gased" to "cast"
3906, Line 4 Change "existing" : "resisting"
3906, Line 17 Change "existence" to "resistance"
3906, Line 23 Change "it" to "at"
3907, Lines 15 Change "duck down" to "duct bank"
    through 17
3907, Line 17
Delete second "would"
3907, Line 22
Change "duck" to "duct"
3908, Line 24
Change "showing" to "shown"
3909, Lines 4
    and 6
3909, Line 4 Change "entity" to "energy"
3909, Line 5 Change "lobes" to "loads"
3909, Line 9 Change "endulous" to "annulus"
3911, Line 7 Change "high" to "pipe"; delete "been"
3911, Line 8 Insert "would" after "we"; change "the like of" to
    "pleased to do so for"
3911, Line 11 Change "cutting into" to "expanding the"
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APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3918, Line 4 | Change "Government" to "Licensee" |
| 3920, Line 12 | Change "gravity" to "grouted" |
| 3921, Line 1 | Change "Beanston" to "when installed in" |
| 3921, Line 3 | Change "inca" to "anchor" |
| 3923, Line 11 | Change "HL" to "HEXCEL" |
| 3926, Line 20 | Change "as" to "that" |
| 3926, Line 22 | Change "boring" to "lowering" |
| 3928, Lines 3, $5,10,11$ and 13 | Change "deframation" to "deformation" |
| 3923 , Line 23 | Change "shoe" to "shear" |
| 3931, Line 19 | Change "otehr" to "other" |
| 3933 , Line 3 | Change "CAT" to "CAD" |
| 3935, Line 19 | Change "casing" to "placing" |
| 3935, Lines 24 and 25 | Char ${ }^{\text {a }}$ "sliding" to "seismic" |
| 3936, Line 7 | Change "sliding" to "seismic" |
| 3938, Line 6 | Change "surface" to "service" |
| 3940, Line 13 | Change "width" to "wythe" |
| 3943, Line 13 | Change "loopers" to "loops" in both cases |
| 3949, Line 23 | Change "Fletcher" to "flexure" (all future references to "Fletcher" should likewise be changed) |
| 3950, Line 1 | Change "double-barge" to "damage the bars" |
| 3950 , Line 12 | Change "copule" to "couple" |
| 3950, Line 21 | Change "cline" to "plane" |
| 3951, between Lines 1 and 2 | Add the following response: "A (White) Yes," |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3955, Line 3 | Change "plain" to "flange" |
| 3957, Line 19 | Change "prosprective" to "perspective" |
| 3959, Line 1 | Change "sitter" to "center" |
| 3960, Line 13 | Change "solumns" to "columns" |
| 3960, Line 22 | Change "plage" to "plate" |
| 3964, Line 10 | Change "guile" to "guide" |
| 3969, Line 20 | Change "96.7" to "96'7". |
| 3974, Line 4 | Change "Bat" to "slot" |
| 3974, Line 20 | Change "white" to "wider" |
| 3975, Line 8 | Change "criving" to "cribbing" |
| 3977, Line 7 | Change "auziliary" to "auxiliary" |
| 3982, Line 18 | Change "orange" to "four inch" |
| 3984, Line 9 | Change "ovserved" to "observed" |
| 3984, Line 21 | Change "there were" to "these" |
| 3984, following <br> Line 25 | Add the following: "describe that process." |
| 3985, Line 3 | Change "performance" to "conformance" |
| 3985, Line 6 | Change "or" to "are" |
| 3985 , Line 14 | Change "And we" to "And would" |
| 3985, Line 18 | Change "just" to "what" |
| 3986, Line 17 | Change "where is" to "where in" |
| 3989, Line 4 | Change "bable" to "cable" |
| 3989, Line 24 | Change "whole" to "hole" |
| 3990, Line 24 | Change "that will templet for that" to "we will sake a template for that," |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 3991, Lines 15 and 17 | Change "coded with a neo cream" to "coated with a neoprene" |
| 3991, Line 22 | Change "pentented" to "patented" |
| 3992, Lines 6 and 12 | Change "micubula" to "cupula" |
| 3992, Lines 9, 14 , and 20 | Change "thermoide" to "thermite" |
| 3992 , Line 11 | Change "glass" to "blast" |
| $\begin{aligned} & 3995 \text {, Lines } 10 \\ & \text { and } 12 \end{aligned}$ | Change "Mr. Axelrad" to "Dr. Paxton" |
| 3995, Line 22 | Change "Mr. Bell" to "Dr. Paxton" |
| 4001, Line 5 | Change "claried" to "clarifying" |
| 4002 , Line 6 | Change "(white flanch)" to "wide flange" |
| 4004 , Line 10 | Change "commission" to "conditions" |
| 4005, Line 24 | Change "Duke" to "Drew" |
| 4006, Line 16 | Change "Duke" to "Drew" |
| 4012, Line 5 | Change "'turbine building' and 'the'" to "turbine building and the" |
| 4012 , Lines 6 and 15 | Change "cabin" to "cab" |
| 4012, Line 13 | Change "delete 'all after purposes'" to "delete all words after purposes" |
| 4012, Line 21 | Change "next to" to "after" |
| 4013, Line 2 | Insert "the words" after "all" |
| 4013, Line 21 | Change "sheer..." to "shear stresses" |
| 4014, Line 14 | Change "ratios of" to "ratios for" |
| 4015, Line 4 | Change "and" to "add" |
| 4015, Line 13 | Change "on to" to "onto" |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| 4015, Line 13 | Change "below," to "below occur," |
| :---: | :---: |
| 4015, Line 15 | Change "and damage" to "and a damage" |
| 4019, Line 1 | Delete "put"; insert "be allowed to" before "extend" |
| 4020, Line 7 | Change "invited" to "provided" |
| 4020, Line 8 | Insert "there is" after "So" |
| 4020 , Line 15 | Change "grounded" to "grouted" |
| 4021, Line 15 | Change "tso" to "through" |
| 4023, Line 9 | Change "graviting of" to "grouting for" |
| 4023, Line 14 | Change "gravit" to "grout" |
| 4023, Line 22 | Change "crate" to "tray" |
| 4024, Line 11 | Chatge "Mr. Trammell" to "Mr. Ostrander" |
| 4025, Line 1 | Add "I am" at end of line |
| 4025, Line 8 | Change "controlled" to "proposed" |
| 4029, Line 4 | Change " sed" to "you" |
| 4030, Line 8 | Change "PDE" to "PGE" |
| 4033, Line 3 | Change "of bedding" to "Building" |
| 4033, Line 13 | Change "Axelrad" to "Gray" |
| 4036, Line 23 | Change "as" to "from" |
| 4037, Line 3 | Change "10-C-04-2.760a" to "10 CFR 2.760a" |
| 4037, Line 6 | Change "608" to "2.760a" |
| 4037, Line 7 | Change "760A" to "2.760a" |
| 4037, Line 15 | Change "760A" to "2.760a" |
| 4038, Line 20 | Change "a..." to "an amendment" |
| 4041, Line 7 | Change "Ostrander" to "Axelrad" |
| 4042, Line 19 | Change "as" to "be" |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| 4052 , Line 7 | Change "ICC" to "Licensee" |
| :---: | :---: |
| 4056, Line 16 | Change "someone putting" to "some input from" |
| 4056, Line 18 | Change "he" to "we" |
| 4063, Line 12 | Change "shouldn't" to "should" |
| 4063, Line 12 | Change ". . .bolts fixed" to "all bolts installed" |
| 4063, Line 13 | Change "mixed" to "snug" |
| 4064, Lines 19 through 20 | Change "black drought" to "plate drop" |
| 4067, Line 9 | Change "auxillary" to "auxiliary" |
| 4070, Line 5 | Insert "A. (Clemenson) Yes." |
| 4070, Line 8 | Insert "A. (Clemenson) Yes." |
| 4070, Line 25 | Change "the and work" to '"the" and "work", |
| 4072, Line 3 | Insert "A. (Clemenson) Yes." |
| 4072, Line 11 | Delete "is" |
| 4072 , Line 12 | Change "was to the" to "was in the" |
| 4073 , Line 14 | Change "McGurren" to "Gray" |
| 4075, Line 7 | Change " $a$ " to "the" |
| 4075, Line 17 | Delete "AND THE N" |
| 4075, Line 18 | Insert "what" after "and" |
| 4075, line 19 | Change "add" to "have" |
| 4075, Line 21 | Change "access ofr" to "access for" |
| 4075, Line 22 | Change "fithting" to "fighting" |
| 4075, Line 25 | Change "reivew" to "review" |
| 4077, Line 5 | Delete "is" |
| 4077, Line 7 | Change "detail of" to "detailed" |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr . Reference | Correction |
| :---: | :---: |
| 4079, Lines 2 through 3 | Change "Welwis alloyed" to "weldless alloy" |
| 4079, Line 5 | Add the word "more" before the word "than" |
| 4079, Line 6 | Change "shackle" to "maste: 11 nk " |
| 4080, Lines 23 through 24 | Change "load would cause the plate to" to "force would come from to" |
| 4081, Line 12 | Change "your" to "the" |
| 4081, Line 13 | Change "rewire" to "rebar" |
| 4084, Line 5 | Change "thecry" to "area" |
| 4084, Line 18 | Change "-- of the drop of washer" to "was of the drop of a washer" |
| 4084, Lines 23 through 24 | Change "on the -- let's see -" to "over the cable trays"; change "-" to "damage" |
| 4084, Line 25 | Delete one "by dropping" |
| 4085, Line 1 | Change "here" to "the planking" |
| 4086, Line 3 | Change "(Knithgt)" to "(Knight)" |
| 4086, Line 13 | Change "Before" to "Therefore" |
| 4086, Line 15 | Change "dropouts" to "drop heights" |
| 4087, Line 23 | Change "conduants" to "conduits" |
| 4088, Lines 4, 10 and 11 | Change "conduants" to "conduits" |
| $\begin{aligned} & 4088 \text {, tines } 7 \\ & \text { and } 12 \end{aligned}$ | Change "(Kinght)" to "(Knight)" |
| 4088, Line 18 | Change "extinction" to "extinguishing" |
| 4089, Line 21 | Change "my" to "the" |
| 4089, Line 22 | Change "to" to "my" |
| 4089 , Line 24 | Delete "(?)"; change "ethelene (?) propane" to "ethylene propylene"; delete "--"; change "hypon (?)" to "hypaion" |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4090, Line 1 | Change "hydrgleed (?) test, when" to "IEEE-383 cable test is concerned, it was not" |
| 4090, Line 7 | Change "were" to "was" |
| 4090, Line 8 | Delete "And that the --"; delete ". " after "reluctantly" |
| 4090, Lines 9 through 10 | Change "test, the Staff, as far as the Staff" to "test. The Staff did not consider that as" |
| 4090, Line 11 | Change "you, was" to "you. It was" |
| 4090 , Line 12 | Insert "same" before "configurations" |
| 4090, Line 14 | Change "I tripple" to "IEEE" |
| 4091, Line 11 | Change "foreign" to "form" |
| 4091, Line 12 | Change "divide" to "provide" |
| 4091, Line 15 | Change "coding" to "coating" |
| 4091, tine 16 | Change "a" to "the" |
| 4092 , Line 14 | Change "and" to "on" |
| 4092 , Line 24 | Change "Antenetti" to "Antonetti" |
| 4092, Line 25 | Change "engaged with" to "employed by Cage" |
| 4093, Line 8 | Insert "concerned." after "is" |
| 4096, Line 8 | Change "they will not be where" to ", when" |
| 4096, Line 9 | Change "going that" to "going on, that" |
| 4096, Line 10 | Change "certain" to "safety" |
| 4096, Line 11 | Change "way" to "area" |
| 4096, Line 18 | Change "am" to "an" |
| 4096 , Line 20 | Change "he cannot take in" to "they will take in" |
| 4096, Line 22 | Change "we" to "they"; change "the" to "to" |
| 4098, Line 10 | Change "personnel" to "person" |
| 4098, Line 11 | Insert "on" after "accepted" |

APRIL 1, 1980 TRANSCRIPT CORRECTIONS
Tr. Reference

4098, Line 25 \begin{tabular}{l}
Change "the things" :o "things are" \\
4099, Line 1

 

Change "that that" to "that this" \\
4099, Line 18

 

Change "giving" to "given" \\
4100, Lines 5 \\
through 6

$\quad$

Change "there certainly would not be capable" to "it would \\
certainly show up"
\end{tabular}

APRIL 1, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4109 , Line 8 and 19 | Change "INE" to "I\&E" |
| 4112, Line 24 | Change "left" to "lift" |
| 4118 , Line 17 | Delete "d" between "adequately" and "dealt" |
| 4119, Line 20 | Change "who is" to "whose" |
| 4120 , Line 5 | Insert "point" at end of sentence. |
| 4120 , Line 15 | Change "wellees" to "weldless" |
| $\begin{aligned} & 4120 \text {, Lines } 17 \\ & \text { through } 18 \end{aligned}$ | Change "reagard to the welless, alloyd (?)" to "regard to the weldless alloy" |
| 4120, Line 19 | Change "alloyd" to "alloy" |
| 4120 , Line 25 | Change "raided" to "rated" |
| 4121, Line 6 | Change "alloyd" to "alloy" |
| 4121, Lines 22 and 24 | Change "raided" to "rated" |
| 4122, Line 3 | Change "raided" to "rated" |
| 412: Line 11 | Change "slane" to "sling" |
| 4122, Line 12 | Chagne "hhe" to "the" |
| 4124-4299 | Nonexistent pages |

APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| 4301, Line 11 | Insert "Yes" after "witness:" |
| :---: | :---: |
| 4304, Line 5 | Change "plant brigade" to "planking" |
| 4304, Line 10 | Change "Board" to "planking" |
| 4304 , Line 11 | Change "a" to "those carrying the board could lay it down out of the way and allow the" |
| 4304, Line 12 | Change "in" to "through" |
| 4304, Line 14 | Delete first "have" |
| 4305, Line 21 | Delete "table" |
| 4305 , Line 23 | Delete "there is"; insert "are" before "with" |
| 4306 , Line 1 | Change "realize" to "relies" |
| 4306, Line 9 | Change "as if Liscensee's" to "that the lizense" |
| 4307, Line 6 | Delete "in charge" |
| 4307, Line 7 | Change "purchased " to "spur" |
| 4307, Line 25 | Change "descending" to "dissenting" |
| 4308, Line 7 | Change "inline" to "N-line" |
| 4309 , Line 24 | Change "," to "."; change "which" to "It" |
| 4310, Line 12 | Change "this is a matter" to "these matters" |
| 4311, Line 11 | Change "tore" to "to be" |
| 4311, Line 24 | Change "Is it" to "It" |
| 4313, Line 19 | Change "or" to "on" |
| 4314, Line 9 | Change "are" to "cr" |
| 4314 , Line 22 | Change "plate R 567" to "plates 5, 6 and 7" |
| 4315, Line 2 | Change "beam" to "weld bead" |
| 4315, Line 7 | Change "then the timber area supports the cripts for the wood can be" to "then the timber and supports, and the cribbing or wood can be" |

APRIL 2, 1980 TRAVSCRIPT CORRECTIONS

```
    Tr. Reference
4315, Line }
4315, Line 12 Change "in quarter inches of" to "inches of one-quarter
    inch"
4315, Line 14
4315, Line 16
4316, Line 1 After "plate" insert " 8"
4316, Line 14 Change "welds in the bolts" to "welds and the bolts"
4316, Line 18 Change "is having 5 bolts that he has mentioned replaced"
    through 19
4317, Line 11
4320, Line 14
4320, Line 21
4322, Line 1 Change "plate 7 to plate 6" to "plate 8 to plate 6"
4324, Line 1 Change "passing" to "loading"
4324, Line 10 Change "so" to "in"
4324, Line 21 Change "would be" to "would need"
4325, Line 4 Change "defined of" to "of 5 to"
4325, Line 10 Change "element" to "ultimate"
    and }1
4325, Line 14 Change "in mind" to "increased"
4328, Line 6 Change "place" to "plate"; change "spaces" to "spacers"
4330, Line 9 Change "dose" to "does"
4330, Line 10 Change "under" to "on the"
4334, Line 14 Change "in' to "on"
4334, Line 16 Change "proposal" to "proposed"
4338, Line 4 Change "himself" to "itself"
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APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4340 , Line 3 | Change "it may be refer to" to "we may be referring to" |
| 4340 , Line 4 | Change "understand" to "understands" |
| 4340 , Line 14 | Change "for instance" to "sequence" |
| 4341 , Line 8 | Change "in-prime" to "N-prime" |
| 4341, Line 18 | Change "conflicts" to "Complex" |
| 4342 , Line 8 | Change "new with all" to "new wall" |
| $\begin{aligned} & \text { 4342, Lines } 17 \\ & \text { and } 18 \end{aligned}$ | Change "storage" to "story" |
| 4342 , Line 22 | Change "move" to "much" |
| 4343, Line 2 | Change "with all" to "wall" |
| 4343, Line 9 | Change "capacity" to "capacity of the" |
| 4344, Line 7 | Change "being" to "beam" |
| 4344, Line 8 | Change "better" to "rebar" |
| 4344, Line 13 | Change "bear" to "by" |
| 4351 , Line 9 | Change "night" to "nice" |
| 4352 , Line 24 | Change "answer 1 An and $E$ " to "answer li and E" |
| 4355, Line 11 | Change "W of 3 " to "V" |
| 4356 , Line 5 | Change "B" to "V" |
| 4358, Line 17 | Change "vertical that is orthogonal" to "vertical. This is orthogonal" |
| 4359, Lines 2 through 3 | Change "force lapse" to "floor slabs" |
| $\begin{aligned} & 4359 \text {, Lines } 4 \text {, } \\ & 16 \text { and } 25 \end{aligned}$ | Change "force" to "floor" |
| 4359, Line 13 | Change "sheer" to "shear" |
| 4360 , Line 3 | Change "force slabs" to "floor slabs" |
| 4360 , Line 4 | Change "comply" to "apply" |

1'RIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4360, Line 17 | Change "in our section" to "in the other section" |
| 4361, Line 1 | Change "say a complex wall in one" to "say in a comp ex wall, one" |
| 4361, Line 2 | Change "mechanisms is the beam-column connection wa " to "mechanisms is the beam-column connection. Was" |
| 4361, Line 8 | Change "force slabs" to "floor slabs" |
| 4361, Line 25 | Change "brought" to "thought" |
| 4363, Line 9 | Change "enable" to "able" |
| $\begin{aligned} & 4363 \text {, Lines } 9 \\ & \text { and } 14 \end{aligned}$ | Change "abductal" to "ductile" |
| 4363, Lines 19 and 21 | Change "sheer" to "shear" |
| 4364 , Line 5 | Change "sheer" to "shear" |
| 4364 , Line 16 | Change "page 47 to" to "page 47, the" |
| 4364, Lines 20 through 21 | Change "can you a test the adequacy" to "can you attest to the adequacy" |
| 4365 , Line 12 | Change "a safety factor to" to "a safety factor of 2 " |
| 4365 , Lines 17 through 18 | Change "object taped" to "obtained" |
| 4367 , Line 4 | Change "I will have the same" to "it will have the same" |
| $\begin{aligned} & 4368 \text {, Lines } 2 \\ & \text { and } 16 \end{aligned}$ | Change "sheer" to "shear" |
| 4368 , Line 17 | Change " 70 one" to " 7 one" |
| 4368 , Line 19 | Change "develop of a factored" to "faccored" |
| 4368, Line 25 | Change "do you know what did for that on an" to "do you know what the slip for that is on an" |
| 4369, Line 1 | Change "unfactored - I'm sorry-- for the factored OBE loading" to "factored - I'm sorry - for the unfactured OBE loading" |
| 4369, Line 12 | Change "sheer" to "shear" |

APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4369 , Line 23 | Change "so Control Buil ing is higher elevations of the Auxiliary" to "so, in the Control Building, in higher elevations of the Auxiliary" |
| 4370, Line 6 | Change "this would be for factored, it would be a" to "this would be for the unfactored OBE" |
| 4370, Line 14 | Change "sheer" to "shear" |
| 4370 , Line 16 | Change "15" to "13" |
| 4371 , Line 25 | Change "some curvatures" to "single curvature" |
| 4372 , Line 18 | Charge "Inneroperations" to "interim operation" |
| 4372 , Line 18 | Change "what" to "what do" |
| 4373, Line 17 | Change "By the changeable response." to "By the change in response?" |
| 4374 , Line 10 | Change "models" to "modulus" |
| 4374 , Line 16 | Change "there was at one time" to "was that at one time" |
| 4374 , Line 24 | Change "fine" to "finite" |
| 4376 , Line 2 | Change "accounted" to "counted" |
| 4377, Line 3 | Change "sheer" to "shear" |
| 4377, Line 13 | Change "inducement" to "induced net" |
| 4380, Line 6 | Change "when" to "what" |
| 4380 , Line 20 | Change "week" to "we can" |
| 4381 , Line 3 | Change "or" to "our" |
| 4383, Line 3 | Change "hm" to "him" |
| 4384 , Line 5 | Change "they" to "the" |
| 4384 , Line 19 | Change "elements" to "level" |
| 4385, Line 19 | Change "module us" to "modulus" |
| 4385 , Line 22 | Change "fine" to "finite" |
| 4386, Line 1 | Change "sheer" to "shear" |

APRIL 2, 1980 TRANSCRIPT CORRECTIONS


APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4396, Line 24 | Change "capacity" to "paths" |
| 4397, Line 16 | Change "stiff he's" to "stiffest" |
| 4398, Line 13 | Change "figure" to "exhibit" |
| 4398, Line 14 | Change " $63,64,65$ " to " $6-3,6-4,6-5$ " |
| 4398, Line 22 | Insert the word "not" tatween "is" and "a" |
| 4399, Line 3 | Insert the word "not" between "is" and "a" |
| 4399, Lines 10 through 11 | Change "if, the probability of the beams and" to "on the reliability of the bond of" |
| 4399, Line 20 | Change "UBC. And" to "UBC and" |
| 4399, Line 21 | Change "that" to "dynamic" |
| 4402, Line 15 | Change "Staff" to "panel" |
| 4402, Lines 19 and 20 | Change "the storing" to "of restoring" |
| 4402 , Line 20 | Change "my" to "by" |
| 4402 , Line 22 | Change " 3678 " to " $3.6, .7$ and .8 " |
| 4403, Line 9 | Change "sheer" to "shear" |
| 4407, Line 4 | Change "fact of" to "factored" |
| $\begin{aligned} & 4408 \text {, Lines } 3 \\ & \text { and } 4 \end{aligned}$ | Cnange "sheer" to "shear" |
| 4410 , Line 19 | Change "Miller" to "McCollom" |
| 4412, Line 23 | Change "DR." to "MR." (all further references to Dr. Holley should likewlse be changed) |
| 4413, Line 25 | Change "sum vice" to "summarize" |
| 4415 , Line 25 | Change "DR." to "MR." (all further references to Dr. Bresler should likewise be changed) |
| 4418 , Line 7 | Change "DR. BRESLER" to "MR. AXELRAD"; change "That is" to "Is that" |

APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4419 , Line 2 | Insert the words "not try" after "did" |
| 4419 , Line 2 | Change "did at this time" to "did take this time" |
| 4419, Li..e 11 | Change "but" to "by" |
| 4419 , Line 12 | Change "developed" to "followed" |
| 4420, Line 8 | Change "factor" to "factored" |
| 4421 , Line 4 | Change "SSE" to "testing" |
| 4422 , Line 6 | Insert "on" before "stiffness" |
| 4422 , Line 8 | Change "utility" to "ductility" |
| 4424 , Line 5 | Change "sheer" to "shear" |
| 4424 , Line 25 | Change "forced" to "fortunate" |
| 4425 , Line 21 | Change "important one of the most" to "important, it wes one" |
| 4425 , Line 24 | Change "based on the need for" to "they provided evidence of" |
| 4428 , Line 9 | Change "adequacy problems relate to the equipment and the special" to "problems related to equipment and the" |
| 4430 , Line 13 | Change "contest" to "context" |
| 4431, Line 22 | Change "that we were doing a research program" to "if we were not doing a research program" |
| 4432, Line 17 | Change "䠄rowly" to "thoroughly" |
| 4432, tine 21 | Change "would conservatively apply" to "were conservatively applied" |
| 4432 , Line 22 | Change "code" to "ductility" |
| 4433 , Line 13 | Change "terminations" to "determinations" |
| 4434 , Line 22 | Change "horrendous to" to "horrendous compared to" |
| 4434 , Line 23 | Change "but the rest" to "buttressed" |
| 4436 , Line 25 | Change "had" to "that" |

APRIL 2, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4438 , Line 6 | Change "fine" to "finite" |
| 4439, Lines 12 and 20 | Change "storage sheers" to "story shears" |
| 4442 , Line 6 | Change "they" to "then" |
| 4442, Line 21 | Insert the word "not" after "did", and insert after "program" the words "of panels and framing." |
| 4442 , Line 24 | Change "force" to "floor" |
| 4443, Line 10 | Change "they are" to "that are" |
| 4449 , Lines 4 through 5 | Change "we are I necessary at the end if" to "weariness at the end of" |
| 4450, Line 20 | Change "in" to "if" |
| 4452 , Line 10 | Change "recommended" to "corrected" |
| 4453, inne 16 | Change "can" to "are" |

APRIL 3, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4457, Line 18 | Insert "you state" after "would" |
| 4461, Line 20 | Insert "be" after "possibly" |
| 4466, Line 1 | Insert "be" after "will" |
| 4466, Line 9 | Change "we" to "we're" |
| 4466, Line 19 | Change "now" to "not" |
| 4466, Line 25 | Change "Fletcher" to "flexure" |
| 4467, Line 2 | Insert "believe" after "not" |
| 4470, Line 6 | Change "performance" to "perform" |
| 4471, Line 6 | Change "in" to "N" |
| 4471, Line 19 | Change "would" to "weld" |
| 4473, Line 1 | Change "sheer" to "shear" |
| 4473, Line 18 | Change "wall line" to "R line" |
| 4473, Line 19 | Change "end" to "N" |
| 4477, Line 21 | Change "(specier)" to "SER" |
| 4479 , Line 8 | Change "bore" to "for" |
| 4479, Line 9 | Change "operated for" to "operating floor -" |
| 4477 , Line 15 | End sentence after "be"; start new sentence with "The" |
| $\begin{aligned} & 4479 \text {, Lines } 21 \\ & \text { through } 22 \end{aligned}$ | Change "be much" to "need" |
| 4479 , Line 23 | Change "inadequacy" co "adequacy" |
| 4479, Line 25 | Change "side" to "outside" |
| 4480 , Line 3 | Change "structure" to "structuial witness" |
| 4480, Line 10 | Change "..." to "power" |
| 4480 , Line 13 | Change "(attitude) called for" to "adequacy of"; change "attitude" to "adequacy" |
| 4481, Line 17 | Change "(attendant)" to "intended" |

APRIL 3, 1980 TRANSCRIPT CORRECTIONS


APRIL 16, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4502, Line 5 | Change "extra" to "expert" |
| 4503, Line 2 | Change "request" to "present" |
| 4503, Line 3 | Change "structuring" to "structural" |
| 4508, Line 2 | Change "cord" to "core" |
| 4509, Line 3 | Change "Shang-Lo" to "Chang-Lo" (all future references to "Shang-Lo" should likealse be changed) |
| 4521, Line 1 | Change "wheelbrater" to "wheelgrater" |
| 4522 , Line 2 | Change "filter" to "buildings" |
| 4523, Line 7 | Change "service" to "in-service" |
| 4525, Line 7 | Change "Wide" to "Wythe" |
| 4527, Line 5 | Change "Pat" to "Kenneth" |
| 4528, Line 4 | Change "Electrical" to "S. Webster" |
| 4528 , Line 14 | Change "section" to "inspection" |
| 4528, Line 15 | Change "as the" to "ASME" |
| 4530, Line 15 | Change "Procleva" to "Brookhaven" |
| 4530 , Line 22 | Change "translated $B D^{\prime}$ " to "Appendix $A$ of PGE" |
| 4531, Line 3 | Change " 27 " to " 22 " |
| 4533, Line 9 | Change "N/N" to "in./in." |
| 4533, Line 11 | Change "new" to "nu" |
| 4533, Line 12 | Change "dd" to "Vd" |
| 4533, Line 14 | Change "sub d" to "sub B" |
| 4533, Line 15 | Change "A sub $d$ equals $A$ sub $d$ " to "A sub Wequals A sub $B^{\prime \prime}$ |
| 4534, Line 10 | Change "row" to "rho" |
| 4538, Line 10 | Change "trident" to "rather than" |
| 4540, Lines 9, 10 and 12 | Change "in-plant" to "in-plane" |

APRIL 16,1980 TRANSCRIPT SORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4540, Line 25 | Change "out-of-plant" to "out-of-plane" |
| 4541, Line 1 | Change "responsive" to "response of" |
| 4541, Line 4 | Change "power" to "collar" |
| 4541, Line 8 | Change "life motored" to "wythe mortared" |
| 4544, Lines 9 <br> through 10 | Delete "(Staff Exhibit 21 was admitted into evidence)" |
| 4545 , Line 12 | Delete "(Staff Exhibit 21 was admitted into evidence)" Change p. 4549 to 4548 |
| New 4548, <br> Line 19 | Change "to exhibit" to "expeditiously to" |
|  | Change p. 4550 to 4549 |
|  | Change p. 4551 to 4550 |
| New 4550, Line 4 | Change "Mr. Ostrander" to "Ms. Bell" |
| New 4550 , <br> Line 14 | Delete "Mr. Rosolie" |
| $\begin{aligned} & \text { New } 4550 \text {, } \\ & \text { Line is } \end{aligned}$ | Change "Q" to "Chairman Miller" |
|  | Change p. 4548 to 4551 |
| New 4551, <br> Lines 5 and 23 | Change "fall" to "fail" |
| $\begin{aligned} & 4551 \text {, Lines } 5 \text {, } \\ & 6 \text { and } 23 \end{aligned}$ | Change "plain" to "plane" |
| 4555, Line 17 | Change "22" to "21" |
| 4557, Line 17 | Change "white" to "wythe" |
| $\begin{aligned} & 4558 \text {, Lines } 7 \\ & \text { and } 9 \end{aligned}$ | Change "white" to "wythe" |
| 4559, Line 13 | Change "white" to "wythe" |
| 4560 , line 8 | Change "preventive" to "compressive" |

APRIL 16, 1980 TRANSCRIPT CGRRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| $\begin{aligned} & 4560 \text {, Lines } 9, \\ & 16 \text { and } 20 \end{aligned}$ | Change "compressor" to "compressive" |
| $\begin{aligned} & 4560 \text {, Lines } 22 \\ & \text { and } 23 \end{aligned}$ | Change "seals" to "cells" |
| 4561, Line 12 | Change "seal" to "cell" |
| 4562, Lines 7 through 8 | Change "M prime and then $R$ " to "ftr" |
| 4562, Line 18 | Change "gravity" to "grout" |
| 4565, Line 8 | Change "M prime" to "F sub m prime" |
| 4566, Line 21 | Insert " 10 " before "psi"; change "--" to "and" |
| 4570, Line 16 | Change "flow" to "program" |
| 4572, Line 13 | Change "Mr. Paxton" to "Dr. McCollom" |
| 4574, Line 9 | Delete "double"; change "kind" to "conduits" |
| 4574, Line 22 | Delete "18" |
| $\begin{aligned} & 4576 \text {, Lines } 9 \\ & \text { and } 20 \end{aligned}$ | Change "true" to "through" |
| ```4576, Lines 8 and }1``` | Change "Dr. Colville" to "Mr. Herring" |
| 4584, Line 3 | Change "tunnel" to "column" |
| 4586, Line 16 | Change "tunnel" to "column" |
| 4609, Line 2 | Change "three by two" to "three feet by two hundred pound" |
| 4611, Line 25 | Delete "site" |
| 4615, Line 5 | Change "deposit" to "composite" |
| 4618, Line 3 | Change "first" to "a per" |
| 4618, Line 4 | Change "of" to "to"; change "to" to "of the" |
| 4618 , Line 9 | Change "of" to "times" |
| 4618, Lines 10 and 14 | Change " N factor" to "unfactored" |

APRIL 16, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4618, Line 12 | Change ".14" to ".41" |
| 4619, Line 1 | Change " 4.068 " to " 1.068 " |
| 4619, Line 4 | Change "complex" to "contact" |
| 4620 , Line 12 | Change "air" to "area" |
| 4622, Line 6 | Change "isn't really" to "is a regional" |
| 4626, Line 13 | Change " N " to " 10 " |
| 4632, Line 23 | Change "Gray" to "Ostrander" |
| 4638 , Line 18 | Change "specs" to "spectra" |
| 4638, Line 22 | Change "Ray" to "Reg" |
| $\begin{aligned} & 4639 \text {, Lines } 4 \text {, } \\ & 8 \text { and } 16 \end{aligned}$ | Change "Ray" to "Reg" |
| 4639, Line 6 | Delete " ${ }^{\prime \prime}$ |
| 4642, Line 17 | Change "PD" to "PGE" |
| 4642, Line 18 | Change "day" to "D" |
| 4643 , Line 25 | Change "tinsel" to "tensile" |
| 4644, Lines 6, <br> 14 and 18 | Change "poll" to "pull" |
| 4645, Line 25 | Change "unlined" to "N line" |
| 4647, Line 2 | Change "flow" to "floor" |
| 4648 , Lines 9 and 22 | Change "backfilling" to "backfitting" |
| $\begin{aligned} & 4650 \text {, tines } 5 \\ & \text { and } 11 \end{aligned}$ | Change "red" to "Reg" |
| 4650, Line 16 | Change "low" to "load" |
| 4557, Line 19 | change "accomplish" to "encounpass" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4662 , Line 16 | Change "2.7" to ".27" |
| 4663, Line 2 | Change "half" to "path" |
| 4665, Line 20 | Change "metals" tc "transmittals and"; change "in the form" to "in, the form" |
| 4665, Line 21 | Change "that steel plate," to "that, the steel plate, and" |
| 4666, Line 6 | Change "loaded" to "lowered" |
| 4667, Line 10 | Change "dropover would occur were" to "drop were to occur, were" |
| 4667, Line 17 | Change "drops on seismic" to "drops and seismic" |
| ```4668, Lines }1 and 11``` | Change "compresser" to "compressive" |
| 4669, Line 3 | Change "pressure" to "compressive" |
| 4669, Line 7 | Change "compressor" to "compressive" |
| $\begin{aligned} & 4669 \text {, Lines } 8 \\ & \text { through } 9 \end{aligned}$ | Change "compress-or" to "compress-ive" |
| 4669, Line 20 | Change "approved NRC QIQC" to "NRC approved QA/QC" |
| 4673, Line 22 | Change "eseentially" to "essentially" |
| 4674, Line 25 | Change "25U and $\mathrm{B}^{\prime \prime}$ to "25U and V" |
| 4675, Line 15 | Change " 3 of Exhibit 25 " to "V of Exhibit 25" |
| 4676, Line 17 | Change "return" to "turn" |
| 4682, Line 22 | Change "Torjan" to "Trojan" |
| 4684, Line 19 | Change "everyong" to "everyone" |
| 4685, Line 4 | Change "closing" to "enclosing" |
| 4685, Line 18 | Change "Shang-10" to "Chang-Lo" (all future references to "Shang-10" should likewise be changed) |
| 4685, Line 19 | Change "Nile" to "Myle" |
| 4687, Line 16 | Change "bolt" to "loads" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr . Reference | Correction |
| :---: | :---: |
| 4687, Line 17 | Change "the wall" to "a wall" |
| 4688, Line 14 | Change "Trojan plants" to "the Trojan Plant" |
| 4688, Lines 21 through 22 | Change "have the reinforced masonry wall" to "have reinforced masonry walls" |
| 4689, Line 4 | Change "didn't" to "did" |
| 4695, Line 6 | Change "region five" to "Region V" |
| 4696 , Line 2 | Change "Region 5" to "Region V" |
| 4697, Line 25 | Change "in" to "and get" |
| 4698 , Line 24 | Change "or it would become under" to "should it become over-" |
| 4698, Line 25 | Change "stress" to "stressed" |
| 4699, Line 6 | Change "column" to "complex" |
| 4700, Line 11 | Change "inner" to "inter-" |
| 4700, Lite 21 | Chanse "plant" to "plan" (two places) |
| 4701, Line 6 | Change "efficiency" to "deficiency" |
| 4701, Line 11 | Change "But, Mr. Broe.il" to "Mr. Broehl" |
| 4702 , Line 4 | Change "of 79-15, December" to "of LER 79-15 in December" |
| 4702, Line 5 | Change "have" to "had" |
| 4702 , Line 6 | Change "at which time" to "during which time" |
| 4702, Line 9 | Change "is" to "was" |
| 4702, Line 10 | Change "been not" to "not been" |
| 4703, Line 2 | Change " 0.25 g , say, seismic" to " 0.25 g safe" |
| 4704, Line 16 | Change "and which" to "and on which" |
| 4712 , Line 22 | Change "existing" to "resisting" |
| 4712 , Line 24 | Change "flexual" to "flexural" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4719 , Line 3 | Change "their" to "they're" |
| 4726 , Line 5 | Change "thousandths" to "thousands" |
| 4729 , Line 18 | Change "wall," to "wall of" |
| $\begin{aligned} & 4733 \text {, Lines } 9 \\ & \text { and } 10 \end{aligned}$ | Change "sensitive" to "insensitive" |
| 4734, Line 4 | Change " $1 / 2$ " to " $1-1 / 2$ " |
| 4737, Line 9 | Change "this even" to "this" |
| 4738 , Line 12 | Change "nation. It's" to "construction" |
| 4740, Line 8 | Change "take actually" to "take place actually" |
| 4740, Line 17 | Change "is" to "has" |
| 4745, Line 23 | Change "out-plane" to "out-of-plane" |
| 4758, Line 9 | Change "quantifications" to "modifications" |
| 4758, Line 10 | Change "vector" to "spectra" |
| 4759, Line 8 | Change "phrase" to "phase" |
| 4760 , Line 23 | Change "PGE $10-20$, as revised with" to "PGE-1020, as revised through" |
| 4761, Line 19 | Change "Trainor" to "Trammell" |
| 4762 , Line 4 | Change "warning that" to "morning" |
| 4763, Line 2 | Change "it's about to destroy" to "I was about to describe" |
| 4763, Line 3 | Change "dirrectory which do destroy to" to "record which do describe" |
| 4763, Line 6 | Change "for" to "during" |
| 4763, Line 9 | Change "PG 10-20" to "PGE-1020" |
| 4763 , Line 24 | Change "Document" to "Seismic" |
| 4763 , Line 25 | Change "--" to "Piping" |
| 4764, Line 4 | Change "to deciphering qualification" to "to qualification" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4764, Line 5 | Change "to deciphering qualifica-" to "to qualifica-" |
| 4764 , Line 6 | Change "oiping" to "piping" |
| 4764, Lines 6 through 7 | Change "to deciphering qualifications" to "to qualification" |
| 4764, Line 7 | Change "electrical systems" to "electrical cable tray systems" |
| 4764, Line 8 | Change "to deciphering qualification" to "to qualification" |
| 4764, Line 21 | Change "as --" to "spectra." |
| 4764 , Line 22 | Change "spectrum I" to "spectra are" |
| 4764 , Line 24 | Change "25" to "25u"; change "March 9th" to "March 17th" |
| 4765, Line 1 | Change "- on the one" to "spectra are the ones" |
| 4765 , Line 4 | Change "specter" to "spectra" |
| 4765, Line 7 | Change "trace" to "tray" |
| 4765 , Line 9 | Change "piling support" to "piping supports" |
| 4765, Line 11 | Change "--" to "spectra" |
| 4765, Line 12 | Thange " $I$ " to "the" |
| 4765, Line 21 | Change "--" to "hearing" |
| 4765, Line 22 | Change "sop" to "so"; change "-" to "and" |
| 4765, Line 23 | Change "--" to "since" |
| 4765, Line 25 | Change "nofficial" to "official" |
| 4766, Line 2 | Change "so thera are matters there that occurred" to "so if there are matters there that occur" |
| 4766, Line 3 | Change "evideatialry record here --" to "the evidentiary record here," |
| 4766 , Line 4 | Change "unto" to "to" |
| 4766, Line 15 | Change "permse" to "per se"; change "phas e 2 " to "phase 2 " |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| 4767, Line 10 | Change "-" to "Board"; change "were" to "here" |
| :---: | :---: |
| 4767, Line 16 | Change "spray" to "base" |
| 4768 , Line 15 | Change "or" to "so" |
| 4769, Lire 7 | Change "Speaker" to "MR. OSTRANDER" |
| 4769, Line 9 | Change "but" to "as we" |
| 4769, Line 10 | Delete "of this section" |
| 4770, Line 4 | Change "stipulating to" to "stipulating - to" |
| 4770, Line 8 | Change "There was," to "There it was," |
| 4770, Line 14 | Change "you" to "your" |
| 4770, Line 17 | Delete "and." |
| 4770, Line 21 | Change "your're" to "you're" |
| 4773, Line 6 | Change "is really" to "there is really" |
| 4773, Line 9 | Change "license coerce kind" to "license or coerce a kind" |
| 4774, Line 4 | Change "MR. OSTRANDER" to "MR. JOHNSON" |
| 4776 , Line 24 | Change "Dr. Coldwell" to "Dr. Colville" |
| 4777, Line 1 | Change "Our" to "whose" |
| 4777, Line 3 | Change "Mr. Brandt" to "Mr. Broehl" |
| 4777, Line 6 | Delete "not" |
| 4777, Line 20 | Change "MR. AXELRAD: Part" to "MR. AXELRAD: We can make it part" |
| 4778, Line 3 | Change "that" to "what" |
| 4778, Line 5 | Change "Grell" to "Broeh1" |
| 4778, Line 8 | Change "The" to "In the" |
| 4778, Line 9 | Change "--" to "concerning" |
| $4778 \text {, Lines } 9$ $\text { and } 12$ | Change "Dr. Coldwell's" to "Dr. Colville's" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4778 , Line 16 | Change "the survey" to "been served $a$ " |
| 4779 , Line 3 | Change "-" to "document," |
| 4779, Line 17 through 18 | Change "of the type of the State" to "up-to-date" |
| 4779, Line 21 | Change "-" to "after" |
| 4780, Line 1 | Change "--" to "panel" |
| 4780, Line 5 | Change "--" to "questions" |
| 4781, Line 9 | Change "reported" to "departed" |
| 4782, Line 7 | Change "Ingleton" to "Engelken"; change "region 5" to "Region V" |
| 4782, Line 14 | Change "double-life" to "double-wythe" |
| 4783, Line 12 | Change "sheer" to "shear" |
| 4783, Line 14 | Change "has" to "have" |
| 4783, Line 20 | Change "of the small but two-test" to "of the lowest two test" |
| 4784, Line 7 | Change "-" to "the plant" |
| 4785, Line 1 | Change "thicknesses" to "stiffnesses" |
| 4785 , Line 11 | Change "-" to "know" |
| 4785 , Line 14 | Change "would not attend, adequately attend, for the analyses" to "would not be accounted, adequately accounted, for in the analyses" |
| 4785, Lines 15 through 16 | Change "specially supported reactions to the increase." to "seismiteally supported reactions to increase." |
| 4785, Line 18 | Change "plant" to "plants" |
| 4788, Line 1 | Change " - the value to stress," to "First, the value of stress," |
| 4788, Line 2 | Change "great, by Dr. Fogel" to "created, by Dr. Colville" |
| 4788 , Line 10 | Change "regarding all problems" to "submittals regarding the wall problem" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| 4788, Line 11 | Change "there 50 p.s.i. minimum open it," to "their 50 psi minimum ultimate," |
| :---: | :---: |
| 4788, Line 13 | Change "water" to "mortar" |
| 4788, Line 14 | Change "open it." to "ultimate." |
| 4788 , Line 26 | Change "feed the 18 p.s.i., but" to "exceed the 18 psi, by" |
| 4789, Line 1 | Change "p.s.i.," to "as high" |
| 4789, Line 10 | Change "that would wipe off" to "double wythe block" |
| 4789 , Line 12 | Change "expressed" to "and stress" |
| 4789, Line 14 | Change "platform of two days" to "block walls" |
| 4789, Line 21 | Change "license each panel" to "licensee's panel" |
| 4789, Line 22 | Change "in" to "on" |
| 4789, Line 24 | Change "white fall?" to "wythe walls?" |
| 4790 , Line 2 | Change "freak impression" to "degree of compression" |
| 4790, Line 5 | Change " 18 " to "seam" |
| 4790, Line 6 | Change "agus" to "agous"; change "pollard" to "collar joint" |
| 4790, Line 7 | Change "Hadenmeyer" to "Hagemeyer" |
| 4790, Line 9 | Change "of" to "on" |
| 4790 Sne 13 | Change "sheer" to "shear" |
| 4790, Line 15 | Change "-" to "data" |
| 4790, Line 16 | Change "lock of --" to "block material" |
| 4790 , Line 18 | Change "a fact of" to "effective" |
| 4790 , Line 20 | Change " $y$ 's apart, and the $y$, " to " $h, z e$ apart, and the wythes," |
| 4790, Line 21 | Change "to compression" to "into crmpressiou" |
| 4790, Line 22 | Change "a sheer curcheon" to "shear friction" |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4790, Line 23 | Change "-- even though" to "know" |
| 4790, Line 26 | Change "border" to "mortar" |
| 4791, Line 1 | Change "sheez pressure" to "shear friccion" |
| 4791, Line 2 | Change "in the factory in" to "and the fact" |
| 4791, Line 4 | Change "23 base length" to "23 based on" |
| 4791, Line 12 | Change "S. E." to "SER" |
| 4791, in ine 13 | Change "or on the wall problem" to "on the wall problem" |
| 4791, Line 19 | Change "lacked" to "acted" |
| 4791, Line 24 | Change "flow" to "block" |
| 4791, Line 26 | Change "verocity" to "porocity" |
| 4792 , Line 4 | Ciange "Dr. Cogle's" to "Dr. Colville's" |
| 4792, Line 7 | Change "bulk" to "block" |
| 4792, Line 11 | Change "wiere" to "for" |
| 4792 , Line 14 | Change "that are ore velicians --" to "that are different |
| 4793, Line 5 | Change "poles" to "bolts" |
| 4794, Line 19 | Change "porportional" to "proportional" |
| 4794, Line 25 | Change "track sizes, a track size" to "crack si:es, a crack size" |
| 4795, Line 3 | Change "factor safety" to "safety factor" |
| 4795, Line 12 | Change "LOCA" to "licensee" |
| 4795, Line 25 | Change "I and" to "IE" |
| 4796, Line 1 | Change "E Bolt in 7902" to "Bulletin 7y-02" |
| $4796 \text {, Lines } 3 \text {, }$ $6 \text { and } 8$ | Change "7902" to "79-02" |
| 4796, Line 9 | Change "frozen" to "Trojan" |
| 4796, Line 13 | Change "account" to "accounting" |

APRIL 17, 198) TRANSCRIPT CORRECTIONS

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    Tr. Reference
4796, line 17
4796, Line 21
4797, Line }
4797, Line 11
4797, Line 18
4797, Line 19
4797, Line 20
4797, Line 23
4797, Line 25
4798, Line 22
4799, Line 9 Change "VOICE:" to "MR. GRAY:"
4799, Line 12 Change "VOICE:" to "MR. GRAY:"
4800, Line 14 Change "porposing" to "proposing"
4800, Line 17 Change "into safety related wall" to "into the category of
safety related wall"
4800, Line 19 Change "stardine" to "STARDYNE"
4801, Line 5 Change "none" to "one"
4801, Line 7 Change "trojan" to "Trojan"
4801, Line 8 Change "SFAI" to "FSAR"
4801, Line 19 Change "cheer" to "shear"
4802, Lines 3, Change "stardine" to "STARDYNE"
    7 and 8
4802, Line 19 Change "in turpine" to "in the turbine"
4803, Line 6 Change "that" to "those"
4803, Line 8 Change "So I think all -" to "Also I think a"
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APRIL 17, 1980 TRANSCRIPT CORRECTIONS

| Tr. Reference | Correction |
| :---: | :---: |
| 4803 , Line 16 | Change "bubble block with the morton collar communities with the" to "double block with the mortared collar cavities with the" |
| 4805, Lines 1 through 2 | Change "tempt you" to "resolve this" |
| 4805, Line 3 | Add "CHAIRMAN MILLER:" before "According" |
| 4805, Line 6 | Delete "scrantive" |
| 4805, Line 12 | Change "under the control buggy. The --" to "in the Control Building. The panel" |
| 4806, Line 2 | Change "we - we are" to "the criteria are" |
| 4806, Line 5 | Change "exemptary" to "extemporary" |
| 4806, Line 8 | Change "significant" to "significance" |
| 4806, Line 9 | Change "reviewed and once" to "reviewed once" |
| 4807, Line 6 through 7 | Change "pin points" to "10 psi" |
| 4808, Line 25 | Change "fuels -- spent fuels were allowed" to "fuel were in the Spent Fuels Pool" |
| 4810, Line 1 | Change "conceraing" to "concern" |
| 4810, Line 7 | Change "judicatary" to "adjudicatory" |
| 4810, Line 10 | Change "with" to "which"; change "stage" to "safe" |
| 4810, Line 15 | Change "in" to "and" |
| 4810 , Line 16 | Change "the vessel" to "operation" |
| 4810, Line 20 | Change "plan" to "plant" |
| 4811 , Line 5 | Change "-" to "done" |
| 4812 , Line 6 | Change "our" to "the"; change "our" to "how" |
| 4812 , Line 18 | Change "Board" to "word" |
| 4812 , Line 23 | Change "sheer" to "shear" |
| 4812 , Line 24 | Change "double-y mastry wall" to "double-wythe masonry wall |

APRIL 17, 1980 TRANSCRIPT CORRECTIONS


APRIL 17, 1980 TRANSCRIPT CORRECTIONS

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Ir Reference Correction
4823, Lines 3 Change "from a licensee" to "from Licensee"
    and 6
4823, Line 11 Change "water" to "mortar"; change "masonary" to "masonry"
4823, Line 23 Change "employees of" to "of the parties or"
4824, Line 9 Change "a expedite" to "an expedited"
4824, Line 23 Change "expedite" to "expedited"
4824, Line 25 Change "department" to "development"; change "lengthly"
to "lengthy"
4827, Line 1 Change "MR. OSTRANDER" to "MR. AXELRAD"
4827, Line 7 Change "the ICB" to "PGE"
4828, Lines 2, Change "MR. OSTRANDER:" to "MR. AXELRAD:"
    6 and 12
4828, Line 16 Change "evidencary" to "evidentiary"
4828, Line 23 Change "April 16th" to "April 17"
It is so ordered.
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FOR THE ATOMIC SAFETY AND LICENSING BOARD


Dated at Bethesda, Maryland
this 22nd day of May 1980.

