

September 17, 2002 (3:26PM)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:

) Docket No. 72-22-ISFSI

PRIVATE FUEL STORAGE, LLC
(Independent Spent Fuel
Storage Installation)

) ASLBP No. 97-732-02-ISFSI

) September 11, 2002

ERRATA TO STATE OF UTAH'S FINDINGS OF FACT AND
CONCLUSIONS OF LAW ON UNIFIED CONTENTION UTAH L/QQ

In meeting the September 5, 2002 deadline for filing Proposed Findings of Fact and Conclusions of Law on Unified Contention Utah L/QQ, a number of typographical, grammatical and punctuation errors in the final document escaped our notice. The attached errata corrects some of these errors, in particular, those that affect the readability of the document.

DATED this 11th day of September, 2002.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of ERRATA TO STATE OF UTAH'S FINDINGS OF FACT AND CONCLUSIONS OF LAW ON UNIFIED CONTENTION UTAH L/QQ was served on the persons listed below by electronic mail (unless otherwise noted) with conforming copies by United States mail first class, this 11th day of September, 2002:

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A handwritten signature in black ink, appearing to read "Denise Chancellor", written over a horizontal line.

Denise Chancellor
Assistant Attorney General
State of Utah

ERRATA TO STATE OF UTAH'S FINDINGS OF FACT AND
CONCLUSIONS OF LAW ON UNIFIED CONTENTION UTAH L/QQ

| Pg | f | Ln | Correction |
|-------|-----|-----|---|
| 25 | 14 | 3 | strength upon the direction of shear is known <u>as</u> shear anisotropy. |
| 33 | 36 | 1 | We have noted that the three to thirteen <u>foot</u> thick upper Bonneville |
| 38 | 52 | 3 | data to undrained <u>shear</u> strength, the Board is unconvinced that such |
| 46 | 72 | 6 | is also required before the material to <u>can</u> be classified as soil |
| 54 | 97 | 5 | efficient placement of cement-treated soil lifts, this will negatively <u>effect</u> <u>affect</u> interface bonding, |
| 57 | 105 | 5 | compressive strengths of soil cement and cement-treated soil to resist <u>founding</u> <u>foundation</u> sliding just |
| 64-65 | 128 | 11 | nuclear power plant is being built in conformity <u>with</u> the Commission's safety regulations. |
| 69 | 139 | 3 | The HI-STORM 100 casks <u>cask</u> is the only storage <u>cask</u> presently |
| 69 | 139 | 5 | related items, such as the HI-TRAC transfer casks and HI-STORM transportation <u>casks</u> , <u>is</u> <u>will</u> yield |
| 81 | 171 | 2 | have evolved[;] often in response to cost cutting measures, and have |
| 82 | 172 | 3 | the eolian silts to save costs. PFS <u>State</u> Exh. 210, internal memo |
| 83 | 177 | | Place the paragraph before the heading " <u>Board Finding</u> " and change the paragraph number to 176. |
| 83 | 176 | | Change the paragraph number to 177. |
| 94 | 204 | 4 | purposes of structural design, such <u>as</u> to estimate the amount of steel |
| 96 | 210 | 7 | Tr. (FØ <u>Ostadan</u>) at 10340. |
| 99 | 218 | 18 | significant transfer of lateral forces even without initial of pad |
| 105 | 237 | 11 | shape, with the middle deforming more in the sides then <u>than</u> at the |
| 107 | 242 | 2 | dynamic analysis calculation, PFS Exh. VV "inasmuch as the loads came from out <u>our</u> structural |
| 110 | 247 | 1,2 | Based on the evidence presented, PFS has not met it <u>its</u> burden of showing that the storage pads, the CTB, their foundation[s] systems, |

| Pg | ¶ | Ln | Correction |
|---------|-----|-------------|--|
| 115 | 258 | FN 38, ln 3 | in 2002. <i>See</i> footnote <u>35</u> <i>supra</i> . In addition to the HI-STORM 100 cask system, Holtec |
| 116 | 260 | 6 | the weight to accord their testimony and other the evidence relevant |
| 116-117 | 261 | 8 | principals and methods and; d) <u>whether</u> the witness has applied the principles and methods reliably to |
| 123 | 275 | 2 | level of ground motion increases (zero period acceleration)-level. |
| 140 | 318 | 9 | limitations or vertical uplift limitations if the center of gravity remains <u>within</u> acceptable limits. |
| 152 | 352 | 9 | cask animations are inconclusive <u>as</u> to which damping ratio best |
| 153 | 355 | 2,3 | threshold value, the response is (<i>viz.</i> maximum tilting of the cask axis) increases rapidly with increase in the [zero period acceleration] level." ^[FN] State's Exh. 174, <i>Seismic Seismic Response</i> |
| 160 | 373 | 1 | Moreover, the November 1997 <u>March 1998</u> Holtec letter to |
| 165 | 383 | 8 | at Fig. 1.3; Con-SER at 17-1. The role of the industry panel members <u>is was</u> to provide |
| 165 | 383 | 14 | provided comments on the completed 2,000-year analysis for PFS at the November 2002 <u>2001</u> |
| 168 | 390 | 5 | San Onofre ISFSIs[?] <u>we</u> <u>We</u> find that the record bare in its |
| 168-169 | 392 | 5,6 | cement-treated soil and a relative soft clay foundation at ground motions equal to or greater to <u>than</u> the 2,000-year earthquake at PFS. |
| 169 | 395 | 2 | and some of the other important input <u>input</u> parameters or are |
| 172 | 402 | 2 | on a pad is adequate because that cask rotations will be larger if the casks <u>cask's</u> movement is in |
| 172 | 402 | 8 | casks on a pad actually behave <u>independently</u> of other casks on the |
| 173 | 405 | 4 | <u>Id.</u> at 6770. Figure 17 is raw data analysis results to <u>which</u> compare |
| 173-174 | 408 | 5 | of our tasks to develop <u>[an]</u> <u>applicable</u> [<i>sic</i> , appletical- <i>[sic]</i>] analysis model that can be used by |
| 181 | 438 | 2 | of the expected seismic conditions at the PFS site and does not satisfy the using multiple time |

| Pg | ¶ | Ln | Correction |
|-----|----------------|------|--|
| 182 | 441 | 11 | results cannot be directly compared yet both the Applicant and Staff both claim they confirmed |
| 184 | 445 | 3,4 | nonlinear computer analyses. Additionally, <u>the Applicant has not met its burden that Holtec's nonlinear finite element cask stability results for both the 2,000-year and 10,000-year earthquakes are not substantially altered</u> based on our preceding findings that the Applicant has not met its burden that a) there is no engineering precedence or seismic |
| 184 | 445 | 6 | behavior of the storage pad, c); <u>there</u> is ample evidence to suggest |
| 184 | 445 | 9-11 | that there can be significant forces transferred from pad-to-pad, do not substantially alter Holtec's nonlinear finite element cask stability results for both the 2,000-year and 10,000-year earthquakes, t The Licensing Board further finds uncertainty in the calculated maximum |
| 225 | 528 | 4-6 | nor any other witness has not performed any foundation stability calculations for a 10,000-year mean return period earthquake and has not shown that the foundations meet a factor of safety of |
| 233 | 552 | 4 | identified deficiencies were: (a) incorrect assumptions regarding the |
| 246 | 587 | 6 | you would argue that yeah, maybe 4,000 is not they <u>the</u> way to go. |
| 247 | 7 ¹ | 1 | The Applicant has not shown that there <u>are</u> adequate conservatisms |
| 248 | 8 ¹ | 1 | 8 <u>9.</u> Looking at lifetime risk for the expected 40 year design life |
| 248 | 9 ¹ | 1 | 9 <u>10.</u> The Staff did not consider the public interest in its review |
| 248 | 3 ² | 1 | 3. may effect <u>affect</u> health and safety from the release of |

¹ See "E. Summary" of the Seismic Exemption Request section.

² See "F. Conclusions of Law" of the Seismic Exemption Request section.