

17 03/21/78

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50-335

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DATE RCVD: 03/20/78

DOCTYPE: LETTER NOTARIZED: YES

COPIES RECEIVED

SUBJECT:

LTR 3 ENCL 40

LICENSE NO DPR-67 APPL FOR AMEND: TECH SPECS PROPOSED CHANGE CONCERNING
REPLACEMENT OF SELECTED SAFETY-RELATED HYDRAULIC SNUBBERS WITH MECHANICAL
SNUBBERS DURING THE UPCOMING REFUELING OUTAGE... W/ATT SAFETY EVALUATION.

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GENERAL DISTRIBUTION FOR AFTER ISSUANCE OF OPERATING LICENSE.
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I & E**W/2 ENCL

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BAER**W/ENCL

GRIMES**W/ENCL

J. MCGOUGH**W/ENCL

NRC PDR**W/ENCL

OELD**LTR ONLY

CHECK**W/ENCL

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EXTERNAL:

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ACRS CAT B**W/16 ENCL

DISTRIBUTION: LTR 40 ENCL 39
SIZE: 2P+6P+5P

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***** THE END *****

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4 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012 1013 1014 1015 1016 1017 1018 1019 1020 1021 1022 1023 1024 1025 1026 1027 1028 1029 1030 1031 1032 1033 1034 1035 1036 1037 1038 1039 1040

1. *Phragmites* (common)

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34 62

1. *Chlorophyll a* (Chl *a*)

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REGULATORY DOCKET FILE COPY



March 10, 1978
L-78-87

Director of Nuclear Reactor Regulation
Attention: Mr. Victor Stello, Director
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Stello:

Re: St. Lucie Unit 1
Docket No. 50-335
Proposed Amendment to
Facility Operating License DPR-67



In accordance with 10 CFR 50.30, Florida Power and Light Company submits herewith three (3) signed originals and forty (40) copies of a request to amend Appendix A of Facility Operating License DPR-67.

The purpose of this amendment is to support the replacement of selected safety-related hydraulic snubbers with mechanical snubbers during the upcoming refueling outage. This proposal essentially modifies a request made in a previous proposal. Our letter L-76-207 of May 20, 1976 proposed, in part, that changes to Table 3.7-2 be permitted without prior license amendment provided that the conditions of 10 CFR 50.59 be met and the Table be revised by a future amendment. The May 20, 1976 proposal, which was intended to support hydraulic snubber replacement during the refueling outage, has been the subject of several discussions with the Commission Staff during recent weeks. The Staff, however, has declined to authorize changes to Table 3.7-2 without prior approval. Therefore, in order to support the planned replacement of several of the smaller sized hydraulic snubbers with mechanical snubbers, we have prepared the present request. Timely Staff review is requested so that we can implement the proposed changes during the first refueling outage which is scheduled to begin about April 1, 1978.

The proposed Technical Specification changes are described below and shown on the accompanying Technical Specification pages bearing the date of this letter in the lower right hand corner.

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3/40
PEOPLE...SERVING PEOPLE

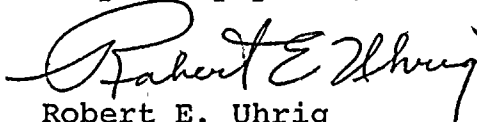
Pages 3/4 7-32 through 3/4 7-37

41 entries are deleted from Table 3.7-2 (SAFETY RELATED HYDRAULIC SNUBBERS). These hydraulic snubbers are scheduled to be replaced with equivalent or better mechanical snubbers during the first refueling outage.

All operating parts in mechanical snubbers are metallic and positive acting. Replacement of the hydraulic snubbers proposed with mechanical snubbers would represent an improvement over hydraulic snubbers which can experience seal failure and loss of hydraulic fluid. Use of mechanical snubbers is expected to result in reduced maintenance and to minimize possible downtime, thereby resulting in cost savings to our customers.

The proposed amendment has been reviewed by the St. Lucie Facility Review Group and the Florida Power & Light Company Nuclear Review Board. They have concluded that it does not involve an unreviewed safety question. A safety evaluation is attached.

Very truly yours,



Robert E. Uhrig
Vice President

REU/MAS/sl
Attachment

cc: Mr. James P. O'Reilly, Region II
Harold F. Reis, Esquire

TABLE 3.7-2

SAFETY RELATED HYDRAULIC SNUBBERS*

<u>FPL LOCATION NUMBER</u>	<u>MARK NUMBER</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION ZONE</u> (Yes or No)	<u>ESPECIALLY DIFFICUL TO REMOVE</u> (Yes or No)
017	1A1	RC, RCP Motor 1A1, Elev. 57'	I	No	No
018	1A2	RC, RCP Motor 1A2, Elev. 57'	I	No	No
019	1B1	RC, RCP Motor 1B1, Elev. 57'	I	No	No
020	1B2	RC, RCP Motor 1B2, Elev. 57'	I	No	No

TABLE 3.7-2
SAFETY RELATED HYDRAULIC SNUBBERS*

<u>FPL LOCATION NUMBER</u>	<u>MARK NUMBER</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE (Yes. or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
033	MS 649-319	MS, Reactor Bldg, Elev. 82'	A	No	No
034	MS 548-5	MS, Reactor Bldg, Elev. 82'	A	No	No
035	MS 1076-3164	MS, M.S. Trestle, Elev. 62'	A	No	No
036	MS 649-314	MS, Reactor Bldg, Elev. 55'	I	No	No
037	MS 649-314	MS, Reactor Bldg, Elev. 55'	I	No	No
038	MS 649-310	MS, Reactor Bldg, Elev. 50'	I	No	No
039	MS 649-304A	MS, Reactor Bldg, Elev. 30'	A	No	Yes
040	MS 548-9	MS, Reactor Bldg, Elev. 50'	I	No	Yes
041	MS 548-9	MS, Reactor Bldg, Elev. 50'	I	No	Yes
042	BF 549-7	BF, Reactor Bldg, Elev. 40'	I	No	No
043	BF 549-7	BF, Reactor Bldg, Elev. 40'	I	No	No
044	BF 549-8	BF, Reactor Bldg, Elev. 40'	I	No	Yes
047	BF 549-17	BF, Reactor Bldg, Elev. 36'	A	No	Yes

TABLE 3.7-2
SAFETY RELATED HYDRAULIC SNUBBERS*

<u>FPL LOCATION NUMBER</u>	<u>MARK NUMBER</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
052	BF 549-17	BF, Reactor Bldg, Elev. 36'	A	No	No
053	SI 968-210	SI, Reactor Bldg, Elev. 16'	I	No	No
058	SI 969-1216	SI, Reactor Bldg, Elev. 18'	A	No	No
061	MS 549-11	SI, Reactor Bldg, Elev. 18'	A	No	No
066	MS 549-11	SI, Reactor Bldg, Elev. 20'	I	No	No

TABLE 3.7-2
SAFETY RELATED HYDRAULIC SNUBBERS*

<u>FPL LOCATION</u> <u>NUMBER</u>	<u>MARK</u> <u>NUMBER</u>	<u>SYSTEM SNUBBER INSTALLED</u> <u>ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR</u> <u>INACCESSIBLE</u> (A or I)	<u>HIGH RADIATION</u> <u>ZONE</u> (Yes or No)	<u>ESPECIALLY DIFF</u> <u>TO REMOVE</u> (Yes or No)
073	SI 972-6240	SI, Reactor Bldg, Elev. 16'	I	No	No
074	SI 973-240	SI, Reactor Bldg, Elev. 18'	A	No	No
076	SI 973-6224	SI, Reactor Bldg, Elev. 18'	A	No	No
077	SI 868-64	SI, RAB, Elev. 4'	A	No	No
079	SI 868-163	SI, RAB, Elev. 4'	A	No	No
080	SI 868-410	SI, RAB, Elev. 4'	A	No	No
081	SI 676-67	SI, RAB, Elev. 4'	A	No	No
082	SI 676-67	SI, RAB, Elev. 4'	A	No	No
083	SI 676-105	SI, RAB, Elev. 4'	A	No	No

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3/10/78

TABLE 3.7-2
SAFETY RELATED HYDRAULIC SNUDDERS*

<u>FPL LOCATION NUMBER</u>	<u>MARK NUMBER</u>	<u>SYSTEM SNUDDER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
084	SI 676-105	SI, RAB, Elev. 4'	A	No	No
086	SI 676-129	SI, RAB, Elev. 4'	A	No	No
087	SI 676-2481	SI, RAB, Elev. 24'	A	No	No
110	SI 676-247	SI, RAB, Elev. 30'	A	No	No
111	SI 676-2475A	SI, RAB, Elev. 30'	A	No	No
112	SI 676-4505	SI, RAB, Elev. 7'	A	No	No
113	SI 971-6236	SI, RAB, Elev. 4'	A	No	No
114	SI 972-6240	SI, RAB, Elev. 4'	A	No	No
091	SPS-417	Pressurizer Spray, Reactor Bldg, Elev. 50'	I	No	No
090	SPS-27	Pressurizer Spray, Reactor Bldg, Elev. 50'	I	No	No
092	SPS 467	Pressurizer Spray, Reactor Bldg, Elev. 80'	A	No	No
093	SPS-777	Pressurizer Spray, Reactor Bldg, Elev. 80'	A	No	No

TABLE 3.7-2
SAFETY RELATED HYDRAULIC SNUBBERS*

<u>FPL LOCATION NUMBER</u>	<u>MARK NUMBER</u>	<u>SYSTEM SNUBBER INSTALLED ON, LOCATION AND ELEVATION</u>	<u>ACCESSIBLE OR INACCESSIBLE (A or I)</u>	<u>HIGH RADIATION ZONE (Yes or No)</u>	<u>ESPECIALLY DIFFICULT TO REMOVE (Yes or No)</u>
096	CC-1865-9	CC, Reactor Bldg, Elev. 25'	A	No	No
088	CC-1899-48	CC, Reactor Bldg, Elev. 25'	A	No	No
089	CC-1852-6241	CC, Reactor Bldg, Elev. 25'	A	No	No
101	CC-17-1	CC, RAB, Elev. 20'	A	No	No
102	MS-649-313	CC, RAB, Elev. 26'	A	No	No
104	CC-21-1	CC, RAB, Elev. 20'	A	No	No
103	BF-549-7	CC, RAB, Elev. 26'	A	No	No
105	CC-23-2	CC, RAB, Elev. 26'	A	No	No
106	CH-3-40	CH, RAB, Elev. 34'	A	No	No
107	CH-3-75	CH, RAB, Elev. 23'	A	No	No

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3/10/78

SAFETY EVALUATION

Re: St. Lucie Unit 1
Docket No. 50-335
Snubbers

I. Introduction

This evaluation supports a proposed change to Table 3.7-2 (SAFETY RELATED HYDRAULIC SNUBBERS). A number of snubbers on the list are deleted because they are scheduled to be replaced by mechanical snubbers during the first refueling outage (Spring 1978). Only smaller snubbers of the 3 kip (3000 inch-pounds) and 10 kip size will be affected by the changeover (see attached list).

II. Evaluation

The snubbers in question are used for seismic restraint. That is, they should accommodate pipe movement caused by slow thermal expansion, but they should "lock-up" to prevent potentially damaging transient movement during a postulated seismic event of sufficient magnitude. The Pacific Scientific (PSA) mechanical snubbers which we propose to use operate on an "acceleration limiting" basis. PSA snubbers permit thermal movement since the acceleration associated with thermal movement is very low, but they limit seismic induced acceleration to 0.02g in either direction. Mechanical snubbers would actually allow less to movement than hydraulic snubbers under seismic

conditions because of hydraulic snubber lockup delays associated with achieving the lockup velocity, activation of the lockup mechanism, and compression of the hydraulic fluid. Therefore, based on seismic functional requirements, the planned replacement of hydraulic snubbers with mechanical snubbers would be an improvement.

Pacific Scientific performed extensive testing in developing the PSA 3 (3 kip) and PSA 10 mechanical snubbers. The purpose was to evaluate their operability under the adverse conditions expected in many applications, such as high humidity, high temperature, and vibration. The snubbers operated favorably under all test conditions.

PSA 3 and PSA 10 mechanical snubbers are currently in use at Turkey Point Units 3 and 4 and at other reactor sites. To our knowledge there have been no malfunctions of these snubbers in operating plants. Also, a PSA 3 snubber from each Turkey Point nuclear unit was removed for inspection and testing after 1 year of service. Both snubbers were from the containment environment. The inspection and test results showed that the snubbers were performing properly and had not degraded operating conditions.

III. Conclusions

Based on testing and operating experience, the use of PSA mechanical snubbers should improve the operability of the

seismic support system. In conclusion, (1) the proposed change does not increase the probability or consequences of accidents or malfunctions of equipment important to safety and does not reduce the margin of safety as defined in the basis for any technical specification, therefore, the change does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Snubber Changeout (PSL)

The following hydraulic snubbers are scheduled to be replaced by mechanical snubbers during the Spring 1978 refueling outage:

3 kip Size			10 kip Size		
Tag No.	Mark No.		Tag No.	Mark No.	
021	RC	005-34A	023	RC	005-36
022	RC	005-34B	024	RC	005-12A
025	RC	005-12B	028	RC	005-55C
026	RC	005-12B	045	BF	549-11
027	RC	005-55B	046	BF	549-11
029	RC	005-62A	048	BF	661-407
030	RC	005-89	049	BF	661-407
031	RC	005-90	050	BF	661-416
032	RC	005-98	051	BF	661-416
054	SI	968-565	057	SI	969-1190
055	SI	968-1205	063	SI	969-6217
056	SI	968-1207	064	SI	969-6217
059	SI	969-6193	065	SI	970-1210
060	SI	969-6195	068	SI	971-6
062	SI	969-6201	069	SI	971-1229
067	SI	970-1251	070	SI	971-6229
071	SI	971-6236	072	SI	972-1243
094	CS	832-118	075	SI	973-6219
095	CS	878-115	078	SI	868-111
			085	SI	676-127
			098	CC	1899-2208
			100	CC	1865-2207

STATE OF FLORIDA)
)
COUNTY OF DADE) ss.

Robert E. Uhrig, being first duly sworn, deposes and says:

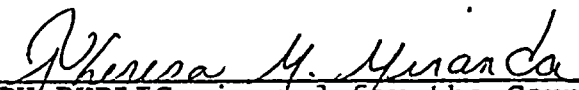
That he is a Vice President of Florida Power & Light Company,
the Licensee herein;

That he has executed the foregoing document; that the state-
ments made in this said document are true and correct to the
best of his knowledge, information, and belief, and that he
is authorized to execute the document on behalf of said
Licensee.


Robert E. Uhrig

Subscribed and sworn to before me this

13 day of March, 19 78


NOTARY PUBLIC, in and for the County of Dade,
State of Florida

My commission expires: NOTARY PUBLIC STATE OF FLORIDA 22 LARGE
MY COMMISSION EXPIRES MAY 6, 1981
BONDED THRU FAWHARD BONDING AGENCY

1990