

ACCELERATED DISTRIBUTION DEMONSTRATION SYSTEM

REGULATORY INFORMATION DISTRIBUTION SYSTEM (RIDS)

ACCESSION NBR: 8804220055 DOC. DATE: 88/03/31 NOTARIZED: NO DOCKET #
 FACIL: STN-50-528 Palo Verde Nuclear Station, Unit 1, Arizona Publi 05000528
 STN-50-529 Palo Verde Nuclear Station, Unit 2, Arizona Publi 05000529
 STN-50-530 Palo Verde Nuclear Station, Unit 3, Arizona Publi 05000530
 AUTH. NAME AUTHOR AFFILIATION
 COLVILLE, J.M. Arizona Nuclear Power Project (formerly Arizona Public Serv
 HAYNES, J.G. Arizona Nuclear Power Project (formerly Arizona Public Serv
 RECIP. NAME RECIPIENT AFFILIATION

SUBJECT: Monthly operating repts for Mar 1988. W/880415 ltr.

DISTRIBUTION CODE: IE24D COPIES RECEIVED: LTR ENCL SIZE: 19
 TITLE: Monthly Operating Report (per Tech Specs)

NOTES: Standardized plant. 05000528
 Standardized plant. 05000529
 Standardized plant. 05000530

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AEOD/DSP/TPAB	1 1	ARM TECH ADV	2 2
NRR/DLPQ/PEB 11	1 1	NRR/DOEA/EAB 11	1 1
NRR/DREP/RPB 10	1 1	NRR/PMAS/ILRB12	1 1
REG FILE 01	1 1	RGN5	1 1
EXTERNAL: EG&G GROH, M	1 1	LPDR	1 1
NRC PDR	1 1	NSIC	1 1

NOTES: 1 1

[Handwritten signatures and stamps]

880429

TOTAL NUMBER OF COPIES REQUIRED: LTTR 33 ENCL 30

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NRC MONTHLY OPERATING REPORT

DOCKET NO.	50-528
UNIT NAME	PVNGS-1
DATE	04/12/88
COMPLETED BY	J.M. Colville
TELEPHONE	602-393-2679

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 1
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____
9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

	This Month	Yr.-to-Date	Cumulative
11. Hours in Reporting Period	<u>744</u>	<u>2184</u>	<u>19056</u>
12. Number of Hours Reactor Was Critical	<u>580.2</u>	<u>580.2</u>	<u>10,557.4</u>
13. Reactor Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
14. Hours Generator On-Line	<u>518.7</u>	<u>518.7</u>	<u>10,235.8</u>
15. Unit Reserve Shutdown Hours	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
16. Gross Thermal Energy Generated (MWH)	<u>1,667,501</u>	<u>1,667,501</u>	<u>36,700,338</u>
17. Gross Electrical Energy Generated (MWH)	<u>582,000</u>	<u>582,000</u>	<u>12,725,300</u>
18. Net Electrical Energy Generated (MWH)	<u>530,379</u>	<u>530,379</u>	<u>11,858,304</u>
19. Unit Service Factor	<u>69.7%</u>	<u>23.8%</u>	<u>53.7%</u>
20. Unit Availability Factor	<u>69.7%</u>	<u>23.8%</u>	<u>53.7%</u>
21. Unit Capacity Factor (Using MDC Net)	<u>58.4%</u>	<u>19.9%</u>	<u>51.0%</u>
22. Unit Capacity Factor (Using DER Net)	<u>56.1%</u>	<u>19.1%</u>	<u>49.0%</u>
23. Unit Forced Outage Rate	<u>0.0%</u>	<u>69.1%</u>	<u>29.5%</u>
24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>None</u>			
25. If Shutdown At End of Report Period, Estimated Date of Startup:			
26. Units in Test Status (Prior To Commercial Operation):			

INITIAL CRITICALITY
INITIAL ELECTRICITY
COMMERCIAL OPERATION

Forecast	Achieved
<u>5/85</u>	<u>5/25/85</u>
<u>6/85</u>	<u>6/10/85</u>
<u>11/85</u>	<u>1/28/86</u>

AVERAGE DAILY UNIT POWER LEVEL

DOCKET NO. 50-528
UNIT NAME PVNGS-1
DATE 04/12/88
COMPLETED BY J.M. Colville
TELEPHONE 602-393-2679

MONTH: March 1988

DAY AVERAGE DAILY POWER LEVEL

1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	2
11	120
12	597
13	810
14	822
15	813
16	1,130

DAY AVERAGE DAILY POWER LEVEL

17	1,209
18	1,209
19	1,247
20	1,268
21	1,239
22	1,205
23	1,009
24	1,109
25	1,268
26	1,272
27	1,268
28	1,272
29	1,272
30	1,276
31	1,272

ANNUAL DAILY AVERAGE POWER LEVEL

MONTH: JANUARY 1986
 DAY: 1
 CON-1 EYE: 4
 TELEPHONE: 201-333-1000
 ADDRESS: 10000
 CITY: 10000
 STATE: 10000
 COUNTRY: 10000

DAY AVERAGE DAILY POWER LEVEL

DAY AVERAGE DAILY POWER LEVEL

1 10000
 2 10000
 3 10000
 4 10000
 5 10000
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 7 10000
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 11 10000
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REFUELING INFORMATION

DOCKET NO.	50-528
UNIT	PVNGS-1
DATE	04/12/88
COMPLETED BY	J.M. Colville
TELEPHONE	602-393-2679

1. Scheduled date for next refueling shutdown.

03/21/89

2. Scheduled date for restart following refueling.

05/29/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

To be determined

4. Scheduled date for submitting proposed licensing action and supporting information.

To be determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

To be determined

NO. 100-100000
DATE: 10/10/80
BY: [illegible]
SUBJECT: [illegible]
CLASS: [illegible]
AUTHORITY: [illegible]
REMARKS: [illegible]

Information is being provided to you for your information.

The information is being provided to you for your information.

The information is being provided to you for your information.

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REFUELING INFORMATION

DOCKET NO.	50-528
UNIT	PVNGS-1
DATE	04/12/88
COMPLETED BY	J.L. Hull
TELEPHONE	602-393-2679

(Continued)

6. The number of fuel assemblies.

a) In the core. ____241____

b) In the spent fuel storage pool. ____80____

7. Licensed spent fuel storage capacity. ____1329____

Intended change in spent fuel storage capacity. ____None____

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

2006 (18 Months reloads and full core discharge capability).

1

11. 10. 71

2000

233 11-2

1948

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 1041 1042 1043 1044 1045 1046 1047 1048 1049 1050 1051 1052 1053 1054 1055 1056 1057 1058 1059 1060 1061 1062 1063 106

THE UNIVERSITY OF CHICAGO

1. The first group of people who are interested in the results of the study are the researchers themselves. They want to know how well the study was conducted and whether the results are reliable and valid. They also want to know how the study can be used to inform future research.

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. 84

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4) 1980-1981

$$t_1 = \frac{1}{\omega} \left(\frac{1}{\cos \theta} - 1 \right) \quad (1)$$

Journal of Management Studies, 19(1), 67-80.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

| | |
|--------------|--------------|
| DOCKET NO. | 50-528 |
| UNIT | PVNGS-1 |
| DATE | 03/07/88 |
| COMPLETED BY | J.L. Hull |
| TELEPHONE | 602-393-2679 |

February 1988

| | | |
|-------|------|---|
| 03/01 | 0000 | Unit in Mode 4. |
| 03/01 | 0211 | Entered Mode 3. |
| 03/05 | 2126 | Entered Mode 2 - Reactor Critical. |
| 03/07 | 0147 | Entered Mode 3 due to contactor problem with CEDM MG sets. |
| 03/08 | 0010 | Entered Mode 2 - Reactor Critical. |
| 03/09 | 1245 | Entered Mode 1. |
| 03/10 | 0643 | Synchronized Main Generator to Grid. |
| 03/10 | 1256 | Manually tripped Main Turbine for Overspeed Testing. |
| 03/10 | 1532 | Synchronized Main Generator to Grid. |
| 03/19 | 1000 | Reactor power at 100%. |
| 03/22 | 1845 | Reactor power reduced to 80% due to SG Chemistry being out of specification as a result of the polishers being out of service for regeneration. |
| 03/24 | 1645 | Reactor power at 100%. |

| |
|--------|
| 0000 | 0000</ |
|--------|

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-528
 UNIT NAME: PVNGS-1
 DATE: 4/12/88
 COMPLETED BY: J.M. Colville
 TELEPHONE: 602-393-2679

| No. | Date | Type ¹ | Duration
Hours | Reason ² | Method of
Shutting
Down Reactor ³ | LER NO. | System
Code ⁴ | Component
Code ⁵ | Cause and Corrective
Action to
Prevent Recurrence |
|---------------------------|------|-------------------|-------------------|---------------------|--|---------|-----------------------------|--------------------------------|---|
| 10 (Cont'd,
from 1987) | | F | 222.7 | A | - | - | - | - | Unit shutdown to repair an
inoperable Control Element
Assembly. |
| 1 | 3/10 | S | 2.6 | B | N/A | N/A | N/A | N/A | Manually tripped Main Turbine
for Overspeed Testing. |
| 2 | 3/22 | F | N/A | B | 5 | N/A | N/A | N/A | Reactor power reduced to 80%
due to SG Chemistry being out
of specification as a result
of the polishers being out of
service for regeneration. |

¹ F-Forced
S-Scheduled

² Reason:
A-Equipment Failure (Explain)
B-Maintenance or Test
C-Refueling
D-Regulatory Restriction
E-Operator Training & License Examination
F-Administrative
G-Operational Error (Explain)
H-Other (Explain)

³ Method:
1-Manual
2-Manual Scram
3-Automatic Scram
4-Continuation from
Previous Month
5-Reduction of 20%
or Greater in the
Past 24 Hours
9-Other (Explain)

⁴ Exhibit F - Instructions
for Preparation of Data
Entry Sheets for Licensee
Event Report (LER) File
(NUREG 0161)

⁵ Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

| | |
|--------------|---------------|
| DOCKET NO. | 50-529 |
| UNIT NAME | PVNGS-2 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 2
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____
9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

| | This Month | Yr.-to-Date | Cumulative |
|---|-------------|-------------------|-------------------|
| 11. Hours in Reporting Period | <u>744</u> | <u>2184</u> | <u>13,440</u> |
| 12. Number of Hours Reactor Was Critical | <u>0</u> | <u>1202</u> | <u>10,477.1</u> |
| 13. Reactor Reserve Shutdown Hours | <u>0</u> | <u>0</u> | <u>0</u> |
| 14. Hours Generator On-Line | <u>0</u> | <u>1202</u> | <u>10,328.2</u> |
| 15. Unit Reserve Shutdown Hours | <u>0</u> | <u>0</u> | <u>0</u> |
| 16. Gross Thermal Energy Generated (MWH) | <u>0</u> | <u>4,508,600.</u> | <u>37,715,767</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>0</u> | <u>1,588,100.</u> | <u>13,249,370</u> |
| 18. Net Electrical Energy Generated (MWH) | <u>0</u> | <u>1,487,775.</u> | <u>12,424,657</u> |
| 19. Unit Service Factor | <u>0.0%</u> | <u>55.0%</u> | <u>76.8%</u> |
| 20. Unit Availability Factor | <u>0.0%</u> | <u>55.0%</u> | <u>76.8%</u> |
| 21. Unit Capacity Factor (Using MDC Net) | <u>0.0%</u> | <u>55.8%</u> | <u>75.7%</u> |
| 22. Unit Capacity Factor (Using DER Net) | <u>0.0%</u> | <u>53.6%</u> | <u>72.8%</u> |
| 23. Unit Forced Outage Rate | <u>0.0%</u> | <u>0.0%</u> | <u>5.9%</u> |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>Currently in Refueling Outage</u> | | | |
| 25. If Shutdown At End of Report Period, Estimated Date of Startup: <u>05/15/88</u> | | | |
| 26. Units in Test Status (Prior To Commercial Operation): | | | |

| | | |
|----------------------|--------------|----------------|
| | Forecast | Achieved |
| INITIAL CRITICALITY | <u>3/86</u> | <u>4/18/86</u> |
| INITIAL ELECTRICITY | <u>6/86</u> | <u>5/20/86</u> |
| COMMERCIAL OPERATION | <u>11/86</u> | <u>9/19/86</u> |

[Illegible handwritten signature]

1. The first of these is the fact that the
2. Government has been unable to secure
3. the necessary funds to carry out its
4. policy of non-interference in the
5. internal affairs of the country.
6. The second is the fact that the
7. Government has been unable to secure
8. the necessary funds to carry out its
9. policy of non-interference in the
10. internal affairs of the country.

100-443887-100

[illegible][illegible]

10-10-68

100-443887-100

[illegible]

100-443887-100

100-443887-100

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".

1. The first group of people who are not allowed to enter the country are those who are not citizens of the United States. This group includes people who are not citizens of the United States and who are not citizens of any other country. This group is not allowed to enter the country because they are not citizens of the United States.

[illegible]

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

CONFIDENTIAL

SECRET

CONFIDENTIAL

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 08-04-2004 BY 60322
UCBAW

AVERAGE DAILY UNIT POWER LEVEL

| | |
|--------------|---------------|
| DOCKET NO. | 50-529 |
| UNIT | PVNGS-2 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

MONTH: , March 1988

DAY AVERAGE DAILY POWER LEVEL

| | |
|----|---|
| 1 | 0 |
| 2 | 0 |
| 3 | 0 |
| 4 | 0 |
| 5 | 0 |
| 6 | 0 |
| 7 | 0 |
| 8 | 0 |
| 9 | 0 |
| 10 | 0 |
| 11 | 0 |
| 12 | 0 |
| 13 | 0 |
| 14 | 0 |
| 15 | 0 |
| 16 | 0 |

DAY AVERAGE DAILY POWER LEVEL

| | |
|----|---|
| 17 | 0 |
| 18 | 0 |
| 19 | 0 |
| 20 | 0 |
| 21 | 0 |
| 22 | 0 |
| 23 | 0 |
| 24 | 0 |
| 25 | 0 |
| 26 | 0 |
| 27 | 0 |
| 28 | 0 |
| 29 | 0 |
| 30 | 0 |
| 31 | 0 |

AVRAGE DA LY UNIT POWER LEVEL

ROOM NO. _____
 UNIT _____
 DATE _____
 ON PAPER BY _____
 TELEPHONE _____

MONTH: April 1988

DAY AVERAGE DAILY POWER LEVEL

DAY AVERAGE DAILY POWER LEVEL

17 _____
 18 _____
 19 _____
 20 _____
 21 _____
 22 _____
 23 _____
 24 _____
 25 _____
 26 _____
 27 _____
 28 _____
 29 _____
 30 _____
 31 _____

1 _____
 2 _____
 3 _____
 4 _____
 5 _____
 6 _____
 7 _____
 8 _____
 9 _____
 10 _____
 11 _____
 12 _____
 13 _____
 14 _____
 15 _____
 16 _____

REFUELING INFORMATION

| | |
|--------------|---------------|
| DOCKET NO. | 50-529 |
| UNIT | PVNGS-2 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

1. Scheduled date for next refueling shutdown.

09/23/89

2. Scheduled date for restart following refueling.

12/01/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

To be determined

4. Scheduled date for submitting proposed licensing action and supporting information.

To be determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

To be determined

RECEIVING INFORMATION

LOOKUP 707
UNIT
DATE
COUNTRY
REF ID: A

Information data for the following countries:

1. USA

2. Canada, Mexico, Central America, Caribbean

3. South America

4. Europe, Africa, Asia, Australia, New Zealand, Middle East, Pacific Islands, Antarctica

5. Other countries

6. Information for the following countries: (to be added)

7. Other countries

8. Information for the following countries: (to be added)

9. Other countries

REFUELING INFORMATION

| | |
|--------------|--------------|
| DOCKET NO. | 50-529 |
| UNIT | PVNGS-2 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M.Colville |
| TELEPHONE | 602-393-2679 |

(Continued)

6. The number of fuel assemblies.

a) In the core. 0

b) In the spent fuel storage pool. 241*

7. Licensed spent fuel storage capacity. 1329

Intended change in spent fuel storage capacity. None

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

2006 (18 Months reloads and full core discharge capability).

* Off-Load for Refueling Outage

1. The first part of the document is a list of the names of the persons who were present at the meeting. The names are listed in alphabetical order.

2. The second part of the document is a list of the topics that were discussed at the meeting.

3. The third part of the document is a list of the actions that were taken at the meeting.

4. The fourth part of the document is a list of the persons who were responsible for the actions.

5. The fifth part of the document is a list of the persons who were responsible for the actions.

6. The sixth part of the document is a list of the persons who were responsible for the actions.

7. The seventh part of the document is a list of the persons who were responsible for the actions.

8. The eighth part of the document is a list of the persons who were responsible for the actions.

9. The ninth part of the document is a list of the persons who were responsible for the actions.

10. The tenth part of the document is a list of the persons who were responsible for the actions.

11. The eleventh part of the document is a list of the persons who were responsible for the actions.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

| | |
|--------------|---------------|
| DOCKET NO. | 50-529 |
| UNIT | PVNGS-2 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

March 1988

| | | |
|-------|------|--|
| 03/01 | 0000 | Unit in Mode 5. |
| 03/04 | 1435 | Entered Mode 6. |
| 03/21 | 0040 | Completed Core Off Load - Exited Mode 6. |

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

100-100000-100000

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-529
 UNIT NAME: PVNGS-2
 DATE: 4/12/88
 COMPLETED BY: J.M. Colville
 TELEPHONE: 602-393-2679

| No. | Date | Type ¹ | Duration
Hours | Reason ² | Method of
Shutting
Down Reactor ³ | LER NO. | System
Code ⁴ | Component ⁵
Code | Cause and Corrective
Action to
Prevent Recurrence |
|------------|------|-------------------|-------------------|---------------------|--|---------|-----------------------------|--------------------------------|---|
| 2 (Cont'd) | | S | 744 | G | - | - | - | - | Unit shutdown due to
Refueling Outage. |

¹ F-Forced
S-Scheduled

² Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³ Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Continuation from
 Previous Month
 5-Reduction of 20%
 or Greater in the
 Past 24 Hours
 9-Other (Explain)

⁴ Exhibit F - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File
 (NUREG 0161)

⁵ Exhibit H-Same Source

NRC MONTHLY OPERATING REPORT

| | |
|--------------|---------------|
| DOCKET NO. | 50-530 |
| UNIT NAME | PVNGS-3 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

OPERATING STATUS

1. Unit Name: Palo Verde Nuclear Generating Station, Unit 3
2. Reporting Period: March 1988
3. Licensed Thermal Power (MWt): 3800
4. Nameplate Rating (Gross MWe): 1403
5. Design Electrical Rating (Net MWe): 1270
6. Maximum Dependable Capacity (Gross MWe): 1303
7. Maximum Dependable Capacity (Net MWe): 1221
8. If Changes Occur In Capacity Ratings (Items Number 3 Through 7) Since Last Report, Give Reasons: _____

9. Power Level to Which Restricted, If Any (Net MWe): NONE
10. Reasons For Restrictions, If Any: _____

| | This Month | Yr.-to-Date | Cumulative |
|--|-------------------|--------------------|-------------------|
| 11. Hours in Reporting Period | <u>744</u> | <u>2016</u> | <u>2016</u> |
| 12. Number of Hours Reactor Was Critical | <u>744</u> | <u>2016</u> | <u>2016</u> |
| 13. Reactor Reserve Shutdown Hours | <u>0</u> | <u>0</u> | <u>0</u> |
| 14. Hours Generator On-Line | <u>744</u> | <u>2016</u> | <u>2016</u> |
| 15. Unit Reserve Shutdown Hours | <u>0</u> | <u>0</u> | <u>0</u> |
| 16. Gross Thermal Energy Generated (MWH) | <u>2,811,696.</u> | <u>7,587,912.0</u> | <u>7,587,912.</u> |
| 17. Gross Electrical Energy Generated (MWH) | <u>995,400.</u> | <u>2,682,000.</u> | <u>2,682,000.</u> |
| 18. Net Electrical Energy Generated (MWH) | <u>941,026.</u> | <u>2,537,784.</u> | <u>2,537,784.</u> |
| 19. Unit Service Factor | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| 20. Unit Availability Factor | <u>100.0%</u> | <u>100.0%</u> | <u>100.0%</u> |
| 21. Unit Capacity Factor (Using MDC Net) | <u>103.6%</u> | <u>103.1%</u> | <u>103.1%</u> |
| 22. Unit Capacity Factor (Using DER Net) | <u>99.6%</u> | <u>99.1%</u> | <u>99.1%</u> |
| 23. Unit Forced Outage Rate | <u>0</u> | <u>0</u> | <u>0</u> |
| 24. Shutdowns Scheduled Over Next 6 Months (Type, Date, and Duration of Each): <u>None</u> | | | |
| 25. If Shutdown At End of Report Period, Estimated Date of Startup: _____ | | | |
| 26. Units in Test Status (Prior To Commercial Operation): _____ | | | |

| | | |
|----------------------|--------------|-----------------|
| | Forecast | Achieved |
| INITIAL CRITICALITY | <u>07/87</u> | <u>10/25/87</u> |
| INITIAL ELECTRICITY | <u>07/87</u> | <u>11/28/87</u> |
| COMMERCIAL OPERATION | <u>09/87</u> | <u>01/08/88</u> |

THE ADVICE OF THE
SACRAMENTAL
COUNCIL OF THE
CATHOLIC CHURCH

AVERAGE DAILY UNIT POWER LEVEL

| | |
|--------------|---------------|
| DOCKET NO. | 50-530 |
| UNIT | PVNGS-3 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

MONTH: March 1988

DAY AVERAGE DAILY POWER LEVEL

| | |
|----|-------|
| 1 | 1,270 |
| 2 | 1,266 |
| 3 | 1,262 |
| 4 | 1,266 |
| 5 | 1,249 |
| 6 | 1,249 |
| 7 | 1,266 |
| 8 | 1,266 |
| 9 | 1,266 |
| 10 | 1,270 |
| 11 | 1,270 |
| 12 | 1,266 |
| 13 | 1,270 |
| 14 | 1,266 |
| 15 | 1,266 |

DAY AVERAGE DAILY POWER LEVEL

| | |
|----|-------|
| 16 | 1,270 |
| 17 | 1,266 |
| 18 | 1,262 |
| 19 | 1,266 |
| 20 | 1,270 |
| 21 | 1,270 |
| 22 | 1,262 |
| 23 | 1,266 |
| 24 | 1,270 |
| 25 | 1,254 |
| 26 | 1,270 |
| 27 | 1,249 |
| 28 | 1,258 |
| 29 | 1,270 |
| 30 | 1,262 |
| 31 | 1,270 |

REFUELING INFORMATION

| | |
|--------------|---------------|
| DOCKET NO. | 50-530 |
| UNIT | PVNGS-3 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

1. Scheduled date for next refueling shutdown.

03/03/89

2. Scheduled date for restart following refueling.

05/27/89

3. Will refueling or resumption or operation thereafter require a Technical Specification change or other license amendment?

Not Yet Determined

What will these be?

Not Yet Determined

4. Scheduled date for submitting proposed licensing action and supporting information.

Not Yet Determined

5. Important Licensing considerations associated with refueling, e.g. new or different fuel design or supplier, unreviewed design or performance analysis methods, significant changes in fuel design, new operating procedures.

Not Yet Determined

6. The number of fuel assemblies.

a) In the core. 241

b) In the spent fuel storage pool. 0

7. Licensed spent fuel storage capacity. 1329

Intended change in spent fuel storage capacity. None

8. Projected date of last refueling that can be discharged to spent fuel storage pool assuming present capacity.

2007 (18 Months reloads and full core discharge capability).

1. The purpose of this document is to provide a comprehensive overview of the current state of the project and to identify the key areas for improvement.

2. The document is organized into several sections, each addressing a specific aspect of the project.

3. The first section discusses the overall goals and objectives of the project.

4. The second section provides a detailed analysis of the current progress and identifies the challenges that remain.

5. The third section outlines the proposed solutions and the actions that need to be taken.

6. The fourth section discusses the resources required for the implementation of the proposed solutions.

7. The fifth section provides a summary of the key findings and recommendations.

8. The sixth section discusses the next steps and the timeline for the project.

9. The seventh section provides a conclusion and a final summary of the document.

10. The eighth section discusses the importance of communication and collaboration in the success of the project.

11. The ninth section provides a list of references and sources used in the document.

12. The tenth section discusses the role of the project manager and the team in the success of the project.

13. The eleventh section provides a list of appendices and additional information.

14. The twelfth section discusses the importance of documentation and record-keeping.

15. The thirteenth section provides a list of glossary terms and definitions.

16. The fourteenth section discusses the importance of risk management and mitigation.

17. The fifteenth section provides a list of contact information and a disclaimer.

18. The sixteenth section discusses the importance of feedback and continuous improvement.

19. The seventeenth section provides a list of abbreviations and acronyms.

20. The eighteenth section discusses the importance of ethics and integrity in the project.

SUMMARY OF OPERATING EXPERIENCE FOR THE MONTH

| | |
|--------------|---------------|
| DOCKET NO. | 50-530 |
| UNIT | PVNGS-3 |
| DATE | 04/12/88 |
| COMPLETED BY | J.M. Colville |
| TELEPHONE | 602-393-2679 |

March 1988

| | | |
|-------|------|---|
| 03/01 | 0000 | Unit in Mode 1 - Reactor Power 100%. |
| 03/05 | 2002 | Power reduction for 43ST-3SF01, CEA Surveillance Testing.
Reactor power approximately 90%. |
| 03/31 | 2400 | Unit in Mode 1 - Reactor Power 100%. |

UNIT SHUTDOWNS AND POWER REDUCTIONS

DOCKET NO: 50-530
 UNIT NAME: PVNGS-3
 DATE: 4/12/88
 COMPLETED BY: J.M. Colville
 TELEPHONE: 602-393-2679

| No. | Date | Type ¹ | Duration
Hours | Reason ² | Method of
Shutting
Down Reactor ³ | LER NO. | System ⁴
Code | Component ⁵
Code | Cause and Corrective
Action to
Prevent Recurrence |
|-----|------|-------------------|-------------------|---------------------|--|---------|-----------------------------|--------------------------------|---|
|-----|------|-------------------|-------------------|---------------------|--|---------|-----------------------------|--------------------------------|---|

NO UNIT SHUTDOWNS OR POWER REDUCTIONS FOR MARCH

¹ F-Forced
S-Scheduled

² Reason:
 A-Equipment Failure (Explain)
 B-Maintenance or Test
 C-Refueling
 D-Regulatory Restriction
 E-Operator Training & License Examination
 F-Administrative
 G-Operational Error (Explain)
 H-Other (Explain)

³ Method:
 1-Manual
 2-Manual Scram
 3-Automatic Scram
 4-Continuation from
 Previous Month
 5-Reduction of 20%
 or Greater in the
 Past 24 Hours
 9-Other (Explain)

⁴ Exhibit F - Instructions
 for Preparation of Data
 Entry Sheets for Licensee
 Event Report (LER) File
 (NUREG 0161)

⁵ Exhibit II-Same Source



Arizona Nuclear Power Project

P.O. BOX 52034 • PHOENIX, ARIZONA 85072-2034

212-00157-JGH/TJB
April 15, 1988

Docket Nos. STN 50-528/529/530

U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Document Control Desk

Gentlemen:

Subject: Palo Verde Nuclear Generating Station (PVNGS)
Units 1, 2 and 3
March Monthly Operating Report
File: 88-024-404/88-056-026

Attached are the March Monthly Operating Reports prepared and submitted pursuant to Specification 6.9.1.6 of Appendix A (Technical Specifications) to the Palo Verde Nuclear Generating Station, Units 1, 2 and 3 Operating Licenses. By copy of this letter, we are also forwarding a copy of the Monthly Operating Reports to the Regional Administrator of the Region V Office.

If you have any questions, please contact Mr. T. J. Bloom, at (602) 371-4187.

Very truly yours,

J. G. Haynes
Vice President
Nuclear Production

JGH/TJB/ksr
Attachments

cc: E. E. Van Brunt, Jr. (all w/a)
J. B. Martin
E. A. Licitra
A. C. Gehr
J. A. Amenta
INPO Records Center

1224
11

bcc: J. D. Driscoll (6125) (all w/a)
R. M. Butler (6102)
O. J. Zeringue (6915)
J. M. Allen (6932)
G. W. Sowers (6102)
W. M. Simko (6077)
L. L. Henson (6078)
M. L. Clyde (6079)
R. E. Younger (6428)
R. J. Adney (6070)
R. E. Gouge (6486)
A. C. Rogers (7048)
W. E. Ide (6452)
T. D. Shriver (6148)
J. R. LoCicero (6225)
W. J. Jump (7346)
J. D. Wade (7434)
W. F. Quinn (7035)
R. A. Bernier (7048)
D. E. Hardy (1720)
P. L. Vogt (4161)
D. R. Canady (6345)
K. Porter (6077)
B. S. Ecklund (7035)
D. Wootten (7035)
E. C. Sterling (7034)
J. E. Allen (7106)
F. Buckingham (6132)
LCTS Coordinator (7048)

