

ALTERNATE SUPPLY FROM RESERVE STA. SERVICE TRANSFORMER 2A, 2R1-ET-1 (250002-1B-01)

STANDARD SUPPLY FROM DIESEL GENERATION 2-A (D.S. ET'S)

REV. NO.	DATE	DESCRIPTION
1	12/27/70	ISSUE FOR CONSTRUCTION
2	01/08/71	REVISIONS TO LOGIC DIAGRAMS
3	01/08/71	REVISIONS TO SINGLE LINE DIAGRAM
4	01/08/71	REVISIONS TO SYSTEM SCHEMATIC
5	01/08/71	REVISIONS TO SCHEMATIC

SWITCHGEAR MANUFACTURER: ITE IMPERIAL CORPORATION  
 CONTRACT NUMBER: 75RS-95793

- NOTES:
- ALL CIRCUIT BREAKERS ARE 1200 AMPS CONTINUOUS, 500 MVA INTERRUPTING, 7.2 KV, NORMAL, 80,000 AMPS MOMENTARY, 77,000 AMPS CLOSE AND LATCH.
  - THE SWITCHGEAR MAIN BUS RATING IS 1200 AMPS CONTINUOUS, 80,000 AMPS MOMENTARY, AT 7.2 KV NORMAL.
  - AUTOMATIC TRANSFER BETWEEN POWER SOURCES IS INITIATED BY BUS UNDERVOLTAGE (27U RELAYS) AND IS FROM NORMAL TO ALTERNATE OR STANDBY OR FROM ALTERNATE TO STANDBY. RELAYS 27V PREVENTS AUTOMATIC TRANSFER TO A DEAD ALTERNATE. SUPPLY AND RESIDUAL VOLTAGE RELAYS 27R PREVENT 5A AND 52R FROM CLOSING UNTIL BUS VOLTAGE IS LESS THAN 90% OF NOMINAL. RETURN TO NORMAL OR ALTERNATE IS MANUAL.
  - MANUAL TRANSFER BETWEEN NORMAL AND ALTERNATE SUPPLY AND STANDBY TO NORMAL OR ALTERNATE IS FASTEST BY OPERATING INITIATED BY A CLOSE COMMAND TO THE SELECTED BREAKER. THIS COMMAND WILL SIMULTANEOUSLY TRIP THE CLOSED BREAKER AND COMPLETE THE CLOSE CIRCUIT OF THE SELECTED BREAKER.
  - TRANSFER FROM THE STANDBY POWER SOURCE AND PARALLELING OF THE STANDBY WITH NORMAL OR ALTERNATE SUPPLIES IS DONE AT THE DIESEL GENERATOR CONTROL PANEL USING SYNCHRONIZING SWITCHES. ELECTRICAL INTERLOCKS IN THE SWITCHGEAR PREVENT PARALLELING THE NORMAL AND ALTERNATE POWER SOURCES.
  - 264 RELAY ASSOCIATED WITH THE 500R BUS, AND THE NCR, ALT, ENCR, OR STANDBY BUS IS PART OF A 6.9KV CLASS 1E AC BUS PWR DISTRIBUTION SYS WITH UNIT-ANALYSIS DESIGNATION, 264. THE DEVICE UNIT IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THE DWS WITH 264, EXCEPT AS NOTED. ALL OTHER 264 WITH THEIR ASSOCIATED DEVICES ARE PART OF THE WHICH THEY SUPPLY. THE UNIT IS FORMED BY PREFIXING THE DESIGNATIONS SHOWN ON THE DWS WITH THE UNIT AND 2'S DESIGNATION SHOWN IN THE REASON SYMBOL, EXCEPT AS NOTED. THE 264 PWR NO. UNIT DESIGNATIONS ARE FORMED AS FOLLOWS USING THE PWR NO. (X), AND THE TRAIL DESIGNATION (Y) OR SR: 264-EMV5-001-Y.
  - THIS EQUIPMENT IS CLASS 1E.
  - RELAYS SHALL BE TYPED AS SHOWN ON THIS DRAWING.
  - A TRIP SIGNAL WILL BE INITIATED ONLY WHEN THE NCR OR ALT BKR IS CLOSED.
  - A TRIP SIGNAL TO THE DSL GEN IS GENERATED ONLY WHEN THE DSL GEN IS CLOSED.

- SYMBOLS:
- ▲ THIS FUNCTION TO BE MONITORED BY ONE OR MORE ANNUNCIATION DEVICES
  - BREAKERS NORMALLY IN THE TRIPPED STATE WITH "SPRINGS" DISCHARGED AND CHARGING MOTORS SWITCHED OFF
  - INTERFACE FOR STATUS, ENVIRONMENTAL, AND ALARM MONITORING SYS (SEARS)
  - ▽ INTERFACE FOR REMOTE CONTROL
  - △ REMOTE METER CONNECTION
  - ◇ FLY INTERLOCK
  - XXX UNIT AND SYSTEM DESIGNATION

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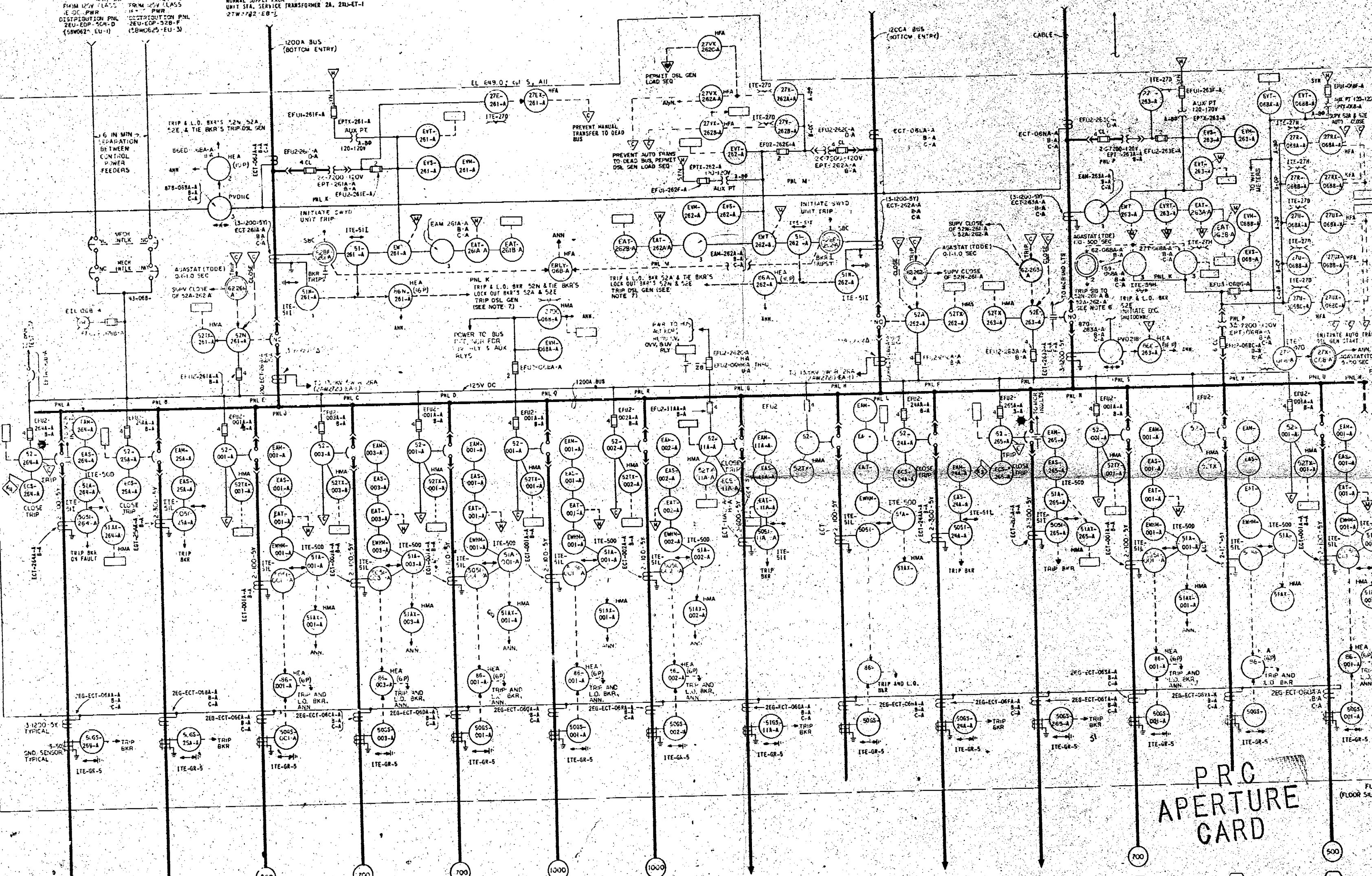
FUTURE (FLOOR SILLS ONLY)

AUXILIARY BUILDING UNIT 2  
 SINGLE LINE DIAGRAM  
 6900V SWITCHGEAR 2E1-A  
 2EG-EMV5-06-A

BELLEVILLE NUCLEAR PLANT  
 TENNESSEE VALLEY AUTHORITY  
 DIVISION OF ENGINEERING DESIGN

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45W718-1FSAR



PRC APERTURE GARD

1200A BUS (BOTTOM ENTRY)  
 2000A BUS (BOTTOM ENTRY)  
 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.

FSAR FIG. 8.3.1-8  
 INSPECTED AND APPROVED FOR ISSUE  
 DESIGN PROJECT MANAGER  
 Docket # 30-438  
 Control # 850-4050536  
 Date 3-25-83 of Document  
 REGISTRATION DOCKET FILE