

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|---|------------------------------------|-------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 1 | MAKEUP SOURCE TO DTS R/O UNIT FILTER | 11,722,395 22.30288 | 540 |
| 2 | DTS R/O UNIT FILTER TO R/O UNIT | 11,722,395 22.303 | 540 |
| 3 | R/O UNIT TO EDI UNIT | 8,249,093 15.6946 | 380 |
| 4 | EDI UNIT TO DWST | 7,814,930 14.8686 | 360 |
| 5 | R/O UNIT REJECT WATER TO WWS | 3,473,302 6.60826 | 160 |
| 6 | EDI UNIT REJECT WATER TO WWS | 434,163 0.82603 | 20 |
| 7 | R/O & EDI REJECT WATER TO WWS | 3,907,465 7.4343 | 180 |
| 8 | DWST SUPPLY TO DW HEADER & CST | 7,814,930 14.8686 | 360 |
| 9 | DWST SUPPLY TO CST | 2,886,630 5.492066 | 200 |
| 10 | DWST SUPPLY TO DW HEADER | 4,928,300 9.37652 | 150 |
| 11 | CST MAKEUP TO CONDENSER | 2,880,269 5.47996 | |
| 12 | SG BLOWDOWN FROM SGS TO BDS | 11,762,214 22.3786 | 280 |
| 13 | RECYLCED BLOWDOWN TO CONDENSER | 9,287,352 17.67 | 176.7 |
| 14 | SG BLOWDOWN TO WASTE WATER SYSTEM (INCLUDES DRAINING) | 2,474,862 4.70864 | 80 |
| 15 | RADIOACTIVE BLOWDOWN DISCHARGED TO WLS | 0 | 186 |
| 16 | WASTE WTR TO TURB BLDG DRN TRENCH SUMP | 2,443,165 4.64834 | |
| 17 | TURB BLDG DRN SUMP TO OIL/WTR SEPARATOR | 9,131,853 17.37415 | 200 |
| 18 | OIL/WTR SEPARATOR TO WASTE WATR DISPOSITION | 9,131,853 17.37415 | 200 |
| 19 | SEC. DRN & WST WTR TO WW RETENTION | 9,537,260 18.14547 | 200 |
| 20 | CST TO AUX STM & STARTUP FW PUMPS | 6,361 0.0121 | |
| 21 | CST SUPPLY TO AUX STM SYS (ASS) | 6,361 0.0121 | 285 |
| 22 | AUX STM BOILER BLOWDOWN / DRN TO WWS | 6,361 0.0121 | |
| 23 | CST TO STARUP FEED FOR DEF-IN-DEPTH | 0 | 760 |

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|--|------------------------------------|-------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 24 | SFW PUMP TO SG FOR DEF-IN-DEPTH | 0 | 760 |
| 25 | SECONDARY EQUIP DRAINS / LOSSES | 405,407 0.77132 | |
| 26 | STEAM GENERATOR TO MAIN STEAM | INTERNAL | |
| 27 | STEAM VENTED TO ATM - CONSUMPTION LOSS | 0 | 0 |
| 28 | MAIN STEAM TO T/G & TURBINE BYPASS | INTERNAL | |
| 29 | T/G FLOW | INTERNAL | |
| 30 | TURBINE BYPASS | INTERNAL | |
| 31 | T/G EXHAUST TO MAIN CONDENSER | INTERNAL | |
| 32 | RETURN RINSE TO CONDENSER FROM COND POLISH | INTERNAL | |
| 33 | RINSE FROM CDS TO CONDENSATE POLISHER | INTERNAL | |
| 34 | MAKEUP SOURCE TO PWST | 19,833,333 37.735 | 105 |
| 35 | POTABLE WATER SUPPLY FROM PWST | 19,833,333 37.735 | 105 |
| 36 | PW TO SINK, SHOWERS, TOILETS, FOUNTAINS | 19,760,333 37.596 | 105 |
| 37 | PW TO DECONTAMINATION ROOMS | 73,000 0.13889 | |
| 38 | PW DISCHARGE TO SDS & CONSUMPTION | 19,760,333 37.596 | 105 |
| 39 | PW CONSUMPTION / EVAPORATION | 0 | 0 |
| 40 | PW TO SANITARY DRAIN SYS | 19,760,333 37.596 | 105 |
| 41 | DECON ROOM SINKS / SHWRS TO CHEM WST TK | 73,000 0.13889 | |
| 42 | SDS DISCH TO SANITARY WASTE TREATMENT | 19,760,333 37.596 | 105 |
| 43 | MAKEUP SUPPLY TO FIRE WTR STORAGE TANK | 300,000 0.5708 | 650 |
| 44 | NON-RADIOACTIVE FIRE TESTING DRAINS TO WWS | 300,000 0.5708 | |
| 45 | FIRE WTR BACKUP SUPPLY TO SPENT FUEL PIT | INTERMITTENT | |
| 46 | FIRE WTR BACKUP SUPPLY TO PCS | INTERMITTENT | |

NOTES

* Where two values appear in the table, the top value is in annualized gallons and the bottom value is in average GPM. Where only one value appears, the value is in GPM.

Progress Energy Carolinas
Shearon Harris Nuclear Power Plant
Units 2 and 3
Part 3, Environmental Report
New Hill, North Carolina

AP1000 Water Balance Volumes
and Flow Rates
FIGURE 3.3-1 (Sheet 1 of 3)

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|--|------------------------------------|----------------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 47 | RADIOACTIVE FIRE TESTING DRAINS TO WRS | INTERMITTENT | |
| 48 | MAKEUP TO SERVICE WTR COOL TWR BASIN | 169,246,720 322.01 | 800 |
| 49 | SW CIRULATING WATER FLOW | INTERNAL | |
| 50 | NET CIRC WATER FLOW | INTERNAL | |
| 51 | SERVICE WATER BLOWDOWN TO DISPOSITION | 83,224,320 158.34 | 250 |
| 52 | SW COOL TWR EVAPORATION | 85,198,080 162.096 | 650 |
| 53 | SW COOL TWR DRIFT - CONSUMPTION LOSS | 529,920 1.1008 | 2 |
| 54 | MAKEUP TO CIRC WATER COOL TOWER BASIN | 12,066,987,600 22,958.5 | 12,066,987,600 22,958.5 |
| 55 | CWS CIRC WTR FLOW RATE | INTERNAL | |
| 56 | CWS CIRC WATER BLOWDOWN TO DISPOSITION | 6,000,249,600 11,416 | 6,000,249,600 11,416 |
| 57 | NET CWS CIRC WATER FLOWRATE | INTERNAL | |
| 58 | CWS COOL TWR EVAPORATION - CONSUMPTION | 6,049,656,000 11,510 | 6,049,656,000 11,510 |
| 59 | CWS COOL TWR DRIFT - CONSUMPTION | 16,819,200 32 | 16,819,200 32 |
| 60 | CIRC WATER DISCH TO TCS HEAT EAXCHANGERS | 9,565,920,000 18,200 | 18,200 |
| 61 | FROM TCS HEAT EXCH. TO CONDENSER OUTLET | 9,565,920,00 18,200 | 18,200 |
| 62 | CONDENSATE FLOW | INTERNAL | |
| 63 | FEEDWATER FLOW | INTERNAL | |
| 64 | DW SUPPLY TO COMP COOL SURGE TK | 4,000 0.00761 | 150 |
| 65 | COMP COOL SYS DRAINS TO WASTE WATER | 4,000 0.00761 | |
| 66 | DW TO CFS FOR BATCHING ASS CHEMICALS | 240 0.0004566 | |
| 67 | CHEM FEED SYS DRAINS TO WASTE WATER | 240 0.0004566 | |
| 68 | DW TO FILL CMS VAC BRK WATER SEALS | 18,250 0.03472 | 5 |
| 69 | CMS VAC BRKR WTR SEAL OV'FLOW TO WW | 18,250 0.03472 | 5 |

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|---|------------------------------------|-------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 70 | DW TO FILL / MAKEUP PCCWST / PCCAWST | 31,867 0.06063 | |
| 71 | PCS TESTING & DRAINS TO WASTE WATER | 0 | |
| 72 | DW FOR TCS SURGE TANK FILL / MAKEUP | 800 0.001522 | 75 |
| 73 | TURB IS CLOSED COOLING DRNS TO WASTE WATER | 800 0.001522 | |
| 74 | DW FOR VWS (CHILLER) FILL / MAKEUP | 1020 0.0019406 | |
| 75 | CHILLED WATER DRAINS TO WASTE WATER | 1020 0.0019406 | |
| 76 | DW FOR VYS (HOT WTR) SURGE TK FILL / MAKEUP | 855 0.001627 | 25 |
| 77 | HOT WTR HEATING DRAINS ECT. TO WASTE WATER | 855 0.001627 | |
| 78 | DW FOR CONDENSATE POLISHER FLUSH ECT. | 2,418,000 4.6005 | 310 |
| 79 | CONDENSATE POLISHER DRAINS TO WASTE WATER | 2,418,000 4.6005 | 310 |
| 80 | DW TO PSS EDUCTOR WATER STORAGE TANK | 133,225 0.25347 | 10 |
| 81 | PSS EFFLUENT TO LIQUID RADWASTE SYSTEM | 133,225 0.25347 | 10 |
| 82 | DW TO FLUSH RMS RADIATION MONITORS | 1,051,200 2.0 | 2 |
| 83 | RMS EFFLUENT TO LIQUID REDWASTE SYSTEM | 1,051,200 2.0 | 2 |
| 84 | DW TO WASHDOWN RNS PUMP CUBICLE | 400 0.000761 | 10 |
| 85 | RNS PUMP WASHDOWN TO LIQUID RADWASTE | 400 0.000761 | 10 |
| 86 | DW MAKEUP FOR SPENT FUEL PIT | 42,692 0.081225 | 100 |
| 87 | SFS EFFLUENT TO LIQUID RADWASTE SYSTEM | 33,925 0.064545 | 20 |
| 88 | SP FUEL RESIN SLUICE TO SOLID RADWASTE | 4,800 0.0091324 | 75 |
| 89 | SP FUEL PIT EVAPORATION - CONSUMPTION | 3,967 0.007548 | |
| 90 | DW FOR HVAC HUMIDIFICATION | 474,100 0.90202 | 2.5 |
| 91 | RADIOACTIVE HVAC CONDENSATION TO DRAINS | 182,500 0.34722 | 0.3472 |
| 92 | HUMIDIFICATION - CONSUMPTION LOSS TO ATM. | 291,600 0.5548 | 291,600 0.5548 |

NOTES

* Where two values appear in the table, the top value is in annualized gallons and the bottom value is in average GPM. Where only one value appears, the value is in GPM.

Progress Energy Carolinas
Shearon Harris Nuclear Power Plant
Units 2 and 3
Part 3, Environmental Report
New Hill, North Carolina

AP1000 Water Balance Volumes
and Flow Rates
FIGURE 3.3-1 (Sheet 2 of 3)

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|---|------------------------------------|-------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 93 | DW FOR CVS OPERATIONS | 230,432 0.4384 | 135 |
| 94 | CVS EFFLUENTS TO LIQUID RADWASTE WLS | 225,921 0.42983 | 100 |
| 95 | CVS EFFLUENTS TO RADIOACTIVE DRAINS WRS | INTERMITTENT | |
| 96 | CVS RESIN SLUICE TO SOLID RADWASTE WSS | 4,511 0.00858 | |
| 97 | CHARING / LETDOWN BETWEEN RCS & CVS | INTERNAL | |
| 98 | REACTOR COOL DRN TK TO CVS LETDOWN PATH | INTERNAL | |
| 99 | RCS EFFLUENT TO REACTOR COOL DRN TK WLS | INTERNAL | |
| 100 | COMBINED LIQ RADWASTE STREAM TO WL HUT | 1,499,084 2.85214 | 75 |
| 101 | COMBINRD RADIOACT DRN TO AUX BLDG SUMP | 182,500 0.3472 | |
| 102 | COMBINED SOLID RADWASTE TO SRST (WSS) | 9,311 0.017715 | |
| 103 | AUX BLDG RCA SUMP TO WLS HUT | 443,475 0.84375 | |
| 104 | WLS DISCHARGE TO WASTE WATER , ECT. | 2,156,971 4.1038 | 75 |
| 105 | WLS RESIN SLURRY TO SOLID RADWASTE WSS | 1,795 0.003415 | 70 |
| 106 | EXCESS WATER SOLID RADWASTE TO WLS | 12,706 0.024174 | |
| 107 | OFFSITE RESIN DISPOSAL | 0 | 0 |
| 108 | OFFSITE CHEMICAL DISPOSAL | 73,730 0.14028 | 75 |
| 109 | DW TO USERS DISCHARGING TO WASTE WATER | 2,475,032 4.70896 | |
| 110 | DW TO USERS ALIGNED TO WLS, WSS, WRS | 2,453,268 4.667557 | |
| 111 | DW TO USERS ALIGNED TO WLS, WSS, WRS | 1,987,192 3.7808 | |
| 112 | NOT USED | | |
| 113 | DW TO SRST | 1,600 0.003044 | 120 |
| 114 | DW TO WLS HUT | 203,501 0.38718 | 70 |
| 115 | R/O UNIT FILTER DRAIN | INTERMITTENT | |

| WATER BALANCE VOLUMES AND FLOW RATES BY PATH | | | |
|--|---|------------------------------------|-------------------|
| FLOW PATH NO. | PATH DESCRIPTION | FLOWRATES | |
| | | ANNUALIZED CYCLE AVERAGE GPY* GPM* | MAXIMUM GPY* GPM* |
| 116 | OIL / WATER SEPARATOR DRAIN TO WASTE WATER DISPOSITION | 9,131,853 17.37415 | 200 |
| 117 | AUX BLDG SUMP TO TURB BLDG SUMP | INTERMITTENT | |
| 118 | ANNEX BLDG SUMP TO TURB BLDG SUMP | INTERMITTENT | |
| 119 | DIESEL GEN BLDG SUMP TO TURB BLDG SUMP | INTERMITTENT | |
| 120 | BYPASS AROUND OIL / WATER SEPARATOR | 0 | 0 |
| 121 | DIESEL FUEL SUMP TO OIL / WATER SEPARATOR | INTERMITTENT | |
| 122 | TURB BLDG & DIESEL FUEL SUMPS TO OIL / WATER SEPARATOR | 9,131,853 17.37415 | 200 |
| 123 | TURB BLDG & DIESEL FUEL SUMPS TO OIL / WATER SEPARATOR & BYPASS | 9,131,853 17.37415 | 200 |
| 124 | WASTE WATER RETENTION BASIN TO ONSITE DISPOS. | 9,831,660 18.70559 | 400 |
| 125 | OIL WATER SEPARATOR TO OIL STORAGE / DISPOSAL | INTERMITTENT | |
| 126 | RAD CHEM LAB TO CHEM WASTE TANK | 730 0.0013889 | |
| 127 | SERVICE WATER STRAINER BACKWASH TO WASTE WATER RETENTION BASIN | 294,400 0.56012 | 800 |
| 128 | PCS EVAPORATIVE LOSSES | 15,934 0.0303 | |
| 129 | PCS LOSSES TO STORM DRAINS | 15,933 0.0303 | |
| 130 | EQUIP/AREA DECON DRAINS TO WLS | 14,600 0.02778 | 100 |
| 131 | EQUIP/FLOOR DRAINS WASHDOWN | 246,375 0.46875 | 100 |
| 132 | DW MAKEUP TO PXS | 54,413 0.10353 | 40 |
| 133 | PXS DRAINS TO WLS | 54,413 0.10353 | |
| 134 | DW MAKEUP TO WLS & WSS | 205,101 0.39022 | |
| 135 | DW TO WLS, WSS, EQUIP & DRAIN WASHDOWN | 451,476 0.85897 | |
| 136 | DW TO WLS, WSS, EQUIP & AREA DECON & FLOOR DRAIN WASHDOWN | 466,076 0.88675 | |
| 137 | COMBINED SGBD & AUX BOILER BD / DRAIN | 2,481,223 4.72074 | |
| 138 | CIRCULATING WATER SYSTEM LEAKAGE | 262,800 0.5 | |

NOTES

* Where two values appear in the table, the top value is in annualized gallons and the bottom value is in average GPM. Where only one value appears, the value is in GPM.

Progress Energy Carolinas
**Shearon Harris Nuclear Power Plant
Units 2 and 3
Part 3, Environmental Report
New Hill, North Carolina**

AP1000 Water Balance Volumes
and Flow Rates
FIGURE 3.3-1 (Sheet 3 of 3)