## FEASIBILITY STUDY ON SIHANOUKVILLE CCGT PROJECT

Table 2.3-4 (1) GROUND WATER LEVEL MEASUREMENT FROM OBSERVATION WELL

| DATE | GROUNDWATER LEVEL OF OBSERVATTON (MSL) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 8H-1 | $\mathrm{BH}-2$ | BH-3 | BH-4 | BH-5 | BH-6 | BH-7 | BH-8 | BH-9 |
| Top Pipe Level | 6.844 | 10.298 | 6.165 | 4.815 | 3.500 |  | 11.674 |  | 8.448 |
| Ground Level | 6.184 | 9.707 | 5.357 | 3.975 | 3.013 |  | 11.007 |  | 8.123 |
|  |  |  |  |  |  |  |  |  |  |
| 21/09/00 |  |  |  |  |  |  |  |  |  |
| 22/09/00 |  |  |  |  |  |  | 9.584 (DR) |  |  |
| 23/09/00 |  |  |  |  |  |  | $9.584(D R)$ |  |  |
| 24,09/00 |  |  |  |  |  |  | 10.034 (DR) |  |  |
| 25/09/00 |  |  |  |  |  |  | 8.834 (DR) |  |  |
| 26/09/00 |  |  |  |  |  |  | $8.864(D R)$ |  |  |
| 27/09/00 |  |  |  |  |  |  | 8.884 (DR) |  |  |
| 28/09/00 |  |  |  |  |  |  |  |  |  |
| 29/09/00 |  |  |  |  |  |  |  |  |  |
| 30109/00 |  | 9.707 (DR) |  |  |  |  |  |  |  |
| 01/1000 |  | $9.707(D R)$ |  |  |  |  |  |  |  |
| 02/10,00 |  | 9.707 (DR) |  |  |  |  |  |  |  |
| 03/1000 |  |  |  |  |  |  |  |  |  |
| 04/1000 |  |  |  |  |  |  |  |  | 7.008 (DR) |
| 05/1000 |  |  |  |  |  |  |  |  | 7.008 (DR) |
| 06/1000 |  |  |  |  |  |  |  |  | 7.008 (DR) |
| 07//000 |  |  |  |  |  |  |  |  |  |
| 08/1000 |  |  |  |  |  |  |  |  |  |
| 09/10/00 |  |  |  |  | 1.560 (DR) |  |  |  |  |
| 10/1000 |  |  |  |  | 1.510 (DR) |  |  |  |  |
| 11/1000 |  |  |  |  | 1.460 (DR) |  |  |  |  |
| 12/1000 |  |  |  |  | 0.960 (DR) |  |  |  |  |
| 13/1000 |  |  |  |  | 1.110 (DR) |  |  |  |  |
| 14/1000 |  |  |  |  |  |  |  |  |  |
| 15/1000 |  |  |  |  |  |  |  |  |  |
| 16/1000 |  |  | 5.357 (DR) |  |  |  |  |  |  |
| 17/1000 |  |  | $5.357(D R)$ |  |  |  |  |  |  |
| 18/1000 |  |  | $5.357(D R)$ |  |  |  |  |  |  |
| 19/1000 | 5.484 | 9.668 | 5.357 (DR) |  | 1.710 |  | 8.584 |  | 7.258 |
| $20 / 1000$ | 5.564 | 9.668 | $5.357(D R)$ |  | 1.810 |  | 8.574 |  | 7.308 |
| 21/10000 | 5.604 | 9.648 | 5.357 (DR) |  | 1.870 |  | 8.564 |  | 7.328 |
| 22/1000 | 5.634 | 9.628 | 4.985 | 1.655 | 1.450 |  | 8.554 |  | 7.368 |
| 23/1000 | 5.594 | 9.498 | 4.865 | 2.053 | 1.430 |  | 8.474 |  | 7.418 |
| 24/1000 | 5.584 | 9.548 | 5.005 | 1.955 | 1.450 |  | 8.374 |  | 7.428 |
| 25/1000 | 5.674 | 9.528 | 5.095 | 2.355 | 1.450 |  | 8.294 |  | 7.418 |
| 26/10000 | 5.764 | 9.518 | 4.975 | 1.465 | 1.440 |  | 8.294 |  | 7,338 |

## FEASIBILITY STUDY ON SIHANOUKVILLE CCGT PROJECT

Table 2.3-4 (2) GROUND WATER LEVEL MEASUREMENT FROM OBSERVATION WELL

|  | GROUNDWATER LEVEL OF OBSERVATION (MSL) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TE | BH-1 | BH-2 | BH-3 | BH-4 | BH-5 | BH-6 | BH-7 | BH-8 | BH:9 |
| 27/1000 | 5.584 | 9.488 | 4.895 | 1.075 | 1.430 |  | 8.264 |  | 7.298 |
| 28/1000 | 3.614 | 9.498 | 4.935 | 1.045 | 1.430 |  | 8.194 |  | 7.308 |
| 29/1000 | 5.644 | 9.508 | 4.985 | 1.015 | 1.440 |  | 8.124 |  | 7.308 |
| $30 / 1000$ | 5.634 | 9.508 | 4.995 | 1.055 | 1.450 |  | 8.054 |  | 7.348 |
| $31 / 1000$ | 5.624 | 9.518 | 5.025 | 1.165 | 1.480 |  | 8.064 |  | 7.358 |
| $01 / 1 / 1 / 00$ | 5.654 | 9.458 | 4.975 | 1.115 | 1.450 |  | 8.004 |  | 7.298 |
| 02/1//00 | 5.634 | 9.418 | 4.925 | 1.385 | 1.450 |  | 8.014 |  | 7.278 |
| $03 / 1 / 1 / 00$ | 5.624 | 9.368 | 4.775 | 1.635 | 1.440 |  | 8.024 |  | 7.248 |
| $04 / 11 / 00$ | 5.614 | 9.338 | 4.715 | 1.385 | 1.420 |  | 7.964 |  | 7.238 |
| 05/11/00 | 5.604 | 9.298 | 4.645 | 1.105 | 1.400 |  | 7.904 |  | 7.228 |
| $06 / 11 / 00$ | 5.594 | 9.228 | 4.635 | 1.065 | 1.400 |  | 7.874 |  | 7.178 |
| $07 / 11 / 00$ | 5.374 | 9.158 | 4.615 | 1.005 | 1.350 |  | 7.834 |  | 7.238 |
| 14/11/00 | 5,434 | 8808 | 4.665 | 1.015 | 1.300 |  | 7.494 |  | 7.138 |
| 21/11/00 | 5.294 | 8.298 | 4.485 | 0.955 | 1.290 |  | 7.254 |  | 7.028 |
| $28 / 11 / 00$ | 5.224 | 7.968 | 4.465 | 0.945 | 1.280 |  | 6.884 |  | 6.898 |
| 05/12/00 | 5.084 | 7.718 | 4.415 | 0.925 | 1.280 |  | 6.774 |  | 6.788 |
| 12/12/00 | 5.394 | 7.878 | 4.720 | 1.480 | 1.620 |  | 6.964 |  | 6.998 |
| 19/12/00 | 5,124 | 7.678 | 4.665 | 1.485 | 1.600 |  | 6.844 |  | 6.848 |
| 26/12/00 | 5.004 | 7.458 | 4.691 | 1.455 | 1.607 |  | 6.654 |  | 6.488 |
| 02/01/01 | 4.214 | 6.878 | 4.515 | 1.295 | 1.220 |  | 6.134 |  | 6.198 |
| 09/01/01 | 4.184 | 6.738 | 4.335 | 0.995 | 1.080 |  | 6.014 |  | 6.048 |
| 16/01/01 | 4.344 | 6.848 | 4.480 | 0.845 | 1.300 |  | 5.949 |  | 5.108 |
| 23/01/01 | 3.924 | 6.418 | 4.335 | 0.835 | 1.280 |  | 5.824 |  | 4.758 |
| 31/01/01 | 3.944 | 6.498 | 4.245 | 0.915 | 1.250 |  | 5.764 |  | 4.868 |
| 06/02/01 | 3.934 | 6.458 | 4.225 | 0.875 | 1.250 |  | 5.724 |  | 5.208 |
| $13 / 02101$ | 3.914 | 6.418 | 4.215 | 0.925 | 1.240 |  | 5.694 |  | 5.448 |
| 20/02/01 | 3.904 | 6.388 | 4.185 | 0.985 | 1.240 |  | 5.574 |  | 5.698 |
| 28/02/01 | 3.724 | 6.278 | 4.005 | 0.905 | 1.230 |  | 5.454 |  | 5.608 |
|  |  |  |  |  |  |  |  |  |  |

Remarks : $\quad(D R)=$ Mearurement during drilling time.
Table 2.3-5 Detailed Survey Result of Hun Sen Spillway Dam Crest Elevation

| NEW SUVEY DATA OF HUN SEN WEIR CREST ELEVATION |  |  |
| :---: | :---: | :---: |
| DIST.(M) | SURVEY ELEV. (M.MSL) | REARANGE ELEV.(M.MSL) |
| 0.000 | 1.278 | 1.267 |
| 5.000 | 1.267 | 1.273 |
| 10.000 | 1.273 | 1.278 |
| 15.000 | 1.294 | 1.294 |
| 20.000 | 1.302 | 1.299 |
| 25.000 | 1.311 | 1.302 |
| 30.000 | 1.313 | 1.309 |
| 35.000 | 1.312 | 1.311 |
| 40.000 | 1.299 | 1.311 |
| 45.000 | 1.309 | 1.312 |
| 50.000 | 1.311 | 1.313 |
| 55.000 | 1.343 | 1.343 |
| 60.000 | 1.347 | 1.347 |
| 65.000 | 1.351 | 1.347 |
| 70.000 | 1.347 | 1.351 |
| 75.000 | 1.371 | 1.371 |
| 75.320 | 1.371 | 1.371 |

Table 2.3-6 CALCULATED DISCHARGE AT HUN SEN WEIR USING ANOTHER FORMULAE

| RIVER : |  |  |  |  |  |  |  |  |  |  |  | STATION : ZERO GAUGE |  | HUNSEN WEI 1.009 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CODE : |  |  |  |  |  |  |  |  |  |  |  | ZERO GAUGE |  | 1.009 | M.MSL. |
| MONTH : |  | SEP. - 31 JA |  |  |  |  |  |  |  |  |  | IR CREST ELE |  | $\cdots$ | M.MSL. |
| YEAR : |  | 2000-2001 |  |  |  |  |  |  |  |  |  | WEIR LENGTH |  | 75.32 |  |
|  |  | W= ( | REST | V.-0.6 | M. |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  | Q CAL | ATE $=$ | [(1.24- | -DEL | W)*DEL | *(WatE | LEVEL-CREST | EV) ${ }^{1.5]}$ |  |  |  |
|  | DEL 1 | (M.) $=$ | 3.000 | 3.000 | 3.000 | 3.000 | 3.000 | 6.320 | 3.000 | 51.000 | SUM_DEL_L = | 75.320 | M. |  |  |
|  | RESTELEV | (M.MSL) | 1.265 | 1.268 | 1.270 | 1.272 | 1.275 | 1.290 | 1.315 | 1.320 |  |  |  |  |  |
| DATE | WATER L | EVEL (M) |  | $1.24+1$ | DELH | DEL | ATER | EL-CR | ELEV |  |  | QMEASURE | Q Calculate | \%ERROR |  |
|  | (M.AD.) | (M.MSL) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |  | Qm (CMS.) | Qc (CMS.) | ABSOLUTE |  |
| Sep-30 | 0.380 | 1.389 | 0.206 | 0.197 | 0.191 | 0.186 | 0.178 | 0.294 | 0.086 | 1.302 |  | 2830 | 2.640 | 6.704 |  |
| Oct-01 | 0.380 | 1.389 | 0.206 | 0.197 | 0.191 | 0.186 | 0.178 | 0.294 | 0.086 | 1.302 |  | 2.657 | 2.640 | 0.629 |  |
| Oct-02 | 0.395 | 1.404 | 0.250 | 0.241 | 0.235 | 0.228 | 0.219 | 0.373 | 0.116 | 1.795 |  | 3.339 | 3.458 | 3.554 |  |
| Oct-14 | 0.510 | 1.519 | 0.736 | 0.719 | 0.708 | 0.696 | 0.680 | 1.265 | 0.482 | 7.819 |  | 11.162 | 13.106 | 17.415 |  |
| Oct-15 | 0.557 | 1.566 | 1.012 | 0.991 | 0.977 | 0.964 | 0.944 | 1.784 | 0.701 | 11.463 |  | 16.257 | 18.836 | 15.867 |  |
| Oct-15 | 0.527 | 1.536 | 0.831 | 0.812 | 0.800 | 0.788 | 0.770 | 1.442 | 0.556 | 9.055 |  | 13.241 | 15.055 | 13.697 |  |
| Oct-16 | 0.501 | 1.510 | 0.689 | 0.672 | 0.661 | 0.651 | 0.635 | 1.176 | 0.445 | 7.202 |  | 10.931 | 12.130 | 10.970 |  |
| Oet-17 | 0.462 | 1.471 | 0.502 | 0.488 | 0.479 | 0.470 | 0.457 | 0.829 | 0.300 | 4.817 |  | 8.580 | 8.342 | 2.776 |  |
| Oct-18 | 0.443 | 1.452 | 0.422 | 0.409 | 0.401 | 0.393 | 0.381 | 0.682 | 0.240 | 3.823 |  | 7.254 | 6.751 | 6.937 |  |
| Oct-18 | 0.441 | 1.450 | 0.414 | 0.401 | 0.393 | 0.385 | 0373 | 0.667 | 0.234 | 3.725 |  | 6.956 | 6.593 | 5.220 |  |
|  |  |  |  |  |  |  |  |  |  |  |  | ERAGE ERROR |  | 8.377 |  |
| Nov-29 | 0.330 | 1.339 | 0.087 | 0.081 | 0.077 | 0.074 | 0.068 | 0.094 | 0.014 | 0.172 |  | 0.853 | 0.667 | 21.776 |  |
| Nov-30 | 0.326 | 1.335 | 0.079 | 0.074 | 0.070 | 0.067 | 0.062 | 0.082 | 0.011 | 0.120 |  | 0.751 | 0.564 | 24.917 |  |
| Dec-25 | 0.304 | 1.313 | 0.043 | 0.039 | 0.036 | 0.034 | 0.030 | 0.029 | 0.000 | 0.000 |  | 0.169 | 0.210 | 24.429 |  |
| Dec-25 | 0.304 | 1.313 | 0.043 | 0.039 | 0.036 | 0.034 | 0.030 | 0.029 | 0.000 | 0.000 |  | 0.181 | 0.210 | 16.179 |  |
| Jan-30 | 0.293 | 1.302 | 0.029 | 0.025 | 0.023 | 0.021 | 0.017 | 0.011 | 0.000 | 0.000 |  | 0.005 | 0.125 | 2398.320 |  |
|  |  | REM | RK: ${ }^{\text {T }}$ | AST | data | USED | VER | ATION | THE F | mulae |  | Rall Avg ER |  | 171.293 |  |

PROJECT : SIHANOUKVILLE CCGT
Table 2.3-7 (I) CALCULATED DISCHARGE

## SEPTEMBER 2000

LOCATION : HUN SEN SPILLWA Y DAM
WEIR CREST EL.EVATION $=1.305$ M. (M.S.L.)
MEAN SEA LEVEL HA TIEN DATUM (VIETNAM)
Established on 15th Sept. 2000

| DATE | DISCHARGE AT TIME (CMS) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9:00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TIME |
| 16/09/00 | 4.020 | 5.233 | 5.879 | 8.699 | 10.241 | 1 |  | 9:40-12:00 |
| 17/09/00 | 5.879 | 5.233 | 4.613 | 4.313 | 4.313 |  |  |  |
| 18/09/00 | 4.313 | 4.313 | 4.313 | 4.020 | 4.020 |  |  |  |
| 19/09/00 | 4.313 | 4.254 | 4.136 | 4.078 | 4.078 | 1 |  | 5:00-6:00 |
| 20109/00 | 4.920 | 4.920 | 4.613 | 4.613 | 4.613 |  |  |  |
| 21/09/00 | 4.613 | 4.613 | 4.613 | 4.613 | 4.920 | 1 |  | 15:00-18:00 |
| 22/09/00 | 4.020 | 3.733 | 3.454 | 3.182 | 2.918 | 1 |  | 21:00-01:00 |
| 23/09/00 | 7.172 | 6.893 | 6.686 | 6.413 | 6.211 | 1 |  |  |
| 24/09/00 | 5.424 | 4.858 | 5.044 | 4.858 | 4.613 | 1 |  | $\begin{aligned} & 12: 00-14: 00 \\ & 21: 00-24: 00 \end{aligned}$ |
|  | 0.000 |  |  |  |  |  |  |  |
| 25/09/00 | 6.011 | 5.748 | 5.748 | 5.360 | 5.360 |  |  |  |
| 26/09/00 | 4.920 | 4.492 | 4.020 | 3.454 | 2.918 |  |  |  |
| 27/09/00 | 2.918 | 3.182 | 3.454 | 3.733 | $4.3 / 3$ | 1 |  | 11:00-16:10 |
| 28/09/00 | 6.211 | 5.879 | 5.553 | 4.920 | 4.613 |  |  |  |
| 29/09/00 | 4.492 | 4.372 | 4.313 | 4.020 | 3.733 |  |  |  |
| 30/09/00 | 3.454 | 3.182 | 3.182 | 2.918 | 2.918 |  |  |  |

## PROJECT : SIHANOUKVILLE CCGT

## Table 2.3-7 (2) CALCULATED DISCHARGE <br> OCTOBER 2000

LOCATION : HUN SEN SPILLWAY DAM
WEIR CREST ELEVATION $=1.305$ M. (M.S.L. $)$ MEAN SEA LEVEL HA TIEN DATUM (VIETNAM)

Established on 15th Sept. 2000

| DATE | DISCHARGE AT TIME (CMS) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9:00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TIME |
| 01/10/00 | 2.918 | 2.814 | 3.182 | 3.399 | 3.904 | / |  | 11:00-14:00 |
| 02/10/00 | 3.733 | 3.399 | 3.399 | 3.454 | 3.904 | / |  | 14:00-16:00 |
| 03/10/00 | 3.847 | 3.454 | 3.733 | 2.918 | 4.313 | 1 |  | 16:00-19:00 |
| 04/10/00 | 4.136 | 4.020 | 3.904 | 3.733 | 3.454 |  |  |  |
| 05/10/00 | 3.621 | 3.344 | 3.182 | 3.904 | 4.313 | 1 |  | 9:00-16:00 |
| 06/10/00 | 6.011 | 5.748 | 5.553 | 4.920 | 4.492 |  |  |  |
| 07/10/00 | 5.233 | 4.920 | 4.920 | 4.613 | 4.613 |  |  |  |
| 08/10/00 | 4.552 | 4.432 | 4.313 | 4.313 | 4.313 |  |  |  |
| 09/10/00 | 4.313 | 4.020 | 10.881 | 13.134 | 14.268 | 1 |  | 11:00-15:00 |
| 10/10/00 | 17.378 | 18.139 | 17.947 | 16.257 | 15.797 | 1 |  | 6:00-9:00 |
| 1//10/00 | 11.699 | 11.865 | 12.536 | 12.706 | 13.134 | / |  | 5:00-7:00 |
| 12/10/00 | 12.536 | 13.134 | 13.392 | 11.699 | I1.205 | 1 |  | 6:00-9:00 |
| 13/10/00 | 12.283 | 13.134 | 13.740 | 14.445 | 13.566 | / |  | 8:00-12:00 |
| 14/10/00 | 12.536 | 12.283 | 11.781 | 11.451 | 11.205 | / |  | 15:00-24:00 |
| 15/10/00 | 17.001 | 16.257 | 15.342 | 14.445 | 13.566 |  |  |  |
| 16/10/00 | 12.706 | 11.865 | 11.043 | 10.639 | 10.241 |  |  |  |
| 17/10/00 | 8.699 | 8.326 | 7.960 | 7.742 | 7.243 |  |  |  |
| 18/10/00 | 6.893 | 6.549 | 6.211 | 5.879 | 5.553 | 1 |  | 21:00-01.00 |
| 19/10/00 | 11.043 | 10.241 | 9.459 | 8.699 | 8.326 | / |  | 18:00-22:00 |
| 20/10/00 | 7.243 | 6.549 | 6.211 | 5.879 | 5.553 |  |  |  |
| 21/10/00 | 5.553 | 5.233 | 5.107 | 4.920 | 4.920 | $/$ |  | 15:00-18:00 |
| 22/10/00 | 5.553 | 5.553 | 5.233 | 5.233 | 4.920 | / |  | 21:00-01:00 |
| 23/10/00 | 5.107 | 4.920 | 4.735 | 4.613 | 4.313 |  |  |  |
| 24/10/00 | 4.313 | 4.136 | 4.020 | 4.020 | 3.904 | / |  | 12:00-14:00 |
| 25//0/00 | 3.733 | 3.733 | 3.733 | 3.454 | 3.454 | / |  | 21:00-24:00 |
| 26/10/00 | 3.344 | 3.182 | 3.454 | 3.733 | 4.020 | / |  | 12:00-14:00 |
| 27/10/00 | 3.733 | 60.50 I | 3.182 | 2.918 | 2.918 | 1 |  | 15:00-18:00 |
| 28/10/00 | 2.661 | 2.661 | 3.182 | 3.454 | 5.233 | $/$ |  | 15:00-18:00 |
| 29/10/00 | 5.553 | 5.233 | 5.233 | 6.211 | 6.211 |  |  |  |
| $30 / 10 / 00$ | 5.233 | 4.920 | 4.613 | 4.313 | 4.313 | $/$ |  | 18:00-20:00 |
| 31/10/00 | 5.233 | 4.920 | 4.920 | 4.613 | 4.313 |  |  |  |

## PROJECT: SIHANOUKVILLE CCGT

## Tabel 2.3-7 (3) CALCULATED DISCHARGE

## NOVEMBER 2000

LOCATION : HUN SEN SPILL WA Y DAM

WEIR CREST ELEVATION $=1.305$ M. (M.S.L. $)$
MEAN SEA LEVEL HA TIEN DATUM (VIETNAM)
Established on 15th Sept. 2000

| DATE | DISCHARGE AT TIME (CMS.) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9:00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TIME |
| 01/11/00 | 4.020 | 3.733 | 4.313 | 4.552 | 4.613 | 1 |  | 9:00-15:00 |
| 02/11/00 | 4.020 | 3.904 | 3.733 | 3.733 | 3.733 |  |  |  |
| 03/11/00 | 3.344 | 3.182 | 3.182 | 2.918 | 2.918 | 1 |  | 18:00-20:00 |
| 04/11/00 | 3.182 | 3.182 | 3.129 | 3.023 | 3.023 |  |  |  |
| 05/11/00 | 3.023 | 3.023 | 2.918 | 2.814 | 2.661 |  |  |  |
| 06/11/00 | 3.023 | 2.918 | 2.661 | 2.661 | 2.511 |  |  |  |
| 07/11/00 | 2.315 | 2.172 | 2.172 | 2.172 | 2.078 |  |  |  |
| 08/11/00 | 2.078 | 2.032 | 2.032 | 1.940 | 1.940 |  |  |  |
| 09/11/00 | 1.940 | 1.850 | 1.761 | 1.718 | 1.718 |  |  |  |
| 10/11/00 | 1.674 | 1.631 | 1.588 | 1.504 | 1.504 |  |  |  |
| 1//1/1/00 | 1.462 | 1.462 | 1.421 | 1.340 | 1.340 |  |  |  |
| 12/11/00 | 1.340 | 1.340 | 1.300 | 1.300 | 1.300 |  |  |  |
| 13/11/00 | 1.300 | 1.300 | 1.300 | 1.300 | 1.300 |  |  |  |
| 14/11/00 | 1.260 | 1.260 | 1.260 | 1.221 | 1.221 |  |  |  |
| 15/11/00 | 1.221 | 1.182 | 1.182 | 1.182 | 1.182 |  |  |  |
| 16/11/00 | 1.182 | 1.182 | 1.106 | 1.032 | 1.032 |  |  |  |
| 17/11/00 | 1.032 | 1.032 | 0.959 | 0.959 | 0.959 |  |  |  |
| 18/11/00 | 0.923 | 0.923 | 0.819 | 1.106 | 1.106 |  |  |  |
| 19/11/00 | 1.718 | 1.588 | 1.588 | 1.504 | 1.504 |  |  |  |
| 20/11/00 | 1.380 | 1.380 | 1.300 | 1.182 | 1.182 |  |  |  |
| 21/11/00 | 1.182 | 1.182 | 1.106 | 1.106 | 1.106 |  |  |  |
| 22/11/00 | 0.686 | 0.686 | 0.592 | 0.592 | 0.592 |  |  |  |
| 23/11/00 | 0.592 | 0.592 | 0.592 | 0.532 | 0.532 |  |  |  |
| 24/11/00 | 0.502 | 0.502 | 0.502 | 0.474 | 0.474 |  |  |  |
| 25/11/00 | 0.474 | 0.474 | 0.474 | 0.623 | 0.623 |  |  |  |
| 26/11/00 | 0.853 | 0.853 | 0.853 | 0.751 | 0.751 |  |  |  |
| 27/11/00 | 3.733 | 3.129 | 3.182 | 2.918 | 2.918 |  |  |  |
| 28/11/00 | 1.421 | 1.421 | 1.421 | 1.300 | 1.300 |  |  |  |
| 29/11/00 | 0.888 | 0.888 | 0.888 | 0.888 | 0.888 |  |  |  |
| 30/11/00 | 0.819 | 0.819 | 0.819 | 0.785 | 0.785 |  |  |  |

PROJECT : SIHANOUKVILLE CCGT
Table 2.3-7 (4) CALCULATED DISCHARGE

## DECEMBER 2000

LOCATION : HUN SEN SPILLWAY DAM
WEIR CREST ELEVATION $=1.305$ M. (M.S.L. $)$ MEAN SEA LEVEL HA TIEN DATUM (VIETNAM) Established on 15th Sepf. 2000

| DATE | DISCHARGE AT TIME (CMS) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9.00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TLME |
| 01/12/00 | 0.866 | 0.866 | 0.866 | 0.866 | 0.866 |  |  |  |
| 02/12/00 | 0.839 | 0.839 | 0.839 | 0.839 | 0.839 |  |  |  |
| 03/12/00 | 0.735 | 0.735 | 0.735 | 0.735 | 0.735 |  |  |  |
| 04/12/00 | 0.735 | 0.735 | 0.735 | 0.735 | 0.735 |  |  |  |
| 05/12/00 | 0.660 | 0.660 | 0.660 | 0.660 | 0.660 |  |  |  |
| $06 / 12 / 00$ | 0.589 | 0.589 | 0.589 | 0.589 | 0.589 |  |  |  |
| 07/12/00 | 0.566 | 0.566 | 0.566 | 0.566 | 0.566 |  |  |  |
| 08/12/00 | 0.543 | 0.543 | 0.543 | 0.543 | 0.543 |  |  |  |
| 09/12/00 | 0.543 | 0.543 | 0.543 | 0.543 | 0.543 |  |  |  |
| $10 / 12 / 00$ | 0.543 | 0.543 | 0.543 | 0.543 | 0.543 |  |  |  |
| 11/12/00 | 0.499 | 0.499 | 0.499 | 0.499 | 0.499 |  |  |  |
| 12/12/00 | 0.499 | 0.499 | 0.499 | 0.499 | 0.499 |  |  |  |
| 13//2/00 | 0.477 | 0.477 | 0.477 | 0.477 | 0.477 |  |  |  |
| 14/12/00 | 0.477 | 0.477 | 0.477 | 0.435 | 0.435 |  |  |  |
| 15/12/00 | 0.435 | 0.435 | 0.435 | 0.435 | 0.456 |  |  |  |
| 16/12/00 | 0.395 | 0.395 | 0.395 | 0.395 | 0.395 |  |  |  |
| 17/12/00 | 0.395 | 0.395 | 0.395 | 0.395 | 0.395 |  |  |  |
| 18/12/00 | 0.357 | 0.357 | 0.357 | 0.357 | 0.357 |  |  |  |
| 19/12/00 | 0.320 | 0.320 | 0.320 | 0.320 | 0.320 |  |  |  |
| 20/12/00 | 0.303 | 0.303 | 0.303 | 0.395 | 0.395 | / |  | 15:00-24:00 |
| 21/12/00 | 0.612 | 0.612 | 0.612 | 0.612 | 0.612 |  |  |  |
| 22/12/00 | 0.566 | 0.566 | 0.566 | 0.566 | 0.566 |  |  |  |
| 23/12/00 | 0.499 | 0.499 | 0.499 | 0.499 | 0.499 |  |  |  |
| 24/12/00 | 0.376 | 0.376 | 0.376 | 0.376 | 0.376 |  |  |  |
| 25/12/00 | 0.338 | 0.338 | 0.338 | 0.338 | 0.338 |  |  |  |
| 26/12/00 | 0.320 | 0.320 | 0.320 | 0.320 | 0.320 | / |  | 15:00-24:00 |
| 27/12/00 | 0.286 | 0.286 | 0.286 | 0.286 | 0.286 |  |  |  |
| 28/12/00 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 29/12/00 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 30/12/00 | 5.056 | 0.254 | 0.254 | 0.320 | 0.320 |  |  |  |
| 3//12/00 | 0.376 | 0.376 | 0.376 | 0.376 | 0.376 |  |  |  |

PROJECT : SIHANOUKVILLE CCGT

## Table 2.3-7 (5) CALCULATED DISCHARGE

## JANUARY 2001

LOCATION : HUN SEN SPILLWAY DAM

WEIR CREST ELEVATION …- M. (M.S.L.)
MEAN SEA LEVEL HA TIEN DATUM (VIETNAM)
Established on 15th Sept. 2000

| DATE | DISCHARGE AT TMME (CMS) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9:00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TIME |
| 01/01/01 | 0.395 | 0.395 | 0.395 | 0.395 | 0.395 |  |  |  |
| 02/01/01 | 0.286 | 0.286 | 0.286 | 0.286 | 0.286 | 1 |  | 18:00-20:00 |
| 03/01/01 | 0.338 | 0.338 | 0.338 | 0.338 | 0.338 |  |  |  |
| 04/01/01 | 0.303 | 0.303 | 0.303 | 0.303 | 0.303 |  |  |  |
| 05/01/01 | 0.270 | 0.270 | 0.270 | 0.270 | 0.270 |  |  |  |
| 06/01/01 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 07/01/01 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 08/01/01 | 0.286 | 0.286 | 0.286 | 0.286 | 0.286 |  |  |  |
| 09/01/01 | 0.286 | 0.286 | 0.286 | 0.376 | 0.376 | 1 |  | 13:00-18:00 |
| 10/01/01 | 0.376 | 0.376 | 0.376 | 0.376 | 0.376 |  |  |  |
| 11/01/01 | 0.376 | 0.376 | 0.376 | 0.376 | 0.376 |  |  |  |
| 12/01/01 | 0.357 | 0.357 | 0.357 | 0.357 | 0.357 |  |  |  |
| 13/01/01 | 0.286 | 0.286 | 0.286 | 0.376 | 0.376 | 1 |  | 13:00-00:00 |
| 14/01/01 | 0.920 | 0.920 | 0.920 | 1.723 | 2.157 | 1 |  | 13:00-18:"00 |
| 15/01/01 | 1.682 | 1.130 | 1.130 | 1.130 | 1.130 |  |  |  |
| 16/01/01 | 0.920 | 0.786 | 0.786 | 0.786 | 0.786 |  |  |  |
| 17/01/01 | 0.660 | 0.660 | 0.660 | 0.543 | 0.543 |  |  |  |
| 18/01/01 | 0.435 | 0.435 | 0.435 | 0.338 | 0.338 |  |  |  |
| 19/01/01 | 0.338 | 0.338 | 0.338 | 0.338 | 0.338 |  |  |  |
| 20001/01 | 0.286 | 0.286 | 0.286 | 0.286 | 0.286 |  |  |  |
| 21/01/01 | 0.286 | 0.286 | 0.286 | 0.521 | 0.521 | 1 |  | 13:00-18:00 |
| 22/01/01 | 0.415 | 0.415 | 0.415 | 0.415 | 0.415 | 1 |  | 18:00-23:00 |
| 23/01/01 | 0.660 | 0.660 | 0.521 | 0.521 | 0.521 |  |  |  |
| 24/01/01 | 0.320 | 0.320 | 0.320 | 0.320 | 0.320 |  |  |  |
| 25/01/01 | 0.286 | 0.286 | 0.286 | 0.286 | 0.286 |  |  |  |
| 26/01/01 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 27/01/01 | 0.254 | 0.254 | 0.254 | 0.254 | 0.254 |  |  |  |
| 28/01/01 | 0.225 | 0.225 | 0.225 | 0.225 | 0.225 |  |  |  |
| 29/01/01 | 0.225 | 0.225 | 0.189 | 0.189 | 0.189 |  |  |  |
| 30/01/01 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 |  |  |  |
| 31/01/01 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 |  |  |  |

# PROJECT : SIHANOUKVILLE CCGT 

Table 2.3-7 (6) CALCULATED DISCHARGE
FEBUARY 2001

LOCATION : HUN SEN SPILLWAY DAM

WEIR CREST ELEVATION .--- M. (M.S.L.)
MEAN SEA LEVEL HA TIEN DATUM (VIETNAM)
Established on 15th Sept. 2000

| DATE | DISCHARGE AT TIME (CMS) |  |  |  |  | REMARK |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 6:00 | 9:00 | 12:00 | 15:00 | 18:00 | RAIN | NO RAIN | TIME |
| 01/02/01 | 0.189 | 0.189 | 0.189 | 0.189 | 0.189 |  |  |  |
| 02/02/01 | 0.167 | 0.167 | 0.167 | 0.167 | 0.167 |  |  |  |
| 03/02/01 | 0.146 | 0.146 | 0.146 | 0.146 | 0.146 |  |  |  |
| 04/02/01 | 0.127 | 0.127 | 0.127 | 0.118 | 0.118 |  |  |  |
| 05/02/01 | 0.061 | 0.061 | 0.061 | 0.061 | 0.061 |  |  |  |
| 06/02/01 | 0.039 | 0.039 | 0.039 | 0.039 | 0.039 |  |  |  |
| 07/02/01 | 0.039 | 0.039 | 0.039 | 0.039 | 0.039 |  |  |  |
| 08/02/01 | 0.031 | 0.031 | 0.031 | 0.031 | 0.031 |  |  |  |
| 09/02/01 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 |  |  |  |
| 10/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 11/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 12/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 13/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 14/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 15/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 16/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 17/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 18/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 19/02/01 | 0.010 | 0.010 | 0.010 | 0.039 | 0.010 |  |  |  |
| 20/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 21/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 22/02/01 | 0.010 | 0.010 | 0.010 | 0.020 | 0.020 | 1 |  | 12:00-18:00 |
| 23/02/01 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 |  |  |  |
| 24/02/01 | 0.020 | 0.020 | 0.020 | 0.020 | 0.020 |  |  |  |
| 25/02/01 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |  |  |  |
| 26/02/01 | 0.015 | 0.015 | 0.015 | 0.015 | 0.015 |  |  |  |
| 27/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
| 28/02/01 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 |  |  |  |
|  |  |  |  |  |  |  |  |  |
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