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

DATE	GROUNDWATER LEVEL OF OBSERVATION (MSL)								
	BH-1	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 (DR)		
24/09/00							10.034 (DR)		
25/09/00							8.834 (DR)		
26/09/00							8.864 (DR)		
27/09/00							8.884 (DR)		
28/09/00									
29/09/00									
30/09/00		9.707 (DR)							
01/10/00		9.707 (DR)							
02/10/00		9.707 (DR)							
03/10/00									
04/10/00									7.008 (DR)
05/10/00									7.008 (DR)
06/10/00									7.008 (DR)
07/10/00									
08/10/00									
09/10/00					1.560 (DR)				
10/10/00					1.510 (DR)				
11/10/00					1.460 (DR)				
12/10/00					0.960 (DR)				
13/10/00					1.110 (DR)				
14/10/00									
15/10/00									
16/10/00			5.357 (DR)						
17/10/00			5.357 (DR)						
18/10/00			5.357 (DR)						
19/10/00	5.484	9.668	5.357 (DR)		1.710		8.584		7.258
20/10/00	5.564	9.668	5.357 (DR)		1.810		8.574		7.308
21/10/00	5.604	9.648	5.357 (DR)		1.870		8.564		7.328
22/10/00	5.634	9.628	4.985	1.655	1.450		8.554		7.368
23/10/00	5.594	9.498	4.865	2.053	1.430		8.474		7.418
24/10/00	5.584	9.548	5.005	1.955	1.450		8.374		7.428
25/10/00	5.674	9.528	5.095	2.355	1.450		8.294		7.418
26/10/00	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

DATE	GROUNDWATER LEVEL OF OBSERVATION (MSL)								
	BH-1	BH-2	BH-3	BH-4	BH-5	BH-6	BH-7	BH-8	BH-9
27/10/00	5.584	9.488	4.895	1.075	1.430		8.264		7.298
28/10/00	5.614	9.498	4.935	1.045	1.430		8.194		7.308
29/10/00	5.644	9.508	4.985	1.015	1.440		8.124		7.308
30/10/00	5.634	9.508	4.995	1.055	1.450		8.054		7.348
31/10/00	5.624	9.518	5.025	1.165	1.480		8.064		7.358
01/11/00	5.654	9.458	4.975	1.115	1.450		8.004		7.298
02/11/00	5.634	9.418	4.925	1.385	1.450		8.014		7.278
03/11/00	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	5.574	9.158	4.615	1.005	1.350		7.834		7.238
14/11/00	5.434	8.808	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
13/02/01	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 : (DR) = Measurement 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

HUN SEN WEIR CREST ELEVATION USED IN CALCULATION		
DEL_DIST	DIST	ELEV. FOR CALCULATION
0.000	0.000	1.267
2.500	2.500	1.267
5.000	7.500	1.273
5.000	12.500	1.282
17.500	30.000	1.296
20.000	50.000	1.311
15.000	65.000	1.346
5.000	70.000	1.351
5.320	75.320	1.371

REMARK : IN ORDER TO EASE THE DISCHARGE CALCULATION, THE WHOLE IS SUBDIVIDED INTO 8 SUB-SECTIONS

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

RIVER :
CODE :
MONTH : 30 SEP. - 31 JAN.
YEAR : 2000-2001

STATION : HUNSEN WEIR
ZERO GAUGE : 1.009 M.MSL.
WEIR CREST ELEV. : ----- M.MSL.
WEIR LENGTH : 75.32 M.

W = (CREST ELEV. - 0.65) M.

Q CALCULATE = SUM[(1.24+1.64*DEL H / W)*DEL_L*(WATER LEVEL-CREST_ELEV)^1.5]

DEL_L (M.) =	3.000	3.000	3.000	3.000	3.000	6.320	3.000	51.000	SUM_DEL_L =	75.320 M.
REST ELEV. (M.MSL)	1.265	1.268	1.270	1.272	1.275	1.290	1.315	1.320		

DATE	WATER LEVEL (M)		Qi = [(1.24+1.64*DEL H / W)*DEL_L*(WATER LEVEL-CREST_ELEV)^1.5]								Q MEASURE	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	2.830	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
Oct-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	0.373	0.667	0.234	3.725	6.956	6.593	5.220
											AVERAGE 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
	REMARK : THE LAST FIVE DATA ARE USED FOR VERIFICATION OF THE FORMULAE										OVERALL AVG ERR % =		171.293

PROJECT : SIHANOUKVILLE CCGT

Table 2.3-7 (1) CALCULATED DISCHARGE

SEPTEMBER 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
16/09/00	4.020	5.233	5.879	8.699	10.241	/		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	/		5:00 - 6:00
20/09/00	4.920	4.920	4.613	4.613	4.613			
21/09/00	4.613	4.613	4.613	4.613	4.920	/		15:00 - 18:00
22/09/00	4.020	3.733	3.454	3.182	2.918	/		21:00 - 01:00
23/09/00	7.172	6.893	6.686	6.413	6.211	/		
24/09/00	5.424	4.858	5.044	4.858	4.613	/		12:00 - 14:00
	0.000							21:00 - 24:00
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	4.313	/		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

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	/		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	/		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	/		11:00 - 15:00
10/10/00	17.378	18.139	17.947	16.257	15.797	/		6:00 - 9:00
11/10/00	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	11.205	/		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	/		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
25/10/00	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	60.501	3.182	2.918	2.918	/		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 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
01/11/00	4.020	3.733	4.313	4.552	4.613	/		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	/		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			
11/11/00	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 Sept. 2000

DATE	DISCHARGE AT TIME (CMS.)					REMARK		
	6:00	9:00	12:00	15:00	18:00	RAIN	NO RAIN	TIME
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			
13/12/00	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			
31/12/00	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 TIME (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	/		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	/		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	/		13:00-00:00
14/01/01	0.920	0.920	0.920	1.723	2.157	/		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			
20/01/01	0.286	0.286	0.286	0.286	0.286			
21/01/01	0.286	0.286	0.286	0.521	0.521	/		13:00-18:00
22/01/01	0.415	0.415	0.415	0.415	0.415	/		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	/		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			