

Serial No 04-126

Enclosure 9

**NON-PROPRIETARY VERSION**

Bechtel Calculation 24830-G-018, Rev. 0, Water Budget Analysis and Lake Level  
Assessment



# CALCULATION COVER SHEET

PROJECT Dominion North Anna ESP Project	JOB NO. 24830-003	CALC NO. 24830-G-018	SHEET 1
SUBJECT Water Budget Analysis and Lake Level Assessment		DISCIPLINE G&HES	

CALCULATION STATUS DESIGNATION	PRELIMINARY	CONFIRMED	SUPERSEDED	VOIDED
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMPUTER PROGRAM/TYPE	SCP	PROGRAM NO.	VERSION/RELEASE NO.
	<input type="checkbox"/>		

**THIS CALCULATION HAS BEEN REVIEWED BY BECHTEL POWER CORPORATION AND ANY PROPRIETARY INFORMATION HAS BEEN REMOVED. WHEREVER PROPRIETARY INFORMATION HAS BEEN REMOVED, BRACKETS HAVE BEEN INSERTED CONTAINING THE STATEMENT "PROPRIETARY INFORMATION DELETED."**

ATTACHMENTS:

**[PROPRIETARY INFORMATION DELETED]**

NO.	REASON FOR REVISION	TOTAL NO. OF SHEETS	LAST SHEET NO.	BY	CHECKED	APPROVED/ACCEPTED	DATE
0	Issue to project						

## RECORD OF REVISIONS

**Bechtel Confidential**



# CALCULATION COVER SHEET

PROJECT Dominion North Anna ESP Project	JOB NO. 24830-003	CALC NO. 24830-G-018	SHEET 2
SUBJECT Water Budget Analysis and Lake Level Assessment		DISCIPLINE G&HES	

CALCULATION STATUS DESIGNATION	PRELIMINARY	CONFIRMED	SUPERSEDED	VOIDED
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

COMPUTER PROGRAM/TYPE	SCP	PROGRAM NO.	VERSION/RELEASE NO.
	<input type="checkbox"/>		

ATTACHMENTS (cont'd):  
**[PROPRIETARY INFORMATION DELETED]**

NO.	REASON FOR REVISION	TOTAL NO. OF SHEETS	LAST SHEET NO.	BY	CHECKED	APPROVED/ACCEPTED	DATE
0	Issue to project						

## RECORD OF REVISIONS

*Bechtel Confidential*



## CALCULATION SHEET

PROJECT: Dominion North  
Anna ESP Project  
JOB NUMBER: 24830-003  
CALC NO. 24830-G-018

SUBJECT Water Budget Analysis and Lake Level Assessment

SHEET NO. 3

BY KN

DATE 9/20/2003

SHEET REV. 0

### I. Objectives

A water budget analysis was performed for the North Anna cooling lake system using measured lake level, monitored release flow at the dam, and calculated evaporation rate in Lake Anna from 1978 to 2003 to assess the impact on the lake level of the heat-dissipation system of the new units (Units 3 and 4) proposed for the North Anna ESP site.

Attachment 1 is a map of the North Anna cooling lake system.

### II. References

*[PROPRIETARY INFORMATION DELETED]*

### III. Approach and Assumptions

*[PROPRIETARY INFORMATION DELETED]*

### IV. Evaporation Rates for the New Units

*[PROPRIETARY INFORMATION DELETED]*

### V. Water Budget Model Cases

*[PROPRIETARY INFORMATION DELETED]*



**CALCULATION SHEET**

PROJECT: Dominion North  
Anna ESP Project  
JOB NUMBER: 24830-003  
CALC NO. 24830-G-018

SUBJECT Water Budget Analysis and Lake Level Assessment

SHEET NO. 4

BY KN

DATE 9/20/2003

SHEET REV. 0

**VI. Water Budget Model Result Summary**

*[PROPRIETARY INFORMATION DELETED]*

**ATTACHMENTS**

*[PROPRIETARY INFORMATION DELETED]*