

ATTACHMENT 4

UHS Calculation

LSCS Design Analysis L-002457, Revision 8

October 2, 2013

(Non-Proprietary)

1,237 pages follow

ATTACHMENT 1
Design Analysis Cover Sheet
Page 1 of 1

Design Analysis		Last Page No. ⁶ Attachment P, Page P58	
Analysis No.: ¹ L-002457	Revision: ² 8 Major <input checked="" type="checkbox"/> Minor <input type="checkbox"/>		
Title: ³ LaSalle County Station Ultimate Heat Sink Analysis			
EC/ECR No.: ⁴ 389270	Revision: ⁵ 0		
Station(s): ⁷ LaSalle County Station	Component(s): ¹⁴		
Unit No.: ⁸ 1, 2			
Discipline: ⁹ MEDC			
Descrip. Code/Keyword: ¹⁰ M03			
Safety/QA Class: ¹¹ Safety-Related			
System Code: ¹² ZZ			
Structure: ¹³ N/A			
CONTROLLED DOCUMENT REFERENCES ¹⁵			
Document No.:	From/To	Document No.:	From/To
L-001581	From	L-002456	From
L-001584	From	L-001355	To
L-002453	From / To		
Is this Design Analysis Safeguards Information? ¹⁶ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, see SY-AA-101-106 Does this Design Analysis contain Unverified Assumptions? ¹⁷ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, ATI/AR#: _____ This Design Analysis SUPERCEDES: ¹⁸ N/A in its entirety.			
Description of Revision (list changed pages when all pages of original analysis were not changed): ¹⁹ Revision 8 adds evaluation of the UHS transient analyses with an allowable plant intake temperature of 107°F at a power level of 3559 MW. This calculation considers weather selection methodology from Rev. 2 of Regulatory Guide 1.27 and a more realistic heat load rejected to the UHS. Pages Added: J33-40, N19-20, O1-O42, P1-P58 Pages Revised: 1-10, 13-35, I6, J18, N1-N2, N4-N8, N11-N12, N16-N18 Pages Removed: None Main Body (62 total pages) + Att. A (22) + Att. B (358) + Att. C (16) + Att. D (12) + Att. E (57) + Att. F (31) + Att. G (72) + Att. H (344) + Att. I (22) + Att. J (40) + Att. K (6) + Att. L (58) + Att. M (17) + Att. N (20) + Att. O (42) + Att. P (58) = 1,237 total pages			
Preparer: ²⁰	Daniel W. Nevill (S&L)	<i>Daniel W. Nevill</i>	10/11/2013
	<small>Print Name</small>	<small>Sign Name</small>	<small>Date</small>
Method of Review: ²¹	Detailed Review <input checked="" type="checkbox"/>	Alternate Calculations (attached) <input type="checkbox"/>	Testing <input type="checkbox"/>
Reviewer: ²²	Paul J. Szymiczek (S&L)	<i>Paul J. Szymiczek</i>	10/11/2013
	<small>Print Name</small>	<small>Sign Name</small>	<small>Date</small>
Review Notes: ²³	Independent review <input checked="" type="checkbox"/>	Peer review <input type="checkbox"/>	
<small>(For External Analyses Only)</small>			
External Approver: ²⁴	Pawel Kut (S&L)	<i>Pawel Kut</i>	10-01-2013
	<small>Print Name</small>	<small>Sign Name</small>	<small>Date</small>
Exelon Reviewer: ²⁵	GREG ENGELS	<i>Greg Engels</i>	10/2/13
	<small>Print Name</small>	<small>Sign Name</small>	<small>Date</small>
Independent 3rd Party Review Req'd? ²⁶ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
Exelon Approver: ²⁷	DAN SCHMIT	<i>Dan Schmit</i>	10/2/13
	<small>Print Name</small>	<small>Sign Name</small>	<small>Date</small>

ATTACHMENT 2
Owner's Acceptance Review Checklist for External Design Analyses
Page 1a

Design Analysis No.: L-002457 Rev: 8

No	Question	Instructions and Guidance	Yes / No / N/A
1	Do assumptions have sufficient documented rationale?	<p>All Assumptions should be stated in clear terms with enough justification to confirm that the assumption is conservative.</p> <p>For example, 1) the exact value of a particular parameter may not be known or that parameter may be known to vary over the range of conditions covered by the Calculation. It is appropriate to represent or bound the parameter with an assumed value. 2) The predicted performance of a specific piece of equipment in lieu of actual test data. It is appropriate to use the documented opinion/position of a recognized expert on that equipment to represent predicted equipment performance.</p> <p>Consideration should also be given as to any qualification testing that may be needed to validate the Assumptions. Ask yourself, would you provide more justification if you were performing this analysis? If yes, the rationale is likely incomplete.</p>	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
2	Are assumptions compatible with the way the plant is operated and with the licensing basis?	Ensure the documentation for source and rationale for the assumption supports the way the plant is currently or will be operated post change and they are not in conflict with any design parameters. If the Analysis purpose is to establish a new licensing basis, this question can be answered yes, if the assumption supports that new basis.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
3	Do all unverified assumptions have a tracking and closure mechanism in place?	If there are unverified assumptions without a tracking mechanism indicated, then create the tracking item either through an ATI or a work order attached to the implementing WO. Due dates for these actions need to support verification prior to the analysis becoming operational or the resultant plant change being op authorized.	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
4	Do the design inputs have sufficient rationale?	The origin of the input, or the source should be identified and be readily retrievable within Exelon's documentation system. If not, then the source should be attached to the analysis. Ask yourself, would you provide more justification if you were performing this analysis? If yes, the rationale is likely incomplete.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5	Are design inputs correct and reasonable with critical parameters identified, if appropriate?	The expectation is that an Exelon Engineer should be able to clearly understand which input parameters are critical to the outcome of the analysis. That is, what is the impact of a change in the parameter to the results of the analysis? If the impact is large, then that parameter is critical.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
6	Are design inputs compatible with the way the plant is operated and with the licensing basis?	Ensure the documentation for source and rationale for the inputs supports the way the plant is currently or will be operated post change and they are not in conflict with any design parameters.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> SEE NOTE 1

ATTACHMENT 2
Owner's Acceptance Review Checklist for External Design Analyses
Page 1b

Design Analysis No.: L-002457 Rev: 8

No	Question	Instructions and Guidance	Yes / No / N/A
7	Are Engineering Judgments clearly documented and justified?	See Section 2.13 in CC-AA-309 for the attributes that are sufficient to justify Engineering Judgment. Ask yourself, would you provide more justification if you were performing this analysis? If yes, the rationale is likely incomplete.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8	Are Engineering Judgments compatible with the way the plant is operated and with the licensing basis?	Ensure the justification for the engineering judgment supports the way the plant is currently or will be operated post change and is not in conflict with any design parameters. If the Analysis purpose is to establish a new licensing basis, then this question can be answered yes, if the judgment supports that new basis.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
9	Do the results and conclusions satisfy the purpose and objective of the Design Analysis?	Why was the analysis being performed? Does the stated purpose match the expectation from Exelon on the proposed application of the results? If yes, then the analysis meets the needs of the contract.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
10	Are the results and conclusions compatible with the way the plant is operated and with the licensing basis?	Make sure that the results support the UFSAR defined system design and operating conditions, or they support a proposed change to those conditions. If the analysis supports a change, are all of the other changing documents included on the cover sheet as impacted documents?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
11	Have any limitations on the use of the results been identified and transmitted to the appropriate organizations?	Does the analysis support a temporary condition or procedure change? Make sure that any other documents needing to be updated are included and clearly delineated in the design analysis. Make sure that the cover sheet includes the other documents where the results of this analysis provide the input.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
12	Have margin impacts been identified and documented appropriately for any negative impacts (Reference ER-AA-2007)?	Make sure that the impacts to margin are clearly shown within the body of the analysis. If the analysis results in reduced margins ensure that this has been appropriately dispositioned in the EC being used to issue the analysis.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
13	Does the Design Analysis include the applicable design basis documentation?	Are there sufficient documents included to support the sources of input, and other reference material that is not readily retrievable in Exelon controlled Documents?	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14	Have all affected design analyses been documented on the Affected Documents List (ADL) for the associated Configuration Change?	Determine if sufficient searches have been performed to identify any related analyses that need to be revised along with the base analysis. It may be necessary to perform some basic searches to validate this.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
15	Do the sources of inputs and analysis methodology used meet committed technical and regulatory requirements?	Compare any referenced codes and standards to the current design basis and ensure that any differences are reconciled. If the input sources or analysis methodology are based on an out-of-date methodology or code, additional reconciliation may be required if the site has since committed to a more recent code	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

ATTACHMENT 2
Owner's Acceptance Review Checklist for External Design Analyses
Page 1c

Design Analysis No.: L-002457 Rev: 8

No	Question	Instructions and Guidance	Yes / No / N/A
16	Have vendor supporting technical documents and references (including GE DRFs) been reviewed when necessary?	Based on the risk assessment performed during the pre-job brief for the analysis (per HU-AA-1212), ensure that sufficient reviews of any supporting documents not provided with the final analysis are performed.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
17	Do operational limits support assumptions and inputs?	Ensure the Tech Specs, Operating Procedures, etc. contain operational limits that support the analysis assumptions and inputs.	<input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Create an SFMS entry as required by CC-AA-4008. SFMS Number: 41712

NOTE 1: LSCS IS CURRENTLY COMMITTED TO REV. 1 OF REGULATORY GUIDE (RG) 1.27 PER UFSAR REV. 19, APPENDIX B. PER LAR RAI DATED JUNE 27, 2013, THE NRC DEEMED USE OF REV. 2 TO RG 1.27 AS ESSENTIAL.

EXELON REVIEWER: GREG ENGELS *Greg Engels* DATE: 10/2/13

CALCULATION TABLE OF CONTENTS

SECTION:	PAGE NO.	SUB-PAGE NO.
COVER PAGE	1	
OAR CHECKLIST		1a-1c
TABLE OF CONTENTS	2	
1.0 PURPOSE / OBJECTIVE	4	
2.0 METHODOLOGY AND ACCEPTANCE CRITERIA	8	
2.4 IDENTIFICATION OF COMPUTER PROGRAMS	16	
3.0 ASSUMPTIONS / ENGINEERING JUDGEMENTS	17	
4.0 DESIGN INPUTS	20	
5.0 REFERENCES	22	
6.0 NUMERIC ANALYSIS	24	
7.0 RESULTS AND CONCLUSIONS	28	
(Page 59 – FINAL PAGE of Main Body)		
ATTACHMENTS	PAGES	
Attachment A – UHSAVG Files	A1 – A22	
Attachment B – LAKET-PC Output	B1 – B358	
Attachment C – EXCEL Formulas	C1 – C16	
Attachment D – Attached References	D1 – D12	
Attachment E – UHS Historical Operability	E1 – E57	
Attachment F – LAKET-PC Plot Data	F1 – F31	
Attachment G – LAKET-PC Analysis with Revised Decay Heat Ratios and Increased Initial Lake Temperature	G1 – G72	
Attachment H – LAKET-PC Analysis with Increased Plant Inlet Temperature Requirement	H1 – H344	
Attachment I - LAKET-PC Analysis for MUR PU and EPU	I1-I22	

Attachment J - UHS Flow Path Analysis	J1-J40	
Attachment K - Preparation of Hourly Meteorological Data	K1-K6	
Attachment L - Plant Temperature Rise	L1-L58	
Attachment M - Weather File Creation	M1-M17	
Attachment N - LAKET Validation	N1-N20	
Attachment O - LAKET-PC Analysis for Rev. 2 of Reg. Guide 1.27	O1-O42	
Attachment P - Plant Temperature Rise for Rev. 8	P1-P58	

1.0 PURPOSE/OBJECTIVE

The purpose of this calculation is to analyze the performance of the LaSalle County Station Ultimate Heat Sink (UHS). The calculation determines the design basis UHS performance for 30 days following an accident. The lake dike is assumed to have failed, Unit 1 is postulated to undergo a loss of coolant accident (LOCA) with loss of off-site power (LOOP), while Unit 2 undergoes normal shutdown. Worst-case weather conditions apply and no makeup water is credited.

The S&L LAKET-PC computer program was utilized to determine the combined impact of power uprate and allowable sediment accumulation in the UHS. It was also used to perform analysis of maximum allowable initial UHS temperature to meet required UHS outlet temperatures.

1.1 Historical Analyses

This calculation has undergone a number of revisions to address various issues as they have arisen. Certain information from previous revisions has been retained for information or convenience. Some of this information is historical but no longer represents design information.

The assembly of the calculation writeup is as follows:

- Main Body – The main body of the calculation was essentially re-written and formatted in Rev. 5 issue. The main body of Rev. 5 is revised in Rev. 6 to add new cases for 12" sediment level. For Rev. 7, the main body is revised to include new cases for extended power uprate (EPU) at a maximum plant intake temperature of 104°F and 107°F and the latest weather data. In Rev. 8, the main body is revised to incorporate new analysis for a more realistic heat load rejected to the UHS and Rev. 2 of Reg. Guide 1.27.
- Attachment A – This attachment provides results of computer analysis of the approximately 50 years of weather data used in the analysis. The computer program UHS-AVG is used to select limiting weather periods for peak lake temperature and maximum evaporation. The method of selecting the limiting data and actual data is common to all revisions of the calculation up to Rev. 6. Selection of weather data for Rev. 7 is documented in Attachment M. Selection of weather data for Rev. 8 is documented in Attachment O.
- Attachment B – This attachment provides LAKET analysis results for the Rev. 3 issue of the calculation. This analysis supports limiting UHS temperatures of 100°F.
- Attachment C – This attachment provides Excel spreadsheets and formulas used in computing (a) UHS area and volumes, and (b) CSCS temperature rise across the plant for the Rev. 3 calculation. The CSCS temperature rise across the plant is revised in Rev. 7 and documented in Attachment L. The CSCS temperature rise across the plant is further revised in Rev. 8 and documented in Attachment P.
- Attachment D – This attachment provides attached references.
- Attachment E – This attachment provides an operability evaluation performed as a part of the Rev. 2 calculation.
- Attachment F – This attachment provides LAKET plot data used in Rev. 3.
- Attachment G – This attachment provides LAKET analysis of Rev. 4. This analysis supports limiting UHS temperature of 102 °F.

- Attachment H – This attachment provides the LAKET analysis of Rev. 5. This analysis supports limiting UHS temperatures of 104 °F. Attachment H is revised in Rev. 6 to support 3 additional cases for 12" sediment level.
- Attachment I – This attachment provides the LAKET analysis of Rev. 7. This analysis supports limiting UHS temperatures of 107°F at Measurement Uncertainty Recapture Power Uprate (MUR PU) (3559 MW_t) and EPU (4067 MW_t) using Rev. 1 of Reg. Guide 1.27. Please note that the EPU cases do not represent current design basis since EPU was cancelled.
- Attachment J – This attachment is added in Rev. 7 to document the determination of the effective area and effective volume of the UHS. Rev. 8 includes additional information.
- Attachment K – This attachment is added in Rev. 7 to document the preparation of a new set of weather data using data from LaSalle Station and Peoria, IL from 1/1/1995 to 9/30/2010.
- Attachment L – This attachment is added in Rev. 7 to document calculation of the plant temperature rise at MUR PU and EPU power levels. Please note that the EPU cases do not represent current design basis since EPU was cancelled.
- Attachment M – This attachment is added in Rev. 7 to document creation of the worst weather and worst net evaporation LAKET weather files.
- Attachment N – This attachment is added in Rev. 7 to document validation of the LAKET computer program through comparison to NUREG-0693. In Rev. 8, analysis of the UHS stratification is added to this attachment.
- Attachment O - This attachment provides the LAKET analysis of Rev. 8. This analysis incorporates more realistic heat loads rejected to the UHS as developed in Rev. 4 of L-002453 [Ref. 5.8d] and supports limiting UHS temperatures of 107°F at MUR PU (3559 MW_t) using Rev. 2 of Regulatory Guide 1.27.
- Attachment P - This attachment is added in Rev. 8 to document calculation of the plant temperature rise at MUR PU (3559 MW_t) power levels using the more realistic heat loads developed in Rev. 4 of L-002453 [Ref. 5.8d].

Most of the information in these appendices represents historical analysis and no longer serves as the design basis. However, some information, such as the geometry for the UHS (area and volume versus siltation) is still retained as design input for the current analysis.

1.2 Design Analysis for 102°F Inlet Temperature Limit

In the Rev. 4 calculation, two issues were addressed:

- The allowable maximum plant inlet temperature was raised to 102°F and maximum initial UHS temperatures were determined based on the new limit.
- Core decay heat was increased to include contributions for additional actinides and activation products as documented in a separate calculation [Ref. 5.8].

The supporting analysis for these changes is documented in Appendix G.

1.3 Design Analysis for 104°F Inlet Temperature Limit

The Rev. 5 calculation addresses:

- An increase in the allowable maximum plant inlet temperature to 104°F
- Attachment H documents this analysis and determines the maximum initial UHS temperature for a plant inlet temperature limit of 104°F. Several different test case scenarios were evaluated and the maximum initial UHS temperature allowed was determined for each. In addition, Appendix H also documents the following:
 - ♦ The Attachment H analyses use a new version of the LAKET software, although the underlying algorithms are unchanged. Test cases were run with the new code to confirm matching results from the previous version.
 - ♦ In addition, a new evaporation case was run with the new limiting initial temperature to confirm there is adequate inventory.
 - ♦ Finally, it was confirmed and documented that the previous design basis for CSCS heat load includes a conservative modeling of pump heat and single failure assumptions.

The Rev. 6 calculation addresses:

- Incorporation of minor Rev. 5A into the main body of the report. In Rev 5A, the UHS requirement for use of fire water during accident and transient conditions was revised from 132,000 gals to 440,400 gals. This was incorporated into Assumption 3.7, UHS Inventory for Fire-Fighting.
- The addition of three (3) new cases to evaluate the maximum initial lake temperature and evaporation based on 12 inches of sedimentation to the cases presented in Rev. 5 based on existing maximum plant inlet temperature of 104°F. The main body and Attachment H are revised to support the analyses of these new cases.

1.4 Design Analysis for 104°F and 107°F Inlet Temperature Limit Using Latest Weather Data up to September 2010

The Rev. 7 calculation addresses:

- An allowable maximum plant inlet temperature of 104°F and an increase in the allowable maximum plant inlet temperature to 107°F for both MUR PU and EPU.
- Addition of new weather data from LaSalle Station from January 1, 1995 to September 30, 2010.
- New determination of effective area and effective volume as a percentage of the total UHS area and total UHS volume.
- Incorporation of the UHS requirement for use of fire water during accident and transient conditions of 440,400 gallons. In previous revisions, this had been deemed insignificant in an assumption. For this revision the assumption has been removed, and the 440,400 gallons is removed immediately following the postulated accident.
- Increased core decay heat as a result of EPU.
- Incorporation of spent fuel pool makeup flow from the UHS (600 gpm).

1.5 Design Analysis for 107°F Inlet Temperature using Revised Rejected Heat Load to the UHS

The Rev. 8 calculation addresses:

- A revised plant temperature rise calculation (see Attachment P) based on more realistic heat loads rejected to the UHS as developed in L-002453 [Ref. 5.8d].
- A revised methodology for selection of weather data based on Rev. 2 of Regulatory Guide 1.27 [Ref. 5.2].
- Removal of spent fuel pool makeup flow from the UHS (600 gpm).

1.6 Classification, etc.

This calculation is safety related.

This mechanical calculation provides an unsteady thermal model that is used to determine the capacity of the LaSalle Station ultimate heat sink (UHS), a safety related structure.

Description Code: M03 (mechanical system capacity calculation)

System Code: ZZ

2.0 METHODOLOGY AND ACCEPTANCE CRITERIA

This calculation determines the maximum allowable initial lake temperature that would support the 107°F CSCS maximum intake temperature limit for response to a postulated LOCA concurrent with the failure of the lake dike. The maximum allowable lake temperature is determined for average sediment accumulations of 0, 6, 12, and 18 inches.

(Other analyses supporting lower CSCS maximum intake temperatures are also documented as described in Section 1).

2.1 Methodology

The method of analysis used in this calculation conforms to the position described in U.S. Atomic Energy Commission Regulatory Guide 1.27, "Ultimate Heat Sink for Nuclear Power Plants", Revision 1 [Ref. 5.2]. The LaSalle Station is licensed to this version of the Reg. Guide. The USNRC has also issued a revision to this Reg. Guide (Rev. 2) to address Ultimate Heat Sinks with different configurations than the base configuration inherently assumed in the approach to modeling weather data per the Rev. 1 guide. In particular, the Rev. 2 guide addresses UHS designs with larger inventories with a transit time on the order of five days. The LaSalle UHS has a transit time of approximately one to two days. Analysis to Rev. 2 of the Reg. Guide [Ref. 5.2] was added in Rev. 5 and Rev. 6 of this calculation to conservatively supplement the design analysis per Rev. 1. Rev. 7 analysis only considers the methodology given in Rev. 1 of the Reg. Guide [Ref. 5.2]. Rev. 8 analysis uses the methodology of Rev. 2 of the Reg. Guide [Ref. 5.2] by considering the worst weather periods corresponding to the transit time of the UHS when selecting weather data.

Using this guidance, the worst synthetic weather period is assembled and used to analyze the transient temperature performance of the UHS using the LAKET computer program. For the selected time periods, the weather data is comprised of dry bulb temperature, humidity, wind speed, cloud cover, rainfall, and solar radiation variables that give rise to maximum water temperatures. Similarly, the consecutive 30-day maximum evaporation weather period is also evaluated to determine the impact of water inventory loss on UHS performance.

2.1.1 Selection of Weather Data following R.G. 1.27, Rev. 1 (Peak Temperature)

Up to Revision 6 - R.G. 1.27, Rev. 1 guidance requires synthesis of the worst 31 day (worst 1-day + worst 30 consecutive days) weather period. The UHSAVG program [Ref. 5.7] is used to determine the worst 1 day and 30 day temperature periods. The weather data file contains weather station data from Peoria, IL and Springfield, IL for the dates between July 4, 1948 through June 30, 1996. The binary weather data file (pslsw-2.bin) for this historical worst weather period is documented in Appendix A of calculation L-001581, Rev. 0 [Ref. 5.4]. From the new, expanded weather data set, the worst single day is now July 15 to 16, 1995 while the worst thirty day period is from July 10, 1983 to August 9, 1983.

Revision 7 - The methodology used to determine the worst 1 day and 30 day temperature periods is documented in Attachment M. The worst weather is determined from two different weather files. The first weather data file considered is the one used in previous revisions of this calculation including weather station data from Peoria, IL and Springfield, IL for the dates between July 4, 1948 through June 30, 1996. The second weather data file contains weather station data from LaSalle Station and Peoria, IL from January 1, 1995 to September 30, 2010. The worst single day is determined to be July 24, 2001 7:00AM to

July 25, 2001 6:00AM while the worst thirty day period is from July 21, 1995 4:00PM to August 20, 1995 3:00PM.

Revision 8 - Weather data selection following R.G. 1.27, Rev. 1 is not considered in this revision.

2.1.2 Selection of Weather Data following R.G. 1.27, Rev. 2 (Peak Temperature)

Up to Revision 7 - Selection of weather data following Reg. Guide (R.G.) 1.27, Rev. 2 is used for Rev. 5 and Rev. 6 of this calc. New selection of weather data for this Reg. Guide was not done for Rev. 7. The UHSAVG program [Ref. 5.7] is used to determine the worst 5 consecutive days, worst 1 day, and worst 30 consecutive days temperature period. The weather data file contains weather station data from Peoria, IL and Springfield, IL for the dates between July 4, 1948 through June 30, 1996. The worst 36-day period is documented in Attachment A of this calculation. The worst five day period is from July 12, 1995 to July 17, 1995. The worst one day and thirty day periods are the same as identified in Section 2.1.1.

Revision 8 - R.G. 1.27 Rev. 2 requires weather data selected based on the worst weather over the UHS transit time, the worst one day weather, and the worst 30 day weather. Alternatively, the worst consecutive day weather over a time period equal to the UHS transit time plus one day plus 30 days may be considered. This revision considers both alternatives. The selection of weather data from LaSalle Station and Peoria, IL from January 1, 1995 to September 30, 2010 based on the R.G. 1.27 Rev 2 methodology is documented in Section O6.4 of Attachment O.

2.1.3 Selection of Weather Data following R.G. 1.27, Rev. 1 (Peak Evaporation)

Guidance for selecting weather data for use in computing peak UHS evaporation over a thirty day period is based on R.G. 1.27, Rev. 1, although requirements from Rev. 2 are virtually the same. The limiting evaporation period is from June 18, 1954 to July 18, 1954. Additional information is provided in Attachment A of this calculation.

Following the addition of the new weather data (LaSalle Station and Peoria, IL weather data from 1/1/1995 to 9/30/2010) it was confirmed that the limiting evaporation period from June 18, 1954 to July 18, 1954 remains the limiting evaporation period. See Attachment M for documentation of this analysis.

2.1.4 Plant Heat Load to the UHS

The heat load to the UHS is documented in a separate calculation [Ref. 5.8]. This data is interpolated to fit the one-hour (three-hour up to Rev. 6) time increments required by LAKET. The CSCS temperature rise data for each one-hour (three-hour up to Rev. 6) increment is based on this heat load and computed and listed in Attachment P of this calculation. Attachment L calculated the CSCS temperature rise for EPU based on previous revision of the plant heat load calculation, L-002453 [Ref. 5.8]. It is not used in Rev. 8, but is kept for historical purposes.

2.1.5 UHS Surface and Volume Data

The approximate surface area and volume of the UHS for different postulated sediment accumulations is determined using the methodology documented in Appendix B of calculation L-001581, Rev. 0 [Ref. 5.4]. The UHS surface area and volume are provided in Table 7.1. The effective area and effective volume of the UHS are determined in Attachment J.

2.1.6 CSCS Temperature Rise

The temperature rise through the plant is used in LAKET-PC to compute the rise in water temperature caused by the heat rejected to the UHS during the postulated accident. It is determined by the following:

$$\Delta T = Q / (c_p \times m)$$

where:

ΔT = plant temperature rise, [°F]
 Q = heat rejection to the UHS, [Btu/hr]
 c_p = specific heat of water, [Btu/(lb-°F)]
 m = mass flow rate of water, [lb/hr]

The mass flow rate is determined from the CSCS volumetric flow rate in cfs:

$$\begin{aligned} m &= 86.0 \text{ ft}^3/\text{sec} \times 3600 \text{ sec/hr} \times 62.02 \text{ lb/ft}^3 = 19,201,392 \text{ lb}_m/\text{hr} \text{ (Up to Rev. 6)} \\ m &= 86.0 \text{ ft}^3/\text{sec} \times 3600 \text{ sec/hr} \times 62.00 \text{ lb/ft}^3 = 19,195,200 \text{ lb}_m/\text{hr} \text{ (Rev. 7 and 8)} \\ m &= 65.3 \text{ ft}^3/\text{sec} \times 3600 \text{ sec/hr} \times 62.00 \text{ lb/ft}^3 = 14,574,960 \text{ lb}_m/\text{hr} \text{ (Rev. 8)} \end{aligned}$$

The time increment for much of the weather data is three hours (one hour for Revisions 7 and 8). Since the temperature of the UHS does not change significantly over a three hour (or one hour) time period, it is sufficiently accurate to apply this time increment to calculate the average temperature rise for each time step.

2.1.7 UHS Analysis for a 102°F Plant Inlet Temperature Limit

Attachment G evaluates the ability of the UHS to maintain the plant inlet temperature below 102°F for the worst 31-day transient and worst 36-day transient analyses. The following cases are run as part of Attachment G:

Revision 4 (see Attachment G)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Design Criteria
1	09:00	1/30	0	Reg. Guide 1.27, Rev. 1	Assume Initial UHS Temp = 100°F; Verify Plant Inlet Temp ≤ 102.0°F
2	09:00	5/1/30	6	Reg. Guide 1.27, Rev. 2	Assume Initial UHS Temp = 100°F; Verify Plant Inlet Temp ≤ 102.0°F
3	09:00	1/30	18	Reg. Guide 1.27, Rev. 1	Assume Initial UHS Temp = 100°F; Verify Plant Inlet Temp ≤ 102.0°F
4	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	Assume Initial UHS Temp = 100°F; Verify Plant Inlet Temp ≤ 102.0°F

2.1.8 UHS Analysis for a 104°F Plant Inlet Temperature Limit

Attachment H evaluates the ability of the UHS to maintain the plant inlet temperature below 104°F for the worst 31-day transient, worst 36-day transient, and also documents the worst 30-day evaporation period analyses. There are total 9 cases in Rev. 5 and 3 cases in Rev. 6. All 12 cases are included as part of

Attachment H and summarized below:

Revision 5 (see Attachment H)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Design Criteria
1a	09:00	1/30	0	Reg. Guide 1.27, Rev. 1	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
2a	09:00	1/30	6	Reg. Guide 1.27, Rev. 1	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
3a	09:00	1/30	18	Reg. Guide 1.27, Rev. 1	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
1b	09:00	5/1/30	0	Reg. Guide 1.27, Rev. 2	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
2b	09:00	5/1/30	6	Reg. Guide 1.27, Rev. 2	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
3b	09:00	5/1/30	18	Reg. Guide 1.27, Rev. 2	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
1c	09:00	Worst 30-day Evaporation	0	Reg. Guide 1.27, Rev. 1	Use limiting initial temperature from Case 1a or 1b
2c	09:00	Worst 30-day Evaporation	6	Reg. Guide 1.27, Rev. 1	Use limiting initial temperature from Case 2a or 2b
3c	09:00	Worst 30-day Evaporation	18	Reg. Guide 1.27, Rev. 1	Use limiting initial temperature from Case 3a or 3b

LAKET-PC [Ref. 5.1d] and UHSAVG [Ref. 5.7] are filed and documented in the Sargent & Lundy Computer Software Library. UHS model runs were performed on PC Nos. 5121 and 5407 via network server SNL1 for Rev. 5.

Revision 6 – Revision 6 of this calculation utilizes the same methodology Rev. 5 and is presented in Attachment H. Additional cases 4a, 4b and 4c were run to find the maximum initial UHS temperature for a sediment level of 12 inches.

Revision 6 (see Attachment H)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Design Criteria
4a	09:00	1/30	12	Reg. Guide 1.27, Rev. 1	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
4b	09:00	5/1/30	12	Reg. Guide 1.27, Rev. 2	Maximize Initial UHS Temp; Requires Plant Inlet Temp $\leq 104.0^{\circ}\text{F}$
4c	09:00	Worst 30-day Evaporation	12	Reg. Guide 1.27, Rev. 1	Use limiting initial temperature from Case 4a or 4b.

LAKET-PC [Ref. 5.1d] is filed and documented in the Sargent & Lundy Computer Software Library. UHS model runs were performed on PC No. ZL4578 for Rev. 6.

2.1.9 UHS Analysis for a 104°F and 107°F Plant Inlet Temperature Limit at MUR PU and EPU

Attachment I evaluates the ability of the UHS to maintain the plant inlet temperature below 104°F or 107°F for the worst 31-day transient and also documents the worst 30-day evaporation period analyses. The cases are run for both MUR PU and EPU power levels, and all cases use the Reg. Guide 1.27, Rev. 1 methodology. All cases are included as part of Attachment I and summarized below:

Revision 7 (see Attachment I)

Case	Start Time	Weather Data	Power Level (MW _t)	Sediment Level (in.)	Design Criteria
1a	6:00	1/30	4067 (EPU)	0	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
1a_104F	6:00	1/30	4067 (EPU)	0	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
1a_MUR	6:00	1/30	3559 (MUR PU)	0	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
1a_MUR_104F	6:00	1/30	3559 (MUR PU)	0	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
2a	6:00	1/30	4067 (EPU)	6	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
2a_104F	6:00	1/30	4067 (EPU)	6	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
2a_MUR	6:00	1/30	3559 (MUR PU)	6	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
2a_MUR_104F	6:00	1/30	3559 (MUR PU)	6	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
3a_12am	0:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_3am	3:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_6am	6:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_9am	9:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_12pm	12:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_3pm	15:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_6pm	18:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_9pm	21:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_104F	6:00	1/30	4067 (EPU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F

Case	Start Time	Weather Data	Power Level (MW _t)	Sediment Level (in.)	Design Criteria
3a_MUR	6:00	1/30	3559 (MUR PU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
3a_MUR_104F	6:00	1/30	3559 (MUR PU)	18	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
4a	6:00	1/30	4067 (EPU)	12	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
4a_104F	6:00	1/30	4067 (EPU)	12	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
4a_MUR	6:00	1/30	3559 (MUR PU)	12	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 107.0°F
4a_MUR_104F	6:00	1/30	3559 (MUR PU)	12	Maximize Initial UHS Temp; Requires Plant Inlet Temp ≤ 104.0°F
1c	0:00	Worst 30-day Evaporation	4067 (EPU)	0	Use limiting LAKET input initial temperature from Case 1a
2c	0:00	Worst 30-day Evaporation	4067 (EPU)	6	Use limiting LAKET input initial temperature from Case 2a
3c	0:00	Worst 30-day Evaporation	4067 (EPU)	18	Use limiting LAKET input initial temperature from Case 3a
4c	0:00	Worst 30-day Evaporation	4067 (EPU)	12	Use limiting LAKET input initial temperature from Case 4a
1c_104F	0:00	Worst 30-day Evaporation	4067 (EPU)	0	Use limiting LAKET input initial temperature from Case 1a_104F
1c_MUR	0:00	Worst 30-day Evaporation	3559 (MUR PU)	0	Use limiting LAKET input initial temperature from Case 1a_MUR
1c_MUR_104F	0:00	Worst 30-day Evaporation	3559 (MUR PU)	0	Use limiting LAKET input initial temperature from Case 1a_MUR_104F

2.1.10 UHS Analysis for a 107°F Plant Inlet Temperature Limit at MUR PU

Attachment O evaluates the ability of the UHS to maintain the plant inlet temperature below 107°F for the worst 33 consecutive day transient and also documents the worst 30-day evaporation period analyses. The cases are run for MUR PU power levels, and all cases use the Reg. Guide 1.27, Rev. 2 methodology. All cases are included as part of Attachment O and summarized below:

Revision 8 (see Attachment O)

Case	Weather Data	Power Level (MW _t)	Sediment Level (in.)	Design Criteria
Case 1a_12AM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_3AM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F

Case	Weather Data	Power Level (MW _i)	Sediment Level (in.)	Design Criteria
Case 1a_6AM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_9AM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_12PM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_3PM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_6PM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 1a_9PM	33	3559 (MUR PU)	0	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_12AM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_3AM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_6AM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_9AM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_12PM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_3PM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_6PM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 2a_9PM	33	3559 (MUR PU)	6	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_12AM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_3AM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_6AM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_9AM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_12PM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_3PM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F

Case	Weather Data	Power Level (MW _t)	Sediment Level (in.)	Design Criteria
Case 3a_6PM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 3a_9PM	33	3559 (MUR PU)	18	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_12AM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_3AM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_6AM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_9AM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_12PM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_3PM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_6PM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F
Case 4a_9PM	33	3559 (MUR PU)	12	Initial UHS Temp equal to TS Limit; Requires Plant Inlet Temp ≤ 107.0°F

2.2 Acceptance Criteria

This calculation assumes an initial UHS temperature and demonstrates that peak temperature acceptance criteria 2.2.1 and 2.2.2 are met. The maximum initial UHS temperature is the maximum allowable lake temperature during normal operation.

- 2.2.1 Acceptance Criterion #1 - Peak Temperature - For the worst Reg. Guide 1.27, Rev. 1 composite 31-day and Rev. 2 composite 36-day weather periods (up to Rev. 6), the maximum allowable plant water intake temperature from the UHS is variously 100°F (Rev. 3), 102°F (Rev. 4), 104°F (Rev. 5 through Rev. 7), or 107°F (Rev. 7, 31-day weather period only).

For Rev. 8, the peak temperature of the UHS shall not exceed the maximum allowable UHS temperature of 107°F.

- 2.2.2 Acceptance Criterion #2 - UHS Inventory - There are no specific acceptance criteria for maximum UHS lake drawdown. However, for the worst 30-day evaporation period, the maximum lake drawdown is determined for input to calculation L-001355 [Ref. 5.13].

2.3 Limitations

The results of this calculation are limited by the accuracy of the LAKET-PC program and models inherent in the code (see Ref. 5.14, for a comparison of the predictions of the LAKET program against lake intake temperatures observed in August 1989 at the LaSalle Station). In addition, see Attachment N for additional validation of LAKET.

2.4 Identification of Computer Programs

An updated version of LAKET-PC [Ref. 5.1c] was used when performing calculations for Revision 4 (see Attachment G). Unlike its previous version, the weather files are in text format instead of binary. It was therefore necessary to use the Bin to Txt application included in LAKET-PC program number 03.7.292-2.0 [Ref. 5.1] to convert previously used binary weather files into text files.

After the Rev. 4 issue of this calculation, LAKET-PC [Ref. 5.1d] was updated further to improve flexibility in modeling. This update did not change the basic modeling algorithms as demonstrated by re-running the Attachment G analyses. This latest version was used in the Rev. 5, Rev. 6, Rev. 7, and Rev. 8 of this calculation.

With each update that was made, verification calculations with previous calculations were made to ensure the newer, updated version of the software obtained results that matched its predecessor. For verification purposes, Case 0009 from the main body was recalculated prior to beginning Revision 4 calculations. Results were within 0.03°F of each other. Several previous cases were recalculated prior to conducting tests for Revision 5 for verification of results for the additional update. Since Revisions 6 through 8 utilize the same version of LAKET as Revision 5, no formal verification was necessary.

3.0 ASSUMPTIONS / ENGINEERING JUDGEMENTS

- 3.1 Makeup, Blowdown, Runoff, etc. - Consistent with previous calculations [Ref. 5.4], it is assumed that there is no makeup, blowdown, runoff, or dam spill in the UHS.
- 3.2 Initial Natural Lake Temperature - Up to Revision 6, the initial natural UHS temperature is assumed to be 4.5°F lower than the initial forced UHS temperature. Higher initial natural temperatures produce higher peak UHS temperatures, if the peak temperature occurs in the first few days of the UHS transient. A previous calculation, L-002456 [Ref. 5.6a], analyzed the cooling lake for two units in full power operation (post-power uprate configuration) during the worst day and the worst five days in the weather history (July 15, 1995 and July 12 - 17, 1995). It found that the minimum difference between forced and natural lake temperatures during this peak lake temperature period is 4.5°F. The LOCA transient begins with a cooling lake dike failure and both units operating at full power. Although L-002456 [Ref. 5.6b] was revised for MUR PU and found an increase in maximum lake temperature by approximately 0.1°F, the minimum difference between forced and natural lake temperatures during the peak lake period of 4.5°F remains bounding. Therefore, this assumption remains conservative.

Revision 7 - The initial natural UHS temperature is conservatively assumed to be equal to the initial forced UHS temperature.

Revision 8 - The initial natural temperature is set to the natural temperature of the UHS at the initial time of each case. This is determined from the results of the worst weather determination cases 'WorstWeather_110.dat' and 'WorstWeather_120.dat' (see Attachment O).

- 3.3 Sensible Heat Load from RCS - Up to Revision 6, it is conservatively assumed that all of the sensible heat from the reactor and the primary system is dissipated to the UHS within six hours. One-half of the heat is assumed to be rejected in the first 3-hour time step and the other half is rejected in the second 3-hour time step. This is based on the assumption that the temperature within the reactor will be at 100°F within 6 hours. Peak calculated temperatures are not sensitive to the timing of the introduction of sensible heat within the first two time steps of the analysis. Note that the minimum time step for LAKET is three hours which is short relative to the transit time of the lake given by the UHS volume divided by the volumetric flow rate of CSCS flows or:

$$t_{\text{transit}} = V / Q = (341.4 \text{ acre-ft})(43,560 \text{ ft}^2/\text{acre}) / (86.0 \text{ cfs})$$

$$t_{\text{transit}} = 172,923 \text{ sec} \approx 48 \text{ hours}$$

Where the UHS volume is taken from Table 7.3 and Q is taken from Assumption 3.5. Thus the time step (3 hours) is small relative to the transit time (48 hours).

Revision 7 - It is still assumed that all of the sensible heat from the reactor and the primary system is dissipated to the UHS within six hours. However, since LAKET is run using one hour time steps, one-sixth of the heat is assumed to be rejected in each of the first six hours. Also, with the new effective volume factor calculated in Attachment J and lake volume following removal of water for fire-fighting in Attachment I, the transit time of the UHS is changed. The new UHS transit time is:

$$t_{\text{transit}} = V_{\text{total}} * (\text{Effective Vol. Factor}) / Q = (340.0 \text{ acre-ft})(0.634)(43,560 \text{ ft}^2/\text{acre}) / (86.0 \text{ cfs})$$

$$t_{\text{transit}} = 109,184 \text{ sec} = \sim 30.3 \text{ hours (for 18-in of sedimentation)}$$

The time step (one hour) is small relative to the transit time (30.3 hours).

Revision 8 - The dissipation of sensible heat to the UHS is considered in sections D6.1.1 and D6.2.1 of L-002453 [Ref. 5.8d]. Due to a change in the UHS flow rate the transit time has changed. This calculation is documented in Section O6.3 of Attachment O.

$$t_{\text{transit}} = 123,063 \text{ sec} = \sim 34.2 \text{ hours (for 18-in of sedimentation)}$$

- 3.4 UHS Surface and Volume - The effective surface area and volume are assumed to be 90% of the total surface area and volume. This is in accordance with Reference 5.14, which compares the predictions of the LAKET program against lake intake temperatures observed in August 1989 at the LaSalle Station.

Revision 7 and 8 - An effective area percentage of 57.9% of the total UHS area and an effective volume percentage of 63.4% of the total UHS volume are determined in Attachment J. This was determined for the 18-in of sedimentation case. The use of maximum silting reduces the UHS volume, and therefore the residence time. This reduces the effectiveness of the UHS and is thus conservative.

- 3.5 CSCS Flow - The total plant flow during the UHS analysis is assumed to be 38,600 gpm (86.0 cfs). The total flow is based upon the cumulative flow contribution from thirteen CSCS pumps operating at design flow conditions (eight RHR-SW pumps, 4,000 gpm each; three DG pumps, two at 1300 gpm and one at 2,000 gpm; and two HPCS DG pumps, 1000 gpm each) [Ref.'s 5.11, 5.12].

Revision 7 - It is noted that the fuel pool emergency makeup flow rate is not included, as this flow does not return to the UHS (See Assumption I3.1).

Revision 8 - Due to an RHR pump and two RHR service water pumps being aligned for spent fuel pool cooling services, the total plant flow is 29,300 gpm (65.3 cfs) for the first 16 hours following the UHS event and is 38,600 gpm (86.0 cfs) following the first 16 hours [Ref. O5.11]. More detail is provided in Design Input O4.6. Additionally, the UHS no longer provides fuel pool emergency makeup flow.

- 3.6 Water Properties - Up to Revision 6, the density and specific heat of water in the UHS are assumed to be 62.02 lb/ft³ and 1 Btu/lb-°F, respectively [Ref. 5.10]. This corresponds to an assumed average temperature of 98.5°F.

Revision 7 and 8 - The density and specific heat of water in the UHS are assumed to be 62.00 lb/ft³ and 0.998 Btu/lb-°F, respectively [Ref. 5.10]. This corresponds to an assumed average temperature of 100°F.

- 3.7 UHS Inventory used for Fire Fighting - As stated in minor Revision 5A, the UHS requirement for use of fire water during accident and transient conditions was revised from 132,000 gals to 440,400 gals (See UFSAR Change Package LUCR #96. UFSAR section 9.2.6.3.a was updated by UFSAR Change Package LUCR #96). Assumption 3.7 is adjusted to account for the new UHS requirement for fire fighting in 3.7B.

A. Up to Revision 5 - The use of UHS inventory for fire fighting is insignificant. UFSAR Section 9.2.6.3 [Ref. 5.3] states that 132,000 gallons of water from the UHS must be available for fire fighting following an accident. Fire fighting could consume up to 0.41 acre-ft (132,000 gal x 0.1337 ft³/gal / 43,560 ft²/acre). The volume and surface area of the UHS at its maximum drawdown of 1.5 ft (El.

688.5 ft) are 341 acre-ft and 81.3 acres, respectively. Thus, fire water consumption would decrease the UHS heat capacitance by only 0.1% (0.41 acre-ft/341 acre-ft) and increase the maximum UHS drawdown by only 0.005 ft (0.41 acre-ft/81.3 acres).

- B. Revisions 5 and 6 - The use of UHS inventory for fire fighting is insignificant. UFSAR Section 9.2.6.3 [Ref. 5.3] states that 440,400 gallons of water from the UHS must be available for fire fighting following an accident. Fire fighting could consume up to 1.352 acre-ft (440,400 gal x 0.1337 ft³/gal / 43,560 ft²/acre). The volume and surface area of the UHS at its maximum drawdown of 1.5 ft (El. 688.5 ft) are 341 acre-ft and 81.3 acres, respectively. Thus, fire water consumption would decrease the UHS heat capacitance by only 0.396% (1.352 acre-ft/341 acre-ft) and increase the maximum UHS drawdown by only 0.0166 ft (1.352 acre-ft/81.3 acres). This is less than 0.2 inches of drawdown.
- C. Revision 7 and 8 - The use of UHS inventory for fire fighting is accounted for in the LAKET evaluations. It is assumed that all UHS inventory for fire fighting (440,400 gallons [Ref. 5.3]) is used immediately following an accident (See Assumption I3.2 in Attachment I). This is conservative as it decreases the volume of water in the UHS.

- 3.8 Modeling of Precipitation - Up to Revision 6, in the UHS analysis for power uprate no credit is taken for precipitation. The worst UHS temperature and evaporation periods for the updated weather history were selected assuming there is no precipitation. The UHS maximum temperature and maximum evaporation cases were analyzed assuming there is no precipitation.

Revision 7 and 8 - The worst UHS temperature and evaporation periods for the updated weather history were selected with precipitation included. Following selection of the worst periods, precipitation is conservatively removed, and analysis of the UHS maximum temperature and maximum evaporation cases were analyzed assuming there is no precipitation.

4.0 DESIGN INPUTS

- 4.1 UHS Geometry - According to calculation L-001584 [Ref. 5.5], the surface area and volume profile for the UHS with no sediment accumulation can be represented as a series of fifteen, one-foot thick frustums, as follows (volume adjustments account for segments that are not frustums):

Segment No	Elevation	Bottom Surface Area		Top Surface Area		Volume Adjustment
		(ft ³)	(acres)	(ft ³)	(acres)	
15	675-676	332	0.0076	2786	0.064	-
14	676-677	2786	0.064	8091	0.186	-
13	677-678	8091	0.186	14,215	0.326	-
12	678-679	14,215	0.326	224,302	5.15	+2.27+1.66*
11	679-680	224,302	5.15	275,605	6.33	-
10	680-681	275,605	6.33	353,588	8.12	-
9	681-682	353,588	8.12	423,844	9.73	-
8	682-683	423,844	9.73	526,454	12.09	-
7	683-684	526,454	12.09	642,512	14.75	-
6	684-685	642,512	14.75	1,293,664	29.70	-0.84*
5	685-686	1,293,664	29.70	1,293,664**	29.70**	+21.67+19.54*
4	686-687	3,368,632	77.33	3,439,517	78.96	-
3	687-688	3,439,517	78.96	3,508,668	80.55	-
2	688-689	3,508,668	80.55	3,578,525	82.15	-
1	689-690	3,578,525	82.15	3,651,620	83.83	-

* Adjustments to the frustum volumes account for the UHS bottom contour, localized hills and pockets

**Segment 5 is modeled as a cylinder with major adjustments to account for the UHS bottom contour

According to Reference 5.5, the UHS volume for zero sediment deposition is 465 acre-ft. The surface area and volume profile data from Reference 5.5 are based on the latest lake survey performed in 1997. According to UFSAR Section 9.2.6 [Ref. 5.3], the UHS volume for zero sediment deposition is 460 acre-ft. The volume from 1997 lake survey data is only 1% greater than the volume cited in the UFSAR. Because of this and because the lake survey provides the best available volume and lake contour data, the lake survey data will be used in the UHS analysis.

4.2 Weather Periods

31 Day Synthetic Weather Period (R.G. 1.27, Rev. 1) - The worst combined 31-day historical weather period is based on weather data from July 4, 1948 through June 30, 1996 and is synthetically assembled in a data file (File Name: worstday-9am.txt) and is documented in Attachment H [see Attachment A and Ref. 5.4].

Revision 7 - The worst combined 31-day historical weather periods is based on weather data from July 4, 1948 through June 30, 1996 used in the previous revisions and weather data from January 1, 1995 through September 30, 2010 from LaSalle Station (with unavailable data from Peoria, IL). Selection of the worst weather day and worst weather 30 days and a synthetically assembled data file of these days are documented in Attachment M.

Revision 8 - The combined 31-day historical weather period is not used in this revision.

36 Day Synthetic Weather Period (R.G. 1.27, Rev. 2) - The worst combined 36-day historical weather period is based on weather data from July 4, 1948 through June 30, 1996 and is synthetically assembled in a data file (File Name: 5-1-30days9am.txt) and is documented in Attachment H [see Attachment A and Ref. 5.4].

Revision 7 and 8 - The worst combined 36-day historical weather period is not used in this revision.

30 Day Weather Period (R.G. 1.27, Rev. 1) - The worst 30-day historical weather period for evaporative losses is based on weather data from the summer of 1954 as contained in a data file (File Name: 30dayevap.txt) and documented in Attachment H.

Revision 7 and 8 - The worst 30-day historical weather period for evaporative losses based on weather data from the summer of 1954 was determined to remain limiting when compared to worst 30-day weather period for evaporative losses from the LaSalle Station weather data from January 1, 1995 to September 30, 2010. This is documented in Attachment M.

Revision 8 - Weather file creation for this revision is documented in Section O6.4 in Attachment O. Weather files are created for several time periods including: 1) the worst 33, 39, 42, or 45 hours followed by the next consecutive 31 days at various starting times and 2) synthetic weather files of the worst 33 hours, worst 24 hours, and worst 30 days at various start times.

4.3	<u>Seepage Rate</u>	0.2 cfs	[Ref. 5.4]
4.4	<u>CSCS Pond Length</u>	5500 ft	[Ref. 5.4]
4.5	<u>UHS Heat Load</u>	Appendices L9.1 and L9.3 in Attachment L (Rev. 7) Appendix P9.1 in Attachment P (Rev. 8)	[Ref. 5.8] [Ref. 5.8]
4.6	<u>Current T.S. Allowable Sediment Accumulation in the UHS</u>	1.5 feet (average)	[Ref. 5.9]
4.7	<u>Maximum Allowable CSCS Intake Temperature</u>	Case Specific	
4.8	<u>Other</u> - See Attachment G for additional Revision 4 Design Inputs, Attachment H for additional Revision 5 and 6 Design Inputs, Attachment I for additional Revision 7 Design Inputs, and Attachment O for additional Revision 8 Design Inputs.		

5.0 REFERENCES

- 5.1
 - a) LAKET-PC Computer Prog., Version 1.0, S&L Program No. 03.7.292-1.0, October 1997.
 - b) LAKET-PC Plot Prog., Version 1.2, S&L Program No. 03.7.292-1.2, Nov. 1999
 - c) LAKET-PC Computer Prog., Version 2.0, S&L Program No. 03.7.292-2.0, Aug. 2004 (Rev. 4).
 - d) LAKET-PC Computer Prog., Version 2.2, S&L Program No.03.7.292-2.2, Dec. 2004 (Rev. 5, 6 , 7, and 8).
- 5.2 "Ultimate Heat Sink for Nuclear Power Plants," U.S. Atomic Energy Commission, Regulatory Guide 1.27, Rev. 1, March 1974 and Rev. 2, January 1976.
- 5.3 "Ultimate Heat Sink," LSCS-UFSAR, 9.2.6, Rev. 19.
- 5.4 "Sensitivity Study for Ultimate Heat Sink Sizing," Calculation L-001581, Rev. 0, December 23, 1997.
- 5.5 "Volume of the Ultimate Heat Sink (UHS)," Calculation L-001584, Rev. 1, March 25, 1998.
- 5.6
 - a) "LaSalle County Station Cooling Lake Performance," Calculation L-002456, Rev. 1.
 - b) "LaSalle County Station Cooling Lake Performance," Calculation L-002456, Rev. 1a.
- 5.7 UHSAVG Computer Program, S&L Program No. 03.7.642-1.0, August 1997.
- 5.8
 - a) "UHS Heat Load," Calculation L-002453, Rev. 1, December 1999.
 - b) "UHS Heat Load," Calculation L-002453, Rev. 2, April 2002.
 - c) "UHS Heat Load," Calculation L-002453, Rev. 3, June 2012.
 - d) "UHS Heat Load," Calculation L-002453, Rev. 4.
- 5.9 LaSalle Technical Specifications, SR 3.7.3.2, Surveillance Requirements, Amendment 206/193.
- 5.10 STMFUNC Computer Program, S&L Program Number STM 03.7.598-2.0, May 2003.
- 5.11 LaSalle CSCS Pump Curves, Crane-Deming, (Attachment D):
 - a) T-5669, "Pump Performance Curve for 2E12-C300A," Rev. 1.
 - b) T-5670, "Pump Performance Curve for 2E12-C300B," Rev. 1.
 - c) T-5671, "Pump Performance Curve for 2E12-C300C," Rev. 1.
 - d) T-5672, "Pump Performance Curve for 2E12-C300D," Rev. 1.
 - e) T-5695, "Pump Performance Curve for 1E12-C300A," Rev. 1.
 - f) T-5706, "Pump Performance Curve for 1E12-C300B," Rev. 1.
 - g) T-5707, "Pump Performance Curve for 1E12-C300C," Rev. 1.
 - h) 1821-2, "Pump Performance Curve for 1E12-C300D," Rev. 1.
 - i) 1940-2, "Pump Performance Curve for 0DG01P," Rev. A.
 - j) 19516, "Pump Performance Curve for 1DG01P & 2DG01P," Rev. 1.

- 5.12 VPF 3275-048, "Pump Performance Curve," Union Pump Co. HPCS DG Pump 1E22-C002 and HPCS DG Pump 2E22-C002, Rev. 2 (Attachment D).
- 5.13 L-001355, "LaSalle County Station CSCS Hydraulic Model," Rev. 005A.
- 5.14 S&L's January 5, 1990 Study, "Comparison of Cooling Lake Temperature Predictions from the LAKET Computer Model with Observed Lake Temperatures for the Summer of 1989," in file WIN 0858 (provided as an Attachment to Reference 5.6, "LaSalle County Station Cooling Lake Performance," Calculation L-002456, Rev. 1, December 13, 1999).
- 5.15 *Marks' Standard Handbook for Mechanical Engineers*, 9th Edition, Edited by Avallone and Baumeister, McGraw-Hill, 1987
- 5.16 Letter from Mike Peters, Lasalle Station to Manuel Vega, S&L. Subject: Requested Input for L-002457 Revision 5. (See pp. H23)
- 5.17 Email from Paul Derezotes, S&L to Michael Duffy, S&L, "Uhsavg Program Capabilities Summary for Lasalle." (See pp. H24)
- 5.18 GE Letter SC06-01, dated 1/19/2006, "Plants with GE Containment Design or Analysis (Attachment 1)"

6.0 NUMERIC ANALYSIS

6.1 Calculation of Plant Temperature Rise, ΔT

The CSCS temperature rise across the plant is computed per the method described in Section 2.1.6. Table G7.1 contains the average temperature rise for each time step for the Rev. 4, 5, and 6 analyses. The average temperature rise for MUR PU and EPU is calculated in Attachment L for the Rev. 7 analysis. The plant heat load calculation [Ref. 5.8d] was revised to incorporate more realistic heat loads. The plant temperature rise based on the revised heat loads are calculated in Attachment P for the Rev. 8 analysis.

(Note that the heat load data for the Rev. 3 analyses for each three-hour increment is listed in Table 7.2 and Figure 7.14 of this calculation).

The EXCEL formulas and interpolation macro for the temperature rise up to Rev. 6 are printed in Attachments C and G. The interpolation is verified by inspection. The tables are produced using EXCEL Version 97SR-1. Formulas for determining the CSCS temperature rise across the plant in Rev. 7 are shown in Attachment L. Formulas for determining the CSCS temperature rise across the plant in Rev. 8 are shown in Attachment P.

6.2 UHS Area and Capacity

The area-capacity profile of the UHS is determined for three sediment accumulation levels: 0, 0.5, and 1.5 feet for Rev. 5 and 1 foot for Rev. 6. The existing technical specification limit on minimum UHS volume is an average sediment accumulation of 1.5 feet. The 0.5-foot and 1-foot sediment accumulation cases were selected as an intermediate level of volume degradation that could potentially serve as a new technical specification limit. (As can be seen in the Table 6.1 computation of UHS volume, an average sediment accumulation of 0.5 ft corresponds to a UHS volume of 423.5 acre-ft.)

The area-capacity profile of the UHS is computed using the inputs of calculation L-001584 [Ref. 5.5] and the methodology of calculation L-001581 [Ref. 5.4]. The UHS is modeled as a series of one-foot thick horizontal slices, each in the shape of a frustum. The survey data summarized in Design Input 4.1 provides the surface areas of the top, A_t , and the bottom, A_b , of each of these segments (of depth, d). The volume of each of these frustums is $(A_t + A_b + [(A_t)(A_b)]^{1/2})(d/3)$ [Ref. 5.15]. Deviations from the frustum shape within each of the segments are accounted for by the volume adjustments identified in Design Input 4.1. Because a somewhat simpler methodology was used, the results of the area-volume profile calculation are slightly different than those of calculation L-001584 [Ref. 5.5].

The area-capacity profiles are computed in the Excel spreadsheet shown in Table 6.1 and Appendix C (EXCEL Version 97SR-1). Sediment is assumed to deposit in a layer of uniform vertical thickness along the bottom and sloped sides of the UHS. A one-foot sediment accumulation results in a one-foot translation upward of the UHS geometry, which is modeled as a reassignment of the dimensions of each segment to the next highest neighboring segment. Fractional-foot sediment accumulation is modeled as the fractional reassignment of the dimensions of each segment to higher segments. Each one-foot thick segment is then composed of fractional-foot thicknesses of two neighboring frustums.

For the 0, 0.5, 1, and 1.5-foot sediment cases, area and capacity were computed at elevation 690 ft and at one-foot intervals down to elevation 685 ft. The areas, incremental volume and total volume for these elevations are shown in bold type in Table 6.1. The LAKET-PC runs use the area and volume for only these first six elevations. For the 0, 0.5, 1, and 1.5-foot cases below elevation 685 ft, area and volume are

computed only at intermediate elevations such as 683.5 and 684.5 ft.

Data from the Table 6.1 spreadsheet that is used as LAKET-PC input is listed in Table 7.1.

For Revision 7, the UHS volume and area input to LAKET are revised to incorporate the effects of removing water for fire-fighting. See Attachment I for further documentation of the changes to UHS volume and area. In addition, the effective area and effective volume of the UHS are changed as a result of the analysis in Attachment J. See Attachment I for further documentation of the changes to UHS volume and area.

Revision 8 uses the same UHS volume and area input as developed in Revision 7.

6.3 Maximum Allowable Lake Temperature

6.3.1 UHS Temperature Limit of 100°F – Rev. 3 Analysis

The UHS analysis is performed using the LAKET-PC computer program. For postulated safe shutdown and design basis accident events, the peak UHS temperature must be kept within the CSCS intake temperature limit of 100°F. The analysis determines the maximum lake intake temperature that can be allowed during normal operation, consistent with the 100°F temperature limit. Three sediment depths are modeled for the worst 36-day composite temperature period. A no sediment case, a 0.5-foot sediment case, and a 1.5-foot sediment case are run for the updated weather data conditions. The 0.5-foot sediment case corresponds to a potentially new technical specification limit of 423.5 acre-ft on UHS volume. The 1.5-foot case corresponds to the current technical specification limit on average UHS sediment deposition.

In assuming the initial UHS temperature is equal to the maximum allowable temperature of the cooling water supply to the plant from the lake, one is assuming conditions more severe than occur in the weather history. Because of this, the peak temperature occurs in the first day of these UHS transients and the time of day at which the transient is assumed to begin becomes critical. To account for the time of day at which the UHS transient may start, eight start times (00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00 and 21:00) are used for each of the three sediment depths being analyzed.

Limiting initial UHS temperatures are found for the 24 combinations of start time and sediment depth for:

1. the first day of the UHS transient is worst day in the weather history (July 15, 1995), and
2. the first day in the UHS transient is the first of the worst five days in the weather history (July 12 – 17, 1995).

The limiting initial UHS temperatures found by these two tests are listed in Table 7.3, plotted in Figure 7.1 and documented in Attachment B. Table 7.3 indicates which of the two tests, the one-day or the five-day test, produced the most restrictive temperature limit for each case. Three of the post-LOCA temperature transients are shown in Figures 7.2, 7.6, and 7.10. The corresponding post-LOCA drawdowns are shown in Figures 7.3, 7.7 and 7.11. (The LAKET-PC data used to generate these plots is provided in Attachment F.) The three cases selected for these plots are the sediment depths of 0, 0.5 and 1.5 ft, the start time of 09:00, and the worst 36-day composite weather history (consistent with R.G. 1.27, Rev. 2). The limiting initial UHS temperatures are consistent with a peak CSCS intake temperature of 100°F.

In addition to determining the post-LOCA temperature response of the UHS to the worst 36-day temperature period, the maximum UHS drawdown was determined for the worst 30-day evaporation period (in accordance with R.G. 1.97, Rev. 2). A 0-foot, a 0.5-foot and a 1.5-foot sediment case are run with the

updated weather data. The 0.5-foot sediment case corresponds to a potentially new technical specification limit on UHS volume of 423.5 acre-ft and the 1.5-foot sediment case is the existing technical specification limit. UHSAVG selected the time of day at which the drawdown transient begins. LAKET-PC output for the 30-day evaporation cases is documented in Attachment B. The post-LOCA temperature transients are shown in Figures 7.4, 7.8 and 7.12 and the post-LOCA drawdowns are shown in Figures 7.5, 7.9 and 7.13. (The LAKET-PC data used to generate these plots is provided in Attachment F.) Initial UHS temperatures were selected to produce a peak CSCS intake temperature of 100°F.

6.3.2 UHS Temperature Limit of 102°F – Rev. 4 Analysis

For this analysis, the limiting plant intake temperature is increased to 102°F. Limiting weather data is unchanged from the Rev. 3 analysis. Further, the limiting start time for the transient is based on the parametric analysis per Rev. 3. Thus 09:00 hrs (9 AM) is taken as the most limiting start time. The limiting initial UHS temperature obtained for this start time can be conservatively applied as a maximum operating lake temperature for any time during the day. Analysis and results are documented in Attachment G.

6.3.3 UHS Temperature Limit of 104°F – Rev. 5 and 6 Analyses

For this analysis, the limiting plant intake temperature is increased to 104°F. Limiting weather data is unchanged from the Rev. 3 analysis. Further, the limiting start time for the transient is based on the parametric analysis per Rev. 3. Thus 09:00 hrs (9 AM) is taken as the most limiting start time. The limiting initial UHS temperature obtained for this start time can be conservatively applied as a maximum operating lake temperature for any time during the day. Rev. 6 utilizes the same methodology as Rev. 5 for additional cases to analyze the maximum initial UHS temperatures for 1 ft of sediment. Analysis and results are documented in Attachment H.

6.3.4 UHS Temperature Limit of 104°F and 107°F for EPU and MUR PU - Rev. 7 Analysis

For this analysis, the limiting intake temperature is 104°F and 107°F. The limiting weather data is updated from the previous revisions, as documented in Attachment M. The limiting time of day at which the UHS starts is determined by running Case 3a (107°F intake temperature, 18-in sediment level, EPU power level) at eight different start times (00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00 and 21:00) and determined to be 6:00AM. The limiting initial UHS temperature obtained for this start time can be conservatively applied as a maximum operating lake temperature for any time during the day. Analysis and results are documented in Attachment I.

6.3.5 UHS Temperature Limit of 107°F for MUR PU - Rev. 8 Analysis

For this analysis, the limiting intake temperature is 107°F. The limiting weather data is updated from the previous revisions, as documented in Section O6.4 of Attachment O in order to conform to Rev. 2 of R.G. 1.27 [Ref. 5.2]. Cases are run for eight different start times (00:00, 03:00, 06:00, 09:00, 12:00, 15:00, 18:00 and 21:00) at four different sedimentation levels (0 in, 6 in, 12 in, and 18 in). Analysis and results are documented in Attachment O.

6.4 **30-Day Evaporation**

Up to Revision 6 - The limiting initial temperature for the various amounts of siltation (see Section 7.1.3) is used as the starting point for the 30-day evaporation case to demonstrate negligible impact on previous results. Results documented in Attachment H demonstrate that the UHS evaporative losses are less than

1.5-ft for the worst 30-day evaporative period.

Revision 7 - The limiting initial temperature for the various amounts of siltation (see Section 7.1.3) is used as the starting point for the 30-day evaporation case to determine the maximum amount of UHS drawdown. For the 107°F limiting intake temperature and EPU power level, the limiting sediment level is determined to be 0-in. For other cases (i.e. 104°F or MUR PU) only the limiting sediment level case (0-in) is run. Results are documented in Attachment I.

Revision 8 - Worst 30-day net evaporation cases are run for the four levels of sedimentation. Results are documented in Attachment O.

7.0 RESULTS AND CONCLUSIONS

7.1 Summary

7.1.1 Historical Results – Rev. 3 and Earlier

The inclusion of weather conditions from 1982 to 1996 significantly increases the severity of the UHS design basis temperature transient. The worst 36-day composite weather period was developed from July 1948 through June 1996 weather history for the area. The UHSAVG program determined the worst 36-day (worst 5-day + worst 1-day + worst 30 consecutive day) period to be: 09:00, July 12, 1995 through 06:00, July 17, 1995; 12:00, July 15, 1995 through 09:00, July 16, 1995; and 15:00, July 10, 1983 through 12:00, August 9, 1983 (see Appendix A for details).

In analyzing the effect of beginning the UHS temperature transient at the maximum allowable cooling lake temperature, one is assuming conditions more severe than those that have occurred in the weather history. Because of this the peak UHS temperature occurs in the first day of the LOCA transient. The results of the LAKET-PC analysis for each of the UHS transient start times are summarized in Table 7.3 and Fig. 7.1.

The maximum design intake temperature for the CSCS system is 100°F [Rev. 3 analysis]. To meet this requirement, the daily high temperature of the cooling water supply to the plant from the lake would have to be limited to 97.5°F. This limit is consistent with the 96.5°F limit at 9:00 am for 1.5-foot silt depth (341.4 acre-ft volume) in the UHS (see Sec. 7.5 for justification). According to Calculation L-002456, Rev. 1 [Ref. 5.6], the 09:00 temperature of the cooling water supply to the plant from the lake on the worst day of the weather history is 95.4°F. As can be seen in Figure 7.1, the 1.1°F margin between the historically hottest day and the initial UHS temperature limit is the smallest margin that exists for any starting time of the UHS design temperature transient. This margin provides an assurance that there is little risk that the most restrictive temperature limits on cooling lake temperature will be exceeded in the future. If the minimum allowable UHS volume were changed to 423.5 acre-ft (0.5 ft average sediment depth), temperature of the cooling water supply to the plant from the lake would have to be limited to 97.5°F at 9:00.

The maximum drawdown for power uprate under the maximum evaporation conditions is approximately 1.5 feet (El. 688.5 feet). The UHSAVG program determined the worst 30-day evaporation period to be 12:00, June 18, 1954 through 09:00, July 18, 1954. The worst 30-day evaporation period shifted 3½ days from the period identified in the UFSAR Sec. 9.2.6.3.1 prior to power uprate. This shift was caused by four minor changes in the modeling of the worst evaporating period that were made when UHSAVG was converted from a mainframe to a PC-based program:

1. The solar radiation model was improved.
2. The method for synthesizing missing weather data was improved.
3. The UHS surface area and volume were updated to reflect lake survey data.
4. The average daily heat load was updated for power uprate.

7.1.2 UHS Temperature Limit of 102°F – Rev. 4 Analyses**Maximum Initial UHS Temperatures - Revision 4 (see Attachment G)**

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Limiting Initial UHS Temperature
1	09:00	1/30	0	Reg. Guide 1.27, Rev. 1	>100°F
2	09:00	5/1/30	6	Reg. Guide 1.27, Rev. 2	>100°F
3	09:00	1/30	18	Reg. Guide 1.27, Rev. 1	99.35°F
4	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	>100°F

7.1.3 UHS Temperature Limit of 104°F – Rev. 5 and Rev. 6 Analyses**Maximum Initial UHS Temperatures - Revision 5 (see Attachment H)**

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Limiting Initial UHS Temperature
1a	09:00	1/30	0	Reg. Guide 1.27, Rev. 1	103.0°F
2a	09:00	1/30	6	Reg. Guide 1.27, Rev. 1	102.9°F
3a	09:00	1/30	18	Reg. Guide 1.27, Rev. 1	102.3°F
1b	09:00	5/1/30	0	Reg. Guide 1.27, Rev. 2	103.6°F
2b	09:00	5/1/30	6	Reg. Guide 1.27, Rev. 2	103.5°F
3b	09:00	5/1/30	18	Reg. Guide 1.27, Rev. 2	102.9°F

Maximum Initial UHS Temperatures – Revision 6 (see Attachment H)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Limiting Initial UHS Temperature
4a	09:00	1/30	12	Reg. Guide 1.27, Rev. 1	102.7
4b	09:00	5/1/30	12	Reg. Guide 1.27, Rev. 2	103.0

The values above are rounded to the nearest 0.1°F and do not include margin.

7.1.4 UHS Temperature Limit of 104°F and 107°F at MUR PU and EPU - Rev. 7 Analyses

The inclusion of weather conditions from January 1995 to September 2010 from LaSalle Station (with unavailable weather parameters from LaSalle Station taken from Peoria, IL, see Attachment K) further increases the severity of the UHS design basis temperature transient. The limiting initial UHS temperatures at the sediment levels analyzed for a plant intake limit of 104°F or 107°F at MUR PU and EPU power levels are shown in the table below (See Attachment I for further documentation).

MUR PU Maximum Initial UHS Temperatures - Revision 7 (see Attachment I)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Limiting Initial UHS Temperature
1a_MUR	06:00	1/30	0	Reg. Guide 1.27, Rev. 1	103.63
2a_MUR	06:00	1/30	6	Reg. Guide 1.27, Rev. 1	103.32
3a_MUR	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	102.46
4a_MUR	06:00	1/30	12	Reg. Guide 1.27, Rev. 1	102.93
1a_MUR_104F	06:00	1/30	0	Reg. Guide 1.27, Rev. 1	100.30
2a_MUR_104F	06:00	1/30	6	Reg. Guide 1.27, Rev. 1	99.95
3a_MUR_104F	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	91.68
4a_MUR_104F	06:00	1/30	12	Reg. Guide 1.27, Rev. 1	89.54

EPU Maximum Initial UHS Temperatures - Revision 7 (see Attachment I)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Limiting Initial UHS Temperature
1a	06:00	1/30	0	Reg. Guide 1.27, Rev. 1	103.63
2a	06:00	1/30	6	Reg. Guide 1.27, Rev. 1	103.32
3a_12am	00:00	1/30	18	Reg. Guide 1.27, Rev. 1	104.95
3a_3am	03:00	1/30	18	Reg. Guide 1.27, Rev. 1	103.14
3a_6am	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	102.42
3a_9am	09:00	1/30	18	Reg. Guide 1.27, Rev. 1	103.61
3a_12pm	12:00	1/30	18	Reg. Guide 1.27, Rev. 1	105.80
3a_3pm	15:00	1/30	18	Reg. Guide 1.27, Rev. 1	106.97
3a_6pm	18:00	1/30	18	Reg. Guide 1.27, Rev. 1	107.00
3a_9pm	21:00	1/30	18	Reg. Guide 1.27, Rev. 1	107.00
4a	06:00	1/30	12	Reg. Guide 1.27, Rev. 1	102.93
1a_104F	06:00	1/30	0	Reg. Guide 1.27, Rev. 1	100.30
2a_104F	06:00	1/30	6	Reg. Guide 1.27, Rev. 1	96.80
3a_104F	06:00	1/30	18	Reg. Guide 1.27, Rev. 1	87.01
4a_104F	06:00	1/30	12	Reg. Guide 1.27, Rev. 1	85.47

7.1.5 UHS Temperature Limit of 107°F - Rev. 8 Analyses

Revision 8 incorporates the weather conditions from January 1995 to September 2010 from LaSalle Station and analyses the UHS design basis temperature transient based on a more realistic MUR PU (3559 MW,) heat load rejected to the UHS and weather selection based on R.G. 1.27, Rev. 2 [Ref. 5.2]. The LAKET-PC [Ref. 5.1] cases are run using the TS limiting temperatures as the initial temperature, and the results are compared to the UHS temperature limit of 107°F. The results of this analysis are shown below (See Attachment O for further documentation).

UHS Temperatures at Maximum Allowable Initial Temperature - Revision 8 (see Attachment O)

Case	Start Time	Weather Data	Sediment Level (in.)	Methodology	Initial UHS Temperature (°F)	Maximum UHS Temperature (°F)
Case 1a_12am	00:00	33	0	Reg. Guide 1.27. Rev. 2	104.53	104.53
Case 1a_3am	03:00	33	0	Reg. Guide 1.27. Rev. 2	102.72	102.72
Case 1a_6am	06:00	33	0	Reg. Guide 1.27. Rev. 2	102.00	103.12
Case 1a_9am	09:00	33	0	Reg. Guide 1.27. Rev. 2	103.19	104.33
Case 1a_12pm	12:00	33	0	Reg. Guide 1.27. Rev. 2	104.75	104.97
Case 1a_3pm	15:00	33	0	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 1a_6pm	18:00	33	0	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 1a_9pm	21:00	33	0	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 2a_12am	00:00	33	6	Reg. Guide 1.27. Rev. 2	104.53	105.21
Case 2a_3am	03:00	33	6	Reg. Guide 1.27. Rev. 2	102.72	104.54
Case 2a_6am	06:00	33	6	Reg. Guide 1.27. Rev. 2	102.00	103.21
Case 2a_9am	09:00	33	6	Reg. Guide 1.27. Rev. 2	103.19	104.42
Case 2a_12pm	12:00	33	6	Reg. Guide 1.27. Rev. 2	104.75	104.99
Case 2a_3pm	15:00	33	6	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 2a_6pm	18:00	33	6	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 2a_9pm	21:00	33	6	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 3a_12am	00:00	33	18	Reg. Guide 1.27. Rev. 2	104.53	104.53
Case 3a_3am	03:00	33	18	Reg. Guide 1.27. Rev. 2	102.72	105.75
Case 3a_6am	06:00	33	18	Reg. Guide 1.27. Rev. 2	102.00	106.15
Case 3a_9am	09:00	33	18	Reg. Guide 1.27. Rev. 2	103.19	105.31
Case 3a_12pm	12:00	33	18	Reg. Guide 1.27. Rev. 2	104.75	105.05
Case 3a_3pm	15:00	33	18	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 3a_6pm	18:00	33	18	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 3a_9pm	21:00	33	18	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 4a_12am	00:00	33	12	Reg. Guide 1.27. Rev. 2	104.53	105.86
Case 4a_3am	03:00	33	12	Reg. Guide 1.27. Rev. 2	102.72	105.97
Case 4a_6am	06:00	33	12	Reg. Guide 1.27. Rev. 2	102.00	105.33
Case 4a_9am	09:00	33	12	Reg. Guide 1.27. Rev. 2	103.19	104.54
Case 4a_12pm	12:00	33	12	Reg. Guide 1.27. Rev. 2	104.75	105.01
Case 4a_3pm	15:00	33	12	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 4a_6pm	18:00	33	12	Reg. Guide 1.27. Rev. 2	104.75	104.75
Case 4a_9pm	21:00	33	12	Reg. Guide 1.27. Rev. 2	104.75	104.75

7.1.6 UHS Drawdown for Temperature Limit of 104°F – Rev. 5 and 6 Analyses

Computed drawdown for the UHS is <1.5-ft for the limiting case analysis.

7.1.7 UHS Drawdown for Temperature Limit of 104°F/107°F at MUR PU and EPU - Rev. 7 Analysis

The computed drawdown for the UHS for a temperature limit of 104°F or 107°F at MUR PU and EPU power levels are shown below (See Attachment I for further documentation).

MUR PU Maximum Lake Drawdown - Revision 7 (see Attachment I)

Case	Weather Data	Sediment Level (in.)	Maximum Lake Drawdown (ft) ¹
1c_MUR	Worst Net Evap.	0	2.24
1c_MUR_104F	Worst Net Evap.	0	2.22

1) Determined from initial lake elevation of 689.98-ft.

EPU Maximum Lake Drawdown - Revision 7 (see Attachment I)

Case	Weather Data	Sediment Level (in.)	Maximum Lake Drawdown (ft) ¹
1c	Worst Net Evap.	0	2.27
2c	Worst Net Evap.	6	2.25
3c	Worst Net Evap.	18	2.20
4c	Worst Net Evap.	12	2.23
1c_104F	Worst Net Evap.	0	2.26

1) Determined from initial lake elevation of 689.98-ft.

7.1.8 UHS Drawdown for Temperature Limit of 107°F - Rev. 8 Analysis

The computed drawdown for the UHS for a temperature limit of 107°F for the new heat loads developed in L-002453 [Ref. 5.2d] are shown below (See Attachment O for further documentation).

Maximum Lake Drawdown - Revision 8 (see Attachment O)

Case	Weather Data	Sediment Level (in.)	Maximum Lake Drawdown (ft) ¹
1c	Worst Net Evap.	0	1.42
2c	Worst Net Evap.	6	1.42
3c	Worst Net Evap.	18	1.42
4c	Worst Net Evap.	0	1.42
NetEvap_0.1	Worst Net Evap., Wind Power Law Exponent = 0.1	18	1.47
NetEvap_0.2	Worst Net Evap., Wind Power Law Exponent = 0.2	18	1.45

1) Determined from initial lake elevation of 689.98-ft.

7.2 Compliance with Acceptance Criteria

- 7.2.1 Acceptance Criterion #1 - Peak Temperature – Acceptance Criterion #1 is met provided the plant is operated and monitored and maintain UHS temperatures below the applicable limits per the results listed in Section 7.1.2 (Rev. 4), Section 7.1.3 (Rev. 5 and 6), or Section 7.1.4 (Rev. 7).

For Rev. 8, Acceptance Criterion #1 is met as the UHS temperature remains below 107°F for all worst weather cases as shown in Section 7.1.5.

- 7.2.2 Acceptance Criterion #2 - UHS Inventory – The maximum expected lake drawdown, with no loss of inventory due to spent fuel pool makeup, is given in Section 7.1.8. This will be used in calculation L-001355 [Ref. 5.13].

7.2.3 Other

The following table lists the cases that were run with the updated software prior to performing calculations for Revision 5. This was done to verify the results that were obtained in the original calculations were obtained again with the updated software. LAKET output for the verification cases is provided in Attachment H.

Verification

Case	Revision	Original Calculation Results (Plant Inlet Temp, °F)	Results with Most Current Software (Plant Inlet Temp, °F)
C00e	Revision 3	99.95	99.95
C06e	Revision 3	99.97	99.96
C18e	Revision 3	99.97	99.96
C0609	Revision 4	99.94	99.98

Note: Revisions 6 through 8 utilized the same version of LAKET [Ref. 5.1d] as Revision 5.

7.3 Tables

- ♦ Table 6.1: Determination of UHS Area-Capacity Profiles
- ♦ Table 7.1: UHS Area-Capacity Inputs for LAKET-PC
- ♦ Table 7.2: Plant Temperature Rise
- ♦ Table 7.3: Maximum Allowable Initial Lake Temperatures
- ♦ Table G7.1: Plant Temperature Rise
- ♦ Table G7.2: Cumulative Summary for Case 1 – 0” Sediment, 09:00 start time
- ♦ Table G7.3: Cumulative Summary for Case 2 – 6” Sediment, 09:00 start time
- ♦ Table G7.4: Cumulative Summary for Case 3 – 18” Sediment, 09:00 start time
- ♦ Table G7.5: Cumulative Summary for Case 4 – 18” Sediment, 06:00 start time
- ♦ Table H7.0: Overall Summary of Cases and Results
- ♦ Table H7.1: Cumulative Summary for Case 1a – 0” Sediment, 09:00 Start, 1/30 Weather Data
- ♦ Table H7.2: Cumulative Summary for Case 1b – 0” Sediment, 09:00 Start, 5/1/30 Weather Data
- ♦ Table H7.3: Cumulative Summary for Case 1c – 0” Sediment, 12:00 Start, Worst 30-day Evap. Data
- ♦ Table H7.4: Cumulative Summary for Case 2a – 6” Sediment, 09:00 Start, 1/30 Weather Data

- ♦ Table H7.5: Cumulative Summary for Case 2b – 6” Sediment, 09:00 Start, 5/1/30 Weather Data
- ♦ Table H7.6: Cumulative Summary for Case 2c – 6” Sediment, 12:00 Start, Worst 30-day Evap. Data
- ♦ Table H7.7: Cumulative Summary for Case 3a – 18” Sediment, 09:00 Start, 1/30 Weather Data
- ♦ Table H7.8: Cumulative Summary for Case 3b – 18” Sediment, 09:00 Start, 5/1/30 Weather Data
- ♦ Table H7.9: Cumulative Summary for Case 3c – 18” Sediment, 12:00 Start, Worst 30-day Evap. Data
- ♦ Table H7.10: Cumulative Summary for Case 4a – 12” Sediment, 09:00 Start, 1/30 Weather Data
- ♦ Table H7.11: Cumulative Summary for Case 4b – 12” Sediment, 09:00 Start, 5/1/30 Weather Data
- ♦ Table H7.12: Cumulative Summary for Case 4c – 12” Sediment, 12:00 Start, Worst 30-day Evap. Data
- ♦ Table H7.13: Table of Outlet Files

Revision 7

- ♦ Table I2.1: Initial Lake Level
- ♦ Table I2.2: List of LAKET Cases
- ♦ Table I6.1: LAKET Files
- ♦ Table I7.1a: MUR PU (3559 MW_i) Overall Summary for Maximum Temperature
- ♦ Table I7.1b: EPU (4067 MW_i) Overall Summary for Maximum Temperature
- ♦ Table I7.2a: MUR PU Overall Summary for Maximum Evaporation
- ♦ Table I7.2b: EPU Overall Summary for Maximum Evaporation

Revision 8

- ♦ Table N6-4: Calculation of Upper Layer Depth
- ♦ Table O2-1: Initial Lake Level
- ♦ Table O2-2: List of LAKET Cases
- ♦ Table O4-1: Proposed TS Limits
- ♦ Table O6-1: UHS Transit Time Calculation
- ♦ Table O6-2: Worst Weather Periods - 110°F Initial Temperature
- ♦ Table O6-3: Worst Weather Periods - 120°F Initial Temperature
- ♦ Table O6-4: Worst Weather - 9 Hour and 12 Hour Period
- ♦ Table O6-5: Worst Weather Files
- ♦ Table O6-6: Worst Weather Comparison
- ♦ Table O6-7: 33-24-30 Case Weather Files
- ♦ Table O6-8: 33-24-30 Case Comparison
- ♦ Table O6-9: Worst Temperature Cases
- ♦ Table O6-10: Worst Net Evaporation Cases
- ♦ Table O6-11: Wind Sensitivity Runs
- ♦ Table O6-12: UHS Drawdown Curves for Mixing Zone Sensitivity Runs
- ♦ Table O6-13: UHS Mixing Sensitivity Runs

7.4 Figures

- ♦ Figure 7.1: Limiting Lake Temperatures vs. Time of Day
- ♦ Figure 7.2: Case 0009: UHS LOCA Temperature Transient, Updated Worst 36-Day Temperature Period
- ♦ Figure 7.3: Case 0009: UHS LOCA Drawdown, First 30 Days of Updated Worst 36-Day Temp. Period
- ♦ Figure 7.4: Case 00e: UHS LOCA Temperature Transient, Updated Worst 30-Day Evaporation Period
- ♦ Figure 7.5: Case 00e: UHS LOCA Drawdown, Updated Worst 30-Day Evaporation Period
- ♦ Figure 7.6: Case 0609: UHS LOCA Temperature Transient, Updated Worst 36-Day Temperature Period
- ♦ Figure 7.7: Case 0609: UHS LOCA Drawdown, First 30 Days of Updated Worst 36-Day Temp. Period

- ♦ Figure 7.8: Case 06e: UHS LOCA Temperature Transient, Updated Worst 30-Day Evaporation Period
- ♦ Figure 7.9: Case 06e: UHS LOCA Drawdown Updated Worst 30 Day Evaporation Period
- ♦ Figure 7.10: Case 1809: UHS LOCA Temperature Transient, Updated Worst 36-Day Temperature Period
- ♦ Figure 7.11: Case 1809: UHS LOCA Drawdown, First 30 Days of Updated Worst 36-Day Temp. Period
- ♦ Figure 7.12: Case 18e: UHS LOCA Temperature Transient, Updated Worst 30-Day Evaporation Period
- ♦ Figure 7.13: Case 18e: UHS LOCA Drawdown, Updated Worst 30-Day Evaporation Period
- ♦ Figure 7.14: UHS Heat Load Following LOCA
- ♦ Figure G7.1: UHS Outlet Temperature vs. Days After SCRAM
- ♦ Figure G7.2: UHS Inlet Temperature vs. Days After SCRAM
- ♦ Figure G7.3: Limiting Lake Temperatures vs. Time of Day – Recreation of Figure 7.1 from main body of calculation
- ♦ Figure H7.1: 1/30 Plant Inlet Temperature vs. Day
- ♦ Figure H7.2: 1/30 Plant Outlet Temperature vs. Day
- ♦ Figure H7.3: 5/1/30 Plant Inlet Temperature vs. Day
- ♦ Figure H7.4: 5/1/30 Plant Outlet Temperature vs. Day
- ♦ Figure H7.5: Case 3a: UHS LOCA Temperature Transient, Worst 31-Day Temperature Period
- ♦ Figure H7.6: Case 3b: UHS LOCA Temperature Transient, Worst 36-Day Temperature Period
- ♦ Figure H7.7: Case 3c: UHS LOCA Drawdown, Worst 30-Day Evaporation Weather Period

Revision 7

- ♦ Figure I7.1: Plant Outlet Temperature (MUR PU)
- ♦ Figure I7.2: Plant Outlet Temperature (EPU)
- ♦ Figure I7.3: Plant Inlet Temperature (MUR PU)
- ♦ Figure I7.4: Plant Outlet Temperature (EPU)
- ♦ Figure I7.5: Case 3a_MUR: UHS LOCA Temperature Transient, Worst 31-Day Temperature Period
- ♦ Figure I7.6: Case 4a_MUR: UHS LOCA Temperature Transient, Worst 31-Day Temperature Period
- ♦ Figure I7.7: Case 3a: UHS LOCA Temperature Transient, Worst 31-Day Temperature Period
- ♦ Figure I7.8: Case 4a: UHS LOCA Temperature Transient, Worst 31-Day Temperature Period
- ♦ Figure I7.9: Case 1c_MUR: UHS LOCA Drawdown, Worst 30-Day Evaporation Weather Period
- ♦ Figure I7.10: Case 1c: UHS LOCA Drawdown, Worst 30-Day Evaporation Weather Period

Revision 8

- ♦ Figure O2.1: Existing UHS Model
- ♦ Figure O2.2: Modified UHS Model for Mixing Effects
- ♦ Figure O2.3: MIT Report 161 [Ref. O5.7] Two Stage Pond
- ♦ Figure O7.1: Case 3a_6AM: UHS LOCA Temperature Transient, Worst 33-Day Temperature Period
- ♦ Figure O7.2: Case 1c: UHS LOCA Drawdown, Worst 30 Day Evaporation Weather Period
- ♦ Figure O8.2-1: Five Day Temperature Profile for the 10% Mixing Case
- ♦ Figure O8.2-2: Five Day Temperature Profile for the 20% Mixing Case
- ♦ Figure O8.2-3: Plant Inlet Temperature for 6AM Cases
- ♦ Figure O8.2-4: Case Mixing - 10% - 9AM Results
- ♦ Figure O8.2-5: Case Mixing - 20% - 12PM Results

7.5 Recommendations

None.

Table 6.1: Determination of UHS Area- Capacity Profiles (1 of 2)

with No Sediment					with 0.5 feet of Sediment				
Elevation (feet)	Slice Number	Surface Area (acres)	Incremental Volume (acre-feet)	Total Volume (acre-feet)	Elevation (feet)	Slice Number	Surface Area (acres)	Incremental Volume (acre-feet)	Total Volume (acre-feet)
					0.5000	0.5000			
675		0.0076		-	675.500		0.0076		-
	15		0.03			15		0.03	
676		0.0640		0.03	676.500		0.0640		0.03
	14		0.12			14		0.12	
677		0.1857		0.15	677.500		0.1857		0.15
	13		0.25			13		0.25	
678		0.3263		0.40	678.500		0.326		0.40
	12		0.33			12		0.33	
	12 (Adj)	3.4397	2.27			12 (Adj)	3.44	2.27	
	12 (Adj)		1.66			12 (Adj)		1.66	
679		5.1493		4.66	679.500		5.15		4.66
	11		5.73			11		5.73	
680		6.3270		10.39	680.500		6.33		10.39
	10		7.20			10		7.20	
681		8.1173		17.59	681.500		8.12		17.59
	9		8.91			9		8.91	
682		9.7301		26.50	682.500		9.73		26.50
	8		10.89			8		10.89	
683		12.0857		37.39	683.500		12.08		37.39
	7		13.40			7		13.40	
684		14.7500		50.79	684.500		14.75		50.79
	6		21.79			6		21.79	
	6 (Adj)		-0.84			6 (Adj)		-0.84	
685		29.6984		71.74		(0.5)(6)		9.18	
	5		29.70		685.000		22.22		59.97
	5 (Adj)	32.3376	21.67			686		27.78	
	5 (Adj)		19.54		685.500		29.70		71.74
686		77.3331		142.64		5		29.70	
	4		78.15			5 (Adj)	32.34	21.67	
687		78.9604		220.79		5 (Adj)		19.54	
	3		79.75		686.000		29.70		102.18
688		80.5479		300.54		48.5		53.72	
	2		81.35		686.500		77.33		142.64
689		82.1516		381.89		4		78.15	
	1		82.99		687.000		78.15		181.84
690		83.8297		464.88		38.4		78.96	
					687.500		78.96		220.79
						3		79.75	
					688.000		79.75		260.79
						28.3		80.55	
					688.500		80.55		300.54
						2		81.35	
					689.000		81.35		341.34
						18.2		82.16	
					689.500		82.15		381.89
						1		82.99	
					690.000		82.99		423.60
					690.500		83.83		464.88

Table 6.1: Determination of UHS Area- Capacity Profiles (2 of 2)

with 1 feet of Sediment					with 1.5 feet of Sediment				
Elevation (feet)	Slice Number	Surface Area (acres)	Incremental Volume (acre-feet)	Total Volume (acre-feet)	Elevation (feet)	Slice Number	Surface Area (acres)	Incremental Volume (acre-feet)	Total Volume (acre-feet)
					0.5000	0.5000			
676		0.0076		-	676.500		0.0076		-
	15		0.03			15		0.03	
677		0.0640		0.03	677.500		0.0640		0.03
	14		0.12			14		0.12	
678		0.1857		0.15	678.500		0.1857		0.15
	13		0.25			13		0.25	
679		0.3263		0.40	679.500		0.3263		0.40
	12		0.33			12		0.33	
	12 (Adj)	3.4397	2.27			12 (Adj)	3.4397	2.27	
	12 (Adj)		1.66			12 (Adj)		1.66	
680		5.1493		4.66	680.500		5.1493		4.66
	11		5.73			11		5.73	
681		6.3270		10.39	681.500		6.3270		10.39
	10		7.20			10		7.20	
682		8.1173		17.60	682.500		8.1173		17.59
	9		8.91			9		8.91	
683		9.7301		26.51	683.500		9.7301		26.50
	8		10.89			8		10.89	
684		12.0857		37.39	684.500		12.0857		37.39
	7		13.40			7		13.40	
685		14.7500		50.79		(0.5)(7)		6.37	
	6		21.79		685.000		13.42		43.76
	6 (Adj)		-0.84			6&7		16.22	
686		29.6984		71.74	685.500		14.7500		50.79
	5		29.70			6		21.79	
	5 (Adj)	32.3376	21.67			6 (Adj)		-0.84	
	5 (Adj)		19.54		686.000		22.22		59.98
687		77.3331		142.65		5&6		27.78	
	4		78.15		686.500		29.6984		71.74
688		78.9604		220.79		5		29.70	
	3		79.75			5 (Adj)	32.34	21.67	
689		80.5479		300.55		5 (Adj)		19.54	
	2		81.35		687.000		29.70		102.19
690		82.1516		381.89		4&5		53.72	
					687.500		77.3331		142.64
						4		78.15	
					688.000		78.15		181.85
						3&4		78.96	
					688.500		78.9604		220.79
						3		79.75	
					689.000		79.75		260.81
						2&3		80.55	
					689.500		80.5479		300.54
						2		81.35	
					690.000		81.35		341.36
					690.500		82.1516		381.89

Table 7.1 - UHS Area-Capacity Inputs for LAKET-PC

Elevation (feet)	With No Sediment		With 0.5 feet of Sediment		With 1.0 feet of Sediment		With 1.5 feet of Sediment	
	Surface Area (acres)	Volume (acre-feet)	Surface Area (acres)	Volume (acre-feet)	Surface Area (acres)	Volume (acre-feet)	Surface Area (acres)	Volume (acre-feet)
685	29.70	71.7	22.22	60.0	14.75	50.8	13.42	43.8
686	77.33	142.6	29.70	102.2	29.70	71.7	22.22	60.0
687	78.96	220.8	78.15	181.8	77.33	142.6	29.70	102.2
688	80.55	300.5	79.75	260.8	78.96	220.8	78.15	181.9
689	82.15	381.9	81.35	341.4	80.55	300.5	79.75	260.8
690	83.83	464.9	82.99	423.5	82.15	381.9	81.35	341.4

Table 7.2 - Plant Temperature Rise (1 of 6)

CSCS Flowrate		86		cfs	Mass Flow	19,201,392	lbm/hr
Density		62.02		lbm/ft ³	cp	1	Btu/lbm/F
Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
0	3	35.26	6.77E+08	2.03E+09	2.03E+09	1.42E+09	6.09E+08
3	6	28.79	5.53E+08	1.66E+09	3.69E+09	2.47E+09	1.22E+09
6	9	16.68	3.20E+08	9.61E+08	4.65E+09	3.43E+09	1.22E+09
9	12	16.28	3.13E+08	9.38E+08	5.59E+09	4.37E+09	1.22E+09
12	15	15.32	2.94E+08	8.83E+08	6.47E+09	5.25E+09	1.22E+09
15	18	14.97	2.87E+08	8.62E+08	7.33E+09	6.11E+09	1.22E+09
18	21	14.53	2.79E+08	8.37E+08	8.17E+09	6.95E+09	1.22E+09
21	24	14.29	2.74E+08	8.23E+08	8.99E+09	7.77E+09	1.22E+09
24	27	13.88	2.67E+08	8.00E+08	9.79E+09	8.57E+09	1.22E+09
27	30	13.45	2.58E+08	7.75E+08	1.06E+10	9.35E+09	1.22E+09
30	33	13.30	2.55E+08	7.66E+08	1.13E+10	1.01E+10	1.22E+09
33	36	13.30	2.55E+08	7.66E+08	1.21E+10	1.09E+10	1.22E+09
36	39	13.30	2.55E+08	7.66E+08	1.29E+10	1.16E+10	1.22E+09
39	42	13.24	2.54E+08	7.62E+08	1.36E+10	1.24E+10	1.22E+09
42	45	12.73	2.44E+08	7.33E+08	1.44E+10	1.31E+10	1.22E+09
45	48	12.73	2.44E+08	7.33E+08	1.51E+10	1.39E+10	1.22E+09
48	51	12.57	2.41E+08	7.24E+08	1.58E+10	1.46E+10	1.22E+09
51	54	12.43	2.39E+08	7.16E+08	1.65E+10	1.53E+10	1.22E+09
54	57	12.24	2.35E+08	7.05E+08	1.72E+10	1.60E+10	1.22E+09
57	60	12.02	2.31E+08	6.93E+08	1.79E+10	1.67E+10	1.22E+09
60	63	12.02	2.31E+08	6.93E+08	1.86E+10	1.74E+10	1.22E+09
63	66	12.02	2.31E+08	6.93E+08	1.93E+10	1.81E+10	1.22E+09
66	69	12.02	2.31E+08	6.93E+08	2.00E+10	1.88E+10	1.22E+09
69	72	12.01	2.31E+08	6.92E+08	2.07E+10	1.95E+10	1.22E+09
72	75	11.49	2.21E+08	6.62E+08	2.14E+10	2.01E+10	1.22E+09
75	78	11.49	2.21E+08	6.62E+08	2.20E+10	2.08E+10	1.22E+09
78	81	11.49	2.21E+08	6.62E+08	2.27E+10	2.15E+10	1.22E+09
81	84	11.49	2.21E+08	6.62E+08	2.33E+10	2.21E+10	1.22E+09
84	87	11.49	2.21E+08	6.62E+08	2.40E+10	2.28E+10	1.22E+09
87	90	11.49	2.21E+08	6.62E+08	2.47E+10	2.35E+10	1.22E+09
90	93	11.49	2.21E+08	6.62E+08	2.53E+10	2.41E+10	1.22E+09
93	96	11.49	2.21E+08	6.62E+08	2.60E+10	2.48E+10	1.22E+09
96	99	11.09	2.13E+08	6.39E+08	2.66E+10	2.54E+10	1.22E+09
99	102	11.07	2.13E+08	6.38E+08	2.73E+10	2.61E+10	1.22E+09
102	105	11.07	2.13E+08	6.38E+08	2.79E+10	2.67E+10	1.22E+09
105	108	11.07	2.13E+08	6.38E+08	2.85E+10	2.73E+10	1.22E+09
108	111	11.07	2.13E+08	6.38E+08	2.92E+10	2.80E+10	1.22E+09
111	114	10.87	2.09E+08	6.26E+08	2.98E+10	2.86E+10	1.22E+09
114	117	10.86	2.09E+08	6.26E+08	3.04E+10	2.92E+10	1.22E+09
117	120	10.86	2.09E+08	6.26E+08	3.11E+10	2.98E+10	1.22E+09
120	123	10.50	2.02E+08	6.05E+08	3.17E+10	3.04E+10	1.22E+09
123	126	10.50	2.02E+08	6.05E+08	3.23E+10	3.11E+10	1.22E+09
126	129	10.50	2.02E+08	6.05E+08	3.29E+10	3.17E+10	1.22E+09
129	132	10.50	2.02E+08	6.05E+08	3.35E+10	3.23E+10	1.22E+09
132	135	10.50	2.02E+08	6.05E+08	3.41E+10	3.29E+10	1.22E+09
135	138	10.50	2.02E+08	6.05E+08	3.47E+10	3.35E+10	1.22E+09
138	141	10.50	2.02E+08	6.05E+08	3.53E+10	3.41E+10	1.22E+09

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

Table 7.2 - Plant Temperature Rise (2 of 6)

Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
141	144	10.50	2.02E+08	6.05E+08	3.59E+10	3.47E+10	1.22E+09
144	147	10.50	2.02E+08	6.05E+08	3.65E+10	3.53E+10	1.22E+09
147	150	10.50	2.02E+08	6.05E+08	3.71E+10	3.59E+10	1.22E+09
150	153	10.50	2.02E+08	6.05E+08	3.77E+10	3.65E+10	1.22E+09
153	156	10.50	2.02E+08	6.05E+08	3.83E+10	3.71E+10	1.22E+09
156	159	10.50	2.02E+08	6.05E+08	3.89E+10	3.77E+10	1.22E+09
159	162	10.50	2.02E+08	6.05E+08	3.95E+10	3.83E+10	1.22E+09
162	165	10.50	2.02E+08	6.05E+08	4.01E+10	3.89E+10	1.22E+09
165	168	10.27	1.97E+08	5.92E+08	4.07E+10	3.95E+10	1.22E+09
168	171	9.99	1.92E+08	5.75E+08	4.13E+10	4.01E+10	1.22E+09
171	174	9.99	1.92E+08	5.75E+08	4.19E+10	4.07E+10	1.22E+09
174	177	9.99	1.92E+08	5.75E+08	4.25E+10	4.12E+10	1.22E+09
177	180	9.99	1.92E+08	5.75E+08	4.30E+10	4.18E+10	1.22E+09
180	183	9.99	1.92E+08	5.75E+08	4.36E+10	4.24E+10	1.22E+09
183	186	9.99	1.92E+08	5.75E+08	4.42E+10	4.30E+10	1.22E+09
186	189	9.99	1.92E+08	5.75E+08	4.48E+10	4.35E+10	1.22E+09
189	192	9.99	1.92E+08	5.75E+08	4.53E+10	4.41E+10	1.22E+09
192	195	9.99	1.92E+08	5.75E+08	4.59E+10	4.47E+10	1.22E+09
195	198	9.99	1.92E+08	5.75E+08	4.65E+10	4.53E+10	1.22E+09
198	201	9.99	1.92E+08	5.75E+08	4.71E+10	4.58E+10	1.22E+09
201	204	9.99	1.92E+08	5.75E+08	4.76E+10	4.64E+10	1.22E+09
204	207	9.88	1.92E+08	5.75E+08	4.82E+10	4.70E+10	1.22E+09
207	210	9.99	1.92E+08	5.75E+08	4.88E+10	4.76E+10	1.22E+09
210	213	9.99	1.92E+08	5.75E+08	4.94E+10	4.81E+10	1.22E+09
213	216	9.99	1.92E+08	5.75E+08	4.99E+10	4.87E+10	1.22E+09
216	219	9.99	1.92E+08	5.75E+08	5.05E+10	4.93E+10	1.22E+09
219	222	9.99	1.92E+08	5.75E+08	5.11E+10	4.99E+10	1.22E+09
222	225	9.72	1.87E+08	5.60E+08	5.16E+10	5.04E+10	1.22E+09
225	228	9.70	1.86E+08	5.59E+08	5.22E+10	5.10E+10	1.22E+09
228	231	9.70	1.86E+08	5.59E+08	5.28E+10	5.15E+10	1.22E+09
231	234	9.70	1.86E+08	5.59E+08	5.33E+10	5.21E+10	1.22E+09
234	237	9.70	1.86E+08	5.59E+08	5.39E+10	5.27E+10	1.22E+09
237	240	9.70	1.86E+08	5.59E+08	5.44E+10	5.32E+10	1.22E+09
240	243	9.54	1.83E+08	5.50E+08	5.50E+10	5.38E+10	1.22E+09
243	246	9.54	1.83E+08	5.50E+08	5.55E+10	5.43E+10	1.22E+09
246	249	9.54	1.83E+08	5.50E+08	5.61E+10	5.49E+10	1.22E+09
249	252	9.54	1.83E+08	5.50E+08	5.66E+10	5.54E+10	1.22E+09
252	255	9.54	1.83E+08	5.50E+08	5.72E+10	5.60E+10	1.22E+09
255	258	9.54	1.83E+08	5.50E+08	5.77E+10	5.65E+10	1.22E+09
258	261	9.54	1.83E+08	5.50E+08	5.83E+10	5.71E+10	1.22E+09
261	264	9.54	1.83E+08	5.50E+08	5.88E+10	5.76E+10	1.22E+09
264	267	9.54	1.83E+08	5.50E+08	5.94E+10	5.82E+10	1.22E+09
267	270	9.54	1.83E+08	5.50E+08	5.99E+10	5.87E+10	1.22E+09
270	273	9.54	1.83E+08	5.50E+08	6.05E+10	5.93E+10	1.22E+09
273	276	9.54	1.83E+08	5.50E+08	6.10E+10	5.98E+10	1.22E+09
276	279	9.40	1.80E+08	5.41E+08	6.16E+10	6.04E+10	1.22E+09
279	282	9.19	1.76E+08	5.29E+08	6.21E+10	6.09E+10	1.22E+09
282	285	9.19	1.76E+08	5.29E+08	6.26E+10	6.14E+10	1.22E+09
285	288	9.19	1.76E+08	5.29E+08	6.32E+10	6.19E+10	1.22E+09

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

Table 7.2 - Plant Temperature Rise (3 of 6)

Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
288	291	9.19	1.76E+08	5.29E+08	6.37E+10	6.25E+10	1.22E+09
291	294	9.19	1.76E+08	5.29E+08	6.42E+10	6.30E+10	1.22E+09
294	297	9.19	1.76E+08	5.29E+08	6.48E+10	6.35E+10	1.22E+09
297	300	9.19	1.76E+08	5.29E+08	6.53E+10	6.41E+10	1.22E+09
300	303	9.19	1.76E+08	5.29E+08	6.58E+10	6.46E+10	1.22E+09
303	306	9.19	1.76E+08	5.29E+08	6.63E+10	6.51E+10	1.22E+09
306	309	9.19	1.76E+08	5.29E+08	6.69E+10	6.57E+10	1.22E+09
309	312	9.19	1.76E+08	5.29E+08	6.74E+10	6.62E+10	1.22E+09
312	315	9.19	1.76E+08	5.29E+08	6.79E+10	6.67E+10	1.22E+09
315	318	9.19	1.76E+08	5.29E+08	6.85E+10	6.72E+10	1.22E+09
318	321	9.19	1.76E+08	5.29E+08	6.90E+10	6.78E+10	1.22E+09
321	324	9.19	1.76E+08	5.29E+08	6.95E+10	6.83E+10	1.22E+09
324	327	9.19	1.76E+08	5.29E+08	7.00E+10	6.88E+10	1.22E+09
327	330	9.19	1.76E+08	5.29E+08	7.06E+10	6.94E+10	1.22E+09
330	333	9.19	1.76E+08	5.29E+08	7.11E+10	6.99E+10	1.22E+09
333	336	9.19	1.76E+08	5.29E+08	7.16E+10	7.04E+10	1.22E+09
336	339	9.19	1.76E+08	5.29E+08	7.22E+10	7.09E+10	1.22E+09
339	342	9.19	1.76E+08	5.29E+08	7.27E+10	7.15E+10	1.22E+09
342	345	9.19	1.76E+08	5.29E+08	7.32E+10	7.20E+10	1.22E+09
345	348	9.19	1.76E+08	5.29E+08	7.37E+10	7.25E+10	1.22E+09
348	351	9.19	1.76E+08	5.29E+08	7.43E+10	7.31E+10	1.22E+09
351	354	9.19	1.76E+08	5.29E+08	7.48E+10	7.36E+10	1.22E+09
354	357	9.19	1.76E+08	5.29E+08	7.53E+10	7.41E+10	1.22E+09
357	360	9.19	1.76E+08	5.29E+08	7.59E+10	7.46E+10	1.22E+09
360	363	9.19	1.76E+08	5.29E+08	7.64E+10	7.52E+10	1.22E+09
363	366	9.19	1.76E+08	5.29E+08	7.69E+10	7.57E+10	1.22E+09
366	369	9.19	1.76E+08	5.29E+08	7.75E+10	7.62E+10	1.22E+09
369	372	9.19	1.76E+08	5.29E+08	7.80E+10	7.68E+10	1.22E+09
372	375	9.19	1.76E+08	5.29E+08	7.85E+10	7.73E+10	1.22E+09
375	378	9.19	1.76E+08	5.29E+08	7.90E+10	7.78E+10	1.22E+09
378	381	9.19	1.76E+08	5.29E+08	7.96E+10	7.84E+10	1.22E+09
381	384	9.19	1.76E+08	5.29E+08	8.01E+10	7.89E+10	1.22E+09
384	387	9.19	1.76E+08	5.29E+08	8.06E+10	7.94E+10	1.22E+09
387	390	9.19	1.76E+08	5.29E+08	8.12E+10	7.99E+10	1.22E+09
390	393	9.19	1.76E+08	5.29E+08	8.17E+10	8.05E+10	1.22E+09
393	396	9.19	1.76E+08	5.29E+08	8.22E+10	8.10E+10	1.22E+09
396	399	9.19	1.76E+08	5.29E+08	8.27E+10	8.15E+10	1.22E+09
399	402	9.19	1.76E+08	5.29E+08	8.33E+10	8.21E+10	1.22E+09
402	405	9.19	1.76E+08	5.29E+08	8.38E+10	8.26E+10	1.22E+09
405	408	9.19	1.76E+08	5.29E+08	8.43E+10	8.31E+10	1.22E+09
408	411	9.19	1.76E+08	5.29E+08	8.49E+10	8.36E+10	1.22E+09
411	414	9.19	1.76E+08	5.29E+08	8.54E+10	8.42E+10	1.22E+09
414	417	9.15	1.76E+08	5.27E+08	8.59E+10	8.47E+10	1.22E+09
417	420	8.85	1.70E+08	5.10E+08	8.64E+10	8.52E+10	1.22E+09
420	423	8.85	1.70E+08	5.10E+08	8.69E+10	8.57E+10	1.22E+09
423	426	8.85	1.70E+08	5.10E+08	8.74E+10	8.62E+10	1.22E+09
426	429	8.85	1.70E+08	5.10E+08	8.80E+10	8.67E+10	1.22E+09
429	432	8.85	1.70E+08	5.10E+08	8.85E+10	8.72E+10	1.22E+09
432	435	8.85	1.70E+08	5.10E+08	8.90E+10	8.78E+10	1.22E+09

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

Table 7.2 - Plant Temperature Rise (4 of 6)

Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
435	438	8.85	1.70E+08	5.10E+08	8.95E+10	8.83E+10	1.22E+09
438	441	8.85	1.70E+08	5.10E+08	9.00E+10	8.88E+10	1.22E+09
441	444	8.85	1.70E+08	5.10E+08	9.05E+10	8.93E+10	1.22E+09
444	447	8.85	1.70E+08	5.10E+08	9.10E+10	8.98E+10	1.22E+09
447	450	8.85	1.70E+08	5.10E+08	9.15E+10	9.03E+10	1.22E+09
450	453	8.85	1.70E+08	5.10E+08	9.20E+10	9.08E+10	1.22E+09
453	456	8.85	1.70E+08	5.10E+08	9.25E+10	9.13E+10	1.22E+09
456	459	8.85	1.70E+08	5.10E+08	9.31E+10	9.18E+10	1.22E+09
459	462	8.85	1.70E+08	5.10E+08	9.36E+10	9.23E+10	1.22E+09
462	465	8.85	1.70E+08	5.10E+08	9.41E+10	9.29E+10	1.22E+09
465	468	8.85	1.70E+08	5.10E+08	9.46E+10	9.34E+10	1.22E+09
468	471	8.85	1.70E+08	5.10E+08	9.51E+10	9.39E+10	1.22E+09
471	474	8.85	1.70E+08	5.10E+08	9.56E+10	9.44E+10	1.22E+09
474	477	8.85	1.70E+08	5.10E+08	9.61E+10	9.49E+10	1.22E+09
477	480	8.85	1.70E+08	5.10E+08	9.66E+10	9.54E+10	1.22E+09
480	483	8.72	1.68E+08	5.03E+08	9.71E+10	9.59E+10	1.22E+09
483	486	8.70	1.67E+08	5.01E+08	9.76E+10	9.64E+10	1.22E+09
486	489	8.70	1.67E+08	5.01E+08	9.81E+10	9.69E+10	1.22E+09
489	492	8.70	1.67E+08	5.01E+08	9.86E+10	9.74E+10	1.22E+09
492	495	8.70	1.67E+08	5.01E+08	9.91E+10	9.79E+10	1.22E+09
495	498	8.70	1.67E+08	5.01E+08	9.96E+10	9.84E+10	1.22E+09
498	501	8.70	1.67E+08	5.01E+08	1.00E+11	9.89E+10	1.22E+09
501	504	8.70	1.67E+08	5.01E+08	1.01E+11	9.94E+10	1.22E+09
504	507	8.70	1.67E+08	5.01E+08	1.01E+11	9.99E+10	1.22E+09
507	510	8.70	1.67E+08	5.01E+08	1.02E+11	1.00E+11	1.22E+09
510	513	8.70	1.67E+08	5.01E+08	1.02E+11	1.01E+11	1.22E+09
513	516	8.70	1.67E+08	5.01E+08	1.03E+11	1.01E+11	1.22E+09
516	519	8.70	1.67E+08	5.01E+08	1.03E+11	1.02E+11	1.22E+09
519	522	8.70	1.67E+08	5.01E+08	1.04E+11	1.02E+11	1.22E+09
522	525	8.70	1.67E+08	5.01E+08	1.04E+11	1.03E+11	1.22E+09
525	528	8.70	1.67E+08	5.01E+08	1.05E+11	1.03E+11	1.22E+09
528	531	8.70	1.67E+08	5.01E+08	1.05E+11	1.04E+11	1.22E+09
531	534	8.70	1.67E+08	5.01E+08	1.06E+11	1.04E+11	1.22E+09
534	537	8.70	1.67E+08	5.01E+08	1.06E+11	1.05E+11	1.22E+09
537	540	8.70	1.67E+08	5.01E+08	1.07E+11	1.05E+11	1.22E+09
540	543	8.70	1.67E+08	5.01E+08	1.07E+11	1.06E+11	1.22E+09
543	546	8.70	1.67E+08	5.01E+08	1.08E+11	1.06E+11	1.22E+09
546	549	8.70	1.67E+08	5.01E+08	1.08E+11	1.07E+11	1.22E+09
549	552	8.70	1.67E+08	5.01E+08	1.09E+11	1.07E+11	1.22E+09
552	555	8.70	1.67E+08	5.01E+08	1.09E+11	1.08E+11	1.22E+09
555	558	8.52	1.64E+08	4.91E+08	1.10E+11	1.08E+11	1.22E+09
558	561	8.49	1.63E+08	4.89E+08	1.10E+11	1.09E+11	1.22E+09
561	564	8.49	1.63E+08	4.89E+08	1.11E+11	1.09E+11	1.22E+09
564	567	8.49	1.63E+08	4.89E+08	1.11E+11	1.10E+11	1.22E+09
567	570	8.49	1.63E+08	4.89E+08	1.12E+11	1.10E+11	1.22E+09
570	573	8.49	1.63E+08	4.89E+08	1.12E+11	1.11E+11	1.22E+09
573	576	8.49	1.63E+08	4.89E+08	1.13E+11	1.11E+11	1.22E+09
576	579	8.49	1.63E+08	4.89E+08	1.13E+11	1.12E+11	1.22E+09
579	582	8.49	1.63E+08	4.89E+08	1.14E+11	1.12E+11	1.22E+09

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

Table 7.2 - Plant Temperature Rise (5 of 6)

Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
582	585	8.49	1.63E+08	4.89E+08	1.14E+11	1.13E+11	1.22E+09
585	588	8.49	1.63E+08	4.89E+08	1.15E+11	1.13E+11	1.22E+09
588	591	8.49	1.63E+08	4.89E+08	1.15E+11	1.14E+11	1.22E+09
591	594	8.49	1.63E+08	4.89E+08	1.16E+11	1.14E+11	1.22E+09
594	597	8.49	1.63E+08	4.89E+08	1.16E+11	1.15E+11	1.22E+09
597	600	8.49	1.63E+08	4.89E+08	1.16E+11	1.15E+11	1.22E+09
600	603	8.49	1.63E+08	4.89E+08	1.17E+11	1.16E+11	1.22E+09
603	606	8.49	1.63E+08	4.89E+08	1.17E+11	1.16E+11	1.22E+09
606	609	8.49	1.63E+08	4.89E+08	1.18E+11	1.17E+11	1.22E+09
609	612	8.49	1.63E+08	4.89E+08	1.18E+11	1.17E+11	1.22E+09
612	615	8.49	1.63E+08	4.89E+08	1.19E+11	1.18E+11	1.22E+09
615	618	8.49	1.63E+08	4.89E+08	1.19E+11	1.18E+11	1.22E+09
618	621	8.49	1.63E+08	4.89E+08	1.20E+11	1.19E+11	1.22E+09
621	624	8.49	1.63E+08	4.89E+08	1.20E+11	1.19E+11	1.22E+09
624	627	8.49	1.63E+08	4.89E+08	1.21E+11	1.20E+11	1.22E+09
627	630	8.49	1.63E+08	4.89E+08	1.21E+11	1.20E+11	1.22E+09
630	633	8.49	1.63E+08	4.89E+08	1.22E+11	1.21E+11	1.22E+09
633	636	8.49	1.63E+08	4.89E+08	1.22E+11	1.21E+11	1.22E+09
636	639	8.49	1.63E+08	4.89E+08	1.23E+11	1.22E+11	1.22E+09
639	642	8.49	1.63E+08	4.89E+08	1.23E+11	1.22E+11	1.22E+09
642	645	8.49	1.63E+08	4.89E+08	1.24E+11	1.23E+11	1.22E+09
645	648	8.49	1.63E+08	4.89E+08	1.24E+11	1.23E+11	1.22E+09
648	651	8.49	1.63E+08	4.89E+08	1.25E+11	1.24E+11	1.22E+09
651	654	8.49	1.63E+08	4.89E+08	1.25E+11	1.24E+11	1.22E+09
654	657	8.49	1.63E+08	4.89E+08	1.26E+11	1.25E+11	1.22E+09
657	660	8.49	1.63E+08	4.89E+08	1.26E+11	1.25E+11	1.22E+09
660	663	8.49	1.63E+08	4.89E+08	1.27E+11	1.26E+11	1.22E+09
663	666	8.49	1.63E+08	4.89E+08	1.27E+11	1.26E+11	1.22E+09
666	669	8.49	1.63E+08	4.89E+08	1.28E+11	1.27E+11	1.22E+09
669	672	8.49	1.63E+08	4.89E+08	1.28E+11	1.27E+11	1.22E+09
672	675	8.49	1.63E+08	4.89E+08	1.29E+11	1.27E+11	1.22E+09
675	678	8.49	1.63E+08	4.89E+08	1.29E+11	1.28E+11	1.22E+09
678	681	8.49	1.63E+08	4.89E+08	1.30E+11	1.28E+11	1.22E+09
681	684	8.49	1.63E+08	4.89E+08	1.30E+11	1.29E+11	1.22E+09
684	687	8.49	1.63E+08	4.89E+08	1.31E+11	1.29E+11	1.22E+09
687	690	8.49	1.63E+08	4.89E+08	1.31E+11	1.30E+11	1.22E+09
690	693	8.49	1.63E+08	4.89E+08	1.32E+11	1.30E+11	1.22E+09
693	696	8.49	1.63E+08	4.89E+08	1.32E+11	1.31E+11	1.22E+09
696	699	8.49	1.63E+08	4.89E+08	1.33E+11	1.31E+11	1.22E+09
699	702	8.49	1.63E+08	4.89E+08	1.33E+11	1.32E+11	1.22E+09
702	705	8.49	1.63E+08	4.89E+08	1.34E+11	1.32E+11	1.22E+09
705	708	8.49	1.63E+08	4.89E+08	1.34E+11	1.33E+11	1.22E+09
708	711	8.49	1.63E+08	4.89E+08	1.35E+11	1.33E+11	1.22E+09
711	714	8.49	1.63E+08	4.89E+08	1.35E+11	1.34E+11	1.22E+09
714	717	8.49	1.63E+08	4.89E+08	1.36E+11	1.34E+11	1.22E+09
717	720	8.44	1.62E+08	4.86E+08	1.36E+11	1.35E+11	1.22E+09
720	723	8.22	1.58E+08	4.73E+08	1.37E+11	1.35E+11	1.22E+09
723	726	8.22	1.58E+08	4.73E+08	1.37E+11	1.36E+11	1.22E+09
726	729	8.22	1.58E+08	4.73E+08	1.37E+11	1.36E+11	1.22E+09

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

Table 7.2 - Plant Temperature Rise (6 of 6)

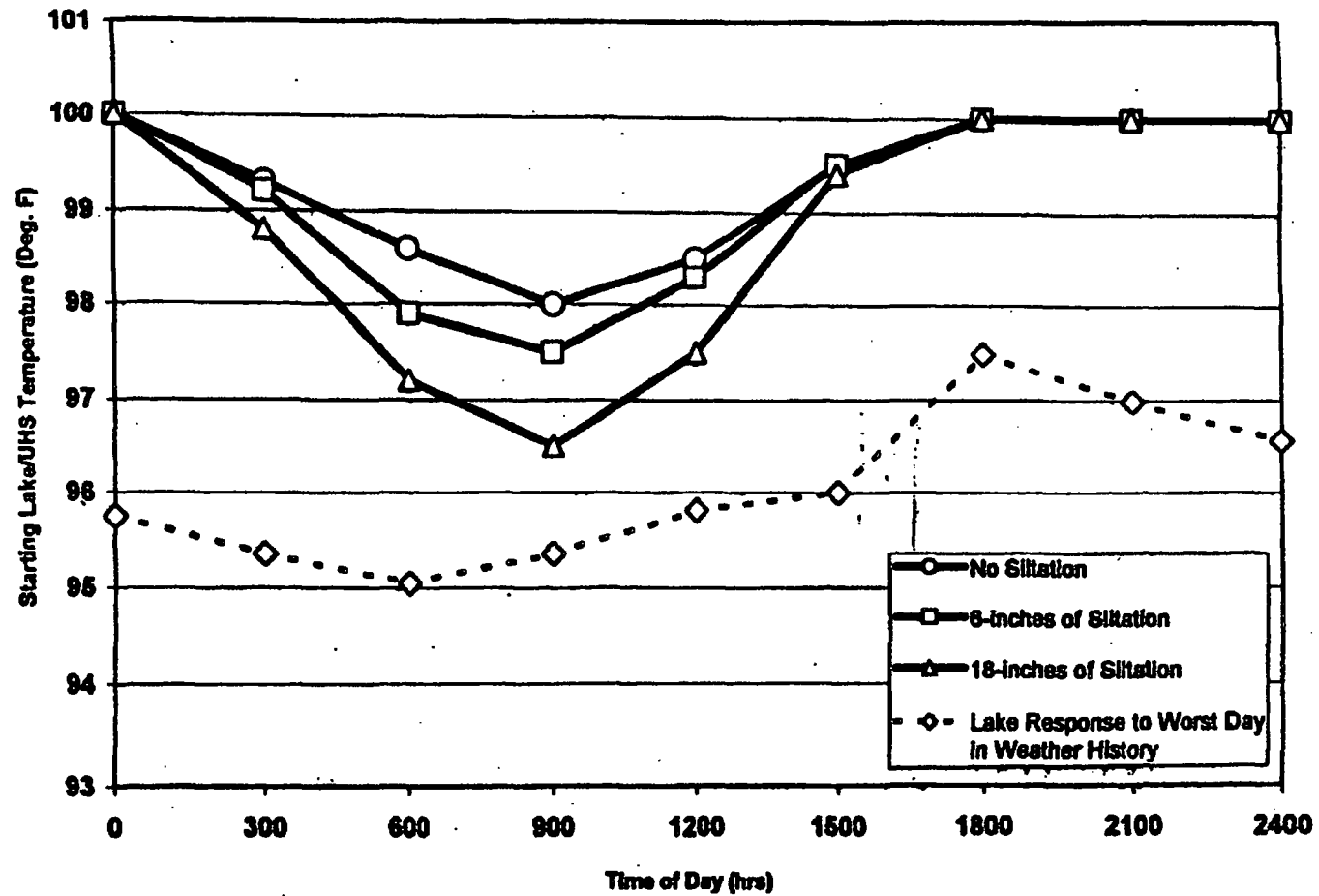
Starting Time (hr)	Ending Time (hr)	Plant Temperature Rise (Deg F)	Heat Rate per Timestep (BTU/hr)	Heat Added in Timestep (BTU)	Total Heat Added (BTU)	Generated Heat Added (BTU)	Sensible Heat Added (BTU)
729	732	8.22	1.58E+08	4.73E+08	1.38E+11	1.37E+11	1.22E+09
732	735	8.22	1.58E+08	4.73E+08	1.38E+11	1.37E+11	1.22E+09
735	738	8.22	1.58E+08	4.73E+08	1.39E+11	1.38E+11	1.22E+09
738	741	8.22	1.58E+08	4.73E+08	1.39E+11	1.38E+11	1.22E+09
741	744	8.22	1.58E+08	4.73E+08	1.40E+11	1.39E+11	1.22E+09
744	747	8.22	1.58E+08	4.73E+08	1.40E+11	1.39E+11	1.22E+09
747	750	8.22	1.58E+08	4.73E+08	1.41E+11	1.40E+11	1.22E+09
750	753	8.22	1.58E+08	4.73E+08	1.41E+11	1.40E+11	1.22E+09
753	756	8.22	1.58E+08	4.73E+08	1.42E+11	1.40E+11	1.22E+09
756	759	8.22	1.58E+08	4.73E+08	1.42E+11	1.41E+11	1.22E+09
759	762	8.22	1.58E+08	4.73E+08	1.43E+11	1.41E+11	1.22E+09
762	765	8.22	1.58E+08	4.73E+08	1.43E+11	1.42E+11	1.22E+09
765	768	8.22	1.58E+08	4.73E+08	1.44E+11	1.42E+11	1.22E+09
768	771	8.22	1.58E+08	4.73E+08	1.44E+11	1.43E+11	1.22E+09
771	774	8.22	1.58E+08	4.73E+08	1.45E+11	1.43E+11	1.22E+09
774	777	8.22	1.58E+08	4.73E+08	1.45E+11	1.44E+11	1.22E+09
777	780	8.22	1.58E+08	4.73E+08	1.46E+11	1.44E+11	1.22E+09
780	783	8.22	1.58E+08	4.73E+08	1.46E+11	1.45E+11	1.22E+09
783	786	8.22	1.58E+08	4.73E+08	1.46E+11	1.45E+11	1.22E+09
786	789	8.22	1.58E+08	4.73E+08	1.47E+11	1.46E+11	1.22E+09
789	792	8.22	1.58E+08	4.73E+08	1.47E+11	1.46E+11	1.22E+09
792	795	8.22	1.58E+08	4.73E+08	1.48E+11	1.47E+11	1.22E+09
795	798	8.22	1.58E+08	4.73E+08	1.48E+11	1.47E+11	1.22E+09
798	801	8.22	1.58E+08	4.73E+08	1.49E+11	1.48E+11	1.22E+09
801	804	8.22	1.58E+08	4.73E+08	1.49E+11	1.48E+11	1.22E+09
804	807	8.22	1.58E+08	4.73E+08	1.50E+11	1.49E+11	1.22E+09
807	810	8.22	1.58E+08	4.73E+08	1.50E+11	1.49E+11	1.22E+09
810	813	8.22	1.58E+08	4.73E+08	1.51E+11	1.49E+11	1.22E+09
813	816	8.22	1.58E+08	4.73E+08	1.51E+11	1.50E+11	1.22E+09
816	819	8.22	1.58E+08	4.73E+08	1.52E+11	1.50E+11	1.22E+09
819	822	8.22	1.58E+08	4.73E+08	1.52E+11	1.51E+11	1.22E+09
822	825	8.22	1.58E+08	4.73E+08	1.53E+11	1.51E+11	1.22E+09
825	828	8.22	1.58E+08	4.73E+08	1.53E+11	1.52E+11	1.22E+09
828	831	8.22	1.58E+08	4.73E+08	1.54E+11	1.52E+11	1.22E+09
831	834	8.22	1.58E+08	4.73E+08	1.54E+11	1.53E+11	1.22E+09
834	837	8.22	1.58E+08	4.73E+08	1.54E+11	1.53E+11	1.22E+09
837	840	8.22	1.58E+08	4.73E+08	1.55E+11	1.54E+11	1.22E+09
840	843	8.22	1.58E+08	4.73E+08	1.55E+11	1.54E+11	1.22E+09
843	846	8.22	1.58E+08	4.73E+08	1.56E+11	1.55E+11	1.22E+09
846	849	8.22	1.58E+08	4.73E+08	1.56E+11	1.55E+11	1.22E+09
849	852	8.22	1.58E+08	4.73E+08	1.57E+11	1.56E+11	1.22E+09
852	855	8.22	1.58E+08	4.73E+08	1.57E+11	1.56E+11	1.22E+09
855	858	8.22	1.58E+08	4.73E+08	1.58E+11	1.57E+11	1.22E+09
858	861	8.22	1.58E+08	4.73E+08	1.58E+11	1.57E+11	1.22E+09
861	864	8.22	1.58E+08	4.73E+08	1.59E+11	1.58E+11	1.22E+09
36 Day Average Heat Load			1.84E+08				

Note: This table represents historical input for the Rev. 3 analysis and earlier. Rev. 4 and Rev. 5 analyses are based on plant temperature rise data presented in Attachment G.

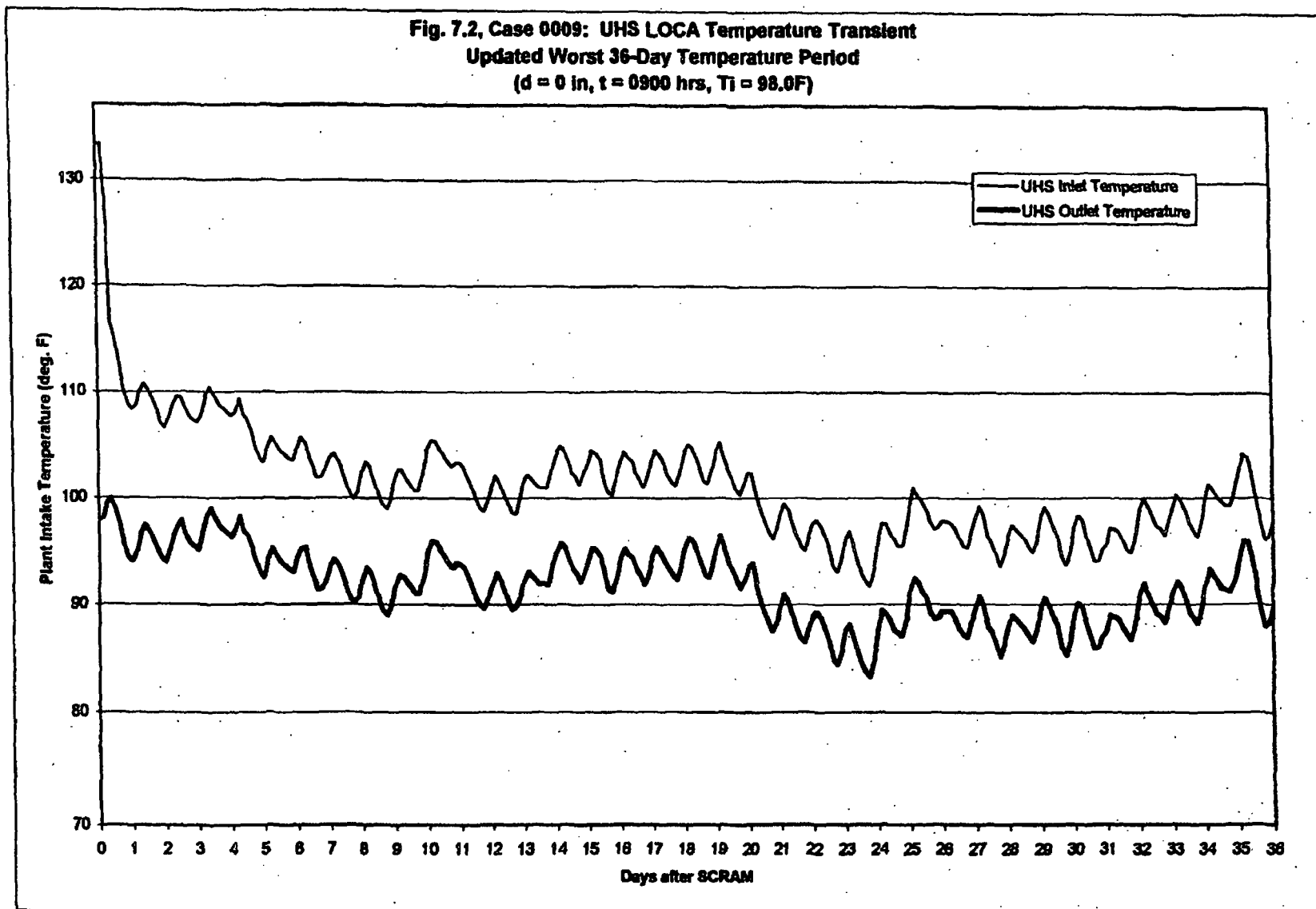
Table 7.3: Maximum Allowable Initial Lake Temperatures

Case	Limiting Weather Condition	Sediment Accumulation	Time of Day Start Time	Maximum Allowable Initial Temperature	Peak Temperature	Maximum 30-Day Drawdown
0000	-	0.0 ft	0:00	100.0 °F	100.00 °F	-
0003	worst day temperature	0.0 ft	3:00	99.3 °F	99.94 °F	-
0006	worst day temperature	0.0 ft	6:00	98.6 °F	99.98 °F	-
0009	worst day temperature	0.0 ft	9:00	98.0 °F	100.00 °F	-
0009	worst 5/1/30 day temperatures	0.0 ft	9:00	98.0 °F	99.94 °F	1.35 ft
0012	worst 5/1/30 day temperatures	0.0 ft	12:00	98.5 °F	99.99 °F	1.35 ft
0015	worst 5/1/30 day temperatures	0.0 ft	15:00	99.5 °F	99.94 °F	1.35 ft
0018	-	0.0 ft	18:00	100.0 °F	100.00 °F	-
0021	-	0.0 ft	21:00	100.0 °F	100.00 °F	-
0600	-	0.5 ft	0:00	100.0 °F	100.00 °F	-
0603	worst day temperature	0.5 ft	3:00	99.2 °F	99.96 °F	-
0606	worst day temperature	0.5 ft	6:00	97.9 °F	99.98 °F	-
0609	worst 5/1/30 day temperatures	0.5 ft	9:00	97.5 °F	99.98 °F	1.35 ft
0612	worst 5/1/30 day temperatures	0.5 ft	12:00	98.3 °F	99.96 °F	1.35 ft
0615	worst 5/1/30 day temperatures	0.5 ft	15:00	99.5 °F	99.97 °F	1.36 ft
0618	-	0.5 ft	18:00	100.0 °F	100.00 °F	-
0621	-	0.5 ft	21:00	100.0 °F	100.00 °F	-
1800	-	1.5 ft	0:00	100.0 °F	100.00 °F	-
1803	worst day temperature	1.5 ft	3:00	98.8 °F	99.96 °F	-
1806	worst day temperature	1.5 ft	6:00	97.2 °F	99.98 °F	-
1809	worst day temperature	1.5 ft	9:00	96.5 °F	99.98 °F	-
1809	worst 5/1/30 day temperatures	1.5 ft	9:00	96.5 °F	99.80 °F	1.35 ft
1812	worst 5/1/30 day temperatures	1.5 ft	12:00	97.5 °F	99.96 °F	1.35 ft
1815	worst 5/1/30 day temperatures	1.5 ft	15:00	99.4 °F	99.97 °F	1.36 ft
1818	-	1.5 ft	18:00	100.0 °F	100.00 °F	-
1821	-	1.5 ft	21:00	100.0 °F	100.00 °F	-
00e	worst 30 day evaporation	0.0 ft	12:00	97.6 °F	99.95 °F	1.46 ft
06e	worst 30 day evaporation	0.5 ft	12:00	97.4 °F	99.97 °F	1.46 ft
18e	worst 30 day evaporation	1.5 ft	12:00	96.8 °F	99.97 °F	1.46 ft

Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

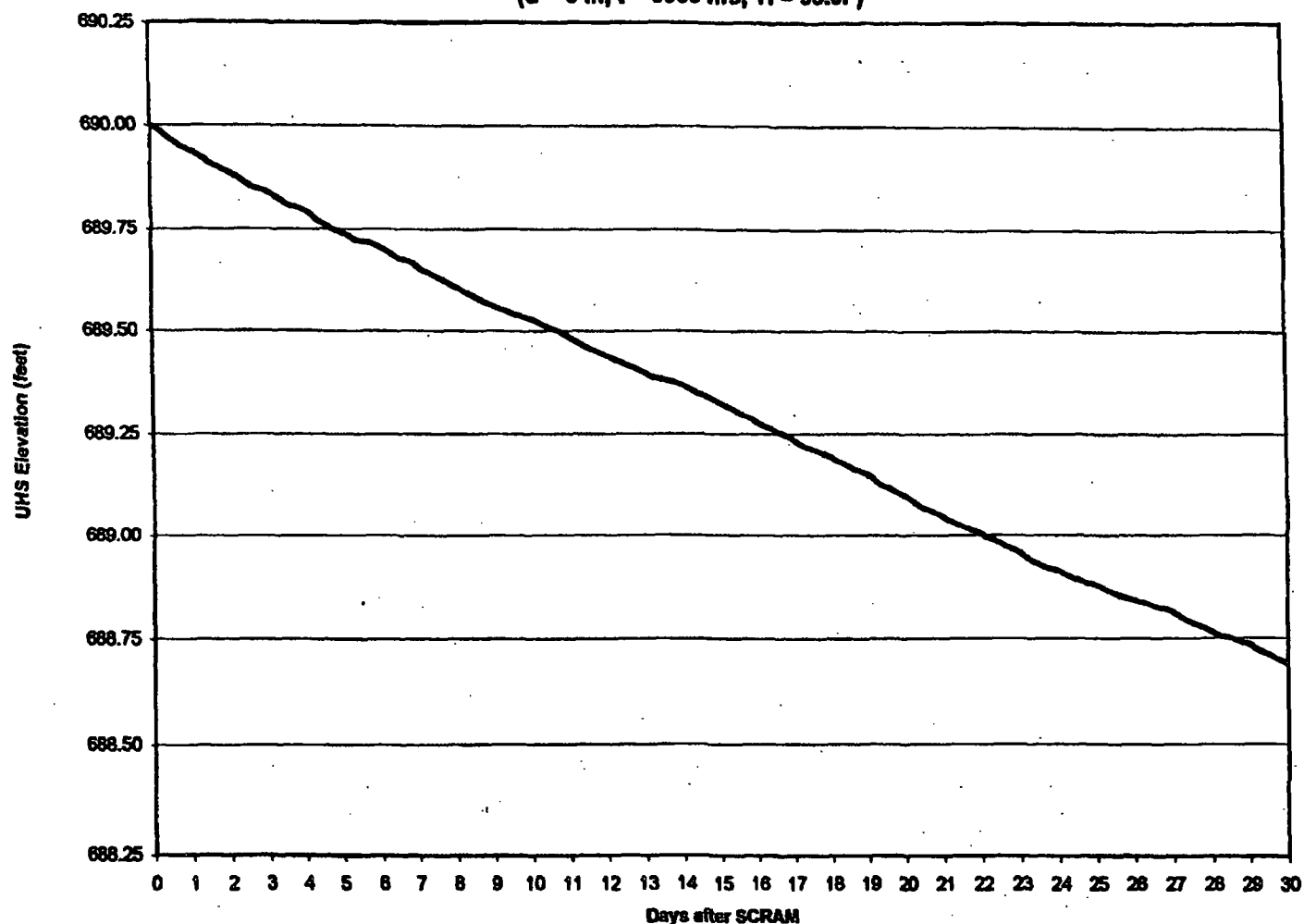
Fig. 7.1: Limiting Lake Temperatures vs. Time of Day

Note: This table represents historical results for the Rev. 3 analysis. Rev. 4 and Rev. 5 analyses results are presented in Attachments G and H, respectively.

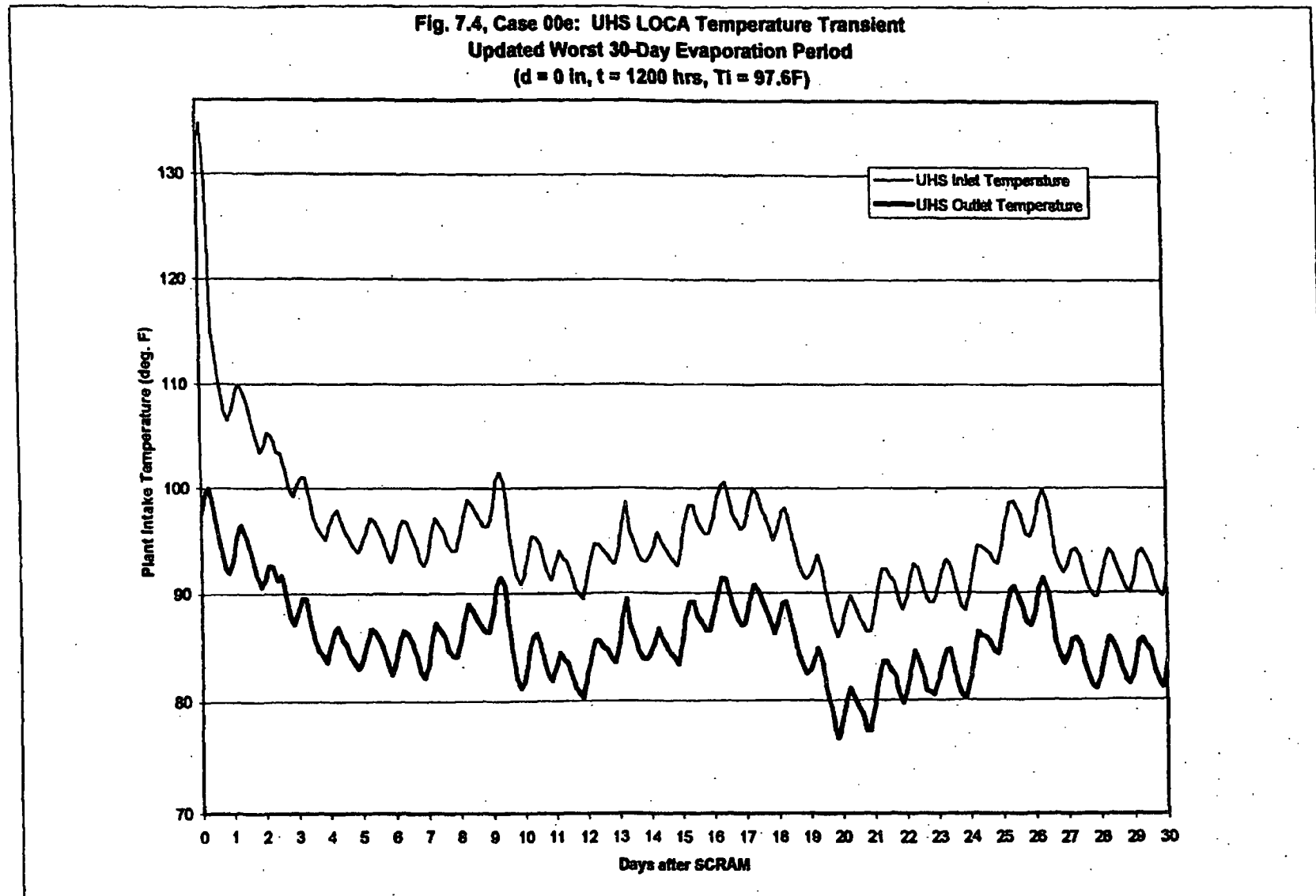


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Fig. 7.3, Case 0009: UHS LOCA Drawdown
First 30 Days of Updated Worst 36-Day Temperature Period
(d = 0 in, t = 0900 hrs, T_i = 98.0F)

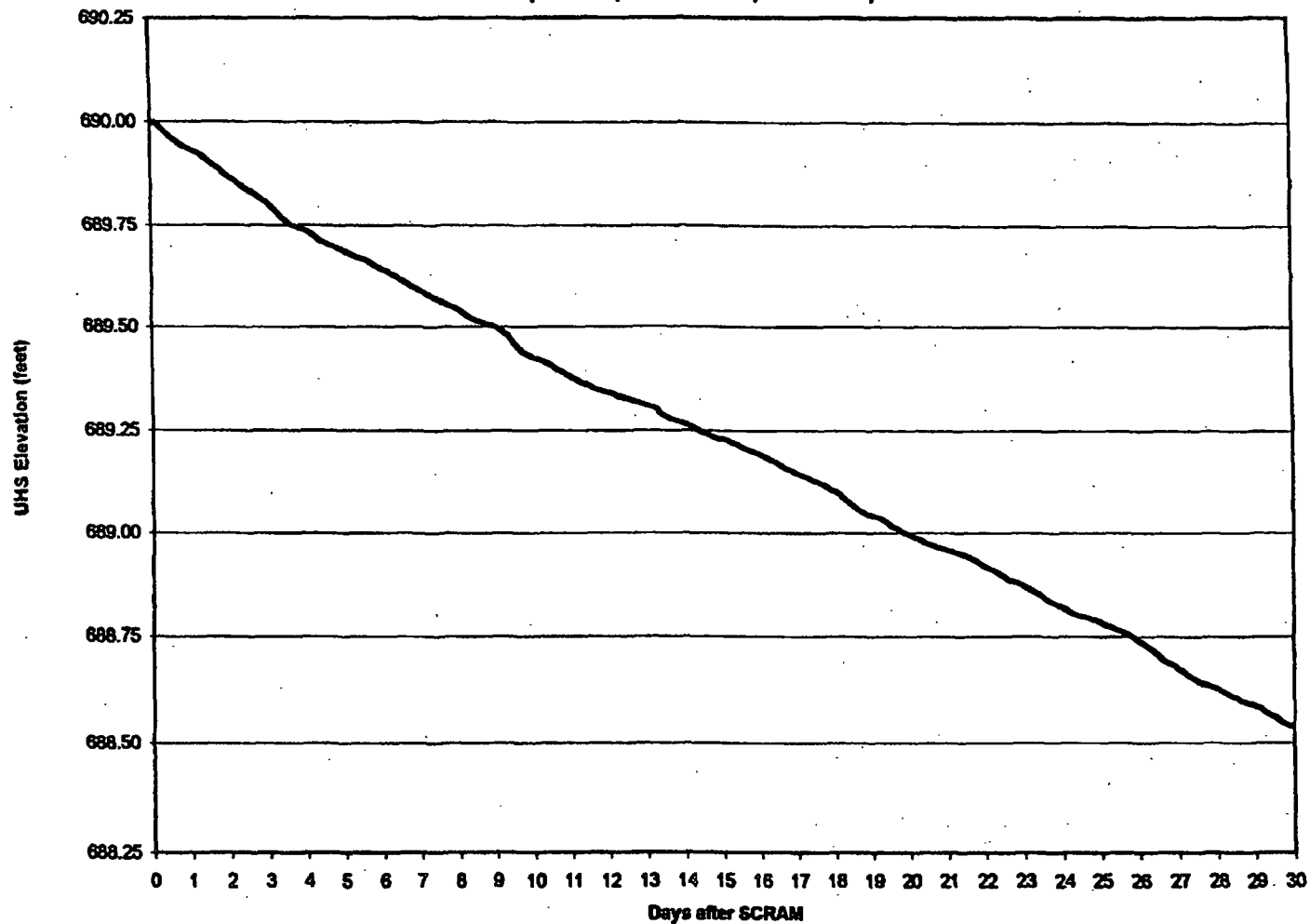


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

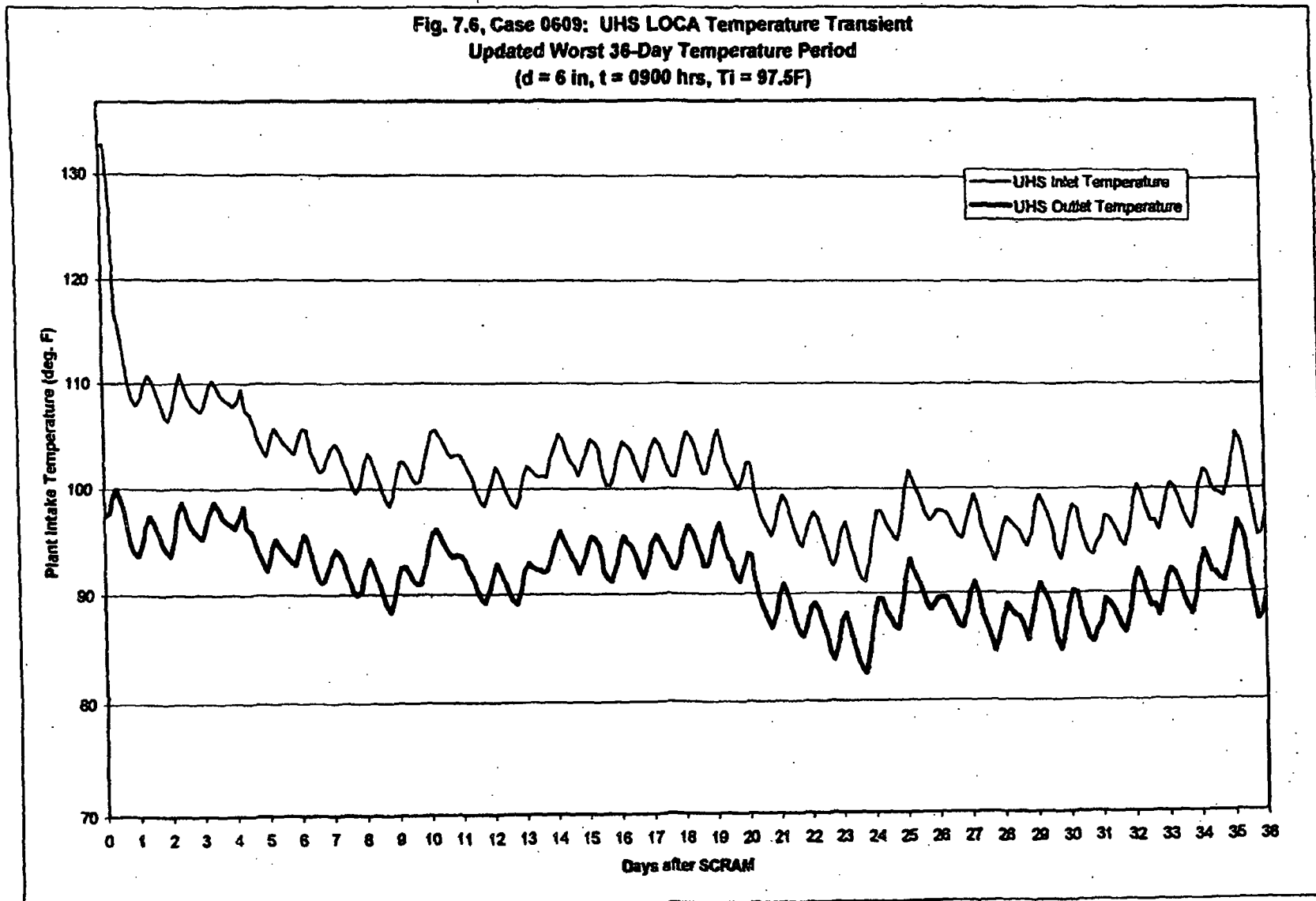


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

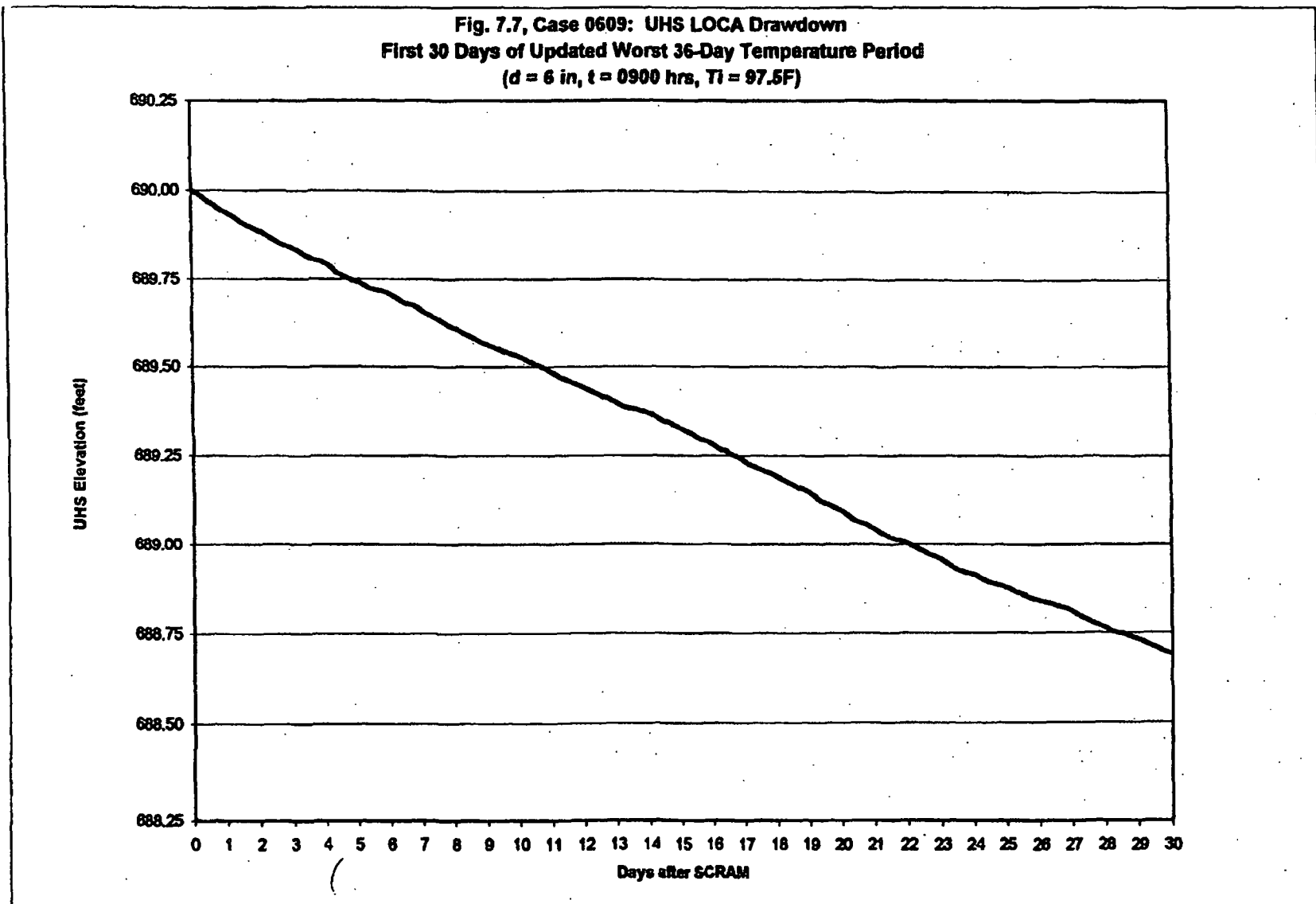
**Fig. 7.5, Case 00e: UHS LOCA Drawdown
Updated Worst 30-Day Evaporation Period
(d = 0 in, t = 1200 hrs, T_i = 97.6F)**



Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

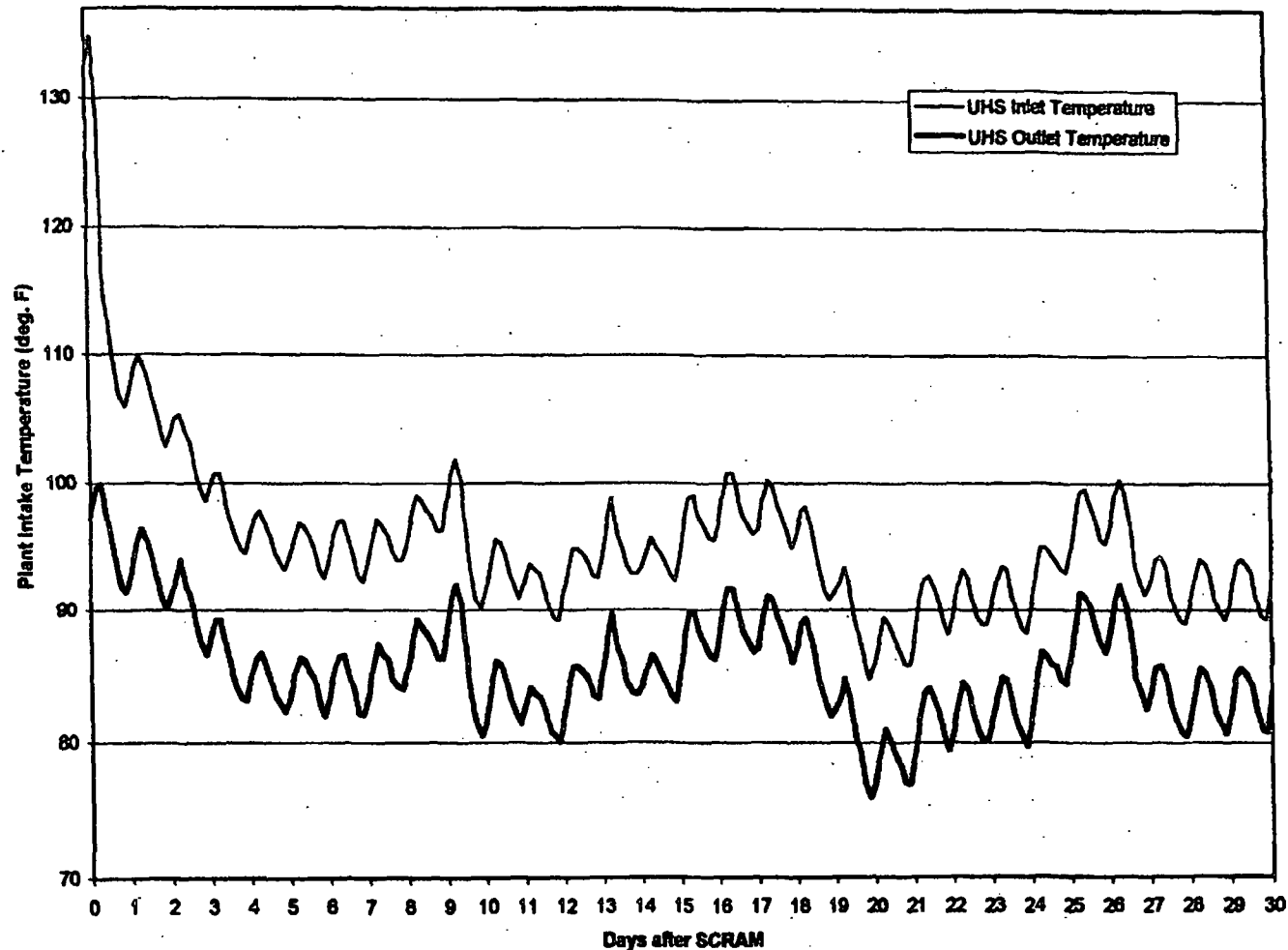


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

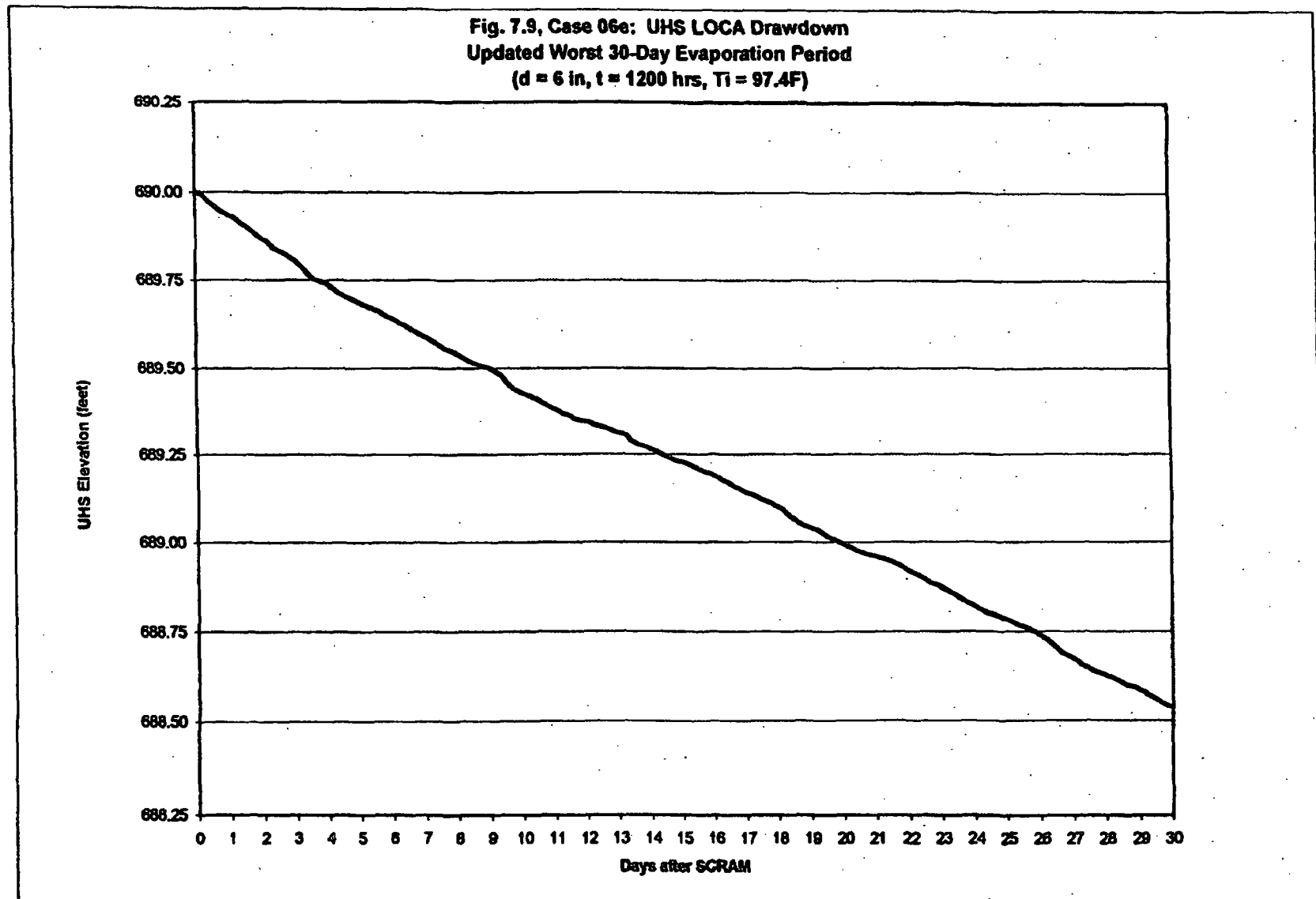


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Fig. 7.8, Case 06e: UHS LOCA Temperature Transient
Updated Worst 30-Day Evaporation Period
(d = 6 in, t = 1200 hrs, T_i = 97.4F)

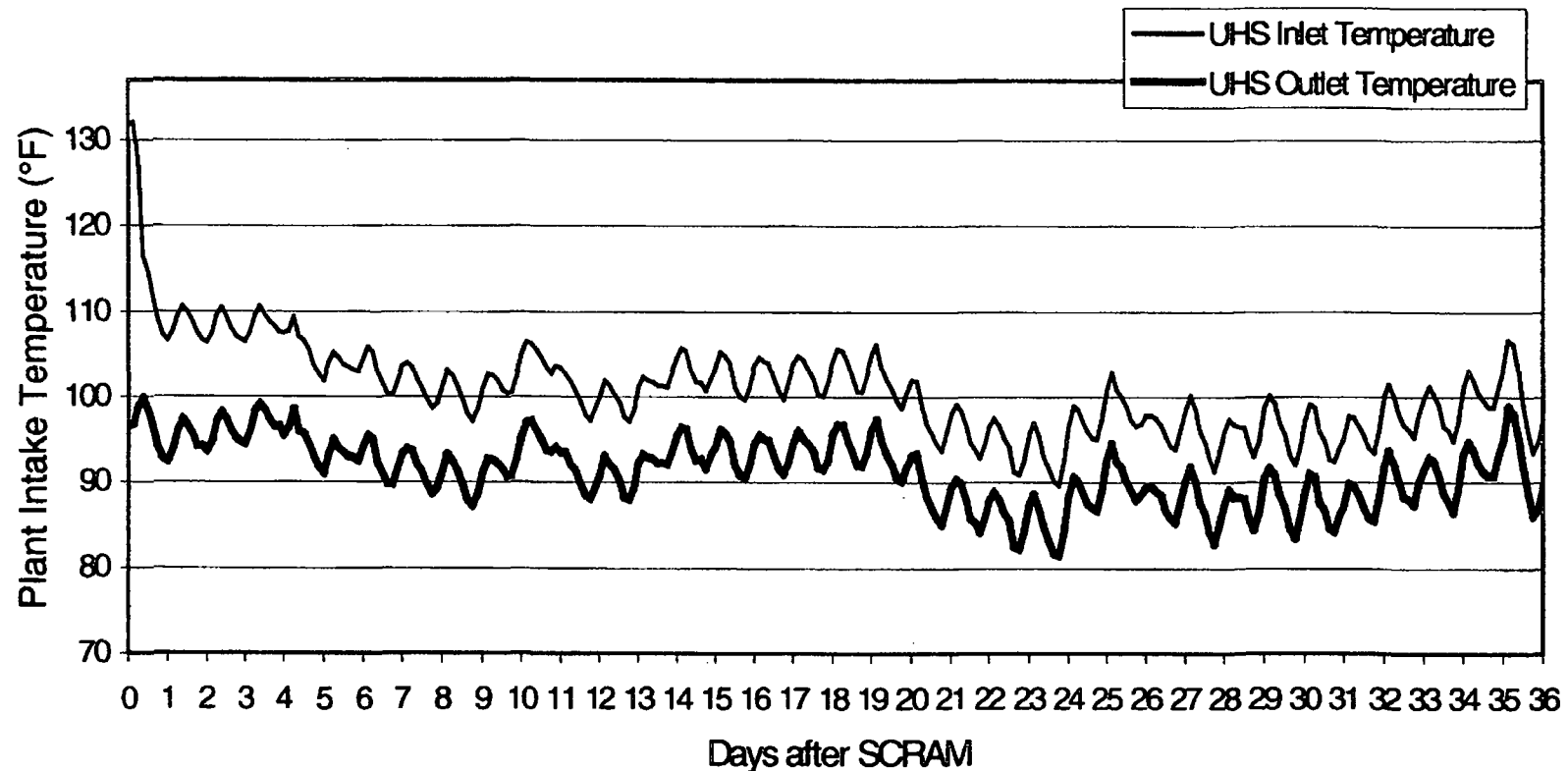


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.



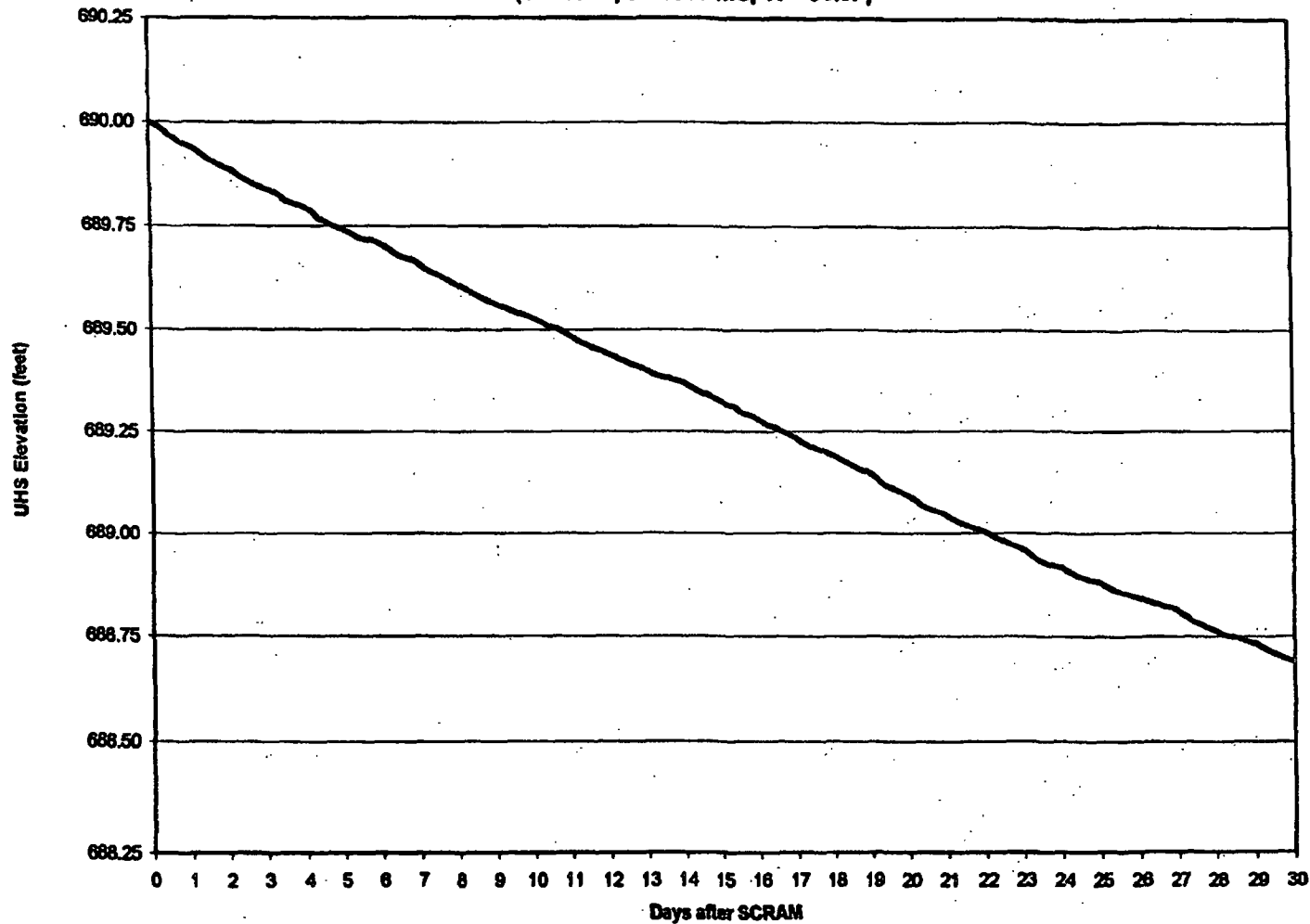
Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Fig. 7.10, Case 1809: UHS LOCA Temperature Transient
Updated Worst 36-Day Temperature Period
(d = 18 in, t = 0900 hrs, T_i = 96.5F)



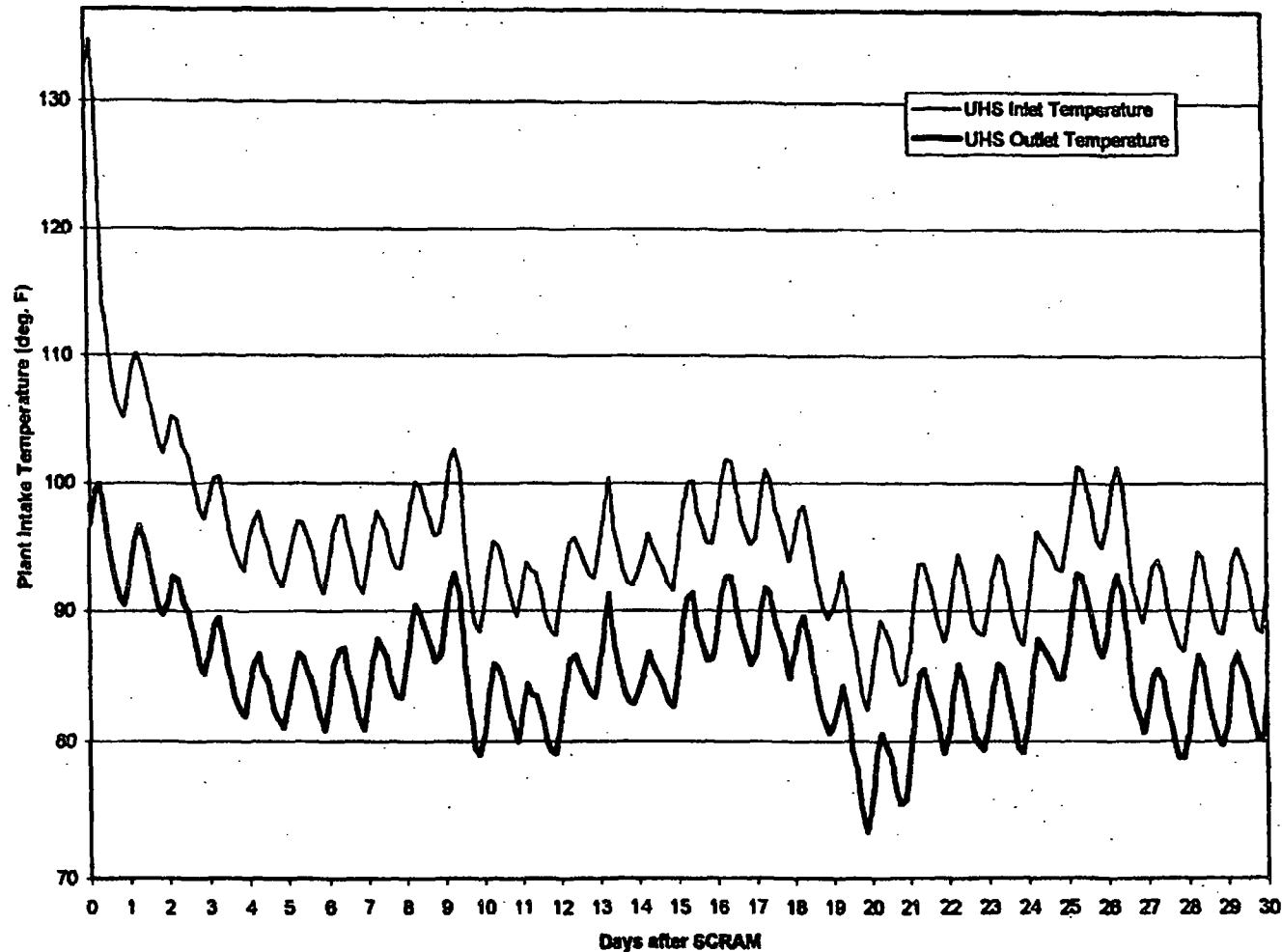
Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Fig. 7.11, Case 1809: UHS LOCA Drawdown
First 30 Days of Updated Worst 36-Day Temperature Period
(d = 18 in, t = 0900 hrs, T_i = 96.5F)

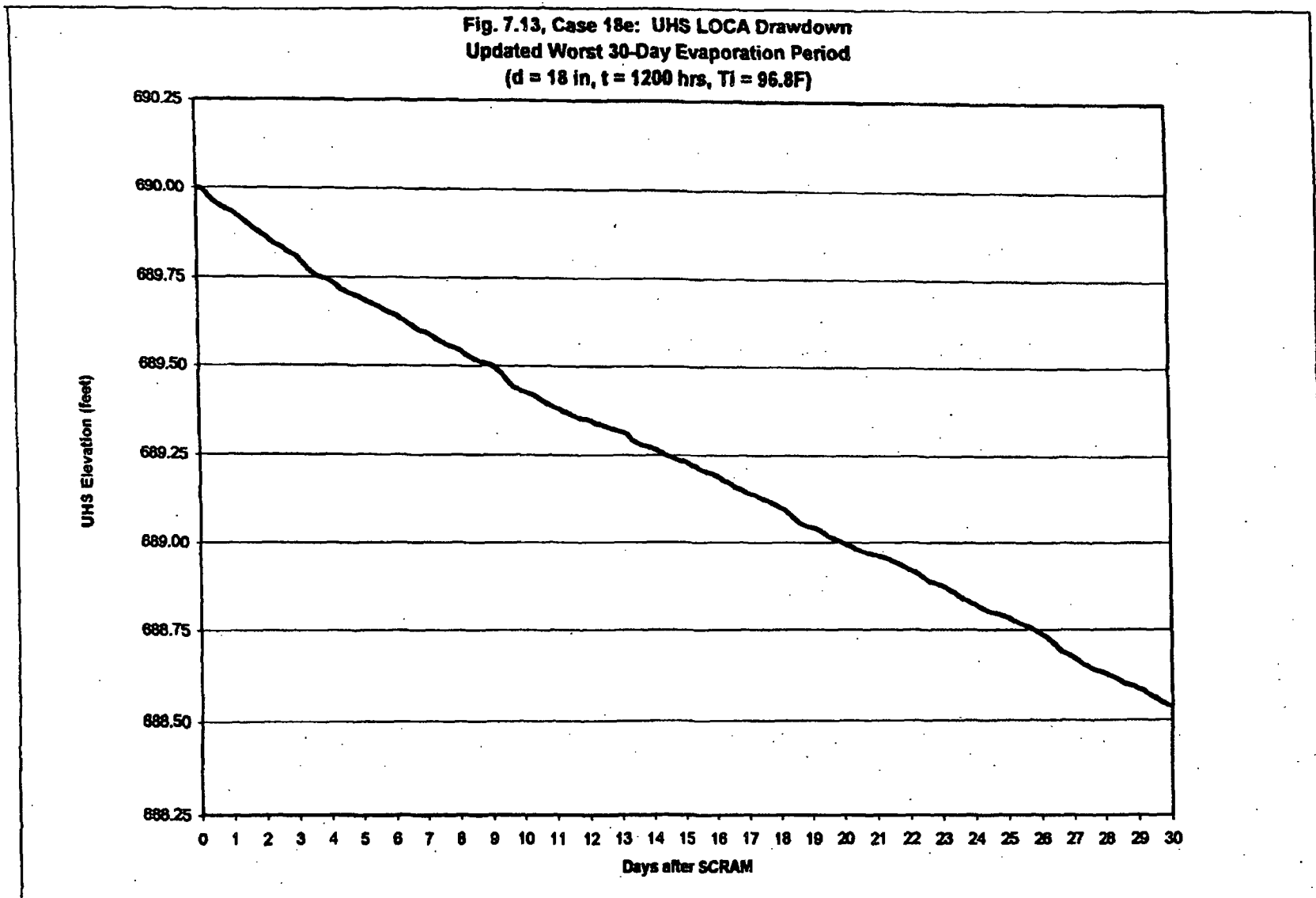


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Fig. 7.12, Case 18e: UHS LOCA Temperature Transient
Updated Worst 30-Day Evaporation Period
(d = 18 in, t = 1200 hrs, Ti = 96.8F)

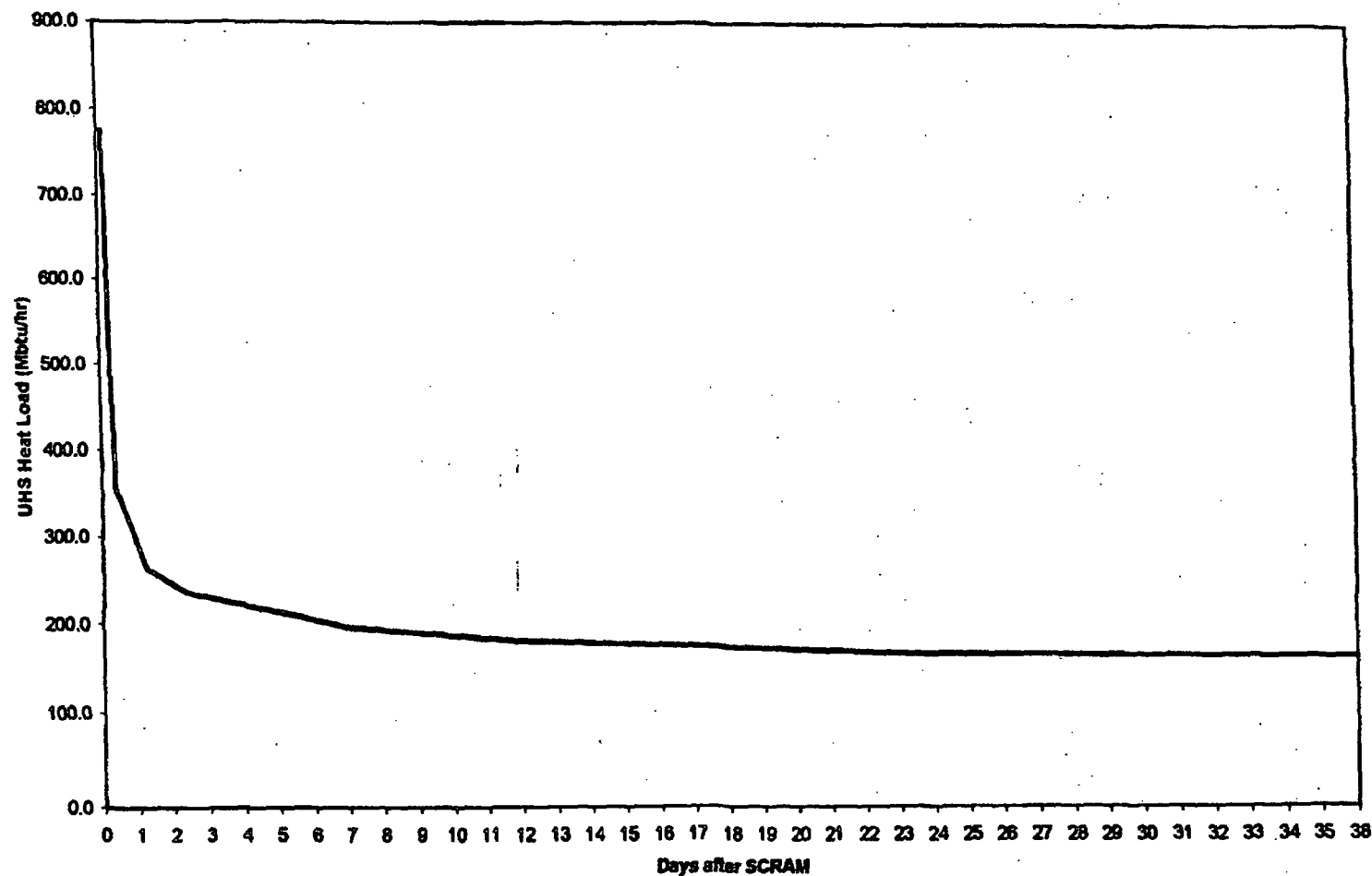


Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.



Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

Figure 7.14
UHS Heat Load Following LOCA



Note: The tables and figures here represent historical analysis results for the Rev. 3 calculation. Current design analysis is based on results reported in Attachment G for a 102°F plant intake temperature limit, and Attachment H for a 104°F plant intake temperature limit. These results do, however, provide the basis for the controlling time for the start of the limiting transient, 9 AM.

FINAL PAGE

Attachment A

UHSAVG Files

UHSAVG10 Version 1.0 - Sargent & Lundy Program No. 03.7.642-1.0
 User 0J2069 on PC5121 Tuesday, March 7, 2000 Time: 15:05:48
 Controlled Files:
 User 0H9449 on PC5407
 Drive V: = SNL1_SYS3: \

Volume in drive V is SYS3

[Base]\MAXDAT.EXE	08-11-1997 19:56
[Base]\UHSAVG2.EXE	08-11-1997 19:55
[Base]\WRITE.EXE	08-20-1997 10:45
[Base]\UHSAVG\$.BAT	10-06-1997 16:29

ps489661 bin 26,080,178 12-08-97 4:12p

uhsavg0	inp	141	03-07-00	2:35p
uhsavg18	inp	142	03-07-00	2:35p
uhsavg6	inp	141	03-07-00	2:35p

msg0	sym	4,553	03-07-00	3:03p
msg18	sym	4,553	03-07-00	3:08p
msg6	sym	4,553	03-07-00	3:06p

w0000	inp	301	03-02-00	11:10a
w0300	inp	301	03-02-00	11:06a
w0600	inp	301	03-02-00	11:11a
w0900	inp	301	03-02-00	11:05a
w1200	inp	301	03-02-00	11:00a
w1200e	inp	312	03-08-00	10:31a
w1500	inp	301	03-02-00	11:09a
w1800	inp	301	03-02-00	11:10a
w2100	inp	301	03-02-00	11:10a

MSG0 .SYM

0

1

3

1

19480705 .

17526

184 .E06

86 .0

40

8

240

240

288

0

0

83 .83

97 .

464 .9

C:\COMED\LASALLE\WEATHER\PS489661 .BIN

MSG6.SYM
0
1
3
1
19480705.
17526
184.E06
86.0
40
8
240
240
288
0
0
82.99
97.
423.5
C:\COMED\LASALLE\WEATHER\PS489661.BIN

MSG18.SYM

0

1

3

1

19480705.

17526

184.E06

86.0

40

8

240

240

288

0

0

81.35

97.

341.4

C:\COMED\LASALLE\WEATHER\PS489661.BIN

SARGENT & LUNDY LLC

UHSAVG PROGRAM

ULTIMATE HEAT SINK ANALYSIS
 DETERMINATION OF DESIGN TEMPERATURE
 AND WATER LOSS PERIODS

INPUT DATA COMMON TO BOTH TOWER AND POND:

VALIDATION OPTION (CREATE AN OUTPUT
 FILE WITH TEMPERATURE (OF POND OR
 TOWER AIR), AND WATER LOSS VALUES,
 WRITTEN ONCE PER 3-HOUR PERIOD);
 NO=0, YES=1 = 0
 IUHS (SELECTION OPTION; 1=POND, 2=TOWER) = 1
 NUMPER (NUMBER OF SUB-PERIODS WITHIN THE
 36-DAY COMBINED TEMPERATURE PERIOD -
 SHOULD ALWAYS BE=3) = 3
 LPLIM (NUMBER OF 3-HR PERIODS OVER
 WHICH DATA IS AVERAGED - SHOULD
 ALWAYS BE SET TO 1) = 1
 SDATE (STARTING DATE FOR THE UHSAVG
 PROCESSING - 6 DIGITS COMBINING YEAR,
 MONTH, AND DAY) = 19480705.
 IDYLIM (THE TOTAL NUMBER OF DAYS TO BE
 PROCESSED) = 17526
 QLOAD (HEAT REJECTED BY THE POWER
 STATION - AVERAGE OVER THE PERIOD
 SPECIFIED IN REG. GUIDE 1.27 -
 BTU/HR) = 184000000.00
 FLOW (POWER STATION ESSENTIAL SERVICE
 WATER FLOW, PLUS ANY ADDITIONAL
 FLOW - CFS) = 86.00
 I2LIM (THE NUMBER OF 3-HR INTERVALS
 IN EACH OF 5 DIFFERENT SUB-PERIODS
 THAT ARE IDENTIFIED) = 40 8 240 240

288

INPUT DATA SPECIFIC TO PONDS ONLY:

IPCP (OPTION FOR INCLUSION OF PRECIP
 IN WATER LOSS CALCULATIONS (0=NO,
 1=YES)) = 0
 EXTRA (EXTRA RUNOFF AREA FOR INCLUSION
 OF PRECIP IN WATER LOSS

THE LENGTH OF THE FIRST COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 5.000 DAYS
AVERAGE TEMPERATURE WAS: 93.413 DEG F
PERIOD STARTS ON 19950712.4
PERIOD FINISHES ON 19950717.3

THE LENGTH OF THE SECOND COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 1.000 DAYS
AVERAGE TEMPERATURE WAS: 94.699 DEG F
PERIOD STARTS ON 19950715.5
PERIOD FINISHES ON 19950716.4

THE LENGTH OF THE THIRD COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 30.000 DAYS
AVERAGE TEMPERATURE WAS: 89.138 DEG F
PERIOD STARTS ON 19830710.6
PERIOD FINISHES ON 19830809.5

THE LENGTH OF THE EVAPORATION
PERIOD WAS: 30.000 DAYS
AVERAGE EVAPORATION WAS: 1.859 CFS
PERIOD STARTS ON 19540618.5
PERIOD FINISHES ON 19540718.4

THE LENGTH OF THE WORST-CASE
CONSECUTIVE TEMPERATURE PERIOD
WAS: 36.000 DAYS
AVERAGE TEMPERATURE WAS: 89.060 DEG F
PERIOD STARTS ON 19950726.7
PERIOD FINISHES ON 19950831.6

File: MSG6.SYM

SARGENT & LUNDY LLC

UHSAVG PROGRAM

ULTIMATE HEAT SINK ANALYSIS
 DETERMINATION OF DESIGN TEMPERATURE
 AND WATER LOSS PERIODS

INPUT DATA COMMON TO BOTH TOWER AND POND:

VALIDATION OPTION (CREATE AN OUTPUT
 FILE WITH TEMPERATURE (OF POND OR
 TOWER AIR), AND WATER LOSS VALUES,
 WRITTEN ONCE PER 3-HOUR PERIOD);
 NO=0, YES=1 = 0
 IUHS (SELECTION OPTION; 1=POND, 2=TOWER) = 1
 NUMPER (NUMBER OF SUB-PERIODS WITHIN THE
 36-DAY COMBINED TEMPERATURE PERIOD -
 SHOULD ALWAYS BE=3) = 3
 LPLIM (NUMBER OF 3-HR PERIODS OVER
 WHICH DATA IS AVERAGED - SHOULD
 ALWAYS BE SET TO 1) = 1
 SDATE (STARTING DATE FOR THE UHSAVG
 PROCESSING - 6 DIGITS COMBINING YEAR,
 MONTH, AND DAY) = 19480705.
 IDYLIM (THE TOTAL NUMBER OF DAYS TO BE
 PROCESSED) = 17526
 QLOAD (HEAT REJECTED BY THE POWER
 STATION - AVERAGE OVER THE PERIOD
 SPECIFIED IN REG. GUIDE 1.27 -
 BTU/HR) = 184000000.00
 FLOW (POWER STATION ESSENTIAL SERVICE
 WATER FLOW, PLUS ANY ADDITIONAL
 FLOW - CFS) = 86.00
 I2LIM (THE NUMBER OF 3-HR INTERVALS
 IN EACH OF 5 DIFFERENT SUB-PERIODS
 THAT ARE IDENTIFIED) = 40 8 240 240

288

INPUT DATA SPECIFIC TO PONDS ONLY:

IPCP (OPTION FOR INCLUSION OF PRECIP
 IN WATER LOSS CALCULATIONS (0=NO,
 1=YES)) = 0
 EXTRA (EXTRA RUNOFF AREA FOR INCLUSION

OF PRECIP IN WATER LOSS	
CALCULATIONS - (ACRES)) =	.00
A (AREA OF POND UHS - ACRES) =	82.99
TI (INITIAL POND TEMPERATURE SET BY	
THE USER - DEG F) =	97.00
VI (INITIAL POND VOLUME SET BY THE	
USER - ACRE-FT) =	423.50

NAMES OF EXTERNAL FILES
USED FOR THIS RUN OF UHSAVG:

```

INPUT TEXT FILE WITH USER OPTION INPUT:
INPUT BINARY FILE WITH WEATHER DATA:
C:\COMED\LASALLE\WEATHER\PS489661.BIN
OUTPUT TEXT FILE WITH RESULTS:          MSG6.SYM
OUTPUT TEXT FILE WITH VALIDATION DATA:
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

STARTING DATE WAS FOUND
AND PROCESSING WAS STARTED.

PROCESSING WAS COMPLETED, AND DESIGN WEATHER PERIODS WERE SELECTED. THESE PERIODS ARE LISTED BELOW, AFTER THE DEFINITIONS.

DEFINITION OF "AVERAGE TEMPERATURE":

FOR A POND, THE "AVERAGE TEMPERATURE" FOR THE PERIOD REFERS TO THE AVERAGE BULK TEMP OF THE POND WATER, WHICH IS ASSUMED TO BE THOROUGHLY MIXED.

FOR A TOWER, THE "AVERAGE TEMPERATURE" FOR THE PERIOD REFERS TO THE AVERAGE WET BULB TEMPERATURE.

DEFINITION OF "AVERAGE EVAPORATION":

"AVERAGE EVAPORATION" IN THE CASE OF
EITHER A POND OR A TOWER REFERS TO THE
AVERAGE EVAPORATIVE WATER LOSS FROM THE
COOLING SYSTEM DURING THE PERIOD.

DEFINITION OF THE DECIMAL PORTION OF
THE START AND END DATES FOR EACH
SELECTED WORST-CASE PERIOD:

THE DECIMAL PORTION IDENTIFIES ONE OF THE EIGHT 3-HOUR PERIODS OF THAT DAY. FOR EXAMPLE, "1" IS THE FIRST 3-HOUR

OF THE DAY.

THE LENGTH OF THE FIRST COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 5.000 DAYS
AVERAGE TEMPERATURE WAS: 93.565 DEG F
PERIOD STARTS ON 19950712.2
PERIOD FINISHES ON 19950717.1

THE LENGTH OF THE SECOND COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 1.000 DAYS
AVERAGE TEMPERATURE WAS: 94.791 DEG F
PERIOD STARTS ON 19950715.5
PERIOD FINISHES ON 19950716.4

THE LENGTH OF THE THIRD COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 30.000 DAYS
AVERAGE TEMPERATURE WAS: 89.208 DEG F
PERIOD STARTS ON 19830710.5
PERIOD FINISHES ON 19830809.4

THE LENGTH OF THE EVAPORATION
PERIOD WAS: 30.000 DAYS
AVERAGE EVAPORATION WAS: 1.845 CFS
PERIOD STARTS ON 19540618.5
PERIOD FINISHES ON 19540718.4

THE LENGTH OF THE WORST-CASE
CONSECUTIVE TEMPERATURE PERIOD
WAS: 36.000 DAYS
AVERAGE TEMPERATURE WAS: 89.104 DEG F
PERIOD STARTS ON 19950726.7
PERIOD FINISHES ON 19950831.6

File: MSG18.SYM

SARGENT & LUNDY LLC

UHSAVG PROGRAM

ULTIMATE HEAT SINK ANALYSIS
 DETERMINATION OF DESIGN TEMPERATURE
 AND WATER LOSS PERIODS

INPUT DATA COMMON TO BOTH TOWER AND POND:

VALIDATION OPTION (CREATE AN OUTPUT
 FILE WITH TEMPERATURE (OF POND OR
 TOWER AIR), AND WATER LOSS VALUES,
 WRITTEN ONCE PER 3-HOUR PERIOD);
 NO=0, YES=1 = 0
 IUHS (SELECTION OPTION; 1=POND, 2=TOWER) = 1
 NUMPER (NUMBER OF SUB-PERIODS WITHIN THE
 36-DAY COMBINED TEMPERATURE PERIOD -
 SHOULD ALWAYS BE=3) = 3
 LPLIM (NUMBER OF 3-HR PERIODS OVER
 WHICH DATA IS AVERAGED - SHOULD
 ALWAYS BE SET TO 1) = 1
 SDATE (STARTING DATE FOR THE UHSAVG
 PROCESSING - 6 DIGITS COMBINING YEAR,
 MONTH, AND DAY) = 19480705.
 IDYLIM (THE TOTAL NUMBER OF DAYS TO BE
 PROCESSED) = 17526
 QLOAD (HEAT REJECTED BY THE POWER
 STATION - AVERAGE OVER THE PERIOD
 SPECIFIED IN REG. GUIDE 1.27 -
 BTU/HR) = 184000000.00
 FLOW (POWER STATION ESSENTIAL SERVICE
 WATER FLOW, PLUS ANY ADDITIONAL
 FLOW - CFS) = 86.00
 I2LIM (THE NUMBER OF 3-HR INTERVALS
 IN EACH OF 5 DIFFERENT SUB-PERIODS
 THAT ARE IDENTIFIED) = 40 8 240 240 288

INPUT DATA SPECIFIC TO PONDS ONLY:

IPCP (OPTION FOR INCLUSION OF PRECIP
 IN WATER LOSS CALCULATIONS (0=NO,
 1=YES)) = 0
 EXTRA (EXTRA RUNOFF AREA FOR INCLUSION
 OF PRECIP IN WATER LOSS

A (AREA OF POND UHS - ACRES)	=	81.35
TI (INITIAL POND TEMPERATURE SET BY THE USER - DEG F)	=	97.00
VI (INITIAL POND VOLUME SET BY THE USER - ACRE-FT)	=	341.40

NAMES OF EXTERNAL FILES
USED FOR THIS RUN OF UHSAVG:

```

INPUT TEXT FILE WITH USER OPTION INPUT:
INPUT BINARY FILE WITH WEATHER DATA:
C:\COMED\LASALLE\WEATHER\PS489661.BIN
OUTPUT TEXT FILE WITH RESULTS:          MSG18.SYM
OUTPUT TEXT FILE WITH VALIDATION DATA:

```

STARTING DATE WAS FOUND
AND PROCESSING WAS STARTED.

PROCESSING WAS COMPLETED, AND DESIGN WEATHER PERIODS WERE SELECTED. THESE PERIODS ARE LISTED BELOW, AFTER THE DEFINITIONS.

DEFINITION OF "AVERAGE TEMPERATURE":

FOR A POND, THE "AVERAGE TEMPERATURE" FOR THE PERIOD REFERS TO THE AVERAGE BULK TEMP OF THE POND WATER, WHICH IS ASSUMED TO BE THOROUGHLY MIXED.

FOR A TOWER, THE "AVERAGE TEMPERATURE" FOR THE PERIOD REFERS TO THE AVERAGE WET BULB TEMPERATURE.

DEFINITION OF "AVERAGE EVAPORATION":

"AVERAGE EVAPORATION" IN THE CASE OF
EITHER A POND OR A TOWER REFERS TO THE
AVERAGE EVAPORATIVE WATER LOSS FROM THE
COOLING SYSTEM DURING THE PERIOD.

DEFINITION OF THE DECIMAL PORTION OF
THE START AND END DATES FOR EACH
SELECTED WORST-CASE PERIOD:

THE DECIMAL PORTION IDENTIFIES ONE OF THE EIGHT 3-HOUR PERIODS OF THAT DAY. FOR EXAMPLE, "1" IS THE FIRST 3-HOUR PERIOD, AND "8" IS THE LAST 3-HR PERIOD

THE LENGTH OF THE FIRST COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 5.000 DAYS
AVERAGE TEMPERATURE WAS: 93.865 DEG F
PERIOD STARTS ON 19950712.1
PERIOD FINISHES ON 19950716.8

THE LENGTH OF THE SECOND COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 1.000 DAYS
AVERAGE TEMPERATURE WAS: 94.935 DEG F
PERIOD STARTS ON 19950715.5
PERIOD FINISHES ON 19950716.4

THE LENGTH OF THE THIRD COMPONENT
OF THE COMBINED TEMPERATURE PERIOD
WAS: 30.000 DAYS
AVERAGE TEMPERATURE WAS: 89.334 DEG F
PERIOD STARTS ON 19830710.5
PERIOD FINISHES ON 19830809.4

THE LENGTH OF THE EVAPORATION
PERIOD WAS: 30.000 DAYS
AVERAGE EVAPORATION WAS: 1.820 CFS
PERIOD STARTS ON 19540618.5
PERIOD FINISHES ON 19540718.4

THE LENGTH OF THE WORST-CASE
CONSECUTIVE TEMPERATURE PERIOD
WAS: 36.000 DAYS
AVERAGE TEMPERATURE WAS: 89.191 DEG F
PERIOD STARTS ON 19950726.5
PERIOD FINISHES ON 19950831.4

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM00.BIN

T00.BIN

E30.BIN

TEXT.TXT

1995	7	12	1	1995	7	16	8
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	1	1995	8	19	8
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM03.BIN

T03.BIN

E30.BIN

TEXT.TXT

1995	7	12	2	1995	7	17	1
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	2	1995	8	20	1
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM06.BIN

T06.BIN

E30.BIN

TEXT.TXT

1995	7	12	3	1995	7	17	2
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	3	1995	8	20	2
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM09.BIN

T09.BIN

E30.BIN

TEXT.TXT

1995	7	12	4	1995	7	17	3
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	4	1995	8	20	3
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM12.BIN

T12.BIN

E30.BIN

TEXT.TXT

1995	7	12	5	1995	7	17	4
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	5	1995	8	20	4
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM15.BIN

T15.BIN

E30.BIN

TEXT.TXT

1995	7	12	6	1995	7	17	5
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	6	1995	8	20	5
1954	6	18	4	1954	7	18	3

0

□

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM18.BIN

T18.BIN

E30.BIN

TEXT.TXT

1995	7	12	7	1995	7	17	6
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	7	1995	8	20	6
1954	6	18	4	1954	7	18	3

0

MSG-WRIT.SYM

C:\WAKELAND\LASALLE\PS489661.BIN

TCOM21.BIN

T21.BIN

E30.BIN

TEXT.TXT

1995	7	12	8	1995	7	17	7
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	15	8	1995	8	20	7
1954	6	18	4	1954	7	18	3

MSGWRT.SYM

C:\COMED\LASALLE\WEATHER\PS489661.BIN

TCOMUAVG.BIN

T36UAVG.BIN

E3012.BIN

TEXT.TXT

1995	7	12	2	1995	7	17	1
1995	7	15	5	1995	7	16	4
1983	7	10	6	1983	8	9	5
1995	7	26	7	1995	8	31	6
1954	6	18	5	1954	7	18	4

Attachment B

LAKET-PC Output

LAKET10 Version 1.0 - Sargent & Lundy Program No. 03.7.292-1.0
 User 0H9449 on PC5407 Wednesday, February 23, 2000 Time: 14:12:20
 User 0J2069 on PC5121
 Controlled Files:

Drive V: = SNL1_SYS3: \

Volume in drive V is SYS3

[Base]\PIA8586.BIN	03-31-1992 16:04
[Base]\LPRINT.EXE	08-03-1995 11:42
[Base]\BRAUHS3A.BIN	08-01-1995 21:06
[Base]\LAKET\$.BAT	07-02-1996 11:49
[Base]\BRAUHS3A.DAT	08-02-1995 16:57
[Base]\LAKET.EXE	10-27-1997 08:45
[Base]\TEST.DAT	11-23-1992 14:00
[Base]\LAKETRUN.BAT	10-24-1997 13:27

LAKET Plot Program - Sargent & Lundy Program No. 03.7.292-1.2
 User 0H9449 on PC5407 Wednesday, February 23, 2000
 User 0J2069 on PC5121

Directory of C:\WAKELAND\LASALLE

c0000	dat	2,323	03-03-00	2:08p
c0003	dat	2,321	03-03-00	2:31p
c0006	dat	2,322	03-03-00	2:54p
c0009	dat	2,322	03-03-00	2:09p
com0009	dat	2,326	03-07-00	5:29p
com0012	dat	2,326	03-06-00	11:19a
com0015	dat	2,326	03-06-00	1:01p
c0018	dat	2,323	03-03-00	2:10p
c0021	dat	2,323	03-03-00	2:11p
c0600	dat	2,887	03-03-00	2:14p
c0603	dat	2,885	03-03-00	2:35p
c0606	dat	2,886	03-03-00	2:59p
com0609	dat	2,889	03-06-00	10:24a
com0612	dat	2,890	03-06-00	11:21a
com0615	dat	2,890	03-06-00	11:23a
c0618	dat	2,887	03-03-00	2:11p
c0621	dat	2,887	03-03-00	2:11p
c1800	dat	2,929	03-03-00	2:15p
c1803	dat	2,927	03-03-00	2:46p
c1806	dat	2,928	03-03-00	3:08p
c1809	dat	2,928	03-03-00	3:13p
com1809	dat	2,932	03-07-00	5:34p
com1812	dat	2,931	03-06-00	11:21a
com1815	dat	2,932	03-06-00	1:09p
c1818	dat	2,929	03-03-00	2:17p
c1821	dat	2,929	03-03-00	2:17p
c00e	dat	2,595	03-08-00	10:45a
c06e	dat	2,597	03-08-00	10:53a
c18e	dat	2,640	03-08-00	11:15a

Directory of C:\WAKELAND\LASALLE

e3012	bin	44,642	03-08-00	10:38a
t00	bin	53,570	03-02-00	1:44p
t03	bin	53,570	03-02-00	1:45p
t06	bin	53,570	03-02-00	1:46p
t09	bin	53,570	03-02-00	1:47p
t12	bin	53,570	03-02-00	1:49p
t15	bin	53,570	03-02-00	1:50p
t18	bin	53,570	03-02-00	1:52p
t21	bin	53,570	03-02-00	1:53p
tcom00	bin	53,570	03-02-00	1:44p
tcom03	bin	53,570	03-02-00	1:45p
tcom06	bin	53,570	03-02-00	1:46p
tcom09	bin	53,570	03-02-00	1:47p
tcom12	bin	53,570	03-02-00	1:49p
tcom15	bin	53,570	03-02-00	1:50p
tcom18	bin	53,570	03-02-00	1:52p
tcom21	bin	53,570	03-02-00	1:53p

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:18:14.18

Case 0000: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 0000; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	100.0	95.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Date : 03/03/2000
Time : 14:18:14.18

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Date : 03/03/2000
Time : 14:18:14.18

[illegible]

Date : 03/03/2000
Time : 14:18:14.24

[illegible]

Date : 03/03/2000
Time : 14:18:14.24

[illegible]

Date : 03/03/2000
Time : 14:18:14.29

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:18:14.79

Case 0000: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 0000; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Date : 03/03/2000
Time : 14:18:14.79

[illegible]

[illegible]

Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:18:15.12

Case 0000: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 0000; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.24	-1.37
NATURAL EVAP (CFS)	.00	-.76	-.69	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.82	92.57	89.34
LAKE INLET TEMP (F)	.00	99.72	101.75	100.01
LAKE OUTLET TEMP (F)	.00	89.96	93.55	90.46

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	126.0	109.0	99.3
LAKE OUTLET TEMP (F)	98.8	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:18:15.12

Case 0000: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 0000; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.24	-1.37
NATURAL EVAP (CFS)	.00	-.76	-.69	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.82	92.57	89.34
LAKE INLET TEMP (F)	.00	99.72	101.75	100.01
LAKE OUTLET TEMP (F)	.00	89.96	93.55	90.46

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	126.0	109.0	99.3
LAKE OUTLET TEMP (F)	98.8	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:18:15.12

Case 0000: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 0000; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26223E+01
TOTAL EVAP (CFS)	-.25 (8041900)	-4.54 (7031900)	-1.37	-9.78239E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.55 (7031900)	-.75	-5.38859E+01
FORCED EVAP (CFS)	-.25 (8041900)	-1.67 (7021900)	-.62	-4.39380E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.28	4.92180E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.62 (7011900)	82.69 (7071900)	89.34	6.37916E+03
LAKE INLET TEMP (F)	133.76 (7011900)	93.35 (7261900)	100.01	7.14096E+03
LAKE OUTLET TEMP (F)	99.39 (7011900)	84.26 (7071900)	90.46	6.45926E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	126.0	109.0	99.3
LAKE OUTLET TEMP (F)	98.8	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:31:48.34

Case 0003: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=99.3F @ 0300; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	99.3	94.8		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Date : 03/03/2000
Time : 14:31:48.40

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Date : 03/03/2000
Time : 14:31:48.40

[illegible]

Date : 03/03/2000
Time : 14:31:48.40

[illegible]

Date : 03/03/2000
Time : 14:31:48.40

[illegible]

Date : 03/03/2000
Time : 14:31:48.45

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:31:48.73

Case 0003: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=99.3F @ 0300; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 99.30 94.80

WEATHER STATION ID 0.

Date : 03/03/2000
Time : 14:31:48.73

PROJECT NO. 11333-297

[illegible]

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:31:48.89

Case 0003: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=99.3F @ 0300; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.27	-1.37
NATURAL EVAP (CFS)	.00	-.76	-.71	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.80	92.61	89.33
LAKE INLET TEMP (F)	.00	99.71	101.84	100.01
LAKE OUTLET TEMP (F)	.00	89.95	93.64	90.46

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:31:48.89

Case 0003: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=99.3F @ 0300; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.27	-1.37
NATURAL EVAP (CFS)	.00	-.76	-.71	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.80	92.61	89.33
LAKE INLET TEMP (F)	.00	99.71	101.84	100.01
LAKE OUTLET TEMP (F)	.00	89.95	93.64	90.46

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:31:48.89

Case 0003: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=99.3F @ 0300; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26209E+01
TOTAL EVAP (CFS)	-.25 (8041900)	-4.51 (7031900)	-1.37	-9.78949E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.55 (7031900)	-.76	-5.39557E+01
FORCED EVAP (CFS)	-.25 (8041900)	-1.70 (7021900)	-.62	-4.39392E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.66 (8051900)	689.28	4.92179E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.60 (7011900)	82.69 (7071900)	89.33	6.37839E+03
LAKE INLET TEMP (F)	133.32 (7011900)	93.57 (7261900)	100.01	7.14110E+03
LAKE OUTLET TEMP (F)	99.94 (7011900)	84.10 (7071900)	90.46	6.45933E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.3	89.1
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.8	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:54:23.63

Case 0006: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.6F @ 0600; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	98.6	94.1		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Date : 03/03/2000
Time : 14:54:23.68

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Date : 03/03/2000
Time : 14:54:23.68

[illegible]

```
Date : 03/03/2000
Time : 14:54:23.68
```

[illegible]

Date : 03/03/2000
Time : 14:54:23.68

[illegible]

Date : 03/03/2000
Time : 14:54:23.79

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:54:24.23

Case 0006: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.6F @ 0600; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.60 94.10

WEATHER STATION ID 0.

Date : 03/03/2000
Time : 14:54:24.23

[illegible]

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:54:24.40

Case 0006: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.6F @ 0600; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.29	-1.38
NATURAL EVAP (CFS)	.00	-.76	-.74	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.75	92.63	89.29
LAKE INLET TEMP (F)	.00	99.67	101.81	99.97
LAKE OUTLET TEMP (F)	.00	89.91	93.61	90.42

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.2	89.0
LAKE INLET TEMP (F)	127.0	108.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.5	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:54:24.40

Case 0006: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.6F @ 0600; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.29	-1.38
NATURAL EVAP (CFS)	.00	-.76	-.74	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.75	92.63	89.29
LAKE INLET TEMP (F)	.00	99.67	101.81	99.97
LAKE OUTLET TEMP (F)	.00	89.91	93.61	90.42

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.2	89.0
LAKE INLET TEMP (F)	127.0	108.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.5	90.2

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 14:54:24.45

Case 0006: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.6F @ 0600; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26178E+01
TOTAL EVAP (CFS)	-.25 (8041900)	-4.51 (7031900)	-1.38	-9.81999E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.53 (7031900)	-.76	-5.42259E+01
FORCED EVAP (CFS)	-.25 (8041900)	-1.62 (7011900)	-.62	-4.39740E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.28	4.92179E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.34 (7011900)	82.67 (7071900)	89.29	6.37598E+03
LAKE INLET TEMP (F)	132.80 (7011900)	93.42 (7261900)	99.97	7.13817E+03
LAKE OUTLET TEMP (F)	99.98 (7011900)	84.00 (7071900)	90.42	6.45642E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.2	89.0
LAKE INLET TEMP (F)	127.0	108.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.5	90.2

Created : Mon Oct 27 08:45:58 1997

Time : 15:10:29.38

Case 0009: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.0F @ 0900; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	98.0	93.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Date : 03/03/2000
Time : 15:10:29.38

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Date : 03/03/2000
Time : 15:10:29.38

[illegible]

Date : 03/03/2000
Time : 15:10:29.38

[illegible]

Date : 03/03/2000
Time : 15:10:29.38

[illegible]

Date : 03/03/2000
Time : 15:10:29.49

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 15:10:29.99

Case 0009: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.0F @ 0900; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.00 93.50

WEATHER STATION ID 0.

Date : 03/03/2000
Time : 15:10:29.99

PROJECT NO. 11333-297

PROJECT NO. 11333-297

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 15:10:30.26

Case 0009: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.0F @ 0900; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.31	-1.38
NATURAL EVAP (CFS)	.00	-.76	-.76	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.71	92.63	89.26
LAKE INLET TEMP (F)	.00	99.63	101.80	99.93
LAKE OUTLET TEMP (F)	.00	89.86	93.60	90.38

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.0	89.0
LAKE INLET TEMP (F)	128.0	107.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.4	90.1

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 15:10:30.26

Case 0009: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.0F @ 0900; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.39	-1.31	-1.38
NATURAL EVAP (CFS)	.00	-.76	-.76	-.76
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.71	92.63	89.26
LAKE INLET TEMP (F)	.00	99.63	101.80	99.93
LAKE OUTLET TEMP (F)	.00	89.86	93.60	90.38

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.0	89.0
LAKE INLET TEMP (F)	128.0	107.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.4	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 15:10:30.26

Case 0009: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=98.0F @ 0900; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26189E+01
TOTAL EVAP (CFS)	-.25 (8041900)	-4.60 (7031900)	-1.38	-9.83474E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.51 (7031900)	-.76	-5.43582E+01
FORCED EVAP (CFS)	-.25 (8041900)	-1.63 (7011900)	-.62	-4.39893E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.28	4.92179E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.06 (7011900)	82.65 (7061900)	89.26	6.37326E+03
LAKE INLET TEMP (F)	133.90 (7011900)	93.50 (7251900)	99.93	7.13538E+03
LAKE OUTLET TEMP (F)	100.00 (7011900)	84.00 (7061900)	90.38	6.45365E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.0	89.0
LAKE INLET TEMP (F)	128.0	107.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.4	90.1

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/07/2000
Time : 17:30:51.66

Case 0009: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.0F @ 0900; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	98.0	93.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/07/2000
Time : 17:30:51.71

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/07/2000
Time : 17:30:51.71

[illegible]

Page : 4
Date : 03/07/2000
Time : 17:30:51.71

[illegible]

Page : 5
Date : 03/07/2000
Time : 17:30:51.71

[illegible]

Page : 6
Date : 03/07/2000
Time : 17:30:51.82

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/07/2000
Time : 17:30:52.21

Case 0009: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.0F @ 0900; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.00 93.50

WEATHER STATION ID 0.

Page : 8
Date : 03/07/2000
Time : 17:30:52.21

15.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/07/2000
 Time : 17:30:52.54

Case 0009: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.0F @ 0900; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.63	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.99	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.87	89.48	90.67
LAKE INLET TEMP (F)	.00	101.56	98.70	101.16
LAKE OUTLET TEMP (F)	.00	91.80	90.52	91.62

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.8
LAKE INLET TEMP (F)	128.0	109.3	100.8
LAKE OUTLET TEMP (F)	99.0	97.1	91.8

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 10
Date : 03/07/2000
Time : 17:30:52.54

Case 0009: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.0F @ 0900; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE
	JUN	JUL	AUG	VALUE
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.63	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.99	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.87	89.48	90.67
LAKE INLET TEMP (F)	.00	101.56	98.70	101.16
LAKE OUTLET TEMP (F)	.00	91.80	90.52	91.62

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.8
LAKE INLET TEMP (F)	128.0	109.3	100.8
LAKE OUTLET TEMP (F)	99.0	97.1	91.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/07/2000
 Time : 17:30:52.54

Case 0009: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.0F @ 0900; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24192E+01
TOTAL EVAP (CFS)	-.28 (8051900)	-3.97 (7051900)	-1.59	-1.13531E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.68 (7051900)	-.96	-6.83140E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.52 (7011900)	-.63	-4.52166E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92118E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.57 (7041900)	82.25 (7241900)	90.67	6.47458E+03
LAKE INLET TEMP (F)	133.38 (7011900)	91.65 (7241900)	101.16	7.22337E+03
LAKE OUTLET TEMP (F)	99.94 (7011900)	83.16 (7241900)	91.62	6.54203E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	97.0	95.8	90.8
LAKE INLET TEMP (F)	128.0	109.3	100.8
LAKE OUTLET TEMP (F)	99.0	97.1	91.8

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 11:12:17.94

Case 0012: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.5F @ 1200; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	98.5	94.0		
999				
FPLANT	R/I	86.0		
TFRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 11:12:17.99

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/06/2000
Time : 11:12:18.05

[illegible]

Page : 4
Date : 03/06/2000
Time : 11:12:18.05

[illegible]

Page : 5
Date : 03/06/2000
Time : 11:12:18.05

[illegible]

Page : 6
Date : 03/06/2000
Time : 11:12:18.05

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 11:12:18.43

Case 0012: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.5F @ 1200; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.50 94.00

WEATHER STATION ID 0.

Page : 8
Date : 03/06/2000
Time : 11:12:18.43

PROJECT NO. 11333-297

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/06/2000
 Time : 11:12:18.76

Case 0012: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.5F @ 1200; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.64	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.99	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.88	89.48	90.68
LAKE INLET TEMP (F)	.00	101.58	98.69	101.18
LAKE OUTLET TEMP (F)	.00	91.81	90.51	91.63

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.2	101.0
LAKE OUTLET TEMP (F)	99.0	96.9	91.8

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 11:12:18.76

Case 0012: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.5F @ 1200; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.64	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.99	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.88	89.48	90.68
LAKE INLET TEMP (F)	.00	101.58	98.69	101.18
LAKE OUTLET TEMP (F)	.00	91.81	90.51	91.63

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.2	101.0
LAKE OUTLET TEMP (F)	99.0	96.9	91.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 11:12:18.76

Case 0012: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=98.5F @ 1200; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24163E+01
TOTAL EVAP (CFS)	-.28 (8051900)	-3.86 (7051900)	-1.59	-1.13675E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.67 (7051900)	-.96	-6.84598E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.54 (7011900)	-.63	-4.52152E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92117E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.50 (7041900)	82.24 (7241900)	90.68	6.47533E+03
LAKE INLET TEMP (F)	134.83 (7011900)	91.65 (7241900)	101.18	7.22482E+03
LAKE OUTLET TEMP (F)	99.99 (7011900)	83.16 (7241900)	91.63	6.54307E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.2	101.0
LAKE OUTLET TEMP (F)	99.0	96.9	91.8

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 13:02:19.27

Case 0015: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=99.5F @ 1500; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	99.5	95.0		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 13:02:19.27

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/06/2000
Time : 13:02:19.27

[illegible]

Page : 4
Date : 03/06/2000
Time : 13:02:19.27

PROJECT NO. 11333-297

Page : 5
Date : 03/06/2000
Time : 13:02:19.27

[illegible]

Page : 6
Date : 03/06/2000
Time : 13:02:19.38

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 13:02:19.87

Case 0015: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=99.5F @ 1500; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 99.50 95.00

WEATHER STATION ID 0.

Page : 8
Date : 03/06/2000
Time : 13:02:19.87

13.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/06/2000
 Time : 13:02:19.98

Case 0015: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=99.5F @ 1500; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.64	-1.32	-1.60
NATURAL EVAP (CFS)	.00	-1.00	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.84	89.49	90.65
LAKE INLET TEMP (F)	.00	101.54	98.70	101.14
LAKE OUTLET TEMP (F)	.00	91.77	90.51	91.59

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.6	90.9
LAKE INLET TEMP (F)	127.0	109.3	101.0
LAKE OUTLET TEMP (F)	98.8	96.9	91.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 13:02:20.04

Case 0015: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; T1=99.5F @ 1500; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.64	-1.32	-1.60
NATURAL EVAP (CFS)	.00	-1.00	-.77	-.96
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.84	89.49	90.65
LAKE INLET TEMP (F)	.00	101.54	98.70	101.14
LAKE OUTLET TEMP (F)	.00	91.77	90.51	91.59

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.6	90.9
LAKE INLET TEMP (F)	127.0	109.3	101.0
LAKE OUTLET TEMP (F)	98.8	96.9	91.8

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 13:02:20.04

Case 0015: LaSalle UHS (Updated Worst 5/1/30-Day Temp.; Ti=99.5F @ 1500; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24086E+01
TOTAL EVAP (CFS)	-.28 (8051900)	-4.09 (7051900)	-1.60	-1.14028E+02
NATURAL EVAP (CFS)	.00 (7031900)	-3.27 (7051900)	-.96	-6.88232E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.58 (7011900)	-.63	-4.52052E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92115E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.35 (7041900)	82.24 (7241900)	90.65	6.47283E+03
LAKE INLET TEMP (F)	135.20 (7011900)	91.54 (7241900)	101.14	7.22206E+03
LAKE OUTLET TEMP (F)	99.94 (7011900)	83.05 (7241900)	91.59	6.54024E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.6	90.9
LAKE INLET TEMP (F)	127.0	109.3	101.0
LAKE OUTLET TEMP (F)	98.8	96.9	91.8

Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 16:32:04.07

Case 0018: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 1800; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6
7	1	0		
8	100.0	95.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 16:32:04.13

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:32:04.13

[illegible]

Page : 4
Date : 03/03/2000
Time : 16:32:04.13

[illegible]

Page : 5
Date : 03/03/2000
Time : 16:32:04.13

[illegible]

Page : 6
Date : 03/03/2000
Time : 16:32:04.23

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:32:04.67

Case 0018: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 1800; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 16:32:04.67

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 16:32:04.95

Case 0018: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 1800; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.37	-1.34	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.79	-.76
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.54	92.57	89.10
LAKE INLET TEMP (F)	.00	99.46	101.72	99.77
LAKE OUTLET TEMP (F)	.00	89.70	93.51	90.23

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	95.8	94.4	88.9
LAKE INLET TEMP (F)	126.0	105.5	99.3
LAKE OUTLET TEMP (F)	97.5	95.7	90.0

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:32:04.95

Case 0018: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 1800; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.37	-1.34	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.79	-.76
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.54	92.57	89.10
LAKE INLET TEMP (F)	.00	99.46	101.72	99.77
LAKE OUTLET TEMP (F)	.00	89.70	93.51	90.23

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	95.8	94.4	88.9
LAKE INLET TEMP (F)	126.0	105.5	99.3
LAKE OUTLET TEMP (F)	97.5	95.7	90.0

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:32:04.95

Case 0018: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 1800; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26427E+01
TOTAL EVAP (CFS)	-.25 (8031900)	-4.62 (7021900)	-1.37	-9.78120E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.41 (7021900)	-.76	-5.39938E+01
FORCED EVAP (CFS)	-.25 (8031900)	-1.38 (7011900)	-.61	-4.38182E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.29	4.92186E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	96.38 (8031900)	82.53 (7061900)	89.10	6.36231E+03
LAKE INLET TEMP (F)	133.93 (7011900)	93.44 (7251900)	99.77	7.12436E+03
LAKE OUTLET TEMP (F)	98.67 (7011900)	83.86 (7061900)	90.23	6.44259E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	95.8	94.4	88.9
LAKE INLET TEMP (F)	126.0	105.5	99.3
LAKE OUTLET TEMP (F)	97.5	95.7	90.0

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 16:39:49.73

Case 0021: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 2100; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6

7	1	0
8	100.0	95.5

999

FPLANT R/I 86.0

TPIRISE S/I

35.26

28.79

16.68

16.28

15.32

14.97

14.53

14.29

13.88

13.45

13.30

13.30

13.30

13.24

12.73

12.73

12.57

12.43

12.24

12.02

12.02

12.02

12.02

12.01

11.49

11.49

11.49

11.49

11.49

11.49

11.49

11.09

11.07

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Date : 03/03/2000
Time : 16:39:49.78

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:39:49.78

[illegible]

Page : 4
Date : 03/03/2000
Time : 16:39:49.78

[illegible]

Page : 5
Date : 03/03/2000
Time : 16:39:49.78

PROJECT NO. 11333-297

Page : 6
Date : 03/03/2000
Time : 16:39:49.89

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:39:50.00

Case 0021: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 2100; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 16:39:50.28

70100 -	80500	S/I	35.260	28.790	16.680	16.280
			15.320	14.970	14.530	14.290
			13.880	13.450	13.300	13.300
			13.300	13.240	12.730	12.730
			12.570	12.430	12.240	12.020
			12.020	12.020	12.020	12.010
			11.490	11.490	11.490	11.490
			11.490	11.490	11.490	11.490
			11.090	11.070	11.070	11.070
			11.070	10.870	10.860	10.860
			10.500	10.500	10.500	10.500
			10.500	10.500	10.500	10.500
			10.500	10.500	10.500	10.500
			10.500	10.500	10.500	10.270
			9.990	9.990	9.990	9.990
			9.990	9.990	9.990	9.990
			9.990	9.990	9.990	9.990
			9.990	9.990	9.990	9.990
			9.990	9.990	9.720	9.700
			9.700	9.700	9.700	9.700
			9.540	9.540	9.540	9.540
			9.540	9.540	9.540	9.540
			9.540	9.540	9.540	9.540
			9.400	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.190	9.190
			9.190	9.190	9.150	8.850
			8.850	8.850	8.850	8.850
			8.850	8.850	8.850	8.850
			8.850	8.850	8.850	8.850
			8.850	8.850	8.850	8.850
			8.850	8.850	8.850	8.850
			8.720	8.700	8.700	8.700
			8.700	8.700	8.700	8.700
			8.700	8.700	8.700	8.700
			8.700	8.700	8.700	8.700

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 16:39:50.55

Case 0021: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 2100; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.38	-1.37	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.82	-.76
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.57	92.54	89.12
LAKE INLET TEMP (F)	.00	99.50	101.66	99.80
LAKE OUTLET TEMP (F)	.00	89.74	93.46	90.25

TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	

NATURAL LAKE TEMP (F)	96.0	94.4	88.9	
LAKE INLET TEMP (F)	126.0	105.3	99.3	
LAKE OUTLET TEMP (F)	97.7	95.7	90.1	

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:39:50.55

Case 0021: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 2100; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.18
TOTAL EVAP (CFS)	.00	-1.38	-1.37	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.82	-.76
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.57	92.54	89.12
LAKE INLET TEMP (F)	.00	99.50	101.66	99.80
LAKE OUTLET TEMP (F)	.00	89.74	93.46	90.25

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.0	94.4	88.9
LAKE INLET TEMP (F)	126.0	105.3	99.3
LAKE OUTLET TEMP (F)	97.7	95.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:39:50.55

Case 0021: LaSalle UHS (Updated Worst 36-Day Temp.; Ti=100.0F @ 2100; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.16 (8051900)	-.20 (7011900)	-.18	-1.26421E+01
TOTAL EVAP (CFS)	-.25 (8031900)	-4.66 (7021900)	-1.37	-9.80903E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.45 (7021900)	-.76	-5.42381E+01
FORCED EVAP (CFS)	-.25 (8031900)	-1.76 (7011900)	-.61	-4.38522E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.29	4.92186E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	96.38 (8031900)	82.59 (7061900)	89.12	6.36379E+03
LAKE INLET TEMP (F)	133.75 (7011900)	93.38 (7251900)	99.80	7.12633E+03
LAKE OUTLET TEMP (F)	98.49 (7011900)	84.08 (7061900)	90.25	6.44461E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.0	94.4	88.9
LAKE INLET TEMP (F)	126.0	105.3	99.3
LAKE OUTLET TEMP (F)	97.7	95.7	90.1

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:20:11.83

Case 0600: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @0000; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7
1 0
8 100.0 95.5
999
FPLANT R/I 86.0
TPRISE S/I

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 14:20:11.83

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 14:20:11.89

[illegible]

Page : 4
Date : 03/03/2000
Time : 14:20:11.89

PROJECT NO. 11333-297

Page : 5
Date : 03/03/2000
Time : 14:20:11.89

[illegible]

Page : 6
Date : 03/03/2000
Time : 14:20:12.00

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B117 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 14:20:12.05

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 14:20:12.44

Case 0600: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @0000; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 9
Date : 03/03/2000
Time : 14:20:12.44

15.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 14:20:12.60

Case 0600: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @0000; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.38	-1.25	-1.36
NATURAL EVAP (CFS)	.00	-.76	-.70	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.75	92.74	89.31
LAKE INLET TEMP (F)	.00	99.59	101.78	99.89
LAKE OUTLET TEMP (F)	.00	89.82	93.59	90.35

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.5	95.5	89.0
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	98.8	96.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 14:20:12.60

Case 0600: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @0000; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.38	-1.25	-1.36
NATURAL EVAP (CFS)	.00	-.76	-.70	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.75	92.74	89.31
LAKE INLET TEMP (F)	.00	99.59	101.78	99.89
LAKE OUTLET TEMP (F)	.00	89.82	93.59	90.35

TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	

NATURAL LAKE TEMP (F)	97.5	95.5	89.0	
LAKE INLET TEMP (F)	125.0	109.0	99.3	
LAKE OUTLET TEMP (F)	98.8	96.7	90.1	

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/03/2000
 Time : 14:20:12.60

Case 0600: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @0000; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24523E+01
TOTAL EVAP (CFS)	-.22 (8041900)	-4.45 (7031900)	-1.36	-9.73128E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.49 (7031900)	-.75	-5.33378E+01
FORCED EVAP (CFS)	-.22 (8041900)	-1.65 (7021900)	-.62	-4.39751E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.28	4.92178E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.81 (7011900)	82.19 (7071900)	89.31	6.37696E+03
LAKE INLET TEMP (F)	133.63 (7011900)	92.93 (7261900)	99.89	7.13288E+03
LAKE OUTLET TEMP (F)	99.40 (7011900)	83.36 (7071900)	90.35	6.45117E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.5	95.5	89.0
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	98.8	96.7	90.1

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:36:07.37

Case 0603: LaSalle UHS (Updated Worst 36-Day Temp; Ti=99.2F @0300; power uprate

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	99.2	94.7

999

FPLANT R/I 86.0

TPRISE S/I

35.26

28.79

16.68

16.28

15.32

14.97

14.53

14.29

13.88

13.45

13.30

13.30

13.30

13.24

12.73

12.73

12.57

12.43

12.24

12.02

12.02

12.02

12.02

12.01

11.49

11.49

11.49

11.49

11.49

11.49

11.49

11.09

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 14:36:07.43

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 14:36:07.43

[illegible]

Page : 4
Date : 03/03/2000
Time : 14:36:07.43

[illegible]

Page : 5
Date : 03/03/2000
Time : 14:36:07.43

[illegible]

Page : 6
Date : 03/03/2000
Time : 14:36:07.48

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B130 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 14:36:07.54

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 14:36:07.81

Case 0603: LaSalle UHS (Updated Worst 36-Day Temp; Ti=99.2F @0300; power uprate

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 99.20 94.70

WEATHER STATION ID 0.

Page : 9
Date : 03/03/2000
Time : 14:36:07.81

PROJECT NO. 11333-297

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 14:36:07.98

Case 0603: LaSalle UHS (Updated Worst 36-Day Temp; Ti=99.2F @0300; power uprate

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.38	-1.27	-1.36
NATURAL EVAP (CFS)	.00	-.75	-.72	-.75
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.73	92.77	89.29
LAKE INLET TEMP (F)	.00	99.58	101.81	99.89
LAKE OUTLET TEMP (F)	.00	89.82	93.62	90.35

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.3	95.5	89.0
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 14:36:07.98

Case 0603: LaSalle UHS (Updated Worst 36-Day Temp; Ti=99.2F @0300; power uprate

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.38	-1.27	-1.36
NATURAL EVAP (CFS)	.00	-.75	-.72	-.75
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.73	92.77	89.29
LAKE INLET TEMP (F)	.00	99.58	101.81	99.89
LAKE OUTLET TEMP (F)	.00	89.82	93.62	90.35

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.3	95.5	89.0
LAKE INLET TEMP (F)	125.0	109.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/03/2000
 Time : 14:36:07.98

Case 0603: LaSalle UHS (Updated Worst 36-Day Temp; Ti=99.2F @0300; power uprate

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24511E+01
TOTAL EVAP (CFS)	-.22 (8041900)	-4.47 (7031900)	-1.36	-9.73689E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.48 (7031900)	-.75	-5.33954E+01
FORCED EVAP (CFS)	-.22 (8041900)	-1.67 (7021900)	-.62	-4.39735E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.66 (8051900)	689.28	4.92178E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.76 (7011900)	82.20 (7071900)	89.29	6.37599E+03
LAKE INLET TEMP (F)	133.12 (7011900)	92.94 (7261900)	99.89	7.13237E+03
LAKE OUTLET TEMP (F)	99.96 (7011900)	83.73 (7071900)	90.35	6.45128E+03
TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	
NATURAL LAKE TEMP (F)	97.3	95.5	89.0	
LAKE INLET TEMP (F)	125.0	109.0	99.3	
LAKE OUTLET TEMP (F)	99.0	96.7	90.1	

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:59:24.73

Case 0606: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.9F @0600; power uprate

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	97.9	93.4
999		
FPLANT	R/I	86.0
TPRISE	S/I	

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 14:59:24.73

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 14:59:24.73

[illegible]

Page : 4
Date : 03/03/2000
Time : 14:59:24.73

[illegible]

Page : 5
Date : 03/03/2000
Time : 14:59:24.79

PROJECT NO. 11333-297

Page : 6
Date : 03/03/2000
Time : 14:59:24.84

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B143 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 14:59:24.95

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 14:59:25.23

Case 0606: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.9F @0600; power uprate

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.90 93.40

WEATHER STATION ID 0.

Page : 9
Date : 03/03/2000
Time : 14:59:25.23

PROJECT NO. 11333-297

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 14:59:25.39

Case 0606: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.9F @0600; power uprate

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.38	-1.29	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.74	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.66	92.78	89.23
LAKE INLET TEMP (F)	.00	99.51	101.81	99.83
LAKE OUTLET TEMP (F)	.00	89.75	93.62	90.29

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.3	89.0
LAKE INLET TEMP (F)	126.0	108.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.5	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 14:59:25.39

Case 0606: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.9F @0600; power uprate

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP. (CFS)	.00	-1.38	-1.29	-1.37
NATURAL EVAP (CFS)	.00	-.75	-.74	-.75
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.66	92.78	89.23
LAKE INLET TEMP (F)	.00	99.51	101.81	99.83
LAKE OUTLET TEMP (F)	.00	89.75	93.62	90.29

TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	

NATURAL LAKE TEMP (F)	96.8	95.3	89.0	
LAKE INLET TEMP (F)	126.0	108.0	99.3	
LAKE OUTLET TEMP (F)	99.0	96.5	90.1	

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/03/2000
 Time : 14:59:25.39

Case 0606: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.9F @0600; power uprate

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24532E+01
TOTAL EVAP (CFS)	-.22 (8041900)	-4.46 (7031900)	-1.37	-9.74773E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.44 (7031900)	-.75	-5.35152E+01
FORCED EVAP (CFS)	-.22 (8041900)	-1.65 (7011900)	-.62	-4.39622E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.65 (8051900)	689.28	4.92179E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.06 (7011900)	82.15 (7071900)	89.23	6.37134E+03
LAKE INLET TEMP (F)	132.08 (7011900)	92.96 (7261900)	99.83	7.12853E+03
LAKE OUTLET TEMP (F)	99.98 (7011900)	83.38 (7071900)	90.29	6.44715E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.8	95.3	89.0
LAKE INLET TEMP (F)	126.0	108.0	99.3
LAKE OUTLET TEMP (F)	99.0	96.5	90.1

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 10:28:47.11

Case 0609: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @0900; power up

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	97.5	93.0

999

FPLANT R/I 86.0

TPRISE S/I

35.26

28.79

16.68

16.28

15.32

14.97

14.53

14.29

13.88

13.45

13.30

13.30

13.30

13.24

12.73

12.73

12.57

12.43

12.24

12.02

12.02

12.02

12.02

12.01

11.49

11.49

11.49

11.49

11.49

11.49

11.49

11.09

Page : 2
Date : 03/06/2000
Time : 10:28:47.11

[illegible]

Page : 3
Date : 03/06/2000
Time : 10:28:47.16

[illegible]

Page : 4
Date : 03/06/2000
Time : 10:28:47.16

[illegible]

Page : 5
Date : 03/06/2000
Time : 10:28:47.16

PROJECT NO. 11333-297

Page : 6
Date : 03/06/2000
Time : 10:28:47.22

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B156 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 10:28:47.33

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/06/2000
Time : 10:28:47.71

Case 0609: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @0900; power up

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.50 93.00

WEATHER STATION ID 0.

Page : 9
Date : 03/06/2000
Time : 10:28:47.71

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 10:28:47.99

Case 0609: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @0900; power up

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.62	-1.32	-1.58
NATURAL EVAP (CFS)	.00	-.97	-.77	-.94
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.79	89.62	90.63
LAKE INLET TEMP (F)	.00	101.45	98.76	101.08
LAKE OUTLET TEMP (F)	.00	91.70	90.58	91.55

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.9	90.9
LAKE INLET TEMP (F)	128.0	109.4	100.9
LAKE OUTLET TEMP (F)	99.0	97.1	91.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 10:28:48.04

Case 0609: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @0900; power up

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.62	-1.32	-1.58
NATURAL EVAP (CFS)	.00	-.97	-.77	-.94
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.57	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.79	89.62	90.63
LAKE INLET TEMP (F)	.00	101.45	98.76	101.08
LAKE OUTLET TEMP (F)	.00	91.70	90.58	91.55
TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	
NATURAL LAKE TEMP (F)	97.0	95.9	90.9	
LAKE INLET TEMP (F)	128.0	109.4	100.9	
LAKE OUTLET TEMP (F)	99.0	97.1	91.9	

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/06/2000
 Time : 10:28:48.04

Case 0609: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @0900; power up

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.22325E+01
TOTAL EVAP (CFS)	-.32 (8051900)	-4.06 (7051900)	-1.58	-1.12591E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.67 (7051900)	-.94	-6.74198E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.53 (7011900)	-.63	-4.51712E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92117E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.72 (7041900)	81.74 (7241900)	90.63	6.47137E+03
LAKE INLET TEMP (F)	132.95 (7011900)	90.99 (7241900)	101.08	7.21761E+03
LAKE OUTLET TEMP (F)	99.98 (7011900)	82.50 (7241900)	91.55	6.53681E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.9	90.9
LAKE INLET TEMP (F)	128.0	109.4	100.9
LAKE OUTLET TEMP (F)	99.0	97.1	91.9

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 11:24:37.23

Case 0612: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=98.34F @1200; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	98.3	93.8
999		
FPLANT	R/I	86.0
TPRISE	S/I	

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 11:24:37.23

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/06/2000
Time : 11:24:37.23

[illegible]

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 4
Date : 03/06/2000
Time : 11:24:37.23

9.19
9.19
9.19
9.15
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.72
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.52

Page : 5
Date : 03/06/2000
Time : 11:24:37.29

[illegible]

Page : 6
Date : 03/06/2000
Time : 11:24:37.34

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B169 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 11:24:37.45

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/06/2000
Time : 11:24:37.73

Case 0612: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=98.34F @1200; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.30 93.80

WEATHER STATION ID 0.

Page : 9
Date : 03/06/2000
Time : 11:24:37.73

PROJECT NO. 11333-297

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 11:24:37.89

Case 0612: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=98.34F @1200; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.62	-1.32	-1.58
NATURAL EVAP (CFS)	.00	-.98	-.77	-.95
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.82	89.62	90.65
LAKE INLET TEMP (F)	.00	101.47	98.76	101.10
LAKE OUTLET TEMP (F)	.00	91.72	90.58	91.56

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.5	100.9
LAKE OUTLET TEMP (F)	99.3	96.9	91.9

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 11:24:37.89

Case 0612: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=98.34F @1200; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.62	-1.32	-1.58
NATURAL EVAP (CFS)	.00	-.98	-.77	-.95
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.82	89.62	90.65
LAKE INLET TEMP (F)	.00	101.47	98.76	101.10
LAKE OUTLET TEMP (F)	.00	91.72	90.58	91.56

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.5	100.9
LAKE OUTLET TEMP (F)	99.3	96.9	91.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/06/2000
 Time : 11:24:37.89

Case 0612: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=98.34F @1200; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.22264E+01
TOTAL EVAP (CFS)	-.32 (8051900)	-3.97 (7051900)	-1.58	-1.12836E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.66 (7051900)	-.95	-6.76335E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.55 (7011900)	-.63	-4.52026E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92116E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.70 (7041900)	81.73 (7241900)	90.65	6.47304E+03
LAKE INLET TEMP (F)	134.74 (7011900)	90.99 (7241900)	101.10	7.21878E+03
LAKE OUTLET TEMP (F)	99.96 (7011900)	82.50 (7241900)	91.56	6.53794E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	128.0	109.5	100.9
LAKE OUTLET TEMP (F)	99.3	96.9	91.9

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 13:05:14.75

Case 0615: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.5F @1500; power up

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	99.5	95.0

999
FPLANT R/I 86.0
TPRISE S/I

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 13:05:14.75

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/06/2000
Time : 13:05:14.75

[illegible]

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 4
Date : 03/06/2000
Time : 13:05:14.75

9.19
9.19
9.19
9.15
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.72
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.52

Page : 5
Date : 03/06/2000
Time : 13:05:14.81

PROJECT NO. 11333-297

Page : 6
Date : 03/06/2000
Time : 13:05:14.86

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B182 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 13:05:14.97

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/06/2000
Time : 13:05:15.36

Case 0615: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.5F @1500; power up

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 99.50 95.00

WEATHER STATION ID 0.

Page : 9
Date : 03/06/2000
Time : 13:05:15.36

PROJECT NO. 11333-297

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 13:05:15.52

Case 0615: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.5F @1500; power up

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.63	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.98	-.77	-.95
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.79	89.62	90.62
LAKE INLET TEMP (F)	.00	101.43	98.77	101.06
LAKE OUTLET TEMP (F)	.00	91.67	90.59	91.52

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.9
LAKE OUTLET TEMP (F)	98.8	96.8	91.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 13:05:15.52

Case 0615: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.5F @1500; power up

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.15	-.17
TOTAL EVAP (CFS)	.00	-1.63	-1.32	-1.59
NATURAL EVAP (CFS)	.00	-.98	-.77	-.95
FORCED EVAP (CFS)	.00	-.65	-.55	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.79	89.62	90.62
LAKE INLET TEMP (F)	.00	101.43	98.77	101.06
LAKE OUTLET TEMP (F)	.00	91.67	90.59	91.52

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.9
LAKE OUTLET TEMP (F)	98.8	96.8	91.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/06/2000
 Time : 13:05:15.52

Case 0615: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.5F @1500; power up

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.22170E+01
TOTAL EVAP (CFS)	-.32 (8051900)	-4.00 (7051900)	-1.59	-1.13212E+02
NATURAL EVAP (CFS)	.00 (7031900)	-3.20 (7051900)	-.95	-6.80232E+01
FORCED EVAP (CFS)	-.26 (7311900)	-1.59 (7011900)	-.63	-4.51890E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.46 (8051900)	689.19	4.92113E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	97.57 (7041900)	81.73 (7241900)	90.62	6.47104E+03
LAKE INLET TEMP (F)	135.23 (7011900)	91.15 (7241900)	101.06	7.21610E+03
LAKE OUTLET TEMP (F)	99.97 (7011900)	82.66 (7241900)	91.52	6.53520E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.8	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.9
LAKE OUTLET TEMP (F)	98.8	96.8	91.9

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 16:34:23.31

Case 0618: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @1800; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	100.0	95.5
999		
FPLANT	R/I	86.0
TPRISE	S/I	

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

```

Page :          2
Date : 03/03/2000
Time : 16:34:23.36

```

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:34:23.36

[illegible]

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 4
Date : 03/03/2000
Time : 16:34:23.36

9.19
9.19
9.19
9.15
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.72
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.52

Page : 5
Date : 03/03/2000
Time : 16:34:23.42

[illegible]

Page : 6
Date : 03/03/2000
Time : 16:34:23.47

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B195 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:34:23.58

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 16:34:23.97

Case 0618: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @1800; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 9
Date : 03/03/2000
Time : 16:34:23.97

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:34:24.13

Case 0618: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @1800; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.37	-1.33	-1.36
NATURAL EVAP (CFS)	.00	-.74	-.79	-.75
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.48	92.68	89.07
LAKE INLET TEMP (F)	.00	99.36	101.66	99.68
LAKE OUTLET TEMP (F)	.00	89.60	93.49	90.14

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.3	94.6	88.9
LAKE INLET TEMP (F)	125.0	105.6	99.3
LAKE OUTLET TEMP (F)	97.7	95.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:34:24.13

Case 0618: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @1800; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.37	-1.33	-1.36
NATURAL EVAP (CFS)	.00	-.74	-.79	-.75
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.48	92.68	89.07
LAKE INLET TEMP (F)	.00	99.36	101.66	99.68
LAKE OUTLET TEMP (F)	.00	89.60	93.49	90.14

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.3	94.6	88.9
LAKE INLET TEMP (F)	125.0	105.6	99.3
LAKE OUTLET TEMP (F)	97.7	95.7	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/03/2000
 Time : 16:34:24.13

Case 0618: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @1800; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24752E+01
TOTAL EVAP (CFS)	-.22 (8031900)	-4.54 (7021900)	-1.36	-9.72176E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.35 (7021900)	-.75	-5.34099E+01
FORCED EVAP (CFS)	-.22 (8031900)	-1.77 (7011900)	-.61	-4.38076E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.66 (8051900)	689.29	4.92185E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	96.90 (8031900)	82.07 (7061900)	89.07	6.35974E+03
LAKE INLET TEMP (F)	133.82 (7011900)	93.08 (7251900)	99.68	7.11789E+03
LAKE OUTLET TEMP (F)	98.56 (7011900)	83.55 (7061900)	90.14	6.43622E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.3	94.6	88.9
LAKE INLET TEMP (F)	125.0	105.6	99.3
LAKE OUTLET TEMP (F)	97.7	95.7	90.1

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 16:40:56.46

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	100.0	95.5

999
FPLANT R/I 86.0
TPRISE S/I

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Page : 2
Date : 03/03/2000
Time : 16:40:56.46

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:40:56.46

Page : 4
Date : 03/03/2000
Time : 16:40:56.46

[illegible]

Page : 5
Date : 03/03/2000
Time : 16:40:56.52

[illegible]

Page : 6
Date : 03/03/2000
Time : 16:40:56.57

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B208 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:40:56.68

END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 16:40:57.07

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 9
Date : 03/03/2000
Time : 16:40:57.07

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

FPLANT

70100 - 80500 R/I 86.000

TPRISE

70100 - 80500 S/I 35.260 28.790 16.680 16.280

15.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:40:57.23

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.37	-1.36	-1.37
NATURAL EVAP (CFS)	.00	-.74	-.81	-.75
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.51	92.64	89.09
LAKE INLET TEMP (F)	.00	99.37	101.59	99.68
LAKE OUTLET TEMP (F)	.00	89.61	93.40	90.13

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.5	94.7	88.9
LAKE INLET TEMP (F)	125.0	105.5	99.3
LAKE OUTLET TEMP (F)	97.7	95.8	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:40:57.23

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	-.16	-.17
TOTAL EVAP (CFS)	.00	-1.37	-1.36	-1.37
NATURAL EVAP (CFS)	.00	-.74	-.81	-.75
FORCED EVAP (CFS)	.00	-.62	-.55	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.76	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.51	92.64	89.09
LAKE INLET TEMP (F)	.00	99.37	101.59	99.68
LAKE OUTLET TEMP (F)	.00	89.61	93.40	90.13

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	96.5	94.7	88.9
LAKE INLET TEMP (F)	125.0	105.5	99.3
LAKE OUTLET TEMP (F)	97.7	95.8	90.1

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 12
 Date : 03/03/2000
 Time : 16:40:57.23

Case 0621: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @2100; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.15 (8051900)	-.20 (7011900)	-.17	-1.24743E+01
TOTAL EVAP (CFS)	-.22 (8031900)	-4.59 (7021900)	-1.37	-9.74854E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.39 (7021900)	-.75	-5.36504E+01
FORCED EVAP (CFS)	-.22 (8031900)	-1.76 (7011900)	-.61	-4.38350E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.65 (8051900)	689.29	4.92185E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	96.89 (8031900)	82.12 (7061900)	89.09	6.36119E+03
LAKE INLET TEMP (F)	133.61 (7011900)	92.99 (7251900)	99.68	7.11760E+03
LAKE OUTLET TEMP (F)	98.35 (7011900)	83.60 (7061900)	90.13	6.43604E+03
TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	
NATURAL LAKE TEMP (F)	96.5	94.7	88.9	
LAKE INLET TEMP (F)	125.0	105.5	99.3	
LAKE OUTLET TEMP (F)	97.7	95.8	90.1	

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:22:34.64

Case 1800: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 0000; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	100.0	95.5		
999				
FPLANT	R/I	86.0		
TFRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 14:22:34.64

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 14:22:34.64

[illegible]

Page : 4
Date : 03/03/2000
Time : 14:22:34.64

[illegible]

Page : 5
Date : 03/03/2000
Time : 14:22:34.69

[illegible]

Page : 6
Date : 03/03/2000
Time : 14:22:34.75

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 14:22:35.19

Case 1800: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 0000; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 14:22:35.19

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B223 OF B358

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 14:22:35.35

Case 1800: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 0000; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.26	-1.35
NATURAL EVAP (CFS)	.00	-.74	-.70	-.73
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.61	93.07	89.23
LAKE INLET TEMP (F)	.00	99.28	101.79	99.63
LAKE OUTLET TEMP (F)	.00	89.54	93.60	90.11

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	98.0	95.9	89.0
LAKE INLET TEMP (F)	125.0	109.3	99.2
LAKE OUTLET TEMP (F)	98.8	96.8	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 14:22:35.35

Case 1800: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 0000; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.26	-1.35
NATURAL EVAP (CFS)	.00	-.74	-.70	-.73
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.61	93.07	89.23
LAKE INLET TEMP (F)	.00	99.28	101.79	99.63
LAKE OUTLET TEMP (F)	.00	89.54	93.60	90.11

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	98.0	95.9	89.0
LAKE INLET TEMP (F)	125.0	109.3	99.2
LAKE OUTLET TEMP (F)	98.8	96.8	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 14:22:35.35

Case 1800: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 0000; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20057E+01
TOTAL EVAP (CFS)	-.19 (8041900)	-4.29 (7021900)	-1.35	-9.63174E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.34 (7031900)	-.73	-5.23042E+01
FORCED EVAP (CFS)	-.19 (8041900)	-1.61 (7021900)	-.62	-4.40131E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.65 (8051900)	689.28	4.92177E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.33 (8041900)	81.06 (7071900)	89.23	6.37166E+03
LAKE INLET TEMP (F)	133.28 (7011900)	91.90 (7261900)	99.63	7.11400E+03
LAKE OUTLET TEMP (F)	99.47 (7011900)	82.11 (7071900)	90.11	6.43400E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	98.0	95.9	89.0
LAKE INLET TEMP (F)	125.0	109.3	99.2
LAKE OUTLET TEMP (F)	98.8	96.8	89.9

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 14:47:03.57

Case 1803: LaSalle UHS (Updated Worst 36-Day Temp; Ti=98.8F @ 0300; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	98.8	94.3		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 14:47:03.57

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 14:47:03.62

Page : 4
Date : 03/03/2000
Time : 14:47:03.62

[illegible]

Page : 5
Date : 03/03/2000
Time : 14:47:03.62

PROJECT NO. 11333-297

Page : 6
Date : 03/03/2000
Time : 14:47:03.73

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 14:47:04.06

Case 1803: LaSalle UHS (Updated Worst 36-Day Temp; Ti=98.8F @ 0300; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 98.80 94.30

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 14:47:04.12

FPLANT

TPRISE

[illegible]

[illegible]

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 14:47:04.23

Case 1803: LaSalle UHS (Updated Worst 36-Day Temp; Ti=98.8F @ 0300; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.28	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.72	-.73
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.58	93.08	89.21
LAKE INLET TEMP (F)	.00	99.26	101.77	99.61
LAKE OUTLET TEMP (F)	.00	89.52	93.57	90.08

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	98.0	95.8	89.0
LAKE INLET TEMP (F)	124.0	109.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.8	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 14:47:04.23

Case 1803: LaSalle UHS (Updated Worst 36-Day Temp; Ti=98.8F @ 0300; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.28	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.72	-.73
FORCED EVAP (CFS)	.00	-.63	-.56	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.58	93.08	89.21
LAKE INLET TEMP (F)	.00	99.26	101.77	99.61
LAKE OUTLET TEMP (F)	.00	89.52	93.57	90.08

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	98.0	95.8	89.0
LAKE INLET TEMP (F)	124.0	109.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.8	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 14:47:04.23

Case 1803: LaSalle UHS (Updated Worst 36-Day Temp; Ti=98.8F @ 0300; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20063E+01
TOTAL EVAP (CFS)	-.19 (8041900)	-4.28 (7031900)	-1.35	-9.63009E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.33 (7031900)	-.73	-5.23063E+01
FORCED EVAP (CFS)	-.19 (8041900)	-1.64 (7011900)	-.62	-4.39946E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.65 (8051900)	689.28	4.92177E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.32 (8041900)	81.06 (7071900)	89.21	6.36976E+03
LAKE INLET TEMP (F)	132.46 (7011900)	91.91 (7261900)	99.61	7.11241E+03
LAKE OUTLET TEMP (F)	99.95 (7011900)	82.24 (7071900)	90.08	6.43251E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	98.0	95.8	89.0
LAKE INLET TEMP (F)	124.0	109.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.8	89.9

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 15:04:24.35

Case 1806: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.2F @ 0600; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	97.2	92.7		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Page : 2
Date : 03/03/2000
Time : 15:04:24.40

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 15:04:24.40

[illegible]

Page : 4
Date : 03/03/2000
Time : 15:04:24.40

[illegible]

Page : 5
Date : 03/03/2000
Time : 15:04:24.46

[illegible]

Page : 6
Date : 03/03/2000
Time : 15:04:24.51

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 15:04:24.73

Case 1806: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.2F @ 0600; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.20 92.70

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 15:04:24.73

[illegible]

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 15:04:24.90

Case 1806: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.2F @ 0600; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.30	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.74	-.73
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.50	93.07	89.14
LAKE INLET TEMP (F)	.00	99.19	101.74	99.54
LAKE OUTLET TEMP (F)	.00	89.45	93.54	90.02

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.5	95.7	89.0
LAKE INLET TEMP (F)	126.0	107.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 15:04:24.90

Case 1806: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.2F @ 0600; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.30	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.74	-.73
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.50	93.07	89.14
LAKE INLET TEMP (F)	.00	99.19	101.74	99.54
LAKE OUTLET TEMP (F)	.00	89.45	93.54	90.02

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.5	95.7	89.0
LAKE INLET TEMP (F)	126.0	107.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.9

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 15:04:24.90

Case 1806: LaSalle UHS (Updated Worst 36-Day Temp; Ti=97.2F @ 0600; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20089E+01
TOTAL EVAP (CFS)	-.19 (8041900)	-4.25 (7031900)	-1.35	-9.63718E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.29 (7031900)	-.73	-5.24012E+01
FORCED EVAP (CFS)	-.19 (8041900)	-1.69 (7011900)	-.62	-4.39706E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.65 (8051900)	689.28	4.92178E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.31 (8041900)	81.03 (7071900)	89.14	6.36490E+03
LAKE INLET TEMP (F)	131.22 (7011900)	91.93 (7261900)	99.54	7.10792E+03
LAKE OUTLET TEMP (F)	99.94 (7011900)	82.08 (7071900)	90.02	6.42803E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.5	95.7	89.0
LAKE INLET TEMP (F)	126.0	107.0	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.9

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 15:18:40.69

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	96.5	92.0		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Page : 2
Date : 03/03/2000
Time : 15:18:40.69

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 15:18:40.69

PROJECT NO. 11333-297

Page : 4
Date : 03/03/2000
Time : 15:18:40.69

PROJECT NO. 11333-297

Page : 5
Date : 03/03/2000
Time : 15:18:40.75

PROJECT NO. 11333-297

Page : 6
Date : 03/03/2000
Time : 15:18:40.80

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 15:18:41.30

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 96.50 92.00

WEATHER STATION ID 0.

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/03/2000
Time : 15:18:41.30

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

FPLANT

70100 -	80500	R/I	86.000
---------	-------	-----	--------

TPRISE

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 15:18:41.46

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.31	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.76	-.74
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.47	93.03	89.10
LAKE INLET TEMP (F)	.00	99.16	101.68	99.51
LAKE OUTLET TEMP (F)	.00	89.43	93.49	89.99

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.6	88.9
LAKE INLET TEMP (F)	128.0	106.7	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 15:18:41.46

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.36	-1.31	-1.35
NATURAL EVAP (CFS)	.00	-.73	-.76	-.74
FORCED EVAP (CFS)	.00	-.63	-.55	-.62
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.36	688.74	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.47	93.03	89.10
LAKE INLET TEMP (F)	.00	99.16	101.68	99.51
LAKE OUTLET TEMP (F)	.00	89.43	93.49	89.99

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.6	88.9
LAKE INLET TEMP (F)	128.0	106.7	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 15:18:41.46

Case 1809: LaSalle UHS (Updated Worst 36-Day Temp; Ti=96.5F @ 0900; power uprat

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20097E+01
TOTAL EVAP (CFS)	-.19 (8041900)	-4.29 (7031900)	-1.35	-9.64773E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.28 (7031900)	-.74	-5.25177E+01
FORCED EVAP (CFS)	-.19 (8041900)	-1.71 (7011900)	-.62	-4.39596E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.65 (8051900)	689.28	4.92178E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.30 (8041900)	81.03 (7061900)	89.10	6.36216E+03
LAKE INLET TEMP (F)	132.78 (7011900)	91.95 (7251900)	99.51	7.10574E+03
LAKE OUTLET TEMP (F)	99.98 (7011900)	82.15 (7061900)	89.99	6.42586E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.6	88.9
LAKE INLET TEMP (F)	128.0	106.7	99.1
LAKE OUTLET TEMP (F)	99.0	96.6	89.8

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/07/2000
Time : 17:35:13.43

Case 1809: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=96.5F @ 0900; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	96.5	92.0		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/07/2000
Time : 17:35:13.49

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/07/2000
Time : 17:35:13.49

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 4
Date : 03/07/2000
Time : 17:35:13.49

9.19
9.19
9.15
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.72
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.52
8.49

Page : 5
Date : 03/07/2000
Time : 17:35:13.49

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B268 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 6
Date : 03/07/2000
Time : 17:35:13.54

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/07/2000
Time : 17:35:14.04

Case 1809: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=96.5F @ 0900; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 96.50 92.00

WEATHER STATION ID 0.

Page : 8
Date : 03/07/2000
Time : 17:35:14.04

[illegible]

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/07/2000
 Time : 17:35:14.20

Case 1809: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=96.5F @ 0900; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.59	-1.32	-1.55
NATURAL EVAP (CFS)	.00	-.95	-.76	-.92
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.65	89.93	90.55
LAKE INLET TEMP (F)	.00	101.11	98.69	100.77
LAKE OUTLET TEMP (F)	.00	91.37	90.65	91.27

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.2	90.8
LAKE INLET TEMP (F)	127.0	109.3	100.7
LAKE OUTLET TEMP (F)	99.0	97.3	91.5

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/07/2000
 Time : 17:35:14.20

Case 1809: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=96.5F @ 0900; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.59	-1.32	-1.55
NATURAL EVAP (CFS)	.00	-.95	-.76	-.92
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.65	89.93	90.55
LAKE INLET TEMP (F)	.00	101.11	98.69	100.77
LAKE OUTLET TEMP (F)	.00	91.37	90.65	91.27

TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	

NATURAL LAKE TEMP (F)	97.8	96.2	90.8	
LAKE INLET TEMP (F)	127.0	109.3	100.7	
LAKE OUTLET TEMP (F)	99.0	97.3	91.5	

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/07/2000
 Time : 17:35:14.20

Case 1809: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=96.5F @ 0900; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.13 (8051900)	-.20 (7011900)	-.16	-1.17357E+01
TOTAL EVAP (CFS)	-.24 (8051900)	-4.05 (7051900)	-1.55	-1.10956E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.67 (7051900)	-.92	-6.57451E+01
FORCED EVAP (CFS)	-.23 (7311900)	-1.56 (7011900)	-.63	-4.52110E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.47 (8051900)	689.19	4.92117E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.25 (7041900)	80.47 (7241900)	90.55	6.46545E+03
LAKE INLET TEMP (F)	132.14 (7011900)	89.64 (7241900)	100.77	7.19565E+03
LAKE OUTLET TEMP (F)	99.79 (7011900)	81.38 (7241900)	91.27	6.51731E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.2	90.8
LAKE INLET TEMP (F)	127.0	109.3	100.7
LAKE OUTLET TEMP (F)	99.0	97.3	91.5

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 11:31:44.61

Case 1812: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @ 1200; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	97.5	93.0		
999				
FPLANT	R/I	86.0		
TFRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 11:31:44.61

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

ATTACHMENT B
PAGE B277 OF B358

Page : 3
Date : 03/06/2000
Time : 11:31:44.61

[illegible]

PROJECT NO. 11333-297

ATTACHMENT B
PAGE B278 OF B358

Page : 4
Date : 03/06/2000
Time : 11:31:44.61

[illegible]

PROJECT NO. 11333-297

Page : 5
Date : 03/06/2000
Time : 11:31:44.61

[illegible]

Page : 6
Date : 03/06/2000
Time : 11:31:44.66

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 11:31:44.94

Case 1812: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @ 1200; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.50 93.00

WEATHER STATION ID 0.

ATTACHMENT B
PAGE B282 OF B358

Page : 8
Date : 03/06/2000
Time : 11:31:44.94

[illegible]

PROJECT NO. 11333-297

ATTACHMENT B
PAGE B283 OF B358

[illegible]

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/06/2000
 Time : 11:31:45.10

Case 1812: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @ 1200; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.60	-1.32	-1.56
NATURAL EVAP (CFS)	.00	-.95	-.76	-.92
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.68	89.93	90.57
LAKE INLET TEMP (F)	.00	101.14	98.69	100.80
LAKE OUTLET TEMP (F)	.00	91.40	90.65	91.29

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	128.0	109.1	100.7
LAKE OUTLET TEMP (F)	99.3	97.3	91.5

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 11:31:45.10

Case 1812: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @ 1200; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.60	-1.32	-1.56
NATURAL EVAP (CFS)	.00	-.95	-.76	-.92
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.29	688.56	689.19
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.68	89.93	90.57
LAKE INLET TEMP (F)	.00	101.14	98.69	100.80
LAKE OUTLET TEMP (F)	.00	91.40	90.65	91.29

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	128.0	109.1	100.7
LAKE OUTLET TEMP (F)	99.3	97.3	91.5

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 11:31:45.10

Case 1812: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=97.5F @ 1200; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.13 (8051900)	-.20 (7011900)	-.16	-1.17287E+01
TOTAL EVAP (CFS)	-.24 (8051900)	-4.04 (7051900)	-1.56	-1.11183E+02
NATURAL EVAP (CFS)	.00 (7031900)	-2.66 (7051900)	-.92	-6.59592E+01
FORCED EVAP (CFS)	-.23 (7311900)	-1.67 (7011900)	-.63	-4.52236E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.46 (8051900)	689.19	4.92115E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.22 (7041900)	80.47 (7241900)	90.57	6.46728E+03
LAKE INLET TEMP (F)	134.65 (7011900)	89.64 (7241900)	100.80	7.19739E+03
LAKE OUTLET TEMP (F)	99.98 (7011900)	81.37 (7241900)	91.29	6.51890E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	128.0	109.1	100.7
LAKE OUTLET TEMP (F)	99.3	97.3	91.5

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/06/2000
Time : 13:09:44.55

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.4F @ 1500; power u

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	99.4	94.9		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/06/2000
Time : 13:09:44.55

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/06/2000
Time : 13:09:44.55

PROJECT NO. 11333-297

ATTACHMENT B
PAGE B290 OF B358

Page : 4
Date : 03/06/2000
Time : 13:09:44.55

[illegible]

PROJECT NO. 11333-297

Page : 5
Date : 03/06/2000
Time : 13:09:44.55

PROJECT NO. 11333-297

Page : 6
Date : 03/06/2000
Time : 13:09:44.66

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/06/2000
Time : 13:09:45.10

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.4F @ 1500; power u

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 99.40 94.90

WEATHER STATION ID 0.

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 8
Date : 03/06/2000
Time : 13:09:45.10

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.4F @ 1500; power u

FPLANT

70100 - 80500 R/I 86.000

TPRISE

70100 - 80500 S/I 35.260 28.790 16.680 16.280

15.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

PROJECT NO. 11333-297

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/06/2000
 Time : 13:09:45.26

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.4F @ 1500; power u

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.60	-1.32	-1.56
NATURAL EVAP (CFS)	.00	-.96	-.76	-.93
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.28	688.56	689.18
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.67	89.93	90.56
LAKE INLET TEMP (F)	.00	101.10	98.68	100.77
LAKE OUTLET TEMP (F)	.00	91.37	90.64	91.27

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.7
LAKE OUTLET TEMP (F)	99.0	97.1	91.6

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/06/2000
 Time : 13:09:45.26

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Tl=99.4F @ 1500; power u

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.16
TOTAL EVAP (CFS)	.00	-1.60	-1.32	-1.56
NATURAL EVAP (CFS)	.00	-.96	-.76	-.93
FORCED EVAP (CFS)	.00	-.65	-.56	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.28	688.56	689.18
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	90.67	89.93	90.56
LAKE INLET TEMP (F)	.00	101.10	98.68	100.77
LAKE OUTLET TEMP (F)	.00	91.37	90.64	91.27

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.7
LAKE OUTLET TEMP (F)	99.0	97.1	91.6

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/06/2000
 Time : 13:09:45.26

Case 1815: LaSalle UHS (Updated Worst 5/1/30-Day Temp; Ti=99.4F @ 1500; power u

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.13 (8051900)	-.20 (7011900)	-.16	-1.17127E+01
TOTAL EVAP (CFS)	-.24 (8051900)	-4.05 (7051900)	-1.56	-1.11671E+02
NATURAL EVAP (CFS)	.00 (7031900)	-3.03 (7051900)	-.93	-6.64355E+01
FORCED EVAP (CFS)	-.23 (7311900)	-1.61 (7011900)	-.63	-4.52352E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.46 (8051900)	689.18	4.92111E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.16 (7041900)	80.46 (7241900)	90.56	6.46670E+03
LAKE INLET TEMP (F)	135.25 (7011900)	89.62 (7241900)	100.77	7.19528E+03
LAKE OUTLET TEMP (F)	99.99 (7011900)	81.36 (7241900)	91.27	6.51694E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.8	96.0	90.9
LAKE INLET TEMP (F)	127.0	109.0	100.7
LAKE OUTLET TEMP (F)	99.0	97.1	91.6

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 16:37:36.31

Case 1818: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 1800; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	100.0	95.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 O
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 16:37:36.31

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:37:36.37

[illegible]

Page : 4
Date : 03/03/2000
Time : 16:37:36.37

[illegible]

Page : 5
Date : 03/03/2000
Time : 16:37:36.37

[illegible]

Page : 6
Date : 03/03/2000
Time : 16:37:36.42

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:37:36.92

Case 1818: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 1800; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 16:37:36.92

15.320	14.970	14.530	14.290
13.880	13.450	13.300	13.300
13.300	13.240	12.730	12.730
12.570	12.430	12.240	12.020
12.020	12.020	12.020	12.010
11.490	11.490	11.490	11.490
11.490	11.490	11.490	11.490
11.090	11.070	11.070	11.070
11.070	10.870	10.860	10.860
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.500
10.500	10.500	10.500	10.270
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.990	9.990
9.990	9.990	9.720	9.700
9.700	9.700	9.700	9.700
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.540	9.540	9.540	9.540
9.400	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.190	9.190
9.190	9.190	9.150	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.850	8.850	8.850	8.850
8.720	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700
8.700	8.700	8.700	8.700

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 16:37:37.08

Case 1818: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 1800; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.35	-1.32	-1.34
NATURAL EVAP (CFS)	.00	-.72	-.78	-.73
FORCED EVAP (CFS)	.00	-.62	-.54	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.75	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.35	92.85	88.98
LAKE INLET TEMP (F)	.00	99.05	101.50	99.39
LAKE OUTLET TEMP (F)	.00	89.31	93.30	89.87

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.0	88.9
LAKE INLET TEMP (F)	125.0	105.8	99.1
LAKE OUTLET TEMP (F)	98.0	96.0	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:37:37.08

Case 1818: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 1800; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.35	-1.32	-1.34
NATURAL EVAP (CFS)	.00	-.72	-.78	-.73
FORCED EVAP (CFS)	.00	-.62	-.54	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.75	689.29
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.35	92.85	88.98
LAKE INLET TEMP (F)	.00	99.05	101.50	99.39
LAKE OUTLET TEMP (F)	.00	89.31	93.30	89.87

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.0	88.9
LAKE INLET TEMP (F)	125.0	105.8	99.1
LAKE OUTLET TEMP (F)	98.0	96.0	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:37:37.08

Case 1818: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 1800; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20347E+01
TOTAL EVAP (CFS)	-.19 (8031900)	-4.28 (7021900)	-1.34	-9.60339E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.21 (7021900)	-.73	-5.22645E+01
FORCED EVAP (CFS)	-.19 (8031900)	-1.77 (7011900)	-.61	-4.37694E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.65 (8051900)	689.29	4.92184E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.27 (8031900)	81.00 (7061900)	88.98	6.35326E+03
LAKE INLET TEMP (F)	133.50 (7011900)	92.05 (7251900)	99.39	7.09704E+03
LAKE OUTLET TEMP (F)	98.57 (8031900)	82.24 (7061900)	89.87	6.41702E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.0	88.9
LAKE INLET TEMP (F)	125.0	105.8	99.1
LAKE OUTLET TEMP (F)	98.0	96.0	89.8

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/03/2000
Time : 16:42:04.08

Case 1821: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 2100; power upra

1				
2	070100	080500	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0
	13.42	43.8	12.08	39.4
7	1	0		
8	100.0	95.5		
999				
FPLANT	R/I	86.0		
TPRISE	S/I			
35.26				
28.79				
16.68				
16.28				
15.32				
14.97				
14.53				
14.29				
13.88				
13.45				
13.30				
13.30				
13.30				
13.24				
12.73				
12.73				
12.57				
12.43				
12.24				
12.02				
12.02				
12.02				
12.02				
12.01				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.49				
11.09				
11.07				

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/03/2000
Time : 16:42:04.08

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

Page : 3
Date : 03/03/2000
Time : 16:42:04.13

[illegible]

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 4
Date : 03/03/2000
Time : 16:42:04.13

9.19
9.19
9.15
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.85
8.72
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.70
8.52
8.49

Page : 5
Date : 03/03/2000
Time : 16:42:04.13

[illegible]

Page : 6
Date : 03/03/2000
Time : 16:42:04.19

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/03/2000
Time : 16:42:04.68

Case 1821: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 2100; power upra

RUN 36 DAYS FROM 70100 TO 80500
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	81.350	341.400	73.210	307.200
689.000	79.750	260.800	71.780	234.700
688.000	78.150	181.900	70.340	163.700
687.000	29.700	102.200	26.730	92.000
686.000	22.220	60.000	20.000	54.000
685.000	13.420	43.800	12.080	39.400

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 100.00 95.50

WEATHER STATION ID 0.

Page : 8
Date : 03/03/2000
Time : 16:42:04.68

PROJECT NO. 11333-297

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220
8.220	8.220	8.220	8.220

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/03/2000
 Time : 16:42:04.85

Case 1821: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 2100; power upra

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.35	-1.35	-1.35
NATURAL EVAP (CFS)	.00	-.72	-.80	-.74
FORCED EVAP (CFS)	.00	-.62	-.54	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.38	92.79	88.99
LAKE INLET TEMP (F)	.00	99.07	101.42	99.40
LAKE OUTLET TEMP (F)	.00	89.33	93.25	89.87

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.0	88.9
LAKE INLET TEMP (F)	125.0	105.6	99.1
LAKE OUTLET TEMP (F)	97.8	96.0	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 O
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/03/2000
 Time : 16:42:04.85

Case 1821: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 2100; power upra

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.17	-.14	-.17
TOTAL EVAP (CFS)	.00	-1.35	-1.35	-1.35
NATURAL EVAP (CFS)	.00	-.72	-.80	-.74
FORCED EVAP (CFS)	.00	-.62	-.54	-.61
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.37	688.75	689.28
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	88.38	92.79	88.99
LAKE INLET TEMP (F)	.00	99.07	101.42	99.40
LAKE OUTLET TEMP (F)	.00	89.33	93.25	89.87

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	97.0	95.0	88.9
LAKE INLET TEMP (F)	125.0	105.6	99.1
LAKE OUTLET TEMP (F)	97.8	96.0	89.8

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/03/2000
 Time : 16:42:04.85

Case 1821: LaSalle UHS (Updated Worst 36-Day Temp; Ti=100.0F @ 2100; power upra

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE-FEET)
LAKE SEEPAGE (CFS)	-.14 (8051900)	-.20 (7011900)	-.17	-1.20338E+01
TOTAL EVAP (CFS)	-.19 (8031900)	-4.38 (7021900)	-1.35	-9.63046E+01
NATURAL EVAP (CFS)	.00 (7011900)	-3.25 (7021900)	-.74	-5.24969E+01
FORCED EVAP (CFS)	-.19 (8031900)	-1.77 (7011900)	-.61	-4.38077E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	689.99 (7011900)	688.65 (8051900)	689.28	4.92184E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	98.26 (8031900)	81.04 (7061900)	88.99	6.35459E+03
LAKE INLET TEMP (F)	133.26 (7011900)	92.04 (7251900)	99.40	7.09739E+03
LAKE OUTLET TEMP (F)	98.57 (8031900)	82.27 (7061900)	89.87	6.41749E+03
TEMPERATURE	FREQUENCY OF OCCURENCES			
	1%	5%	50%	
NATURAL LAKE TEMP (F)	97.0	95.0	88.9	
LAKE INLET TEMP (F)	125.0	105.6	99.1	
LAKE OUTLET TEMP (F)	97.8	96.0	89.8	

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/08/2000
Time : 10:45:12.20

Case 00e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.6F @ 1200; power uprate

1				
2	070100	073000	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	83.83	464.9	75.45	418.4
	82.15	381.9	73.94	343.7
	80.55	300.5	72.50	270.5
	78.96	220.8	71.06	198.7
	77.33	142.6	69.60	128.4
	29.70	71.7	26.73	65.6

7	1	0
8	97.6	93.1

999

FPLANT R/I 86.0

TPIRISE S/I

35.26

28.79

16.68

16.28

15.32

14.97

14.53

14.29

13.88

13.45

13.30

13.30

13.30

13.24

12.73

12.73

12.57

12.43

12.24

12.02

12.02

12.02

12.02

12.01

11.49

11.49

11.49

11.49

11.49

11.49

11.49

11.09

11.07

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 2
Date : 03/08/2000
Time : 10:45:12.25

11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54
9.54

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B325 OF B358

```

Program : LAKET-PC
Number  : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

```

Page : 3
Date : 03/08/2000
Time : 10:45:12.25

[illegible]

PROJECT NO. 11333-297

Page : 4
Date : 03/08/2000
Time : 10:45:12.25

[illegible]

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B327 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 5
Date : 03/08/2000
Time : 10:45:12.31

[illegible]

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B328 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 6
Date : 03/08/2000
Time : 10:45:12.36

8.49
8.44
END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/08/2000
Time : 10:45:12.75

Case 00e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.6F @ 1200; power uprate

RUN 30 DAYS FROM 70100 TO 73000
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	83.830	464.900	75.450	418.400
689.000	82.150	381.900	73.940	343.700
688.000	80.550	300.500	72.500	270.500
687.000	78.960	220.800	71.060	198.700
686.000	77.330	142.600	69.600	128.400
685.000	29.700	71.700	26.730	65.600

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.60 93.10

WEATHER STATION ID 0.

Page : 8
Date : 03/08/2000
Time : 10:45:12.75

FPLANT

TPRISE

[illegible]

8.700	8.700	8.700	8.700
8.700	8.520	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.490
8.490	8.490	8.490	8.440

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 9
 Date : 03/08/2000
 Time : 10:45:12.86

Case 00e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.6F @ 1200; power uprate

SEASONAL SUMMARY FOR SUMMER (6/1900 - 8/1900)

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	.00	-.18
TOTAL EVAP (CFS)	.00	-1.85	.00	-1.85
NATURAL EVAP (CFS)	.00	-1.23	.00	-1.23
FORCED EVAP (CFS)	.00	-.63	.00	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.23	.00	689.23
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	84.56	.00	84.56
LAKE INLET TEMP (F)	.00	95.49	.00	95.49
LAKE OUTLET TEMP (F)	.00	85.69	.00	85.69

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	95.8	92.2	84.1
LAKE INLET TEMP (F)	128.0	106.5	94.6
LAKE OUTLET TEMP (F)	99.0	92.7	85.2

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 10
 Date : 03/08/2000
 Time : 10:45:12.86

Case 00e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.6F @ 1200; power uprate

CUMULATIVE SEASONAL SUMMARY: SUMMER

QUANTITY	MONTHLY AVERAGES			AVERAGE VALUE
	JUN	JUL	AUG	
LAKE SEEPAGE (CFS)	.00	-.18	.00	-.18
TOTAL EVAP (CFS)	.00	-1.85	.00	-1.85
NATURAL EVAP (CFS)	.00	-1.23	.00	-1.23
FORCED EVAP (CFS)	.00	-.63	.00	-.63
PRECIPITATION (CFS)	.00	.00	.00	.00
MAKEUP (CFS)	.00	.00	.00	.00
BLOWDOWN (CFS)	.00	.00	.00	.00
RUNOFF (CFS)	.00	.00	.00	.00
DAM SPILL (CFS)	.00	.00	.00	.00
LAKE ELEVATION (FEET)	.00	689.23	.00	689.23
DISSOLVED SOLIDS (PPM)	.00	.00	.00	.00
NATURAL LAKE TEMP (F)	.00	84.56	.00	84.56
LAKE INLET TEMP (F)	.00	95.49	.00	95.49
LAKE OUTLET TEMP (F)	.00	85.69	.00	85.69

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%
NATURAL LAKE TEMP (F)	95.8	92.2	84.1
LAKE INLET TEMP (F)	128.0	106.5	94.6
LAKE OUTLET TEMP (F)	99.0	92.7	85.2

Program : LAKET-PC
 Number : 03.7.292-1.0 0
 Created : Mon Oct 27 08:45:58 1997

Page : 11
 Date : 03/08/2000
 Time : 10:45:12.86

Case 00e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.6F @ 1200; power uprate

TOTAL CUMULATIVE SUMMARY

QUANTITY	MAXIMUM VALUE (DATE)	MINIMUM VALUE (DATE)	AVERAGE VALUE	TOTAL FLOW (ACRE- FEET)
LAKE SEEPAGE (CFS)	-.15 (7301900)	-.20 (7011900)	-.18	-1.04198E+01
TOTAL EVAP (CFS)	-.55 (7121900)	-5.34 (7101900)	-1.85	-1.10111E+02
NATURAL EVAP (CFS)	-.28 (7051900)	-4.08 (7101900)	-1.23	-7.29136E+01
FORCED EVAP (CFS)	-.15 (7011900)	-1.92 (7011900)	-.63	-3.71974E+01
PRECIPITATION (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
MAKEUP (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
BLOWDOWN (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
RUNOFF (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
DAM SPILL (CFS)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
LAKE ELEVATION (FEET)	690.00 (7011900)	688.54 (7301900)	689.23	4.10120E+04
DISSOLVED SOLIDS (PPM)	.00 (7011900)	.00 (7011900)	.00	0.00000E+00
NATURAL LAKE TEMP (F)	96.31 (7011900)	76.28 (7201900)	84.56	5.03142E+03
LAKE INLET TEMP (F)	134.81 (7011900)	85.75 (7201900)	95.49	5.68204E+03
LAKE OUTLET TEMP (F)	99.95 (7011900)	76.90 (7201900)	85.69	5.09892E+03

TEMPERATURE	FREQUENCY OF OCCURENCES		
	1%	5%	50%

NATURAL LAKE TEMP (F)	95.8	92.2	84.1
LAKE INLET TEMP (F)	128.0	106.5	94.6
LAKE OUTLET TEMP (F)	99.0	92.7	85.2

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 1
Date : 03/08/2000
Time : 10:54:07.45

Case 06e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.4F @1200; power uprate;

1				
2	070100	073000	1	1
3	1	20		
4	1	0.2	5500.	0
5	690.	690.	1.	6
	82.99	423.5	74.69	381.2
	81.35	341.4	73.21	307.2
	79.75	260.8	71.78	234.7
	78.15	181.9	70.34	163.7
	29.70	102.2	26.73	92.0
	22.22	60.0	20.00	54.0

7		
1	0	
8	97.4	92.9

999
FPLANT R/I 86.0
TPRISE S/I

35.26
28.79
16.68
16.28
15.32
14.97
14.53
14.29
13.88
13.45
13.30
13.30
13.30
13.24
12.73
12.73
12.57
12.43
12.24
12.02
12.02
12.02
12.02
12.01
11.49
11.49
11.49
11.49
11.49
11.49
11.49
11.09

Page : 2
Date : 03/08/2000
Time : 10:54:07.50

11.07
11.07
11.07
11.07
10.87
10.86
10.86
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.50
10.27
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.99
9.72
9.70
9.70
9.70
9.70
9.54
9.54
9.54
9.54

ATTACHMENT B
PAGE B337 OF B358

Page : 3
Date : 03/08/2000
Time : 10:54:07.50

[illegible]

Page : 4
Date : 03/08/2000
Time : 10:54:07.50

[illegible]

Page : 5
Date : 03/08/2000
Time : 10:54:07.50

PROJECT NO. 11333-297

CALCULATION NO. L-002457

REVISION NO. 8

ATTACHMENT B
PAGE B340 OF B358

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 6
Date : 03/08/2000
Time : 10:54:07.56

8.49
8.49
8.44
END

PROJECT NO. 11333-297

Program : LAKET-PC
Number : 03.7.292-1.0 0
Created : Mon Oct 27 08:45:58 1997

Page : 7
Date : 03/08/2000
Time : 10:54:07.94

Case 06e: LaSalle UHS (Updated Worst 30-Day Evap; Ti=97.4F @1200; power uprate;

RUN 30 DAYS FROM 70100 TO 73000
PLOT FILE OPTION : 1 CYCLE FLAG: 1

WEATHER FILE OPTION: 1 ANEMOMETER HEIGHT 20.00

DENSITY: 62.40 SEEPAGE: .20 LAKE LENGTH: 5500.00

INITIAL LAKE ELEVATION = 690.00

DRAWDOWN CURVE

ELEVATION	TOTAL AREA	TOTAL VOLUME	EFF AREA	EFF VOLUME
690.000	82.990	423.500	74.690	381.200
689.000	81.350	341.400	73.210	307.200
688.000	79.750	260.800	71.780	234.700
687.000	78.150	181.900	70.340	163.700
686.000	29.700	102.200	26.730	92.000
685.000	22.220	60.000	20.000	54.000

PLOT FILE FREQ 1 INCREMENTS AT 0 HOURS

INITIAL FORCED/NATURAL LAKE TEMPS. = 97.40 92.90

WEATHER STATION ID 0.