



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
LISLE, ILLINOIS 60532

September 25, 2006

MEMORANDUM TO: Bruce Burgess, Chief  
Reactor Projects Branch 2  
Division of Reactor Projects

FROM: Ann Marie Stone, Chief */RA/*  
Engineering Branch 2  
Division of Reactor Safety

SUBJECT: LASALLE COUNTY STATION DRS INPUT TO INTEGRATED  
REPORT 05000373/2006005; 05000374/2006005

Enclosed is the report input for LaSalle County Station, Integrated Report 05000373/2006005; 05000374/2006005. I have reviewed this input and have determined it is ready for distribution to the licensee and dissemination to the public.

We have completed three samples for IP 71111.07B. Please update RPS accordingly.

Enclosure: Input to Inspection Report 05000373/2006005; 05000374/2006005

CONTACT: Caroline E Acosta Acevedo, DRS  
(630) 829-9718

DOCUMENT NAME: E:\Filenet\ML062690443.wpd

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OFFICE	RIII		RIII				
NAME	CAcosta Acevedo: Is		AMStone				
DATE	09/25/06		09/25/06				

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## Cover Letter

✓ No input, no significant findings.

## Title Page

Inspector: C. Acosta Acevedo, Reactor Engineer

## SUMMARY OF FINDINGS

ADAMS boilerplate - Inspectable area: None (no findings)

Modify second paragraph as follows:

The inspection was conducted by resident inspectors and a regional engineering specialist.

### A. Inspector-Identified and Self-Revealed Findings

None

### B. Licensee-Identified Violations

None

## REPORT DETAILS

1R07 Heat Sink Performance (71111.07B)

.1 Biennial Review of Heat Sink Performance

a. Inspection Scope

The inspectors reviewed the performance of the Unit 1 and Unit 2 high pressure core spray pump room cooler, the Unit 1 and Unit 2 low pressure core spray pump and reactor core isolation cooling pump room cooler and the Unit 1 low pressure core spray pump motor cooler. These heat exchangers were chosen for review based on their high risk assessment worth in the licensee's probabilistic safety analysis. This review resulted in the completion of three inspection samples. While on-site, the inspectors verified that the inspection/maintenance were adequate to ensure proper heat transfer. This was done by conducting independent heat transfer capability calculations, reviewing the methods used to inspect the heat exchangers, and verifying that the as-found results were appropriately dispositioned, such that the final condition was acceptable. The inspectors also verified, by review of procedures and test results, that chemical treatments, ultrasonic tests, and methods used to control biotic fouling corrosion and macrofouling were sufficient to ensure required heat exchanger performance.

The inspectors verified that the condition and operation of these heat exchangers were consistent with design assumptions in heat transfer calculations by conducting a service water system walkdown and reviewing related procedures and surveillance. The inspectors also verified that redundant and infrequently used heat exchangers were flow tested periodically at maximum design flow. This was performed by reviewing related procedures and surveillance.

The inspectors verified the performance of the ultimate heat sink and its sub-components, such as piping, intake screens, intake bays, pumps, valves, etc. by reviewing procedures, surveillance, and inspections conducted on the system.

The inspectors verified that the licensee had entered significant heat exchanger/heat sink problems into their corrective action program. The inspectors reviewed issues entered to verify that the corrective actions taken were appropriate.

The documents that were reviewed are included at the end of the report.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

.2 Interim Exit

An interim exit was conducted for:

The results of the heat sink biennial inspection were presented to Mrs. Landhal and other members of licensee management at the conclusion of the inspection on September 1, 2006.

## KEY POINTS OF CONTACT

Licensee

S. Landhal, Plant Vice President

**P. Holand, Regulatory Compliance**

W. Hilton, Engineering Department

Nuclear Regulatory Commission

D. Eskins, Resident Inspector

## LIST OF DOCUMENTS REVIEWED

1R07 Heat Sink Performance

### **Calculations:**

97-198; VY Cooler Thermal Performance Model - 1(2)VY04A; A00

97-200; VY Cooler Thermal Performance Model - 1(2)VY01A and 1(2)VY02A; Revision A00

L-001024; LPCS Pump Cubicle Cooler Ventilation System; Revision 3

L-001221; HPCS Pump Cubicle Cooler Ventilation System; Revision 2

L-002404; CSCS Cooling Water System "Road Map" Calculation; Revision 1

### **CAPs Reviewed:**

AR 00137664; Required design flow not achieved during LTS-200-19; December 30, 2002

### **CAPs NRC-Identified:**

IR 00525348; Repair Drain Pan Bolt on 1VY02A Cooler; August 30, 2006

### **Letters:**

Letter; LaSalle County Station Units 1 and 2 Response to Generic Letter 89-13; dated January 29, 1990

Letter; LaSalle Station Units 1 and 2 Supplemental Response to Generic Letter 89-13; dated June 7, 1991

Letter; LaSalle Station Unit 2 Response to Generic Letter 89-13; dated May 14, 1992

Letter; LaSalle County Stations Unit 1 and 2 Flow Testing Required by Generic Letter 89-13; dated March 18, 1993

Letter; LaSalle County Station Units 1 and 2 Service Water System Problems Affecting Safety-Related Equipment (Supplemental Response to NRC Generic Letter 89-13); dated May 18, 1994

Letter; LaSalle County Nuclear Power Station Units 1 and 2 Service Water System Problems Affecting Safety-Related Equipment (Supplemental Response to NRC Generic Letter 89-13); dated July 18, 1997

Letter; Documentation of Service Water Intake Structure Inspections within LaSalle County Station Generic Letter 89-13 Program; dated April 24, 1998

Letter; Generic Letter 89-13 Revised Response LaSalle County Nuclear Power Station, Units 1 and 2; dated July 28, 1998

**Miscellaneous Documents:**

AT 455081-05; Check-In Self-Assessment Report NRC Heat Sink Performance Inspection; dated July 28, 2006

Generic Letter 89-13 Program Basis Document; Revision 3

NOA-01-00-ES05; Nuclear Oversight Assessment Generic Letter 89-13 Service Water Systems Programs; dated February 11, 2000

**Procedures:**

CC-AA-103-2001 App B: Exelon Position on the Inclusion of Instrument Accuracy in Technical Specification Surveillance Acceptance Criteria; Revision 2

CY-AA-120-000; System Chemistry Control; Revision 5

CY-AA-120-410; Circulating/Service Water Chemistry; Revision 1

CY-AA-120-4110; Raw Water Chemistry Strategic Plan; Revision 0

CY-AA-120-4200; Corrosion Monitoring Guidelines; Revision 0

CY-LA-120-4100; LaSalle Station Lake Chemistry Control; Revision 2

EN-MW-402-0005; Extreme Heat Implementation Plan; Revision 2

EN-LA-402-0005; Extreme Heat Implementation Plan - La Salle; Revision 7

ER-AA-335-004; Manual Ultrasonic Measurement of Material Thickness and Interfering Conditions; Revision 2

ER-AA-340-1002; Service Water Heat Exchanger and Component Inspection Guide; Revision 3

LOA-UHS-001; Operating Abnormal Procedure; Revision 0

LCP-830-21; Circulating/Service Water Corrosion Monitoring Skid Operation; Revision 10

LOP-RH-04; Filling, Venting and Flushing the RHR Service Water System; Revision 21

**Surveillances:**

LTS-200-13; 1(2)VY02A Southwest Cubicle Area Cooler Flowrate Test, Div III; Revision 7

LTS-200-19; ECCS Cubicle Area Cooler Air Flowrate Test; Revision 13

**Work Orders:**

WO 950071394 01; Disassemble/Clean LPCS Motor Cooler; dated January 11, 1996

WO 980045205 01; Disassemble/Clean LPCS Motor Cooler; dated May 5, 1998

WO 00373003 01; ES Air Side Flowrate Test; dated July 7, 2003

WO 00387992 01; Air Side Flowrate Test; dated November 15, 2002

WO 00428324 01; Clean Air Side of 2VY02A Cooling Coil; dated September 6, 2002

WO 00465669 02; Inspection of South End of WS Tunnel for Corbicula and Sedim; dated June 22, 2004

WO 00485612 01; SW CNR RM Cooler Air Side Flowrate Test; dated May 10, 2004

WO 00485949 01; ES 1VY04A Air Side Flowrate Test; dated December 10, 2002

WO 00581940 01; Air Side Flowrate Test; dated April 4, 2005

WO 00594676 01; ES 1VY04A LPCS Pump Rm Air Side Flowrate Test; dated April 4, 2005

WO 00656176 01; Clean Unit 1 A CW Inlet Bay and Bypass Line; dated October 29, 2004

WO 00661696 01; U-2 NE Cubicle Area Cooler Air Side Flowrate Test; dated January 1, 2005

WO 00673390 01; MM 2CW01PA, Inspect/Clean Circ Water Bay Per LTS-600-23; dated December 28, 2004

WO 00759096 01; SW CNR RM Cooler Air Side Flowrate Test; dated May 8, 2006

WO 00781090 01; ES 1A FC Emergency Makeup Piping NDE UT; dated July 26, 2005

WO 00781091 01; LPCS Motor Cooler Piping NDE UT; dated December 1, 2005

WO 00781092 01; LPCS Motor Cooler Piping NDE UT; dated November 30, 2005

WO 00781093 01; RHR CSCS Piping NDE UT; dated June 13, 2005

WO 00781094 01; ES B FC Emergency Makeup Piping NDE UT; dated August 16, 2005

WO 00781096 01; ES 2A FC Emergency Makeup Piping NDE UT; dated August 30, 2005

WO 00781097 01; EP RHR CSCS Piping NDE UT Pipe 1RH84BA-1.5" (1A RH Seal Cir); dated June 17, 2005

## LIST OF ACRONYMS USED

AR	Action Request
AT	Action Tracking
CAP	Corrective Action Program
DBD	Design Basis Document
ESW	Emergency Service Water System
IR	Issue Request
MOD	Modification
NDE	Non Destructive Examination
RHR	Residual Heat Removal
UT	Ultrasonic Testing
WO	Work Order