



VILLAGE OF KEY BISCAYNE

Office of the Village Manager

Village Council

Robert L. Vernon, *Mayor*
Jorge E. Mendia, *Vice Mayor*
Michael Davey
Enrique Garcia
Steve Liedman
Thomas Thornton
Patricia Weinman

Village Manager

Genaro "Chip" Iglesias

DT: March 12, 2008

TO: Honorable Mayor and Council Members

FR: Genaro "Chip" Iglesias, Village Manager

**RE: RATIFYING EMERGENCY POOL
HEATER REPAIR**

RECOMMENDATION

It is recommended that the Village Council approve the resolution ratifying the emergency repair of the Community Center pool heater. This item was brought before the Village Council for consideration on January 29, 2008 as an emergency item. The Council approved the repair not to exceed \$23,632. This approval stipulated that a resolution would come before Council, at a later date, to ratify the approval. The resolution before the Council serves to ratify the approval provided on January 29, 2008.

BACKGROUND

On January 21, 2008 the Community Center pool heater failed. The Parks & Recreation Director contacted the heater manufacturer, Symboint, and Skyline Management making them aware of the system failure.

On January 23, 2008 Symboint representatives arrived on site to address the system failure. Symboint removed the damaged coils to investigate the location and cause of the failure.

On January 25, 2008 Symboint began their "engineering evaluation for failed water coils."

On January 28, 2008 a report stating the cause of the failure, a recommendation for addressing the issue, and a cost estimate was emailed to the Village. These items are attached as exhibit "A". The estimate exceeded the Village's discretionary expenditure limit. It was

determined that this item was an emergency repair and that it would be brought before the Council on January 29, 2008 for consideration.

On January 29, 2008 the pool heater was added to the Council agenda. The Village Council was provided the documents provided in exhibit "A". The Village Council voted to proceed with the repair provided that staff returns before Council with a resolution ratifying the execution of the proposal.

On January 30, 2008 and February 1, 2008 Symboint was on site performing the work identified in exhibit "A". The pool heater repair was completed on February 1, 2008 and the heater resumed functioning.

RESOLUTION NO. 2008-

A CAPITAL PROJECT AUTHORIZING RESOLUTION OF THE VILLAGE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, CONCERNING THE REPAIR OF POOL HEATER AT COMMUNITY CENTER SWIMMING POOL (THE “REPAIR PROJECT”); AUTHORIZING AND RATIFYING POOL HEATER REPAIR WORK WHICH WAS DONE ON EMERGENCY BASIS; APPROVING AND RATIFYING VILLAGE MANAGER’S EXECUTION OF PROPOSAL, PURCHASE ORDERS AND RELATED DOCUMENTS FOR THE REPAIR PROJECT; AUTHORIZING EXPENDITURE OF FUNDS; AUTHORIZING IMPLEMENTATION; PROVIDING FOR AN EFFECTIVE DATE.

WHEREAS, the Village Council, upon the recommendation of the Village Manager, desires to approve the repair of the pool heater which serves the swimming pool located at the Community Center (the “Repair Project”) pursuant to the proposal of January 28, 2008 (the “Proposal”), presented by Symbiont Service Corporation; and

WHEREAS, the Village Council has previously authorized the Village Manager to proceed with the Repair Project on an emergency basis; and

WHEREAS, the Village Council finds that pursuant to Village Code Section 2-85, competitive bidding was impractical for the Repair Project and does hereby waive competitive bidding for the Repair Project purchase transaction; and

WHEREAS, the Village Council finds that the Repair Project was and is necessary for the enhancement of the use and enjoyment of the swimming pool and is in the best interests of the Village.

NOW, THEREFORE, IT IS HEREBY RESOLVED BY THE VILLAGE COUNCIL OF THE VILLAGE OF KEY BISCAYNE, FLORIDA, AS FOLLOWS:

Section 1. Recitals Adopted. That each of the recitals stated above is hereby adopted and confirmed.

Section 2. Capital Project Authorizing Resolution.

A. That pursuant to Village Charter Section 3.07(b), this Resolution shall constitute a Capital Project Authorizing Resolution. The Capital Project is the implementation of the above described Repair Project at a total cost not to exceed Twenty Three Thousand, Six Hundred Thirty-Two (\$23,632.00) Dollars.

B. That the components of the Repair Project are described in the Proposal .

Section 3. Project Authorized; Transaction Approved.

A. That the Repair Project is hereby approved and ratified.

B. That the Village Council hereby authorizes and ratifies the Village Manager's action in providing for the completion of the Repair Project for a cost which is consistent with this Resolution, to be funded from the funding source which is identified in the Village Manager's memorandum which accompanies this Resolution.

C. That the Village Manager's execution of the Proposal and any necessary purchase orders or related documents for the Repair Project is hereby ratified and approved, once approved by the Village Attorney as to form and legal sufficiency.

D. That the Village Manager is authorized to take any action which is necessary to implement and finalize the Repair Project.

Section 4. Effective Date. That this Resolution shall be effective immediately upon adoption hereof.

PASSED AND ADOPTED this 4th day of March, 2008.

MAYOR ROBERT L. VERNON

ATTEST:

CONCHITA H. ALVAREZ, CMC, VILLAGE CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

VILLAGE ATTORNEY

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Engineering Evaluation for Failed Water Coils

1 Information

RGA #: 030067

Issued By: Stephen Baxter

Inspected By: Chris McGurran

Date: 1-25-08

Model: PH215GRAEWNA

Serial: 1038326-F05

Part #: Turbo Tec CTSSN-60, AQ# 2063

Coil Material: Cu-Ni

2 Results

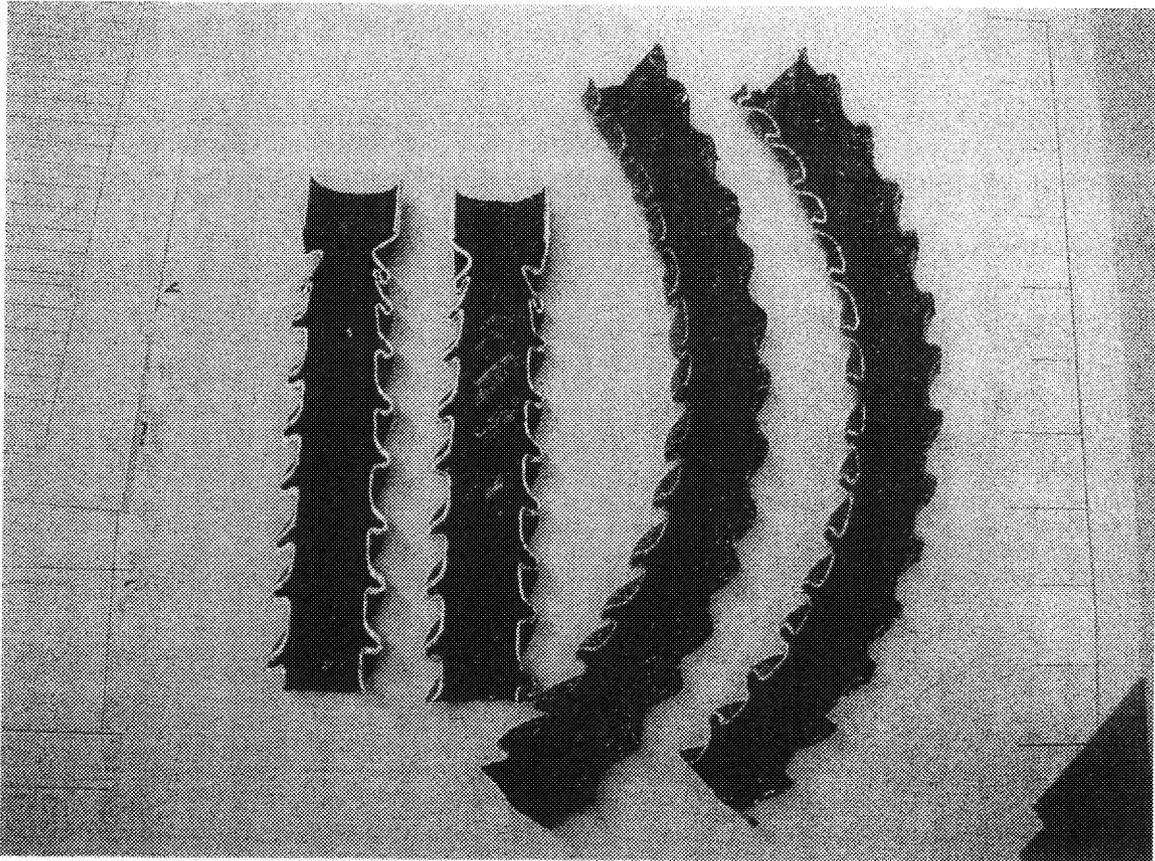
Questions	Yes	No
Was the part number on the RGA correct?	X	
Was the RGA number written on the failed part?	X	
Did the unit hold pressure?		X
Was the hole found?	X	
Was corrosion observed?	X	

The unit was destructively tested per the below procedure. There was a large amount of debris inside the coil, also a large amount of underscale corrosion most likely because of the debris and bad water chemistry. Non warranty failure.

3 Test Procedure

1. Locate coil and fill out necessary paperwork. Owner name, unit model, serial number, date, RGA number, and disposition.
2. The coil normally comes in with a schrader installed on one side of the refrigerant circuit, pressurize the unit with dry nitrogen to evaluate the size of breach, what side the breach is on (if you can tell) and even if there is a breach at all and make a note of it.
3. Open the refrigerant side of the circuit up on both ends and blow it out thoroughly with dry nitrogen to remove all water that may be in the system, blow out the water side also.
4. Install the core max adapters on all four ports and install the two schraders in the water side.
5. Put the vacuum pump on the side of the water circuit that you think is opposite of where the breach is located.
6. Pour approximately 8 oz. of the mineral oil/dye mixture in the refrigerant side that is opposite of where you think that the leak is also.
7. Install one schrader in the refrigerant circuit on the side that you put the dye mixture into and lay the coil horizontal so the oil flows better.
8. With the other end open, blow high-pressure nitrogen through the refrigerant circuit until it appears at the other end.
9. Verify with the UV light and a paper towel that it is the dye mixture.
10. Remove the schrader and move it to the other side of the refrigerant circuit and blow the oil/dye back through the other way.
11. Verify that you have dye present at both ends of the coil.
12. Install the fourth schrader in the refrigerant circuit and charge the coil's refrigerant side with 120psi of nitrogen while the water circuit is still in a vacuum.
13. Wait till the pressure in the refrigerant side is about 0psi and remove the schraders.
14. Unhook the vac pump and remove the final two schraders on the water circuit.
15. Remove the core max adapters.

16. Cut about 8-10 inches off of the coil starting from the side that you think the leak appears.
17. Once you cut one section out, cut it length wise as to filet it so you can inspect the interior of the water jacket.
18. Examine with the UV lamp and see if you can see if you can locate the breach.
19. If no breach found, repeat step 16.
20. Once you found the breach, tag and bag all of the pieces of cupronickel and send them to engineering to be evaluated making sure you note where the breach is.
21. Finalize your paperwork and turn it in.
22. Discard the rest of the coil after the evaluation is complete but save the bagged parts in the cupronickel storage cabinet.



SYMBIONT SERVICE CORP.

Proposal

Pool Heating
Air Conditioning
Electrical

Lic# CAC035549 • Lic# EC0002946 • Lic# CPC1456477

(941) 474-9306
Fax (941) 473-9306
1-800-881-4328
4372 North Access Road
Englewood, FL 34224
www.symbiontservice.com

PROPOSAL SUBMITTED TO

Village of Key Biscayne
c/o Skyline Management
4040 NE 2nd Avenue, Suite 303
Miami, Florida 33137

PHONE 305-365-8900

JOB NAME

Village of Key Biscayne
90 West McIntyre Street
Key Biscayne, Florida 33149

PHONE

DATE

01/28/2008

We hereby submit specifications and estimates for:

Install Plate Heat Exchanger & Loop Pump & Replace Evap. Heat Exchangers:

1 90 GPM Intermediate Plate Heat Exchanger & Loop Pump

6 Evaporator Heat Exchangers installed on pool heaters

Source Water: From existing well and pump, if adequate.

Electric: From existing pool panel, if adequate.

Complete installation including sales tax \$ 23,632.00

Manufacturer's Limited Warranty:

One year Symbiont Service Corp all parts and labor on the installation.

Not responsible for any damage to private or public unmarked underground lines, or repairs of landscape, painted or finished surfaces.

We Propose hereby to furnish material and labor - complete in accordance with above specifications, for the sum of:
Twenty-three thousand six hundred thirty-two and no/100 dollars **23,632.00**
Balance Upon Completion

Authorized Signature Terry Cicchella Note: This proposal may be withdrawn by us if not accepted within 30 days.

A late fee of 1.5% per month will be added to all invoices that are 30 days or more past due. Any variation from this contract will be done only upon written order from the customer, accepted by Symbiont Service Corp (SSC) and will be in addition to the contract price. Agreements made only with authorized SSC personnel will be recognized. All material supplied by SSC shall remain the property of SSC until the contract and extra work have been paid. The customer hereby gives permission to SSC, to enter upon the premises and remove the material. All costs incurred as a result of non-payment will be paid by the customer. Any suit arising from this contract may be instituted in any court of competent jurisdiction in Charlotte County.

Acceptance of Proposal - The above prices, specifications and conditions are satisfactory and are hereby accepted. You are authorized to do the work as specified. Payment will be made as outlined above.

Signature: _____

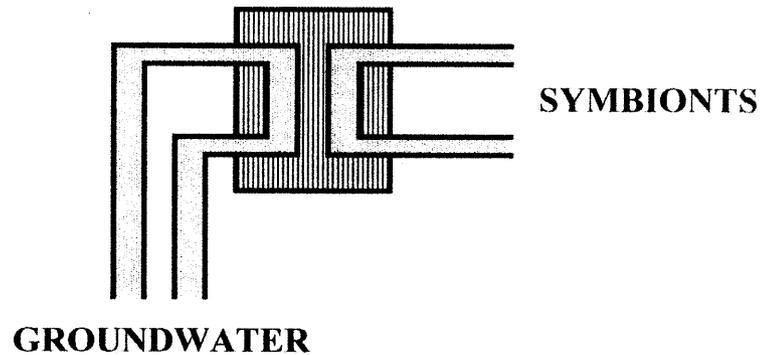
Signature: _____

Date of Acceptance: _____

Date of Acceptance: _____

GROUND WATER ISOLATION

PLATE HEAT EXCHANGER



The intermediate plate heat exchanger is a safeguard against any possible groundwater contaminants now or in the future. The intermediate plate heat exchanger acts as an isolator between the ground water and the "closed loop" of the units.

Although saltwater intrusion into the groundwater does not present any danger to the Symbiont cupro-nickel heat exchangers, the threat of sand erosion, calcium deposits, or corrosion from the natural formation of acids in the groundwater, and/or pollution from the surface, are potential hazards.

Mineral deposits, *fouling*, of the unit heat exchangers requiring frequent "coil cleaning" is eliminated.

The possibility of erosion and/or corrosion of the inside walls of the unit heat exchangers, resulting in a breach and subsequent flooding of the hermetically sealed refrigeration system, is prevented.

The intermediate plate heat exchanger takes all the abuse.