From: Baggett, Samuel
Sent: Thursday, January 06, 2011 12:20 PM
To: 'Fyfe, Stephen'
Cc: Goins, Dana; Mayes, Hugh; McCray, Canon
Subject: Booster Pump Gland Water System

Stephen…Thank you for your work to quantify the deduct for the seal water system. Management has directed us to stay the course and have you locate the seal water system components on the pump skid you are supplying as originally envisioned.

Our CAD designer Hugh Mayes and our project planner Canon McCray have taken the initiative to develop a concept (suggestion) as to how a seal water system using the same or similar components as are currently in use could be positioned on the pump skids you are designing. Their work was forwarded to you yesterday. They plan to send more detailed information on the individual components later today to expedite your efforts to complete the engineering on this vital aspect of the package. Please understand that the concept configuration that Hugh put in the 3D model is not a directive to make your design conform. We want your best design effort to locate and plumb the seal water injection system so that it not only functions correctly but does not block access to the pump when maintenance is required. It is also important to provide accurate locations for the seal water supply and discharge interface connections.

The currently installed seal water system has worked well over the life of the plant. Our Systems Engineer (Steve Reed)has identified only one aspect of the system that has presented a problem, namely, gauge failures caused by pulsating flow. Generally speaking there are two approaches for mitigating the effects of a pulsating flow. One approach is to install a snubber in the gauge sensing line and the other is using liquid filled gauges. I recommend that you use liquid filled gauges if they are available for this application. Since snubbers are prone to clogging from debris I will defer to Sulzer's judgment and experience with regard to supplying gauges with snubbers.

Thank you for your efforts…Sam.

From: Fyfe, Stephen [mailto:Stephen.Fyfe@sulzer.com]
Sent: Wednesday, December 22, 2010 4:24 PM
To: Baggett, Samuel
Cc: McPhail, Duncan; Tirumal, Harinath; Goins, Dana; Outcalt, Jay
Subject: RE: Bi-weekly conference call Action items with Crystal River - Contract # 488945, Sulzer Ref - 100045460 & 506636, Sulzer Ref - 100048817

Sam,

Per the below item #3 please note that your deduct for material to be deleted from scope of supply for the seal injection system is:

TOTAL DEDUCT FOR (2) PUMPS = $33,188.00

Please provide a revised PO reflecting this deduct.

Best regards,

Stephen Fyfe
Project Manager - Project Management
Sulzer Pumps US Inc.
2800 NW Front Avenue, Portland, Oregon, 97210 USA
Phone +1 503 226 5269 Fax +1 503 226 5242
Mobile +1 248 207 0959
stephen.fyfe@sulzer.com
www.sulzerpumps.com

From: Fyfe, Stephen
Sent: Monday, December 20, 2010 10:01 AM
To: Goins, Dana; Baggett, Samuel
Cc: McPhail, Duncan; Tirumal, Harinath
Subject: Bi-weekly conference call Action items with Crystal River - Contract # 488945, Sulzer Ref - 100045460 & 506636, Sulzer Ref - 100048817

Dana/Sam,

Per our conference call. Please note the following agreed Sulzer Action Items:

1. The interconnecting piping drawing from the LOS to pump will be available on 1/10/11.
2. The revised LOS drawings will be available on 1/10/11.
3. Sulzer to provide deduct for deleting seal injection system components and provide connection points only by 12/22/10.

I hope both you and your families have a great holiday.

Best regards,

Stephen Fyfe
Project Manager - Project Management
Sulzer Pumps US Inc.
2800 NW Front Avenue, Portland, Oregon, 97210 USA
Phone +1 503 226 5269 Fax +1 503 226 5242
Mobile +1 248 207 0959
stephen.fyfe@sulzer.com
www.sulzerpumps.com

From: McCray, Canon
Sent: Thursday, January 06, 2011 3:57 PM
To: 'stephen.fyfe@sulzer.com'
Cc: Baggett, Samuel
Subject: Additional Vendor Data for GW Components
Attachments: CR3 Feedwater Booster Pump GW Mods.doc; Leslie 20_2_5_1_3.pdf; 10-1.4.3.1ALT15-SH001.pdf; 01869-000.pdf; 01872-000.pdf; Ashcroft DU-3-1379.pdf; Dragon Catalog_Model_10F.pdf; Leslie 20_2_5_1.pdf

Stephen,

I have dug a little deeper within our equipment database for each of the components associated with the relocation of the Existing Gland Seal Water piping and components to the south-east end of the new skids.

I have re-attached the document that I sent to you yesterday, but have added references (in RED) to the components list. The reference documents are attached as well.

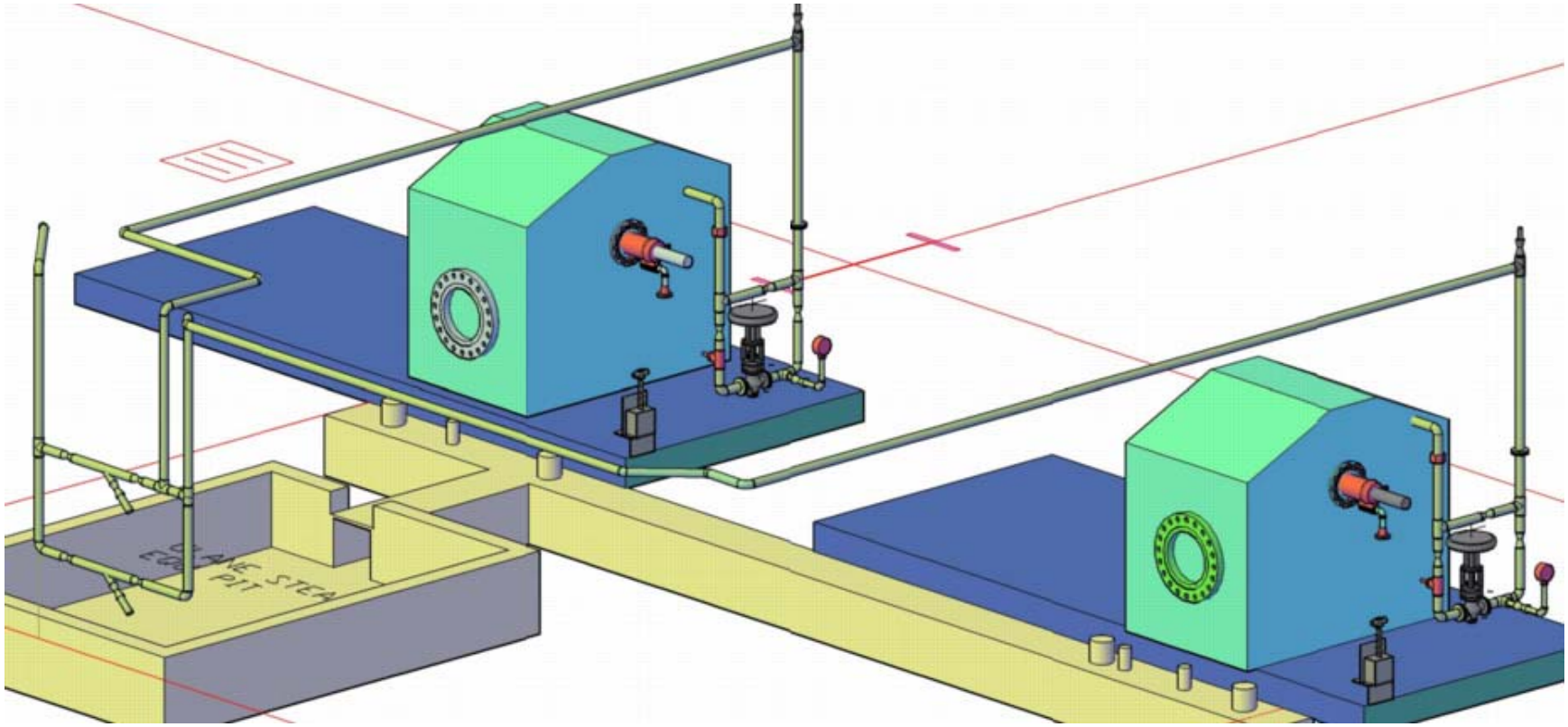
Please let me know if you need any further information.

Thanks,

Canon McCray
CR3 MAJOR PROJECTS
PLANNER
NET 240 - X1611
352-563-2943-X1611
Personal Cell
256-375-3162

CR3 FEEDWATER BOOSTER PUMP GLAND WATER SYSTEM MODIFICATIONS

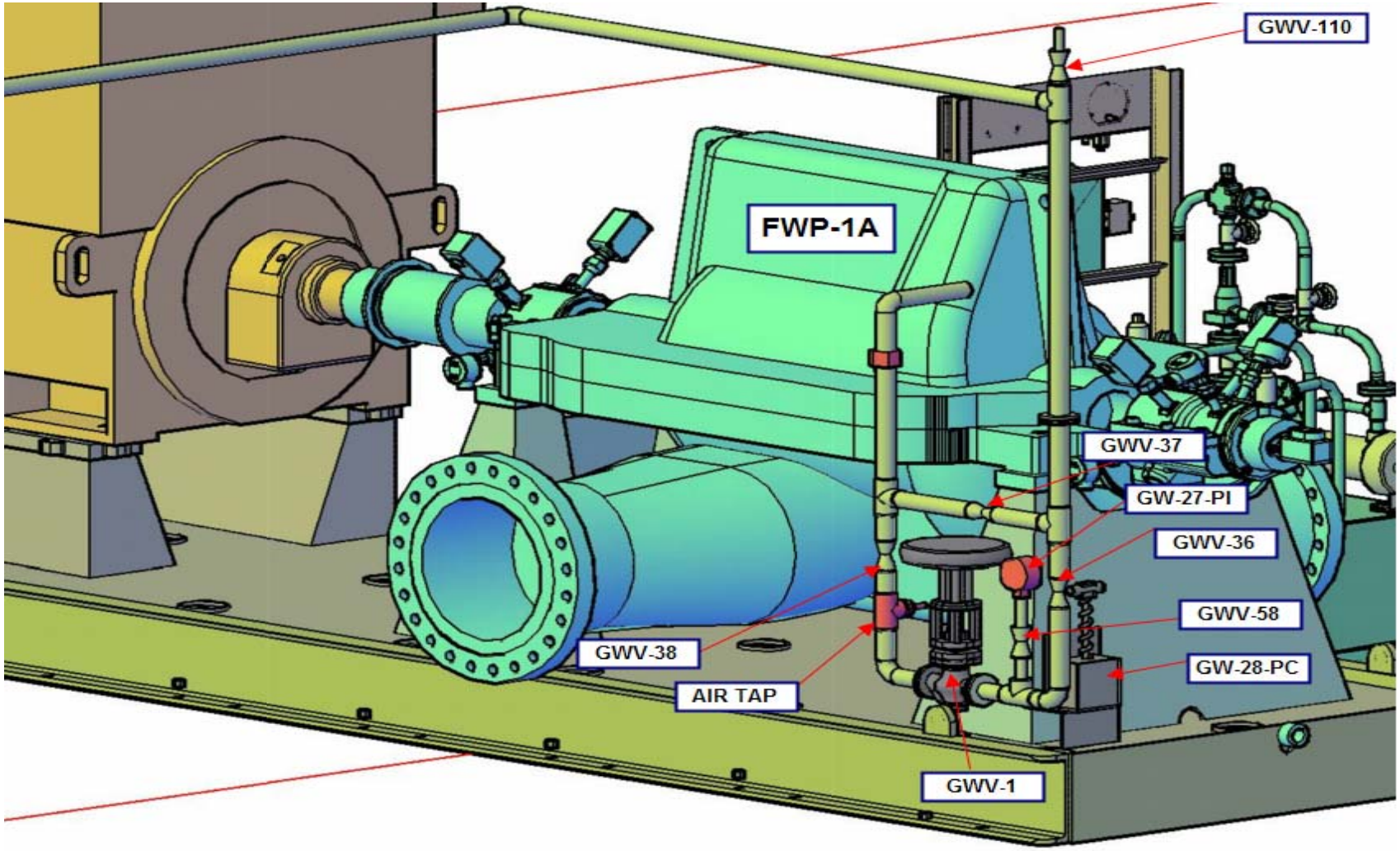
The following 3D Model snapshot is of the existing piping configuration.



CR3 FEEDWATER BOOSTER PUMP GLAND WATER SYSTEM MODIFICATIONS

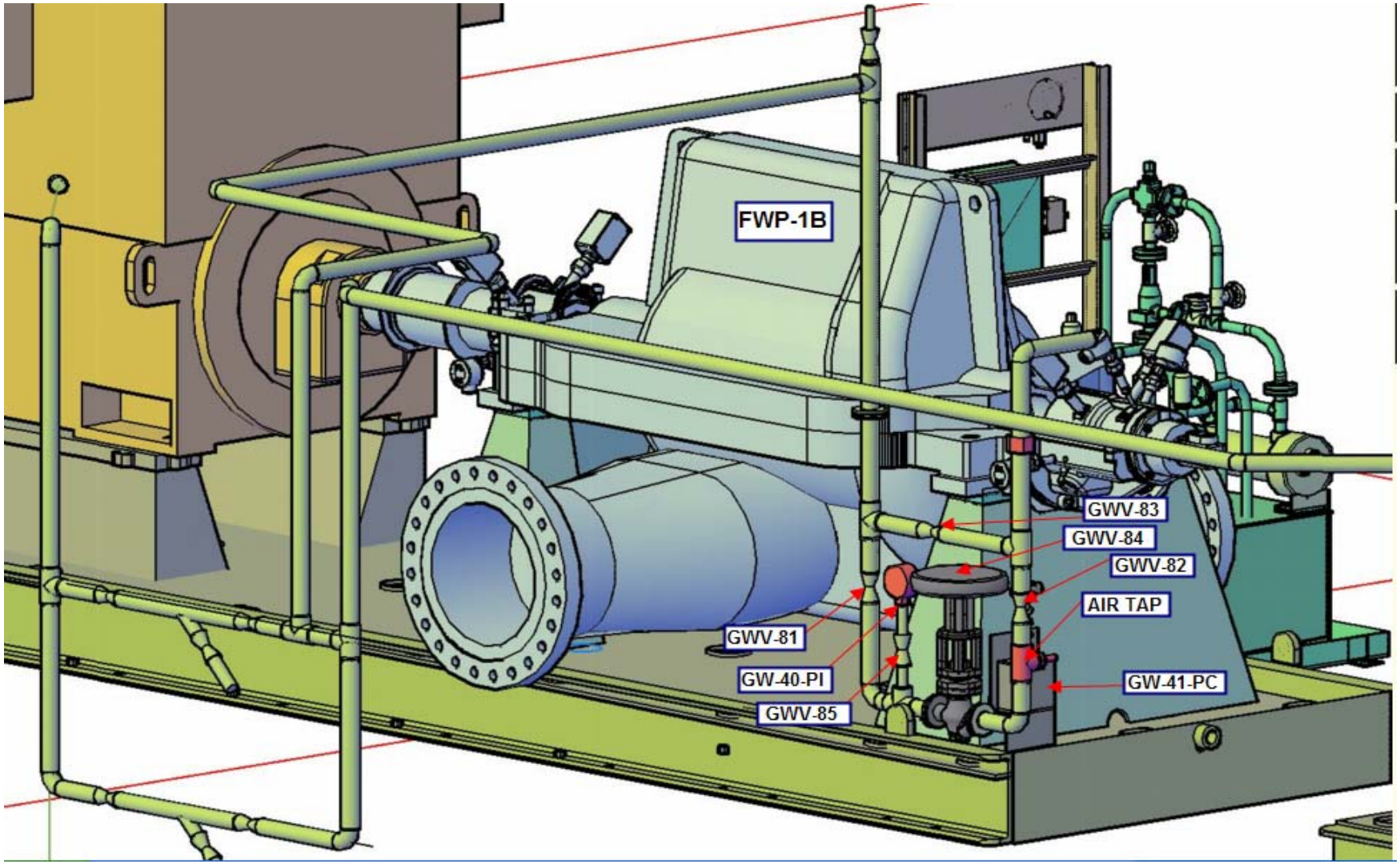
The new proposed piping configuration which will simply relocate the GW Control components to the south east end of the new skids is shown below:

NEW FWP-1A Glandwater Piping



CR3 FEEDWATER BOOSTER PUMP GLAND WATER SYSTEM MODIFICATIONS

NEW FWP-1B Glandwater Piping



CR3 FEEDWATER BOOSTER PUMP GLAND WATER SYSTEM MODIFICATIONS

The equipment parameters per our Plant Equipment Database for all associated equipment are as follows:

GWV-110 & 111:

Seal Water to FWP Header vent; Hancock Model 950W, ½" in/out gate valve, 600psi Pressure class. REFERENCE Vendor Manual 01872-000

GWV-37 & 83:

GWV-1 & 84 Bypass valves; Hancock Model 5500W, 1" in/out globe valve, 600 Psi Pressure class. REFERENCE Vendor Manual 01869-000

GWV-38 & 82:

GWV-1 & 84 Downstream Isolation valves; Dragon Valves Inc. Part 10F0115, 1" threaded inlet/outlet & bonnet globe valve, 6000# at 150deg F. REFERENCE valve data sheet from Dragon Valves Catalog.

GWV-36 & 81:

GWV-1 & 84 Upstream Isolation valves; Hancock Model 950W, 1" in/out gate valve, 600psi Pressure class. REFERENCE Vendor Manual 01872-000

GWV-58 & 85:

GW-27 & 40-PI Isolation valves; Hancock Model 950W, ½" in/out gate valve, 600psi Pressure Class. REFERENCE Vendor Manual 01872-000

GW-27 & 40-PI:

FWP-1A/B Seal Water Inlet Pressure; Currently Ashcroft 60-1379SSL-04L-PD-0/400 PSIG, Station recommendation to go to liquid filled gauges. REFERENCE Ashcroft type 1379 Duragauge data sheet.

GWV-1 & 84:

Seal Water Control to FWP-1A/B; Leslie Controls Model 3B25A2U, ½" in/out air operated globe valve, diaphragm operator, screwed connections, 600 psi pressure class, 120deg F design Temperature. REFERENCE Leslie Valve Data Sheet 10-1.4.3.1ALT15-SH001

GW-28 & 41-PC:

GW Supply pressure for FWP Input for GWV-1 & 84; Leslie Controls, Pilot Controller type UDDVP, Serial Number 06D, 600psig. REFERENCE Leslie Controls drawing 20/2.5.1.3, and instructions for Pilot Controllers 20/2.5.1.

REFERENCE ATTACHED CR3 DRAWING 304-147.