

Under Construction

Volume 5, Issue 8



SAFETY ZONE

by Warren Sanders

SPINNING

Pre-Task Planning is an awesome tool: Solutions to mitigate potentially dangerous work scope is the desired outcome.

During pre-task planning Dennis Hauth, Apollo PM included *"Spin"* to his plan for setting a 42' tall 40,000 gallon fiberglass tank at Intel. The tanks resting place is adjacent to the Acid Waste Neutralization (AWN) pit at the D1D factory. Acid waste is pumped in and out of the tank through five 10" and 12" PVC and poly pro pipes. The pipes are installed on the exterior of the tank. They travel from the top of the tank, down the exterior surface of the tank and into the AWN pit, 80' below the top of the tank.

Why "Spin"?

Dennis Hauth and Apollo GF, Ron Wilcke met with the SKANSKA project team to Pre-Task the crane pick. One pick was in the scope documents. Dennis wanted 2 picks. His goal was to eliminate an 80' fall exposure by setting the tank on its pad, 180 degrees from its final resting place. The 10" and 12" pipe sections would be mounted to the exterior of the tank from boom lifts. A second pick would be used to re-lift and position the tank and pipe 180 degrees to its designed resting place, over the AWN pit.

What did "Spin" Eliminate?

Worker falls from a scaffold system and potential damage to operating equipment from falling materials into the AWN pit were eliminated. Greg Conrad, Apollo project foreman, installed all of the piping materials from lifts. Our electrical and insulation subcontractors installed heat trace and insulation from lifts as well. A complicated scaffold system was eliminated. On Monday, February 9, the 2nd pick *"Spun"* and reset the tank.

What did "Spin" Accomplish?

Apollo personnel and our subcontractors achieved an incident and injury free outcome. We have a happy Intel customer and SKANSKA GC.

Apollo thanks Leroy Moore and the SKANSKA team for allowing creative thought in Pre-Task Planning to enhance Apollo's *Home Safe* IFE initiative.

THE COST SPAM!

BY Ryan Ratchford

Apollo Sheet Metal has carved out a nice niche market for itself doing the mechanical work for Data Centers in Wenatchee and Quincy WA; and hopefully soon in other regions. These data centers are where large internet based companies will place literally thousands of computers, called servers because of their sheer power, work horse set up, and configuration; in order to process enormous amounts of information and deliver that information to the world.

As you might surmise, the energy bill that shows up in the mail box looks more like a calculation of the energy usage of the entire Tri-Cities, only with the word "Invoice" on the top. Naturally the companies that pay those energy bills are always looking for ways to cut those costs down, especially in today's economy.

Recently McAfee Inc., who makes spam and anti-virus software, initiated a study about how cumbersome spam is on computing infrastructure. As some of you know, most spam is created by software programs. They go through the system, assemble millions of email addresses, create the millions of messages, send them all, and deal with them if people reply. Surprisingly, this only robs 2% of the total energy spent by these servers. The energy consumption increases when companies put spam filters in place; up to a 16% increase. As with many things in life, it's a heck of a lot easier to make a mess than it is to pick it up. But here's where it gets interesting. The real energy drain, a 27% increase, comes from user interaction with spam. Viewing spam that sneaks through, even marking items as spam, let alone interacting or forwarding the spam uses close to a third of the physical energy of the servers receiving commands from the user.

What the study doesn't get into is the multiplier of human energy wasted. Since over a third of the nation's data centers' energy is spent dealing with spam (estm. \$200 Million) annually, we always need to be conscious of how spam, mail forwards, and other electronic junk are assaulting our time. It's nice to know that by steering clear of Spam, we inversely make the world a greener place.

Apollo

..... Building people who build great things!

Apollo Sheet Metal

BSF/CSF

TODD THOMPSON



With Apollo since: July '03
Town lives in: Benton City
Division: Controls
Job Title: Foreman

Family: Married to Kim, Matthew (17), Cydney (16), Trevor (5), Made-

lyne (3) and Lillian (2).

Hobbies: Playing basketball, playing with my family, and pretty much playing.

Recent accomplishment on the job: Job accomplishment for me personally is totally dependent upon the people I work with. When they are successful, I am successful. I am very grateful to work with what I consider the best crew of men in the Northwest. This last year was extremely busy and stressful. I think that my greatest accomplishment is that we were able to complete the many jobs we were working on, on-time, profitably, and still maintain our sanity and health.

Recent accomplishment outside the job: This September, my wife and I will be celebrating our 20th wedding anniversary and though I haven't accomplished it yet, I want to take her on the trip she has always dreamed of (while paying CASH for the whole thing!!!!)

Favorite music: Christian rock
Favorite food: Pizza

Next big goal in life: To call in to the Dave Ramsey Show and scream "I'm Debt Free!"

PROJECTS WON

- PNNL Process—\$31,000
- Delta Stem HS—\$92,000
- RPL Lab Microscope Relocation—\$20,269
- Spokane Community College—\$176,489
- Pantex Plant (Amarillo, TX) - \$12.8 million
- East Valley School Central Kitchen—\$141,534
- PNNL 331 Lab Renovation—\$116,156

Division Managers: Dan McCormick—Mechanical Systems and Dale Hollandsworth—Controls

Project Manager: Jeremy Faught

Supervisors: HVAC-Ken Jamison, Field-Carl Stredwick, Shop-Johnny Hightower, Piping-Dennis Bland, Bryce Strum, Rich Guel, Levi Bland, Charlie Higley

Design Support: Brandon Franklin & Jeremiah Newell

Crew: HVAC-Alden Hamilton, Dennis Strickland, Gonio Jamie, Justin Priest, Paul Lickar, Juan Madrigal, Robert Ledburry, Brian Kandlar, Tyler George, Eric Vowles, Kray Hinckle, Brandon Turley, Greg Cuellar **Piping-FM,** Mark Delarosa crew, **JM-Keith Phillips (Stewart),** Frank Vedder, Roy Humbert, William Roe, Jim Johnson, Ernad Hadzibegovic, Mike Gilman,

Apprentices: Dan Gelhous, Dane Lacey, Ryan Bonnalia, Jeremy Hendricks, **Mechanical Room:** Charlie Higley's crew, **Laborer:** Rex Wells, CAD-Mike White, Mike Daniel, Dennis Damon, Shawn Simlenss, Brian Brown, Dan Villa, **Controls**—Chris Cataldo, Steve Borley, Todd Thompson

Location: 3300 Stevens Drive, Richland

Estimated Value: \$12.2 million

Start/Finish Date: July '08—Sept '09

Complete installation of Mechanical systems and Controls including a ground source water system. Lab gases (15,000 lf), plumbing piping (42,000 lf), DWV (10,000 lf), HVAC duct systems (185,000 lbs), HVAC equipment, Mechanical equipment, Control system and start-up for a 144,300 SF two story building facility designed to house Battelle Operations for Biological Safety Level 2 and Computational Laboratories (Computer systems). ASM will be installing the complete controls system (Alerton), a major step for Battelle to utilize a system other than Johnson Controls, Inc. (which they are using on PSF). ASM is providing LCM services and has created a coordinated 3D model of the building and systems. This has been a challenge due to on-going design changes and limited space allocated for installation of systems.

ASM is about 70% roughed in with HVAC duct and about 60% roughed in with Mechanical piping. HVAC Roof Top Units are set, VAV boxes are installed, FCU units are installed, FPT units are installed, working on Phoenix valves in laboratory areas and completing rough-in. Mechanical piping is concentrating on finishing up chilled water lines from mechanical room to units, and lab gases and installation Seismic systems. We are billed at 50% complete as of March. Mechanical equipment will start arriving this month and we will start construction of the mechanical room piping and equipment installation. The ground source water system has two of the eight wells in and tested, working on third well and hope to have all eight wells in by mid-May and tested by mid-June. Being able to put the system on-line will be determined by procuring the permit from Washington Department of Ecology. Therefore, a temporary Fluid Cooler (purchased used from Texas) will supplement the system until the GSW is operational. Control system is being roughed in and is hooking up equipment as it becomes available.

Construction started while design was still underway, keeping changes to a minimum was a challenge and we were able to accomplish by working closely with the General Contractor Harvey-Cleary Builders and the engineers. The ground source water system was added to our scope of work and consists of installing and testing 8 wells, water distribution system, and pump system. The testing of the wells required 48 hour continuous data collection which Chris Cataldo, Steve Borley and Todd Thompson of the controls department designed and set-up for us. The ASM crews have been very helpful in utilizing their construction experience to keep things moving, even though we were shutdown on installing duct for 3 weeks. Of course through all this the scheduled date of completion must not change. The ASM installed control system will be the 1st major building for Battelle that is not Johnson Controls, Inc, good luck Chris Cataldo and crew.



Apollo, Inc.

JEFF CARLSON



With Apollo since: June 2000
Division: Estimating
Town lives in: West Richland
Job Title: Estimator

Family: Sons Tyler (8) and Matthew (6)
Pets: An orange cat, who's name would be inappropriate to say in public.
Hobbies: Fly fishing, distance running, softball, playing baseball with my boys.

Recent accomplishment on the job:
Learned and implemented new estimating software this year.

Recent accomplishment outside the job:
Managing my son's Little League team for the second year in a row.

Favorite music: Rock & Country
Favorite food: Anything with beer and pizza in it.
Next big goal in life: Will start training for the Portland Marathon in a few weeks, my fourth in the last 8 years.

"The bad news is time flies.

The good news is you're the pilot!"

Projects Won

- Kennewick WWTP Improvements—\$6.5 million
- Three-Mile Canyon Digger—\$133,000
- WM Gas to Energy—\$291,000
- Simplot Biogas Bldg—\$119,141
- City of Pasco AC Waterline—\$848,478
- Columbia Industries Demo—\$150,000

WEST RICHLAND WASTE WATER TREATMENT PLANT EXPANSION

Division Manger: Nigel Stevenson
Project Manager: Tim Richman
Superintendent: Josh Prock
Crew: Andy Peters, Shawn Gavaert, Chris Bolton, Rick Gyra, Steve Emery, Lance Sabin, Kyle Van Belle, Travis Overstreet, Jesse Arriaga, Juan Sanchez, Robert Staats, Tyson Ripplinger, Bobby Putnam, Doug Welch, Mat Clark, Jose Gonzalez, Angel Romero, Tracy Waldo, Robin Wind, Charles Bateman, Travis Cram, Barry Turnbull, Dustin Chavez, Rick Crume, Andrey Tochinskiyo, Neil Hardesty, Craig Cadwalladero, Maurice Cowgill, Charles Sittler, Josh Gradin, & Darrin Cole.

Location: 46th Street, West Richland
Estimated Value: \$5.7 million
Start/Finish Date: March '08—May '09

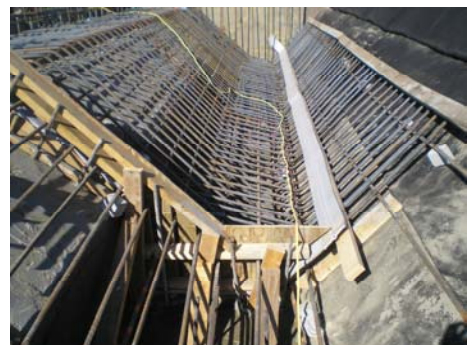
General Scope: Demolition of existing headwork's screening structure, influent lift station, blowers, aerial sewer crossing, and abandonment of existing plant effluent discharge piping. Construction of new 24" PVC sewer main (600 LF), 10" DI water line (1600 LF), 14" DI force main (1000 LF), 18" HDPE effluent discharge pipe (3000 LF) and in-river diffuser manifold; new influent lift station, aerial pipe crossing, headwork's screen and metal building, blowers and metal building, ultraviolet disinfection system and metal building; new Biolac basin, aeration, and clarifier equipment; modifications to the existing Biolac basin; new Vactor dump basin; and miscellaneous connecting piping and controls.

Current Status: All new systems are constructed and started up. Demolition of old system components is underway. Modifications to the existing Biolac Basin are underway

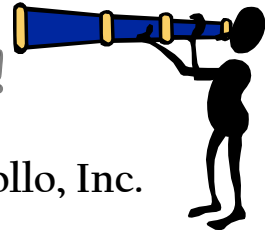
Hurdles/Accomplishment: This project has been a challenge due to unexpectedly high groundwater levels, flooding, unsuitable soil conditions, and tight construction areas in which to work. Inadequate design of structures resulted in re-design of the aerial pipe crossing structure in mid-construction. Inadequate pump control schemes resulted in unnecessary call-outs. Apollo Crews adapted to each challenge and worked with the Owner and Engineer to resolve the issues and move forward with the project

Interesting trivia: After multiple years of drought conditions in the area, Apollo had anticipated low river levels and low

groundwater for construction of this project. In 2008, Yakima River flows doubled what had been seen for many years. Two 75-year floods occurred in the last 16 months. The West Richland Golf Course (adjacent to the wastewater plant) had dammed up the slough (that Apollo needed to cross with piping) in past years to hold and use the drought condition water levels. High river levels and increased ground water flows combined to cause flooding at the Golf Course, which the Golf Course tried to blame on Apollo's construction activities, but were the result of their own dams. Due to all these issues, 63 RFIs and 24 changes orders, valued at over \$555,000, were written.



LOOK WHO'S HAVING A MAY/JUNE BIRTHDAY!



Apollo Sheet Metal, Inc.

Adam Croghan
Allen Sieler
Anthony Rosellini
Brad Bainter
Branden Powell
Brian Cram
Brian Cunningham
Bryce Ellis
Bryce Sturm
Carl Stredwick
Cody Hoburg
Craig Haymaker
Dale Morley
Dale Hightower
Daniel Bruun
David Hammond
Don Hightower
Donald Ingram
Don Westfall
Dustin Long
Dwayne Butler
Edward Carter
Fernando Magana
Frank Vedder
Gary Hammack
Heather Den Boer

Jan Crawford
Jarrod Mendenhall
Jason Higgins
Jason Sitton
Jeffrey Ellingsen
Jeremy Haugen
Jeremy Splattstoesser
John Beeler
Jordy Lewis
Josey Conner
Josh Testerman
Joshua Bushard
Kitsy Melton
Lester Gillson
Marion Sundstrom
Mary Davis
Megan Surgeon
Mike Low
Michael Britain
Michael Urban
Nicholas Oakley
Nick Porter
Paul Jewell
Randall Herrin
Becky Tenny
Richard Pearson

Apollo, Inc.

Rich Smith
Richard Van Tuyl
Rich Peterson
Rick Smith
Rick Kimmel
Robert Barney
Rob Morehouse
Robert Johnson
Robert Dietrich
Roy Dietz
Ruth Nelson
Samuel Smith
Santiago Valdez
Scott Fallis
Scott Kimble
Seth Cox
Sherry Mayo
Terry Holbrook
Terry Koelzer
Thomas Everitt
Timothy Schwisow
Tyler Mayfield
Vernon Baie
Viktor Yavniy
William Arient

Abbie Heath
Bart Schorer
Chad Curtis
Christopher Grow
Daniel Sjule
Dave Tweedy
Dennis Hogg
Diane Hanson
Frank Crantz
Humerto Anguiano
Jared Hurja
Jolene Harries
Jorge Leal
Josh Gradin
Juan Garcia
Keith Larson
Kevin Stephenson
Lee Petty
Shawn Cole
Steven Garrison



All of Mrs. Johnson's children were born in June. Their birthdays are June 1, June 7, June 12, June 20, and June 29. There are three girls named Mary, Elvira, and Joan, and there are two boys named Douglas and Timothy. Mrs. Johnson bought these five presents for them: a book, a coat, concert tickets, a dress, and an electronic game. From the information given, determine the birthday and present received by each child.

1. Timothy's birthday comes before that of the girl who received a dress but after the girl who received a coat.
2. Douglas's birthday comes before Elvira's birthday but after the birthday of the girl who received an electronic game.
3. Elvira did not receive the dress and neither did Joan.
4. Douglas did not get a book as a present.



Turn in your answers to Jan Crawford (jcrawford@apollosm.com or extension 226 for a chance to win a gift certificate to R.F. McDougall's or Kimo's.

There were no winners in the "Who could it be"? The answer was "Diamond" Jim Brady.

Jim Brady is our Portland branch Division Manager.