

Between the Lines

Issue No. 55

An internal publication for BPA's Transmission Business Line

October 2003

Air-crane helicopters lift towers and trees to minimize environmental impacts to the Cedar River Watershed in early October

Helicopters are scheduled for early October to lift giant transmission towers into place for the Kangley-Echo Lake 500-kilovolt power line, vital to the electricity service this winter in the Puget Sound area. Using helicopters to transport towers and trees is just one example of numerous environmental measures taking place to minimize the construction disturbance inside the Cedar River Watershed.

Five miles of the Kangley-Echo Lake Line crosses the Cedar River Watershed, a natural wildlife area protected by perimeter fencing and home to many animals and species. Additionally, the Cedar River Watershed serves as the main water source for over one million people in the Puget Sound area.

Due to the protected eco-system of the watershed, BPA in partnership with Seattle Public Utilities developed a list of mitigation measures to protect the watershed during construction. "This

project includes the largest number of mitigation measures BPA has ever incorporated into the building of a single transmission line," said **Lou Driessen**, project manager. Some of the mitigation measures include:

- All large equipment vehicles working in the watershed for an extended period of time (more than 15 minutes) are required to use vegetable oil instead of

petroleum based oil in their hydraulic system. For example, track hoes, cranes, and digging equipment will use vegetable oil. This does not apply to trucks.

- Every worker entering the watershed receives an all day safety and environmental training session. At the environmental orientations workers learn they must use bio-bags for all body fluids and waste.

- All equipment and vehicles entering the watershed are steam cleaned.

Seattle Public



Just south of Mt. Rainier, BPA uses helicopters called air-cranes to remove logs cleared for the new Kangley-Echo Lake right of way. Logs are flown out of the Cedar River Watershed instead of being trucked to minimize environmental impacts to the area. Air-crane helicopters will also be used to transport and place transmission towers for the new line.

(Continued on page 2)

(Helicopters lift towers, continued)

Utilities will inspect all vehicles and equipment that enter the watershed. Vehicles will be inspected for weeds and seeds. Spray-wash all vehicles entering the watershed the remaining of the time.

- Cloth diapers are placed under all equipment (back hoes, drills, cranes and trucks) and vehicles that are sitting in the watershed. The diapers are placed underneath vehicles oil pan. This mitigation measure is part of a storm water prevention program.
- Helicopter called air-cranes removal of logs inside the watershed. Loggers cut down trees, remove limbs, then a choker transports the logs to the loading deck where the helicopters fly them out.
- Air-cranes helicopters will transport transmission towers into the watershed where lineman will help center and erect the towers.
- TBL and Seattle Public Utilities hired a full-time, independent contractor to test, monitor and protect the water quality of Cedar River and Rock Creek. Water above and below the project will be tested continuously throughout the project. The test will look for oil, silts, or debris in the water.
- TBL will also create critter paths to make up for those spaces cleared of limbs and snags. In order to protect the smaller creatures of the forest BPA will place limbs and debris in a path from one side of the right-of-way to another forming a ‘shelter tunnel.’
- Leaving snags and tall stumps in the right-of-ways for animal habitat. On the Kangley project, BPA is ‘topping’ trees, clearing trees of limbs, where we would normally remove the entire tree. The bird habitats like the tops of trees for nests and homes.

“Even among all the mitigation measures, protecting the environment comes second next to safety for our employees. We have flagers, loggers, lineman and construction workers all in the same area; it’s a recipe for disaster,” said **Michael Hoffman**, construction project manager for Kangley-Echo Lake. “Which is why a lot of coordination takes place to make sure everyone is safe.”

Mike Hoffman works closely with three contracting officer technical representatives (COTR) to make all the logistical arrangements on the project. “**Kathy Stephenson**, COTR for logging operations, **Tom Mettert** and **Pat Smith**, COTR’s for everything else, are the main
(Continued on page 3)



The Kangley-Echo Lake route is about nine miles long, five miles of the line will go through the Cedar River Watershed.



Netted bags filled with cedar chips line the roads inside the Cedar River Watershed to protect pollutants from entering land and waterways. The cedar chip bag has proven to be a very effective low technology model.



Inspectors hired by Seattle Public Utilities, inspect all vehicles and equipment that enter the watershed. Vehicles are searched for weeds and seeds or items that could be accidentally dropped in the watershed.

(Helicopters lift towers, continued)

reason why the construction portion of the project is going so well,” said Hoffman.

“Additionally I would like to thank Henkels and McCoy foundation crews for going the extra mile to protect the environment from construction disturbance,”

said Hoffman. “For instance, they place plywood down underneath digging equipment to prohibit ground disturbance.”

The project is on schedule to be completed by Dec. 31.

— by Laura Williams

Supply Chain reorganization thinks globally, acts locally

Following the recommendations of the Supply Chain Business Efficiency Group, BPA’s supply chain function is being reorganized into a single internal operations function with responsibility for all BPA supply, equipment, materials, IT purchasing, services and construction contract services. While the organization will be located in the Transmission Business Line, the organization’s charter is to serve all BPA clients and provide BPA-wide access to all its services: warehouse, transportation, purchasing, e-procurement, process management, Sunflower property tracking, Investment Recovery, HAZMAT services, etc.

Ann Scholl has been asked to lead the new Supply Chain Services organization and to serve as BPA’s chief supply chain officer. Scholl comes to this position with a background of varied experience across all of BPA supporting supply chain activities, as well as having provided similar services as an employee of the U.S.

Forest Service and the Bureau of Land Management. “The new Supply Chain Services organization will provide client focused agency-wide services. It will ensure that Corporate, Environment Fish and Wildlife, PBL, Shared Services and TBL have the right services, right equipment, at the right place and time, for the right price,” said Scholl.

“We believe there are efficiencies, new techniques and e-procurement tools that will allow BPA to take advantage of some product or transaction savings not previously possible,” said **Ann Scholl**. “Our challenge will be to ‘think globally’ to identify savings that can be realized

by combining the functions across the agency, while at the same time continuing to ‘act locally’ to ensure each business unit’s supply chain needs are met.”

The new Supply Chain Services routing will be TL and it will consolidate four workgroups: Corporate Purchasing (CP), Logistics Services (TL), employees in Workplace Services and office facilities personnel (CG) currently responsible for Sunflower oversight and receiving activities in BPA headquarters. The new Supply Chain organization went into effect Sept. 21.

As part of the reorganization, several new positions have been created or re-scoped. Six new business unit advocates positions will be created to interface directly with the business units and specific client groups. Seven management positions will be advertised either because

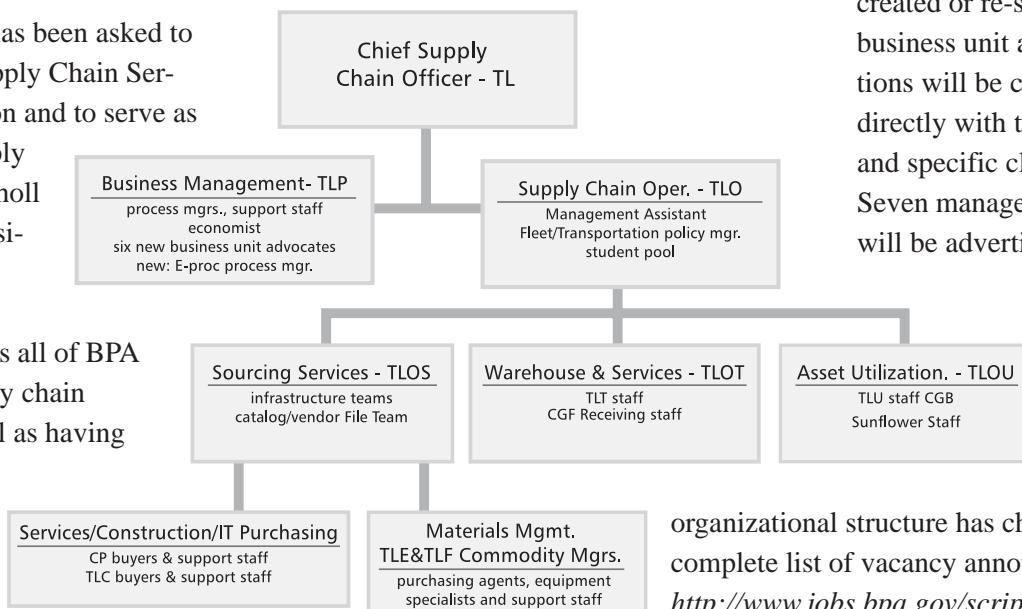
they are currently vacant or because the scope of the duties and

organizational structure has changed. For a complete list of vacancy announcements go to: http://www.jobs.bpa.gov/scripts/open_vacancies/open_vacancies_bpa_pn.IDQ

As a result of consolidating the supply chain, no physical moves of staff are expected other than perhaps the business unit advocate positions, which may be physically located with their client. Everyone’s job will remain the same, retaining the same clients and continuing to deliver high service to customers.

For more information, visit the following website describing the Supply Chain Efficiencies Team recommendations and expected results: <http://webip1/corporate/kc/home/efficiencies/supply.cfm>

Supply Chain Services



VanZandt and Mittelstadt head international teams to investigate East Coast outage



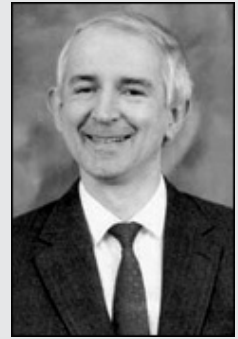
Vickie VanZandt

BPA employees are heading two teams in the joint U.S., Canadian and North American Electrical Reliability Council investigation into the causes of last month's Northeast blackout. The Department of Energy asked TBL Vice President for Operations and Planning **Vickie**

VanZandt and Senior Electrical

Engineer **Bill Mittelstadt** to participate. VanZandt co-leads a team studying operations including tools, SCADA/EMS communications and operations planning with Tim Kucey, her Canadian counterpart. BPA electrical engineer Bill Mittelstadt co-leads a team on system modeling and simulation analysis.

"We will look for root causes of what happened in the Eastern interconnection, then learn from those root causes and recommend action to try and prevent a recurrence in any of the three interconnections," VanZandt said. "Then NERC will see what implications these recommendations may mean for reliability management through standards and compliance." The teams hope to have an interim report out Oct. 17, and a final report in December.



Bill Mittelstadt

In the national news

Recently, BPA has made the pages of national newspapers connecting the East Coast outage and BPA's expertise in transmission. Here is a sample of recent quotes.

"You don't have to be off very far to get things in the wrong order. The task force is trying to get the time element nailed down to a rough sequence of events with the most important features. All the time recorders have to be reconciled," said Bill Mittelstadt, electrical engineer, "Lights out in the Northeast," *Wall Street Journal*, Aug. 26, 2003

"We are definitely blazing a new trail to reduce the need for wires as we look to applying demand reduction or distributed resources. But still, we have to address this question called lost revenues. If utilities see lost volumes of sales when they look to a future of radical efficiency, needless to say, they will be less likely to deploy the upgrades," said Brian Silverstein, TBL manager for network planning, "Grid Lock" *Grist Magazine*, Aug. 28, 2003.

"Our infrastructure must be built to serve expanding needs, and reliability standards must be made mandatory and enforced," said Steve Wright, BPA administrator. "A jolt to the system," *Oregonian*, Aug. 23, 2003

"We must build upon the efforts of these groups, the capabilities of Bonneville Power Administration and other public and private energy companies, and the science and technology expertise of the region to move our electricity system into the information age. Our economic prosperity and energy security depend on it," said Mike Lawrence, *Seattle Times* editorial writer, "Northwest must lead charge of light brigade," *Seattle Times*, Aug. 21, 2003.

"We threw out everything we thought we knew about transmission systems and how generators behave," said Vickie VanZandt, vice president for operations and planning, in talking about BPA's actions following the 1996 outage on the West Coast. "Stretched to the limit," *Oregonian*, Aug. 24, 2003.

Strategic planning focuses on long-term services to the region

At BPA's strategic planning session on Sept. 8-9, agency executives looked beyond short-term rate and financial issues toward BPA's long-term service to the region. The approach focused on the basics of what BPA provides to the Pacific Northwest, grounded in BPA's organic legislation, but refreshed to address the power system as it is today, such as:

- Reliable power and transmission service
- Low-cost power and transmission service
- Environmental stewardship
- Regional responsiveness

For TBL, a team is looking at the 2004-2008 time period. TBL is coordinating with corporate strategic planning representatives and has drafted documents, including targets, to focus on the transmission business while aligning with agency goals. One of the challenges for TBL is to balance competing objectives of reliable transmission and low-cost transmission service. Current plans are to have a full set of targets by Oct. 1 and to then get feedback from managers and staff.

— by *Melanie Jackson*

2003 TBL employee survey results — How did we do?

TBL executives met recently to discuss trends that showed up in the 2003 survey results. Areas of success were broken down into four categories:

- 1) Leadership: Communication has improved from first level supervisors to employees, evident by the percent of TBL employees agreeing that their supervisor kept them informed about agency conditions and operations; they also observed that clear direction and explanations for decisions were provided.
- 2) Talent: There's a large degree of pride regarding the talent and work accomplished within employees' own workgroup as 90 percent of employees rated the overall quality of work high and employees highly praised their job skills and abilities.
- 3) Motivation and alignment: Supervisors continue to improve in fairly rating performance and holding employees accountable. Scores were high in the statements, "My supervisor provides fair and accurate ratings of my performance" and "I am held accountable for achieving positive results."
- 4) Positive work environment: Two items were laudable in this portion of the survey. Employees feel they work in a safe environment and supervisors continue to support employees' work and life balance.

Areas needing improvement were noted in the same categories:

- 1) Leadership: Employees expect increased communication and "face-to-face" contact from upper level management. The quality of communication from

the executive/vice president level was a low 50 percent. This contradicts the area where employees feel they're kept informed by their direct supervisor, so vice presidents communication to employees will be an area of focus in 2004.

- 2) Talent: Not surprisingly, employees were disappointed by the cuts in employee development this past year. Management is continuing to look for low cost development tools by partnering with BPA's training and development group and continuing to utilize specialized training within the TBL, such as the "engineering series" developed in TN.
- 3) Motivation and alignment: Again, not a surprise, employees were disappointed that monetary awards are no longer part of the recognition program. An area of focus for 2004 will be to look at innovative ways to utilize limited budgets and still provide a recognition rich environment.
- 4) Positive work environment: Systems need to be improved to decrease the amount of obstacles employees face when working. According to comments, employees are encountering problems in the BES system and other changing software systems in TBL. Work will continue to seek resolutions to problems identified by employees that impede their work efforts.

"This is a very condensed version of a lot of information and we need time to absorb it all," said Senior Vice President **Mark Maher**. "Employees can be assured that managers have heard them and will continue listening to them for ideas on removing barriers so that they can do their jobs better."

— by *Debbie Stout*

Mis-fire mystery prompts lengthy investigation

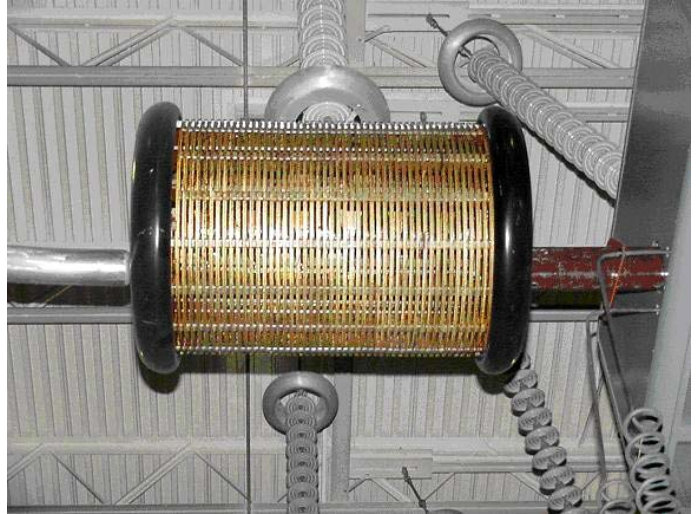
In April 2003, project engineers for the Celilo Modernization project noticed something peculiar during the commissioning tests for group three. In inverter operation (power flowing from South to North), some of the thyristor valves in group three were turning on when they should be turned off. It was a shock to the team of engineers, and they knew they had a serious situation on their hands.

Extensive tests in July and subsequent analysis by BPA and Siemens (manufacturer of the thyristor valves) showed that the problem in group three was related to large voltage pulses emanating from the mercury arc group one next door. The false firing in group three was shown to be the result of a protection that is built into the thyristor valves called the Recovery Protection Unit (RPU). The RPU was turning on the valves in group three to protect the thyristors from the voltage pulses originating in group one.

The RPU protects the valves for a short time (about 1.3 milliseconds) when they are turned off and vulnerable to occurrences that could cause damage to the valve, such as lightning strikes. The system detects any sudden steep voltage pulses and sends a signal to the thyristors to turn on and conduct electricity, essentially protecting them.

BPA decided to bring in the experts from BPA and Siemens to identify and diagnose the problem. A large amount of data was gathered from rigorous testing and analysis. The data and analysis confirmed a connection between group one and three. **Sokom An**, supervisory electrical engineer, and Celilo engineering staff and Dr. John Reeve, an internationally known HVDC controls expert, were asked to help with the analysis and diagnosis of the test data.

After extensive discussions with Siemens and the Celilo engineering staff, it was clear that the voltage spikes coming from group one were the result of an equipment problem—probably one of the anode reactors. The question was which one? There are 11 reactors in the converter group. The reactors have resistors connected in parallel and located inside the reactors. The suspicion was that one of the resistor to reactor connections was broken.



One of the anode reactors in group one at Celilo contained a broken wire which was the main cause of the firing pulses. Within the anode reactor resides a resistor which introduces resistance into a circuit. They typically consist of wire, metal ribbon, cast metal, or carbon compounds.

On Friday, Sept. 12, **Kellie Robinson** and **Mick Johnson** of the BPA Laboratories came to Celilo to run some tests on the anode reactors in group one. With the help of Engineers **Jeff Barton** and **Michael Overeem**, and Electricians **Dan Hentges**, **Frank Vukelich** and **Larry Rickey**, the mystery was solved. One of the reactors stood out from the others. Close inspection showed that there was a broken wire in the anode reactor for one of the valves. Following repair, the large voltage pulses were gone.

“It was a phenomenal find,” said **Wayne Litzenberger**, project manager. “The project could have been delayed and we could have had substantial cost increases.” The project is now progressing toward its April 2004 completion date. Group five will be replaced in September and October 2003; group one in November and December 2003; group four in January and February 2004; and group 2 in February and March 2004. Groups three and six have been completed.

— by Alvie Hairston

Get rid of the paper copy!

TF employees who want to receive ONLY the e-mail version of *Between the Lines* should contact Laura Williams to be removed from the “hard copy” mailing list. Contact her via e-mail or call 360-428-8633.

All aboard, now leaving the Echo-Lake station, next stop – completion!

Echo-Lake Substation construction is going well. About 80 percent of the foundations are in place and the remaining foundations should be in place by Oct. 1. About 25 percent of the grounding is complete. Here are a few project updates:



Exceptional progress is being made on the Echo-Lake Substation, approximately 80 percent of the foundations are in place. The new line terminal will be ready for energization by the end of November 2003.

- Road relocation, including 20-foot deep drainage trench is complete.
- All grading has been completed for substation expansion at sub-grade elevation, as of Sept. 11. Hydroseeding of all exposed soil outside the substation should be completed this week.
- All fence posts (no fabric) have been installed and grounded.
- The substation dead-end tower will be erected this week.
- All indoor control panels are installed and interpanel wiring complete.
- No outdoor cables have been pulled.
- Installation of the power circuit breakers will begin next week.

“Exceptional progress is being made by both crews supervised by **Bobby Goodpaster**, carpenter foreman III, and **Ron Rhode**, electrical foreman III,” said **Doug Riehl**, project manager. The new line terminal will be ready for energization by the end of November 2003.

— by *Jamae Hilliard-Creecy*

Keep your hands off that send button – OPSEC wants you!

As reported in the last issue, TBL representatives are working on creating a list of critical and sensitive information for TBL. Information on this list should not be released to the public without a signed disclosure form prior to distribution.

Information should also be properly marked as “**Official Use Only**” and be in adherence to the policy set forth in BPA Manual Chapter 1081, established by the National Operations Security. The critical and sensitive information box will give an idea of the type of information that is not to be disclosed. This list will be updated on an ongoing basis as further critical information is identified.

If you have questions or would like more information, please contact Jamae Hilliard Creecy, (360) 418-8637.

Critical and sensitive information

Identification and location of critical substations/critical facilities
 Identification and location of critical line segments
 Location of spare equipment
 Microwave communications and fiber optic communications information
 Location of controls and equipment of the Dittmer and Munro Control Centers
 Control center activities
 Location of control centers
 Marketing and sales information
 Critical control center and marketing information technology support information
 Emergency procedures and activities
 Organizational charts and staff lists/information
 Location of spare equipment
 Power system vulnerabilities
 Transmission system planning, control, operations, information, etc.
 Contractual activities
 Vendor proposals
 Source selection information
 Vendors proprietary information
 Customer specific scheduling data
 OASIS (password protected)
 Real-time Operating Dispatch System (RODS) and accounts database scheduling information (market sensitive)
 Sharepoint data
 Billing Information System – password protected
 Contract information (contained in the contracts database)

Deep-fried Walla Walla transformer cries for replacement

For the past five months **Bob Worrall**, electrician foreman III, and his central electrical services crew (TFHE) have been working under extreme hot weather conditions at the Walla Walla Substation. Their mission is to replace a retired transformer along with the excavation of polychlorinated-bioethanol (PCB) contaminated soil.

The leaky transformer (already in need of replacement) was in critical condition of shutting down due to the extreme heat. PCB oil had been leaking out of the old transformer for years and BPA employees kept patching it. Worrall's crew worked under an intense timeline to replace the transformer to keep the lights on for the Walla Walla region.

"They exhibited a perfect example of professionalism and teamwork. Through their huge efforts this project was completed in an expeditious manner," said **Truman Conn**, Walla Walla regional manager. "The new bank will alleviate power constraints on several lines throughout the area and enhance flexibility of the transmission capacity."

During installation of the new bank, Worrall's crew faced a few challenging obstacles. According to Worrall, "The conservator for the diverter wasn't filled enough and kept activating the alarms. We had to disassemble the breather pipe and add more oil before any other testing could be done."

In another situation, the clearance between the C-phase bushing and the conservator tank was inside the minimum clearance for a phase to ground. It was too close to the ground, so the Walla Walla electrical crew had to put an extension on it. "We had to extend the bushing terminal an additional two feet up at a 15-degree angle to get the required clearance. The bridge also required some modifications, such as drilling and cutting many difficult holes. Once they managed to assemble everything, it was time to perform commissioning tests," Worrall added.

Many BPA construction personnel were involved on this project. "Through their dedication and 'can do'



Bob Worrall's electrical services crew helps place the new transformer bank on the transformer pad at Walla Walla Substation.

attitude, the work they achieved was 'top notch,'" he said. "**Greg Wilfong** and the crew from Pasco TLM made a valuable contribution to the overall success of this project."

When asked to identify other key personnel, Worrall was quick to reply, "We can't forget the electrical engineering technicians, **Art Velasco** and **Scott Place**, for their expedient job of processing the transformer oil. Also, the Ross electrical crew led by **Shan Wang**, electrician foreman I, deserves special praise for spending the most time in the heat of the sun."

— by Mike Ellis

Four crews, eight days — SnoKing crew makes it happen

The Snohomish, Chehalis, Covington and Redmond line maintenance crews started full construction on the SnoKing Tap 500 kilovolt (kV) line upgrade project on Sept. 21. The original job called for building a huge double-circuit steel tower and pulling a triple-bundled conductor several thousand feet across a creek and wetlands connecting the SnoKing Tap Line to the Echo Lake-Monroe 500-kV line.

“The project required the coordination and support of four line maintenance crews and all the associated equipment and materials,” said **Bob Sweet**, Snohomish TLM foreman. “The eight days of continuous outages on both lines allowed other critical work to be completed at a cost savings to BPA.”

The Snohomish crew came up with an idea to install self-supporting tubular steel poles instead of a large double-circuit lattice steel tower. The Snohomish crew worked with Project



Snohomish and Chehalis Line crews setting off implosive line conductor splice on the SnoKing 500-kilovolt upgrade project.

Manager **Doug Riehl** and Project Engineer **John Grover** to come up with a design that would shorten the required outage time on two critical Northern Intertie lines by well over a week. The plan called for constructing three 25,000-pound self-supporting steel poles and tapping into the Echo Lake-Monroe 500-kV line just a few hundred feet to the east instead of several thousand feet across a small canyon and creek.

“The crews received excellent support from the Ross Warehouse and equipment pool specialists, who made sure that all the required support equipment and materials were on site before the work started,” said Sweet. “Additionally, BPA security donated a security guard to patrol the site during evening hours.”

The BPA Equipment Pool specialists transported heavy equipment and vehicles to Snohomish well in advance of the project start date.



An overhead view of SnoKing Tap taken from a helicopter.



Snohomish and Chehalis Line crews setting new 25 thousand pound self-supporting tubular steel poles and completing implosive splices.

“The success of this job was the outstanding support from all the BPA work groups associated with this project including the BPA environmental group and contracting office personnel,” said **Steve Scott**, the Snohomish district lineman foreman I.

With the assistance of Painter Foreman **Tim Breimon**’s crew, **Dave Anderson**’s Snohomish Electrician Maintenance crew completed critical substation work and long overdue painting of the Monroe Substation Bays. The Covington and Redmond crews completed all the high and low-side jumper work on the new 500-kV transformers at the SnoKing Substation. **Stan Kuchler**’s Construction Electrician crew completed critical bus and switch work at SnoKing Substation. **Charlie Pursiful**, the Covington TLM foreman, mentioned the great support that the two TLM crews received from Stan Kuchler

(Continued on page 10)

(Four crews, continued)

who provided the use of their material handler and small aerial lift trucks. Special thanks go to Heavy Equipment Mechanics **Glenn Taylor** and **John Whiteside** who kept all the equipment running smoothly during this project.

Several thousand danger trees were cleared on both lines utilizing contract-logging crews with BPA inspectors. Safety was emphasized during the work especially during the morning job briefings and again during significant changes related to job procedures.

“In addition to the highly visible TLM and Force Account Construction work, several other groups were critical to the completion of this project,” said **Denis Sjoquist**, Snohomish Region Manager. “Substation operations, system protection and control, test and energization, PSC and others did an excellent job with their portions of the job to assure the scheduled completion date was met.” He complemented everyone involved in the project on the planning, coordination and cooperation.

— by Bob Sweet

Behind the Lines

Idaho Falls – It’s not just about potatoes

The facilities and lines of the Idaho Falls region were acquired from the Bureau of Reclamation in 1963. Because the transmission in Idaho Falls it is not attached to BPA’s main grid, BPA is dependent upon transfer service through Pacific Corporation/Utah Power, Sierra Pacific and Idaho Power to serve its 19 customers. With approximately 500 miles of transmission, Idaho Falls provides service to Idaho, part of Wyoming, Nevada, West Yellowstone in Montana, and a small portion of Utah. It adds up to approximately 83,000 square miles, the largest geographical area covered by any region.

“With such an enormous service area, preventative maintenance plays a crucial part in customer service,” says **Steve Davis**, Idaho Falls regional manager. “Response times from alert to arrival at the trouble spot can take up to six hours or better, so our crews work hard to prevent problems before they happen.”

The weather across this region is a model of extremes. During the summer, the region experiences temperatures over 100 degrees. In winter, temperatures drop to a chilling

negative 30 degrees. These conditions combined with the region’s large size, creates some special challenges. Many sites are very remote requiring crews to use snow cats and snowmobiles during winter for access and six-wheel all terrain vehicles in the summer. So if you enjoy those sports, you may want to consider a transfer.

As if this weren’t enough, the Idaho Falls region also boasts the highest elevation in the system. That puts Idaho Falls literally at the top of the heap. Along the Grand Teton Range the lines run at an elevation of over 8,000 feet.

— by Mary Willey



With approximately 500 miles of transmission, Idaho Falls provides service to Idaho, part of Wyoming, Nevada, West Yellowstone in Montana and a small portion of Utah. It adds up to approximately 83,000 square miles, the largest geographical area covered by any region.



Idaho Linemen **Travis Stanley** (in the bucket), and **Cole Bradbury** (on the tower arm) are converting an existing A1 suspension structure to a dead end, in order to stabilize the conductors during ice unloading.

Maintenance Update

Anaconda/Oil leak

There was an oil leak on the breaker manhole covers at Anaconda Substation following a complete service on the breaker. The leaks were most likely caused by the use of nitrile as the gasket material. This was an odd situation because there was a retaining groove on the manhole cover, yet when the cover was closed the gasket was not completely confined next to the breaker manhole flange (i.e. some of the gasket was not covered by metal inside the tank) thus providing a void big enough for the gasket to be squeezed out. This allowed the nitrile gasket to be forced out of the retaining groove when the manhole cover was tightened. The necessity to pry the manhole cover up to line up the

boltholes may have also contributed to the slipping of the gasket. For this application, because the gasket was not completely confined (partially exposed in the groove), the gasket material that must be used is cork-neoprene.

Refer to SPIF P S 25-GSKT-01 for guidelines on properly sizing, cutting and applying gaskets for transformer, reactor and PCB applications. These standards procedures instructions for information have been revised to include the requirement for nitrile gaskets to be fully captured by both mating surfaces inside the retaining groove.

—By Jerry Almos

Converting SPIFs to standards and guides

Work is in progress to convert substation maintenance Standards Procedures Instructions Information (SPIF) and Operating Bulletins to standards and guides. This change in format will centralize the information and improve the accessibility and readability of the documents. The first section of Maintenance SPIFs being converted is grounding and bonding. The Grounding and Bonding SPIFs that are presently Division SPIFs (section 26) will primarily appear as Standards. Most of the Substation Maintenance SPIFs (section 18) will be guides. However, certain portions

of the guides will be in bold text indicating they are part of the standards. Also, all of the capacitor SPIFs has been combined (currently in draft form) into the new format. These documents will be sent out for review to the Functional Team in the near future. In addition to SPIFs, Operating Bulletins are also undergoing this format conversion. To date, operations have converted three Operating Bulletins into standards and guides. The first of these to be published will be Operating Bulletin.

— by Steve Sarkinen

October 2003 Milemarkers

New Employees

Briggs, Kelly L., substation operator, TFNB
Funk Jr., Walter F., temporary painter, TFHE
Jackson, Dennis, STEP (information technology specialist) TOC
Lehman, Wayne M., public utility specialist (duty scheduler), TMS
Neubauer, Roy S., PSC craftsman trainee 5, TFNC
Nixon, Michael J., lineman, TFNK
Sample, John P., SPC craftman I, TFRS
Strand, Randy D., electrician, TFNJ
Stewart, Scott M., student trainee, TM
Tolentino, Albert A., electrician apprentice I, TFZ
Waud, James, aircraft mechanic, TC

Promotions

Brock Jr., William E., from TFRH PSC craftsman I to II
Burnett, Ronald L., from supervisory civil engineer GS-13 to GS-14
Dean, Ervin T., from electrical engineer GS-9 to GS-11

Evens, Elbert D., from electrical engineer GS-11 to GS-12
Fenimore, Melana, clerk, GS-04 to secretary, GS-07
Folk, Duane G., from electrical engineer GS-09 to GS-11
Fuller, Teri, from assistant dispatcher to system dispatcher
Gadsby, James, from information technology specialist (system analyst) GS-09 to GS-11
Heredia, Eric, electrical engineer, GS-07 to GS-09
Hildreth, Jeffrey G., from electrical engineer GS-12 to GS-13
Hildreth, Shannon, from realty specialist GS-11 to GS-12
Holt, Cathryn L., from TFOI SPC craftsman trainee 6 to trainee 7
Hunziker, John D., from construction representative GS-11 to GS-12
Jenks, Chris, from material handler trainee 6 to material handler trainee 7
Mettert, Thomas A., from construction representative GS-11 to GS-12
Morehouse, John K., from TFZ lineman apprentice step IV step V
Noel, Harold M., from TFEN SPC, craftsman trainee 6 to trainee 7
Peacock, Davin D., from TFSR PSC craftsman trainee 7 to trainee 8

(October 2003 Milemarkers, continued)

Pederson, Bryan D., from power system control craftsman trainee 6 to power system control craftsman trainee 7
Powers, Charles M., from TFRG substation operator to TFOG chief substation operator III
Radcliff, Anthony, from student trainee (electrical engineering) GS-05 to GS-07
Rethemeyer, Steven, from information technology specialist (system analyst) GS-11 to GS-12
Rohm Jr., James M., from TFZ student trainee (substation operator apprentice II) to III
Sundberg, Aaron D., from TFEG chief substation operator III to TFE deputy regional manager, GS-14
Tasoren, Hulya, from electrical engineer GS-12 to GS-13
Taylor, Jerry D., from TFOB substation operator to TFRL chief substation operator III
Tibbits, Timothy A., from TFNC PSC craftsman trainee 6 to trainee 7
Webb, Evie L., from TFZ student trainee (substation operator apprentice) to III
Wiser, Lisa R., from civil engineer GS-07 to GS-09

Temporary Promotions

Eichhorn, Ernest J., from TFEG substation operator to TFEG chief substation operator III
Jacobsen, Nancy L., from TFRQ substation operator to chief substation operator III
Thompson, Robert, from realty specialist GS-12 to GS-13

Reassignments

Cutler, Amy L., from TNC secretary to TFR transmission field clerk
Fitzgerald, Walker, electrical engineer TNSF to electrical engineer TNEB
Foster, Charles M., from TFNI electrical engineer to TFEI supervisory electrical engineer
Gibson, Randall F., equipment specialist TLE to equipment specialist TNCD
Hickman, Amanda, information technology specialist, GS-12 TOZ to information technology specialist, GS-13 TOT
Holman, Robert A., from PGSD duty scheduling to TMS public utility specialist (duty scheduler)
Ierulli, Vince, general engineer TNFD to civil engineer TNLB
Nowakowski, Joseph, assistant dispatcher trainee, Dittmer Control Center to assistant dispatcher trainee, Munro Control Center
Thomas, Carldez, student trainee (electrical engineering) TNS to student trainee (electrical engineering) TNSD
Valdivia, Gabriela, engineering technician TNTC to student trainee (electrical engineering) TNTC
Winn, Lana, equipment specialist TLE to equipment Specialist TNTB

Details

Barnes, Robert A., from TMC to TM
Buckmiller, Ray, from TLT heavy truck driver to TLT quality assurance specialist
Holcomb, Linda, from TOP to T
Missinne, E.J., from T to TB
Munoz, Patricia I., from TMB public utilities specialist to TF unclassified

Conversions

Nnamani, Nnaemeka, STEP to SCEP
Ramos, Lee B., from TFZ SCEP to TFOH engineering aid
Smith, Kevin S., SCEP to permanent
Valdivia, Gabriela, STEP to SCEP
Taylor, Jerry D., from TFOB substation operator to TFRL chief substation operator III

Tibbits, Timothy A., from TFNC PSC craftsman trainee 6 to trainee 7
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Smith, Kevin S., SCEP to permanent
Valdivia, Gabriela, STEP to SCEP

Retirements/Resignations

Gardner, James E., electrician foreman III TFRT, 9/3/03
Gooze, Craig A., lineman TFRK, 8/15/03
Hollen, Deborah A., natural resource specialist TF, 9/20/03
Huhta, Loren C., electrician TFHE, 8/31/03
Pearson, Melvyn L., electrician helper, TFHE, 8/31/03
Pierce, Claude E., substation operator TFOQ, 8/31/03

Corrections

Mattix, James, from logistics service GS-15 (temp) to manager logistics service GS-15

In Memory Of

Tom Edwards, 52, died Sept. 4, 2003 in Columbia Falls, Mont.
Noel Hutson, 66, died Sept. 8, 2003 in Portland, Ore.



Bonneville Power Administration
 T-DITT -2
 P.O. Box 491
 Vancouver, WA 98666-0491

Editor: Laura Williams

Editorial Board: E.J. Missinne, Melanie Jackson, Debbie Stout, Carolyn Whitney, Sally Grabowski, Mary Timm, Darby Collins, Mary Willey, Sean Egusa, Alvie Hairston, Jamae Hilliard Creecy

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