

SPECIAL EDITION - SPOTLIGHT ON BUTTE - ANACONDA

Message from Operations

In the midst of everything that is going on in our daily lives (GoM incident, PMFr roll-out), it's easy to loose site of the most dangerous activity that **we all engage in every day – driving**. With summer winding down (hard to believe!) and school back in session, there is an increase in the number of drivers on the road making the task of driving safely more complicated. **Defensive driving** techniques (keep your **eyes moving**, monitor your **following distance**, use your **indicators**, **leave yourself an out**, **no cell phone usage**) give you an advantage in case you need to **react quickly to changing driving conditions**. Please be sure to review defense driving techniques with your team, and be sure to use them yourself, whether it's driving to the office, a job site or the grocery store. As a company, we want to make sure that everyone arrives safely at their destination. – *Sergio Morescalchi, PM*

FROM THE FIELD . . .

Spotlight on Butte-Anaconda . . . a visit to the former Anaconda mine site remedial activities in and around the towns of Butte and Anaconda, Montana reveals some exciting remediation work & HSSE ideas. See the write-up on page 2 & the SOCs Resource site for photos.



Consider This . . .

A near-miss was recently circulated regarding chemical storage when waste oil and ammonia, highly reactive with each other, were found stored in close proximity at one (non-RM) site. Many of our **common household chemicals** also react when combined, and some are **dangerous** or flammable on their own. Consider: cleaners (bleach, ammonia, drano), detergents, fertilizers, pesticides/herbicides, paints, solvents, batteries, nail polish remover, automotive fluids. A few tips: **separate** acids from bases and high pH bases from each other (ammonia and bleach), purchase the least toxic chemical for the job, **follow label storage directives**, **seal containers**, store chemicals away from heat and electrical sources and in **well ventilated** areas (e.g., vented cabinet), store liquid chemicals below dry chemicals; **dispose of properly**.

Additional Resources

[HSSE Bi-weekly communication](http://rmhsse.bpglobal.com/communication/hsseiweeklycommunication/2009/)

<http://rmhsse.bpglobal.com/communication/hsseiweeklycommunication/2009/>

[Shared Learning](http://rmhsse.bpglobal.com/communication/sharedlearninglessonslearnedsafetycommunicationsuccessstories/)

<http://rmhsse.bpglobal.com/communication/sharedlearninglessonslearnedsafetycommunicationsuccessstories/>

[SOCs Minute Resource Site](http://socs.dataaccel.com/) <http://socs.dataaccel.com/> (user ID: socs, Password: safety)

To comment, inquire, or obtain information on any item in this publication, or to submit an item for publication, please contact May Marcinek at mmarcinek@envirosolve.com, or 818.889.0090.

Contractor's

The Seattle Terminal lies directly adjacent to the tidally influenced Duwamish Waterway, which is bordered by **rip rap covered with slippery kelp and algae**. A piping replacement project required workers to conduct operations on this sometimes slippery rip rap, creating a risk of injury. During the development of the WRATs, it was determined that **work on the rip rap could not be eliminated** altogether, and that additional **slip protection** would be needed.



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Evaluations of different traction enhancements were conducted, including wading boots with felt and spiked soles, typically utilized in sport fishing applications. However, in order to retain the protection of a steel toe, an alternative was needed. An **overshoe**

with felt soles and spikes was determined to be the solution. Test pairs of "Stamina Wading Sandals with Rok Dawg T Spikes" overshoes were purchased from the Compleat Angler of Idaho Springs. A test walk on the rip rap while wearing the overshoes showed a marked improvement in traction when compared to utilizing standard rubber soled boots.

Shoe sizes for all individuals working on the rip rap were obtained in advance of the project and pairs were ordered to ensure an adequate supply to protect all workers. Once a proper fit was obtained, workers indicated that slips did not seem to be an issue. Additional vendors (e.g. Korkers) sell similar products. **Products should be evaluated on a site and project specific basis.** – *special thanks to Scott Larsen, TechSolveEnvironmental, and BP PM Paul Supple*

@Traction

July was a rough month for RM, with our first 2 recordables and first DAFWC of the year, 3 total first aids and 6 total Occupational I/I incidents. A few themes to **watch for**: proper **foot placement**; **awareness of surroundings** – traffic, weather, foliage, terrain; **communication** – between crews, regarding spotters, changes to job conditions and therefore **job procedures and TSEAs**. One other recurring theme – two incident reports specifically listed “no preventative maintenance program” in their comprehensive list of causes. As we finish August and head into September, please consider ways to keep your team fresh and alert, and check over your **equipment maintenance** programs.

The “Richest Hill on Earth,” Butte (MT) was once home to one of the largest U.S. copper mines, and is now nearing its 30th year in remediation. Extending 140 miles in length, the impacted area has been divided into 4 separate superfund sites, of which Atlantic Richfield (BP) is currently involved in 3. Butte’s old Anaconda Company properties were acquired by Atlantic Richfield (BP) in 1977, and shut down in the early 1980s. With open pit digging scars and waste tailing piles encompassing nearly the entire Butte landscape, and a maze of underground mining tunnels making above ground construction unfeasible, residents did not want just an environmentally safe cap to their scarred landscape, they wanted a healed landscape. Actively seeking community input, RM personnel have worked to restore the natural beauty of the Butte landscape, and build useable, practical covers, from community parks and biking trails, to revegetating bald hills, a Jack Nicklaus designed golf course, and an historic memorial. As the home to a large National Historic Landmark District, preservation of mining history is also important, and several old mining structures have been cleaned-up and left in place.

Public relations and access to contaminated property continue to be identified as two of the biggest issues currently being faced, says Shannon Dunlap, Construction PM, with metals now posing very little threat to worker safety. In gaining community support, BP/ARC has gained community partnership in protecting and maintaining the new caps, many of which cover privately owned land. Although the control of work and other new requirements over the past year have been very challenging, Butte-Anaconda’s contractors have responded exceptionally well to deliver in a safe and efficient manner.



WATER – Butte Area Superfund

With much of Butte’s mining activity taking place at higher elevations, runoff and groundwater became main purveyors of contamination. While some water drains directly to the Berkeley Pit “lake” for treatment, other water, both above and below ground drains to the valley. Protecting the environment. BP/ARC contractors built channels into the natural drainages and gullies to prevent storm water runoff from seeping into the ground and coming into contact with mining contaminants, unnecessarily flowing back over residential land owner property and from entering the stream. They also tiered the main storm drain with a series of retention ponds to both limit the amount of water draining and the speed at which it drains to the valley. In the lowest point of the valley, a treatment plant with a pond lagoon system has been built to filter and treat water. Lime is added to modify the pH, causing metals to drop and be caught in the ponds, allowing the now clean water to discharge into the natural stream system. As part of the remedial activities, the stream itself was also restored, built up and rerouted, with its new elevation and course helping protect it from contact with contaminated waters.

Education. Ongoing activities around the treatment system include plant operation and maintenance, environmental sampling and monitoring, various investigation projects and design work to support upgrades. Main safety issues include working around water and working with lime. However, misunderstanding about the Pit Lake has led to community misperception of it as a main safety issue. By working to educate and interact with the community through workshops and school field trips, BP/ARC has been able to help allay long held fears of an overflowing acid lake and present an informed understanding of remedial activities.

Special thanks to all Butte-Anaconda site workers.

RDU-8 – Anaconda Area Superfund

As field teams seek to cap 3500 acres of mine tailings in the middle of nowhere, two of the biggest issues RDU-8 faces are large equipment traffic and SIMOPs, with large dirt movers digging, dumping, piling and pushing; dust control trucks spraying water and magnesium chloride; and lime tillers, re-veggers and weed control teams on site together on any given day. Terracing the site to different levels, earth movers excavate clean soil from underneath the contamination to use as cover. Top layers are then tilled with lime and reseeded with wild grasses, with wetlands being utilized as a final step. Communication amongst team members is vital to site-wide safety. “Employee training and good communication are very important in ensuring that the employees are made aware of the hazards,” notes Shannon Dunlap, “The employees at RDU8 are good at communicating with one another.”

Daily & weekly meetings. In addition to the daily mandatory morning safety meeting for all RDU8 personnel, typically 40 – 60 people representing 6 – 7 contractors, RDU8 management holds 3 weekly meetings every Thursday to discuss SIMOPS activities with different groups on site.

Observation cards. RDU8 workers use observation cards to report both good and bad acts/behaviors, which are then discussed during morning safety meetings, and followed-up with by management.

Site-specific practices. Site personnel have implemented specific practices to address issues unique to the site, such as working around water, mud, dust, lime, contaminated soils and large equipment, as well as controls to prevent hazards associated with terraced levels and dirt piles, and foul weather safety measures. The largest equipment always has the ROW; all work stops at -10 deg F; winter shut down days due to excessive snow, cold or moisture; buddy system; and in instances where an employee must work alone, a communication plan. Site practices are discussed with employees during new hire training and with contractors during pre-entry briefing.

