



Norðurál: Casting Behavior-Based Safety in a Positive Light

By Beth Howard

Producing tons of molten metal per day and transporting the hot liquid in crucibles to a casting house to be further heated in 60-ton capacity furnaces, before flowing it into molds for solidification—what could possibly go wrong? The people at Norðurál, Iceland’s largest industrial facility, wanted to address every possibility for risk when they opened the sprawling aluminum smelting operation in 1998. Owned by Century Aluminum, the Norðurál plant in Grundartangi, Iceland today employs 530 people as well as approximately 140 temporary summer workers.

People quickly learned they were in control of BBS, and the workplace changed for the better.

– Gail Snyder

Trausti Gylfason became the safety manager of the plant in 1999. “Safety was not at a high standard and we were having a lot of problems,” he explains. Gylfason, also an engineer and a teacher, began looking for solutions.

In 2002 he attended a conference in Brussels where he heard a not-very-satisfactory introduction to Behavior-Based Safety (BBS). However, the *concept* piqued his interest and he also met Gunnar Guðlaugsson there. Seven years later, Guðlaugsson became the plant manager at Norðurál. “You could say from the first minute that he arrived, we started to talk about where we should go for this BBS process,” says Gylfason. The two pursued the idea of trying BBS, which eventually led them to a workshop where they first heard Aubrey Daniels present. Soon Aubrey Daniels International (ADI) consultants were in Iceland completing a site assessment (including a leadership and culture survey) for the plant to determine its readiness for BBS. Shortly afterward, ADI’s Beth Howard was all set to help them implement the process.

In order for the front-line workers to receive BBS training in their native language, Gylfason and two other members of their



Safety Department, Pétur Svanbergsson and Niels Reynisson, came to Atlanta, GA to complete ADI’s BBS Basics Certification course led by Howard. This qualified them to become certified trainers for their front-line work teams. Howard then went to Iceland to train all levels of the leadership team and 16 site champions and to help customize the structure of the BBS teams. Training materials were translated into Icelandic and the certified trainers began conducting the core team training classes. One year later, Howard and the workforce at Norðurál are convinced that BBS works in any language.

“The commitment to BBS that this leadership team embodied clearly resonates with the employees,” states Howard. “They developed 240 safe habits alone in the first year and reduced their incident rate to the lowest it has ever been.” Another amazing change has taken place over the course of implementing BBS. As is usual, some employees didn’t immediately embrace the idea of “yet another management intervention” or “more work” or “a way to catch us doing something wrong.” However, as the celebrations began, people quickly learned they were in control of BBS, and the workplace changed for the better.



“We didn’t realize when we went into this process how much good morale we were gaining,” says Gylfason. “The morale now compared to before; it’s like black and white.” Howard agrees. “In the first follow-up visit that I made, the employees were nervous about BBS. Now they tell me that it’s just great; it’s easy; it’s fun, and it works. It’s been a really positive culture shift *plus results*,” she comments.

faster than teams that didn’t have that management support. Now that the team leaders are trained and supporting their core teams, they are excelling like the other teams,” states Howard. “This really showed how critical management support is to BBS success.”

At Norðurál, habit strength is defined as the entire functional work group performing a pinpointed safe behavior at 100 percent for 21 days. At the beginning of the BBS implementation, some of the behaviors selected were



MANAGING BBS

Howard and Gylfason attribute such positive results to many factors, but the primary element of success has been management support. Managers set up an accountability system consisting of scorecards and weekly meetings and they have taken their role in safety very seriously. A lesson was learned early on when some supervisors thought their employees were spending too much time in BBS training or in safety meetings. After the supervisors received training and learned what BBS was about they quickly came on board.

“We clearly saw that the core teams with a team leader or a supervisor trained in BBS were more successful and got up and running

Success Measurements for BBS at Norðurál

- Number of observations
- Percent safe for selected behaviors
- Number of goals reached
- Number of behaviors being worked on
- Number of safe habits established
- Frequency of lost time accidents
- Frequency of reported accidents

Core Teams at Norðurál

- Potrooms (all shifts and workgroups)
 - Casthouse
 - Rodding
 - Potlining
- Crane, ACM & Mechanical Workshops
 - Casthouse Craftsmen and Vehicle Workshop
- Electrical and Team High-Voltage Workshops
 - Canteen and Cleaning
- Office, Purchasing, and Warehouse
 - Pot Control,
 - Environmental & Technical,
 - and Project Planners

relatively simple to achieve. “That was okay because we needed celebrations to maintain the process,” explains Gylfason. “Now people are starting to pick tougher goals.”

Everyone at Norðurál is involved in BBS including the manufacturing frontline, maintenance, kitchen, office, and all management levels. Managers are also invited to every safety milestone celebration. “BBS is running so well because we have such tremendous

into Icelandic and distributed to all employees to keep them in the loop. Core team members report that the management team has responded well to their needs by removing barriers to safe behaviors and obtaining new equipment or tools as needed. They also report they like the process because it’s simple and effective and they get to address safety in a positive way with their own team members. The site champions keep track not only of the

new pinpoints chosen by team members, but make sure that habit strength behaviors aren’t slipping. “The site champions are actually very good at this. If they see that a pinpoint is going down, they take it up again,” states Gylfason. Of course, this is done in the positive approach of observing, collecting data, and providing feedback and reinforcement until the behavior reaches or returns to habit strength.

“The culture of BBS here is that there are absolutely no barriers between the managers and the people

on the floor,” Gylfason explains. “An operator in Iceland can go straight to his manager and complain about something and talk to the manager eye-to-eye.” BBS has become part of the way of doing business at Norðurál. Even in the summers, when the full-time workers take their summer leave, temporary workers are trained in BBS to keep the process working.

What began as a BBS process to improve safety hasn’t ended, but has brought unexpected and positive culture-changing results as well. The workforce at Norðurál start-

support from our management team,” Gylfason states. “As Aubrey Daniels says, ‘BBS cascades all the way from the top to the bottom and from the bottom to the top as well.’ We all celebrate together.”

THE EMPLOYEES’ PROCESS

The open-door policy at this plant has definitely helped BBS work; communication about every aspect of the effort is transparent. After each follow-up visit, Howard wrote detailed reports about the status of BBS for the leadership team. These were translated



ed with an incident rate that was too high and they won't be satisfied until it reaches zero. However, they are approaching satisfaction with a current rate of 0.71! Giving the people who know the work best the opportunity to select their own pinpoints, to manage the process and the regular celebrations all contribute to the new outlook at the plant, according to Gylfason. "But the biggest part is the managers gaining the trust of the people on the floor," he says. "Just like using a forklift or a crane, we use BBS now as a tool. It is the people who work with the hot metal every day; it is the people who know where the hazards are; and it is the people who decide the pinpoints and it is the people who are now taking care of themselves."

COMMENTS FROM NORÐURÁL TEAM MEMBERS:

"I see a lot of good changes, more safe habits, and fewer injuries."

"Everything is going very well. It's simple and positive."

"Everyone's talking more about safe habits and what we can do next."

"Management used to tell us what to do and our defenses went up. Now it's very positive and more people are participating. Management's message is now more accepted."

"I used to be afraid to report injuries for fear of blame, but not anymore."

"At first we were called spies, police, etc. but now we're just looking out for each other."

"Barriers are removed, things are fixed or we get equipment/tools we need a lot quicker now with BBS."



[About the Author]

BETH HOWARD



With more than 26 years of experience as both a field consultant and a manager for safety services, Beth Howard is passionate about inspiring people at all levels of organizations to individually and collectively take a positive and proactive stance to prevent injuries and save lives.

[About ADI]

Regardless of your industry or expertise, one thing remains constant: People power your business. Since 1978 Aubrey Daniels International (ADI) has been dedicated to accelerating the business and safety performance of companies worldwide by using positive, practical approaches grounded in the science of behavior and engineered to ensure long-term sustainability. ADI provides clients with the tools and methodologies to help move people toward positive, results-driven accomplishments. Our clients accelerate strategy execution while fostering employee engagement and positive accountability at all levels of their organization.

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