SBE-news Station Tips

Winterizing the Transmitter site

By John Bisset, CSRE Nautel Ltd.

With the reliability of today's broadcast transmitters, it's too easy to let the transmitter site take a back seat to other more pressing issues. To follow are some suggestions that will take minimum time to implement, and pay back handsome dividends.

The secret is to get ahead of potential problems, so let's start with your site security. Most frustrating is trying to unlock a transmitter site gate lock, or gain entry to a tower base when the lock is corroded or frozen. Simplify your life in this respect – squirt WD30® or liquid graphite or similar compounds into each fence or gate lock, and work the lock several times with the key. This will distribute the lubricant.

If you live in areas prone to ice, a lock shield is a good investment. This can be as simple as a piece of rubber inner tube that is cut and fits over the lock assembly. Although these lock shields work well keeping ice out of the lock, use caution in the spring. The shielding makes for a nice "home" for paper wasps to nest.

If you have outside water spigots, make sure they are turned off from the inside. Check your security floods, as well – is the motion sensor or photocell working? Are all the bulbs working? There's nothing more aggravating than changing outside floods in the snow – or worse yet, in the dark!

Do you have weather stripping on your transmitter room door? How about cable ports – are they sealed? Again, fixing these problems now will eliminate your cleaning up a mess as snow finds its way into the building and melts.

If your transmitter site is air conditioned, it's a good time to have your air conditioners serviced, and that includes all filter replacement. Filters get dirty, even in the winter. Inspect louver assemblies, backup exhaust fans or intake vents and filtering if your site isn't air conditioned.

Like the air conditioning system, servicing the generator is also money well spent. You want this backup system to work when it's needed – and that may be when the weather is bad. In addition to the generator service, make sure you have a main and alternate source of fuel.

Do you have a portable heater at the site? Even a small plug-in electric space heater can be a literal life saver in regions where the temperature really drops. And this brings us to our next big issue – your safety. If you don't have a cot or sleeping bag, potable water, food – sealed in plastic containers, a good flashlight, and even a throw away cell phone – just in case – you'll never appreciate these goodies until you need them. I spent three days snowed in at an AM site, but was fairly comfortable with a blanket, fresh water, and protein like nuts or beef jerky. Figure on one gallon of water per person per day. Salt-free crackers and a jar of peanut butter or cans of tuna are great staples.

In addition to the grocery store, you can pick up a lot of these items at camping supply or surplus stores. And don't forget the paper towels, toilet paper, a can opener, trash bags, and plastic knives, spoons, and forks

Here's an idea - is the station getting rid of its studio refrigerator or microwave for a larger model? Repurpose the older units at the transmitter site. Spending a few minutes thinking about what you would do if you were stranded may pay off.

While we're inside the building, make sure you have a supply of fresh batteries, and a well stocked first aid kit, and a radio! A snow shovel works well to clear snow from the transmitter door, and shovel paths to the tower if needed.

I used to make it a point to take a walk around Lowes or Home Depot each year this time. Just walk up and down every aisle and see what you can find. A long paint extension pole with a squeegee on the end works great for scooping snow out of the satellite dish. Some engineers swear by waxing the fiberglass dish, saying this makes snow removal easier.

What about RF connections? Not only on the satellite dish, but on STL, Marti, and receive antennas used for off-air monitoring. Even Radio Shack® sells a roll of weatherproofing compound that can be molded and formed around RF fittings to keep them secure and water tight.

This is also a good time to see that cables are secure. Winter winds can snap brittle wire ties and ruin cable as it's whipped in the wind. Remember to use black wire ties, which are more resistant to decomposition by the sun's rays.

As for the equipment housed in your transmitter building, take stock of your spares. I always made it a point to order two of any replacement part. Although this didn't please the GM, when the second part was right at hand, and the transmitter was quickly repaired, the GM understood my reasoning. This is especially true with older rigs. A spare blower motor, exciter fans, fuses, HVPS rectifiers, tubes or solid state RF pallets all make for a worthy investment in spare parts. Keep spares organized in clear plastic bins, and throw out old worthless parts. There's nothing more frustrating than finding burned out fuses amidst the good ones!

At the first of each year, make it a point to replace batteries in fire alarms, smoke detectors, and burglar sensors. Remember that more and more state of the art equipment have memory "keep alive" batteries that also need to be checked and replaced. This shotgun approach to replacing all the batteries at once insures that everything is fresh.

So here's your start. There are other areas to check, depending on your site and circumstances. The idea is not to be caught by surprise. Follow these tips and stay ahead of trouble!

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