Thinking the unthinkable: Disaster-proofing your plant

BY DAN ROACH



Dan Roach works at S.W. Davis Broadcast Technical Services Ltd., a contract engineering firm based in Vancouver. He may be reached by e-mail at dan@broadcasttechnical.com.

A n area-wide natural disaster, large or small, can be a chance for radio either to show its best capabilities to the community, or suffer a terrible loss of reputation if it fails to measure up.

Today's increased automation, with attendant scaled-back staffing, makes it more challenging to respond in a timely manner. Advance planning is more important than ever. This can't be stressed enough—by the time disaster strikes, your options have already become extremely limited.

Here, really, is a case where an ounce of preparation can make all the difference.

Two parts to this problem—how to stay on the air in a disaster, and how to be in a position to transfer vital information over your station. Skilful delivery of the second part offers the reward, but there can be no second part without the first, and that's mostly where the engineering department can help.

Some examples of heroic past efforts—since I'm on the west coast, these come from this end of the country, but you can no doubt supplement them with some closer to your home: *Broadcast Dialogue* featured extensive coverage of the ice storms in Central Canada and flooding in Manitoba, not so very long ago.

October 1963: Hurricane Freda strikes Vancouver, late in the evening, a lot harder than predicted. One by one local

radio stations drop off the air as transmitter power fails, so that when morning arrives, and people start waking to the mess that Vancouver has become, there is only one station on the air—CKNW. 'NW is down to 1 kW and its third transmitter, and is running on a small gasoline generator and Coleman lanterns at the studio, but it is still on the air—and it takes out ads in the newspaper afterwards to remind everyone who it was that was still standing when disaster struck.

July 1994: A forest fire near Penticton passes near West Kootenay Power's main transmission lines, forcing an emergency shutdown to protect fire crews working underneath. This situation results in an extremely overtaxed Chute Lake reserve power line. It's the only remaining line to the Okanagan and it's suddenly operating well over its safe limit. A widespread blackout seems imminent, and WKP places an urgent call to Kelowna radio stations, urging the public to shut off air conditioners and conserve power. The crisis is over in less than 15 minutes, as the Kelowna load drops dramatically in response to the plea.

December 1996: Victoria is hit with "the perfect storm". This is a series of heavy snowstorms and unseasonably cold temperatures, and Victoria's scant snow removal services are soon overwhelmed. A couple of quick-thinking staffers at CFAX come to the conclusion early that if they don't get into the station right away, by morning there may be no way for them to get in for their regular shifts. As a result, CFAX is staffed when it becomes apparent to everyone else that the city is paralysed. CFAX opens its phone lines to the public, and quickly becomes a clearing house of problems and solutions for an anxious public. For instance, medical staff needing transportation to hospitals are connected with volunteer 4x4 drivers. Local municipality emergency program operators later complain that they can't get through to CFAX to pass on timely emergency information because the public is clogging up all the available phone lines. But this is quickly cleared up and they get direct access to the station.

August 2003: A forest fire comes up Okanagan Mountain from the south, taking out CIGV Penticton's transmitter, and the transmitters of all the commercial FM Kelowna stations a few days later. CIGV instantly switches to backup facilities at the studio. As the danger becomes apparent, the Kelowna FMs quickly prepare emergency facilities at an alternate site on Blue Grouse Mountain, so there are minimal service interruptions when the main site is destroyed.

The fire moves on to threaten Kelowna, and sections of the city are evacuated on very short notice, with local radio very much in the picture. When CKOV/CKLZ studios are in danger of being burnt down, a fireman is placed on 24-hour duty at the studio, so that the station can operate until the last possible moment before evacuation. Fortunately, that moment never comes.

Next installment: lessons learned!

