

Dyno Nobel Safety Bulletin. - 9 June 2000

Electric Detonators and Radio Frequency Hazards.

A recent near-miss accident occurred on a helicopter portable seismic operation that involved electric blasting caps. Hand held portable radios were in use on the site as well.

Anyone including seismic contractors and drilling companies that are using explosives and electric detonators are reminded that radios, cellular telephone, pagers, portable walkie-talkies, aircraft communication devices and other hand held electronic devices produce RF energy.

RF energy can and does produce electrical current in wire when the broadcast frequency and wire lengths match the frequency wavelength or multiple fractions of the broadcast wavelength in close proximity. RF energy has been proved to detonate the electric blasting caps when those conditions are met. Radios must be kept at a safe distance away from electric blasting caps when broadcasting. Cellular telephones broadcast even when receiving calls. Be aware of your specific situation.

Please consult Institute of Manufactures of Explosives (IME) publication SLP #20 for specific guidelines on the use of radios in an explosive loading operation. IME SLP #20 can be obtained from your explosive supplier or directly from the IME at 202-429-9280.

Dyno Nobel is making available, free of charge, a software program that couples the IME SLP #20 publication and radio frequencies calculations to determine possible hazardous situations.

Contact Bob Levan or David Swagar for an email copy of the software.

bob.levan@am.dynoasa.com
dswagar@wel.ca

#####