



Water Security Alert:



Now Available, The Long Awaited
EPA 2009 Protective Action Guideline Levels (PAG)

WE HAVE BEEN WAITING SINCE 1992

The New Document: The January [2009 Revisions Protective Action Guide Levels](#) (PAG levels) are very important as they tell public health officials when to call a drinking water emergency and even *when to evacuate the city!* This version of PAG provides actual concentration levels for *110 Nuclides of Interest*, giving both Derived Response Levels and Committed Effective Dose.

THE Old Document: EPA published its [Manual of Protective Action Guides and Protective Actions for Nuclear Incidents](#) in 1992. This was an excellent manual.

With One Major Fault: All radiation levels were given in REM per year. There was no guidance for the layman of airborne or waterborne concentrations in terms of microCi/l or Becquerel /Liter for various isotopes.

TWO SETS OF EPA CONCENTRATION LEVELS

These new Protective Action Guideline levels represent fairly high levels of contamination that pose immediate danger to the community.

The Clean Drinking Water Levels required to legally distribute totally safe drinking water for unlimited consumption are much lower than the PAG levels. The two criteria should not be confused.

ANNUAL or BIENNIAL WATER TESTING

Current law requires testing of drinking water only once every one or two years. This rule was originally based on typical geological sources for radioactive minerals in water. The tedious lab procedures required to see very low levels of radioactivity in the water were also taken into consideration in determining the testing protocol.

Such long intervals between testing are obviously incompatible with protection of the public and critical infrastructure from high or mid-level water contamination from highway accidents, industrial pollution or terrorist acts.

NEW TECHNICAL ADVANCES

Clearly, real-time, continuous monitoring would be highly desirable and this goal is reflected in several government documents. However, historically it has been difficult to detect gamma emitters in water and impossible to detect or measure Alpha and Beta emitters in flowing water.

Fortunately for the public and municipalities this situation has changed. Technical Associates of Canoga Park, California is now producing real-time continuous drinking water monitors that measure Alpha, Beta, Gamma emitters down to the 2009 PAG levels and below. [NEX-GEN-SSS - Water Monitor](#)

CONTROVERSY or just CAUTION?

The [EPA website says](#): “The PAG Manual is an important science-based guideline that addresses emergency action levels for radiation exposure. Draft revisions were approved by the former Deputy Administrator shortly before the inauguration. The new team at EPA wishes to review the PAG revisions before proceeding with a notice of availability and public comment.”