

MALCOLM PIRNIE

INDEPENDENT ENVIRONMENTAL
ENGINEERS, SCIENTISTS
AND CONSULTANTS

Malcolm Pirnie has been active in perchlorate issues since its discovery in drinking water in 1997. Since then, we have been a consultant to numerous water systems, worked with both manufacturers of treatment technologies and potentially responsible parties (PRPs) and have given expert witness testimony on perchlorate related matters.

PERCHLORATE SERVICES

The Presence of Perchlorates in Public Drinking Water Supplies
Is a Concern to Many Communities

WHAT IS PERCHLORATE?

Perchlorate occurs both naturally and as a man-made chemical. It is an anion that originates as a contaminant in ground and surface waters from the dissolution of ammonium, magnesium, potassium, or sodium salts in water. Artificial contamination in the United States comes primarily as a result of its use in the manufacture of solid propellants for rockets, missiles and fireworks. Wastes from the manufacture and improper disposal of perchlorate-containing chemicals are being discovered with increased frequency.



Advances in the analysis of perchlorate have determined that perchlorate is present in public drinking water supplies. States with confirmed perchlorate in their drinking water supply include California, Nevada, Arizona, New Mexico, Utah, Nebraska, Maryland, and New York. State and Federal regulatory agencies are currently conducting drinking water monitoring, risk assessments, and treatment technology analysis in order to develop a drinking water standard.

PERCHLORATE SERVICES

Malcolm Pirnie can conduct studies investigating perchlorate ion removal from groundwater. These include:

- Review of current knowledge of perchlorate ion treatment methods in conjunction with study findings
- Work as an intermediary for clients in the selection and ongoing relationship with a manufacturer of treatment technology
- Project management functions
- Review of project findings
- Act as an interface with regulatory agencies
- Act as an expert resource in the design and operation of ion exchange studies for perchlorate ion control
- Conduct parallel sampling to confirm the removal performance of several ion exchange resins
- Arrange for sample analysis and evaluate data to ensure that the installed treatment process meets treatment goals
- Review the acceptance-testing phase of bench-, pilot- and full-scale perchlorate removal process
- Provide information transfer presentations to clients, policy boards, and technical staff
- Provide expert witness testimony

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