

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WSG 140

Date Signed: July 18, 2001

**MEMORANDUM**

**SUBJECT:** MIOX Monitoring Requirements under the Stage 1 DBPR

**FROM:** Ephraim King, Director  
Standards and Risk Management Division  
Office of Ground Water and Drinking Water

**TO:** Water Division Directors, Regions 1-10  
Drinking Water Branch Chiefs, Regions 1-10

The purpose of this memorandum is to clarify monitoring requirements under the Stage 1 Disinfectants/Disinfection Byproducts Rule (DBPR)(63 FR 69390, December 16, 1998) for systems that use a mixed oxidant (MIOX) generator as a treatment process.

In response to questions from Regional staff concerning disinfectant and disinfection byproduct monitoring requirements for systems using MIOX generators, SRMD staff provided verbal guidance that such systems were required to monitor for bromate, chlorine dioxide, and chlorite, in addition to other requirements. This advice was based on manufacturer's literature that stated that the MIOX process generated ozone and chlorine dioxide, in addition to chlorine. The Stage 1 DBPR requires systems that use ozone to monitor for bromate and systems that use chlorine dioxide to monitor for chlorine dioxide and chlorite.

Since that initial guidance, additional study has been conducted on the occurrence of ozone and chlorine dioxide in MIOX generators. These studies, submitted by the manufacturer, found that chlorine, but not ozone nor chlorine dioxide, is produced by the MIOX generator. Therefore, I am modifying the guidance provided previously by my staff. Systems that use MIOX generators have the same monitoring requirements as other chlorine systems. Also, MIOX systems must determine inactivation credit under the Surface Water Treatment Rules based on chlorine CT tables.

If you have any questions or would like copies of these recent studies, please don't hesitate to give me a call, or have your staff contact Tom Grubbs of my staff at 202-260-7270.