

March 23, 2001

To: Water Resources Division

From: Peter F. Rogerson, Senior Chemist
Office of Water Quality

For: LeRoy Schroder, Chief
Branch of Quality Systems

Subject: Approval of a Water Quality Analytical Method for the Determination of Moderate Use Pesticides and Degradates by the National Water Quality Laboratory

The Office of Water Quality (OWQ) has approved a new Water Quality Analytical Method for the determination of moderate use pesticides and degradates in filtered water developed by the National Water Quality Laboratory (NWQL). This new method is designed to complement the existing NWQL method O-1126-95, known as Schedule 2001 (laboratory extraction) and Schedule 2010 (field extraction) as described in Zaugg, et.al., Open File Report 95-181, available at: http://wwwnwql.cr.usgs.gov/Public/pubs/OFR95-181/OFR_95-181.html. The new method uses the same solid-phase extraction procedure and the same gas chromatography/mass spectrometry (GC/MS) determination procedure as the existing method. The new method determines 41 parent pesticides and degradates in filtered water plus 35 additional parent pesticides and degradates which have greater bias and variability, or shorter holding times, than the other compounds. These additional compounds will be reported with the 'E' data qualifier signaling their greater quantitative uncertainty. The new method number is O-2002-01 and can be requested through the NWQL as Schedule 2002 (laboratory extraction) or Schedule 2011 (field extraction). Field matrix spike mixtures for this method are not yet available, so for quality control sample information, please contact Mike Schroeder or Mark Sandstrom at the NWQL (see below).

This method approval process follows the technical procedure specified in OWQ Tech Memo 98.05, except that this method is described in a Water Resources Investigations Report instead of an Open File Report. The method performance of the 41 parent pesticides and degradates, along with the additional E-qualified 35 parent pesticides and degradates, is described in:

Methods of Analysis by the U.S. Geological Survey National Water Quality laboratory – Determination of Moderate-Use Pesticides and Selected Degradates in Water by C-18 Solid-Phase Extraction and Gas Chromatography/Mass Spectrometry, by Mark W. Sandstrom, Max E. Stroppel, William T. Foreman, and

Michael P. Schroeder. U.S. Geological Survey Water Resources Investigations Report 01-XXXX (number to be assigned upon Director's approval).

When approved, the report will be available through the NWQL web site at:

<http://wwwnwql.cr.usgs.gov/USGS/Pubs/pubs.html> .

The complete list of parent pesticides and degradates is available through the NWQL web site <http://wwwnwql.cr.usgs.gov/USGS> . Please click on SPiN and request Schedule 2002.

If you have questions about the new analytical method or would like a copy of the report, when it is available, please contact Mark Sandstrom (sandstro@usgs.gov , (303) 236-3943) or Mike Schroeder (schroede@usgs.gov , (303) 236-3270) at the NWQL.

If you have questions about the method approval process, please contact Pete Rogerson (rogerson@usgs.gov , (303) 236-1836).