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<b><u>TITLE:</u></b>	<b>Demonstrating Compliance with Generic Standards for Surface Water</b>
<b><u>DATE EFFECTIVE:</u></b>	March 2009
<b><u>HISTORY:</u></b>	Update to VA30008.09.003 - Revision was necessary to reflect changes in the rule citations that became effective in August 2014.
<b><u>KEYWORDS:</u></b>	Ground water, surface water, outside mixing zone average (OMZA), numeric water quality criteria.
<b><u>RULES:</u></b>	OAC 3745-1; 3745-300-08(G)(2)(a); 3745-300-09(E); 3745-300-09(F)(3); ORC 6111; Federal Water Pollution Control Act
<b><u>QUESTIONS:</u></b>	What is necessary to demonstrate compliance with generic standards for surface water at or adjacent to a VAP property? What are ambient samples and how many samples are necessary for a volunteer to demonstrate compliance with OMZA?
<b><u>ANSWER:</u></b>	<p>OAC Rule 3745-300-08(G)(2)(a), states that for all releases of hazardous substances on, underlying or emanating from the property to surface waters of the state, surface water chemical concentrations must be compared to the chemical criteria pursuant to OAC 3745-1. The OMZA criteria for human health, aquatic life, and wildlife should be compared against ambient samples averaged over a 30-day period.<sup>1</sup> Single ambient samples are <u>not</u> to exceed the outside the mixing zone maximum. If all chemical constituents are below their corresponding chemical criteria, then the surface water may be eliminated as an exposure medium. If chemical constituents exceed their corresponding chemical criteria, then the surface water shall be further assessed within a property specific risk assessment pursuant to OAC 3745-300-09.</p> <p>A volunteer may demonstrate that concentrations of chemicals of concern exceeding the OMZA in ground water emanating from a VAP property meets applicable generic standards for surface water on adjacent property if samples collected in the surface water meets the OMZA directly at</p>

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<sup>1</sup> For the purposes of this rule, ambient samples are water samples collected from appropriately constructed ground water monitoring wells, samples collected from surface water on the property, or samples collected from surface water adjacent to the property directly at the point where ground water from the property discharges to the adjacent surface water body.

the point of ground water discharge. Calculating a mixing zone in a receiving water to demonstrate compliance with applicable generic standards for surface water is not allowed under this rule. Surface water must be evaluated in accordance with OAC 3745-300-09 for all surface waters that exceed the OMZA. Alternatively, the volunteer can obtain a permit from the Ohio EPA, Division of Surface Water.

Any number of samples may be taken within a 30-day period to calculate average concentration. However, the sampling regime must be sufficient to adequately characterize temporal variations that could result in an exceedance of applicable standards. Additionally, no single sample may exceed the outside the mixing zone maximum in order to demonstrate compliance with generic surface water standards.

Please note that OAC 3745-1-07 requires that concentrations for the following metals: zinc, nickel, lead, copper, chromium and cadmium in dissolved and total recoverable form be adjusted for the hardness of the receiving surface water (See OAC 3745-1-07, Table 7-9). If stream-specific hardness data are not available, the applicable standard is calculated based on 100 mg/L calcium carbonate.

**SUMMARY:**

Compliance with generic surface water standards can be demonstrated when ground water or surface water on or emanating from the property meet the chemical-specific OMZA value listed in OAC 3745-1. Ground water exceeding the OMZA emanating to surface water may demonstrated compliance if the surface water meets the OMZA at the point of ground water discharge.

**OHIO EPA  
CONTACT:**

For questions concerning this issue, please contact the VAP central office at: (614) 644-4826.