



**Environmental  
Protection Agency**

John R. Kasich, Governor  
Mary Taylor, Lt. Governor  
Scott J. Nally, Director

January 24, 2012

**WASHINGTON COUNTY  
SOLVAY SPECIALITY POLYMERS  
DMWM/SEDO  
OHD 981 529 688  
Permit #04-84-0194**

Mr. W. J. Kandel, Plant Manager  
Solvay Specialty Polymers USA, LLC  
P.O. Box 446  
State Route 7 South  
Marietta, Ohio 45750

**Subject: Hazardous Waste Permit Modification Class 1A Approval**

Dear Mr. Kandel:

On December 22, 2011, Ohio EPA received a request for a Class 1A (Class 1 requiring prior approval) hazardous waste permit modification (tracking number 111222-1A-1) from Solvay Specialty Polymers USA, LLC. With this letter, Ohio EPA approves the above referenced Class 1A modification submitted pursuant to Ohio Administrative Code (OAC) Rule 3745-50-51.

The following modification has been made to your November 1, 2011, Ohio Hazardous Waste Facility Installation and Operation Permit:

The constituents 1,1-dichloroethane, vanadium, and zinc and groundwater protection standards for each constituent have been added to the Compliance Monitoring Parameters listed in Table 4 of the facility's Compliance Monitoring Plan found in Appendix E-1 of the Part B Permit Application.

The records of Ohio EPA have been changed accordingly. Attached is a copy of the permit application revision. This has been included to ensure that all involved parties have written confirmation of the change\*.

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Solvay Specialty Polymers USA, LLC  
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If you have any questions concerning this action, please contact Elizabeth Herron at the Ohio EPA Southeast District Office at (740) 380-5248.

Sincerely,



Jim Sferra, District Office Chief  
Southeast District Office

JS/sb

\*Also, in accordance with Ohio Administrative Code Rule 3745-50-51(D)(1)(a)(ii), the Permittee must send a notice within 90 days of an approved Class 1A Modification to all persons on the Agency mailing list. An updated mailing list can be obtained by contacting Jeri Savelle, Authorizing Actions & Engineering Unit at (614) 644-2944, or by e-mail at [jeri.savelle@epa.state.oh.us](mailto:jeri.savelle@epa.state.oh.us).

cc: Dustin Tschudy, AAEU, DMWM, CO [Attach Permit Application Pages]  
Mark Cunningham, Solvay Specialty Polymers USA, LLC [Attach Permit Application Pages]

ec: Scott Hester, Supervisor, AAEU, DMWM, CO  
Elizabeth Herron, DMWM, SEDO  
Scott Bergreen, DMWM, SEDO  
Brad Hauser, RADMU, DMWM, CO

## MODULE F - GROUND WATER COMPLIANCE MONITORING

### F.1. Module Highlights

OAC Rules 3745-50-44(B), 3745-54-90, and 3745-54-91

- (a) The Permittee must comply with the applicable requirements in OAC Rules 3745-54-90 through 3745-54-100 for purposes of detecting, characterizing, and responding to releases to the uppermost aquifer for the following units:

Solvay Specialty Polymers USA, L.L.C. Wastewater Treatment Plant (WWTP) facility includes two regulated units - the Emergency Basin (EB) and the Former Equalization Basin (FEQB). The EB is an active surface impoundment that manages waste prior to biological treatment at the WWTP. In 1988, the EB was retrofitted with double synthetic liners and a leak detection system. The FEQB is an inactive surface impoundment that has undergone closure. The FEQB was removed from service on November 8, 1988, and is currently in post-closure care.

Due to their close proximity to each other, Solvay Specialty Polymers USA, L.L.C. has combined the ground water monitoring programs for the Emergency Basin and the FEQB. Solvay Specialty Polymers USA, L.L.C.'s compliance ground water monitoring system consists of 22 wells - 7 of which are background wells. A complete summary of compliance monitoring well locations with respect to the regulated units and well completion data is presented in Tables 1 and 2 of Appendix E-1 of the Part B permit application.

- (b) OAC Rules 3745-54-90 through 3745-54-100 apply during the active life, which includes the closure period, of the above-mentioned regulated units. After closure of each regulated unit, OAC Rules 3745-54-90 through 3745-54-100:

- (i) Do not apply if all waste, waste residues, contaminated containment system components, and contaminated subsoils are removed or decontaminated at closure;
- (ii) Apply during the post-closure care period under OAC Rule 3745-55-17 if the Permittee is conducting a detection monitoring program under OAC Rule 3745-54-98; or
- (iii) Apply during the compliance period under OAC Rule 3745-54-96 if the Permittee is conducting a compliance monitoring program

under OAC Rule 3745-54-99 or a corrective action program under OAC Rule 3745-54-100.

- (c) The Permittee is subject to OAC Rules 3745-54-90 through 3745-54-100 and must conduct a monitoring and response program as follows:

Hazardous constituents under OAC Rule 3745-54-93 from a regulated unit have been detected at the compliance point under OAC Rule 3745-54-95. Therefore, the Permittee must institute a compliance monitoring program under OAC Rule 3745-54-99.

**F.2. Ground Water Protection Standard**

OAC Rules 3745-50-44(B), 3745-54-92 through 3745-54-96, and 3745-54-100(A)

The Permittee must ensure that the hazardous constituents under OAC Rule 3745-54-93 detected in the ground water from a regulated unit listed in this Permit Condition do not exceed the concentration limits under OAC Rule 3745-54-94 in the uppermost aquifer underlying the waste management area beyond the point of compliance under OAC Rule 3745-54-95 during the compliance period under OAC Rule 3745-54-96. The ground water protection standard has been established in this Permit due to hazardous constituents being detected in the ground water.

- (a) The Permittee must monitor the ground water to determine whether regulated units are in compliance with the ground water protection standard under OAC Rule 3745-54-92. The hazardous constituents detected in the ground water underlying a regulated unit and reasonably expected to be contained in or derived from the waste contained in the regulated unit to which the ground water protection standard applies and their concentration limits are listed below:

Hazardous Constituents	Concentration Limits (ug/l)
Benzene	5
Ethylbenzene	700
Methylene Chloride	5
Monochlorobenzene (MCB)	100
Styrene	100
Toluene	1000
1,2-Dichlorobenzene	600
1,4-Dichlorobenzene	75
1,1-Dichloroethane	252
Carbon Disulfide	670
Barium	2000

Hazardous Constituents	Concentration Limits (ug/l)
Chromium	100
Copper	1300
Selenium	50
Arsenic	65
Cobalt	58
Lead	79.5
Vanadium	112
Zinc	4600

In addition to the hazardous constituents listed above, the Permittee must monitor the following parameters:

Ground Water Quality or Field Parameters:

- pH
- Specific Conductance
- Temperature
- Turbidity

(b) Point of Compliance

OAC Rules 3745-54-91(A)(3), 3745-54-95, and 3745-54-100(A)(3) & (E)(1)

The point of compliance at which the ground water protection standard of OAC Rule 3745-54-92 applies is indicated in Appendix E-1, Figure 2. The Permittee must monitor the following: TW-65S, TW-65D, TW-58R, TW-57S, TW-57D, TW-63S, TW-63D, TW-15S, TW-15D, TW-14S, TW-14D, TW-16S, TW-16D, TW-11S, TW-11D representing the quality of ground water passing the point of compliance. The Permittee must also monitor the ground water, as necessary, between the point of compliance and the downgradient property boundary to determine if the concentration limit has been exceeded at any point between the compliance point and the downgradient property boundary.

(c) Compliance Period

OAC Rule 3745-54-96

- (i) The compliance period, during which the ground water protection standard of OAC Rule 3745-54-92 applies, is equal to the active life of the waste management area, including any waste management activity prior to permitting and the closure period. The compliance period began on October 31, 1994. The ending date will be determined by one of three scenarios, whichever is longer: (1) 30

years from submittal of the closure certification of the FEQB (December 1, 1995), or (2) the end of the closure period of the EB, or (3) if the EB cannot be clean closed, 30 years beyond submittal of closure certification of the EB.

- (ii) If the Permittee is engaged in a corrective action program at the end of the compliance period specified above, the compliance period is extended until the Permittee can demonstrate that the ground water protection standard of OAC Rule 3745-54-92 has not been exceeded for a period of three consecutive years.
- (iii) The Permittee may discontinue corrective action activities during the compliance period when the ground water protection standard has not been exceeded at any well listed in Permit Condition F.3(b) for any constituent listed in Permit Condition F.2(a) for four (4) consecutive sampling events. The Permittee must continue a compliance monitoring program under OAC Rule 3745-54-99 for the remainder of the compliance period.
- (iv) If the Permittee is performing compliance monitoring and the compliance period ends while a post-closure care period, required under OAC Rule 3745-55-17, is still in effect, the Permittee shall submit an application for a permit modification under OAC Rule 3745-50-51 to extend the compliance period under Permit Condition F.2(c)(i). The length of time to extend the compliance period must be equal to the compliance period as defined in Permit Condition F.2(c)(i). The Permittee is required to continue compliance monitoring under OAC Rule 3745-54-99.

**F.3. Well Location, Installation, Maintenance, and Removal**

OAC Rules 3745-54-95, 3745-54-97(A) to (C), and 3745-54-100(D) & (E)

- (a) The Permittee's ground water monitoring system must consist of a sufficient number of wells, installed and screened at appropriate locations and depths, to yield ground water samples from the water bearing sand and gravel and overlying silty clay of the Ohio River Valley Aquifer which is considered to be the uppermost aquifer. The samples must:

- (i) Represent the quality of background water that has not been affected by leakage from the regulated unit;