

**REPORT OF THE ORSANCO AD HOC  
WATER QUALITY STANDARDS IMPLEMENTATION COMMITTEE**

**May 11, 2015**

**I. Introduction.**

On December 5, 2014, ORSANCO Chairman, Tom Easterly, established this ad hoc committee and pursuant to Section XII. B. of ORSANCO's Bylaws as revised in June 2013.

**II. Committee Members.**

The Commissioners appointed to the committee include:

Dave Flannery, West Virginia, Chairman  
Stuart Bruny, Ohio  
Doug Conroe, New York  
George Elmaraghy, Federal  
Tom FitzGerald, Federal  
Toby Frevert, Illinois  
Joe Harrison, Jr., Indiana  
Ron Lovan, Kentucky  
Scott Mandirola, West Virginia.

**III. Committee Charge.**

The committee is requested to address the differences among the member states in how ORSANCO water quality standards are implemented. In addressing this matter, the committee is requested to work with the staff to accomplish the following tasks:

- (1) To identify the nature and extent of these differences;
- (2) To determine whether such differences are contrary to or unreasonably interfere with the effective implementation of the ORSANCO Compact; and
- (3) To provide the Commission with any recommendations that the committee believes to be appropriate to address any such differences.

The committee was requested to make a progress report to the Commission at its meeting in February 2015 and make its final report to the Commission at its meeting in June 2015, along with any recommendations that may be appropriate in the following categories:

- a. Alternative approaches that ORSANCO may wish to consider in addressing the requirements of the Compact with respect to water quality.

- b. Alternative approaches that member states may wish to consider in implementing the Compact requirements with respect to water quality including the consideration of the time period within which such requirements must be implemented.
- c. Action that should be taken by the Commission in the event that any member state fails to properly implement Compact requirements.

#### **IV. ORSANCO Compact.**

As background for this assessment, the Committee notes that the Compact has several provisions that frame the obligation of states with respect to ORSANCO's water quality standards. Significantly, the Compact never mentions the term "water quality standards." We also note that there is no mention of rulemaking authority in the Compact other than as stated in Article VI.

While we will not recount in this report the entire text of the Compact, the Committee recognizes the following principal elements of the Compact:

##### Article I.

- States are obligated to "faithful cooperation ... abatement of existing pollution."
- States are obligated to enact any necessary legislation to enable each such State to place and maintain the waters ... for safe and satisfactory use a public and industrial water supplies after reasonable treatment, suitable for recreational usage, capable of maintaining fish and other aquatic life, free from unsightly or malodorous nuisances due to floating solids or sludge deposits, and adaptable to such other uses as may be legitimate."

##### Article VI.

- No single standard for the treatment of discharges is necessarily applicable throughout the District.
- Pollution originating in one state shall not injuriously affect uses of interstate waters.
- "Sewage" shall be treated as provided in the Compact and "in specific instances" ... a "higher degree of treatment shall be used" as specified by the Commission.
- "Industrial waste" shall be treated to protect uses to such degree as determined by the Commission.
- Discharges by one state shall be treated to extent necessary to be in equal condition to the condition immediately above the confluence (with another state).

- The Commission is authorized to adopt rules for administering and enforcing Article VI.

#### Article VII

- State may have “additional conditions and restrictions to further lessen or prevent the pollution of waters within its jurisdiction.”

#### Article IX

- Commission may order a discharger into a boundary stream (or a stream crossing a boundary) to treat or eliminate its discharge.

### **V. Pollution Control Standards.**

The Committee has also reviewed its Pollution Control Standards [“PCS”] rules and has concluded that its inquiry should extend to all components of the PCS rules including:

- Authority and purpose
- General conditions
- Designated uses
- Water quality criteria
- Mixing zone
- Wastewater discharge requirements.

The Committee recognizes that the PCS rules are applicable to the mainstream of the Ohio River. The Committee also recognizes that there are several provisions of the Compact that appear to be applicable more broadly, including:

- Maintaining uses;
- Not injuriously affecting uses of interstate waters; and
- Maintaining a state’s water in condition equal to water above confluence.

The PCS rules state that “NPDES permits are therefore the primary means by which the Commission’s Standards are implemented and enforced.”

### **VI. Survey of States.**

The Committee inquired of all member states, seeking information on how and to what extent they are currently implementing these requirements and whether the state anticipates any change in its current practice. States were also asked to quantify any time delay that exists between the adoption of a new ORSANCO requirement and the time a state can implement those requirements. The following are the responses received from the states that responded to the survey by the time of the preparation of this report.

Question 1 - General:

Does your state (a) adopt the ORSANCO Standards specifically into state regulations; (b) adopt the ORSANCO Standards by reference; or (c) rely on other statutory/regulatory provision to utilize the ORSANCO Standards?

Responses to Question 1:

**New York** - Relies on other Provisions (prohibition against discharges that violate downstream water quality standards).

**Indiana** - See IAC 5-2-10 10(4)(c).

**Illinois** - Relies on other statutory/regulatory provisions. The Ohio River Sanitation Compact is included in Illinois Compiled Statutes.

**Pennsylvania** - Adopts by reference. See 25 Pa Code §§ 93.2(b), 93.9(b) and 93.9w

**Ohio** - Ohio utilizes (a) and (b). Portions of ORSANCO's Pollution Control Standards that are more stringent than statewide criteria are adopted into Ohio's water quality standards for the Ohio River in Ohio Administrative Code (OAC) 3745-1-32, and Ohio's National Pollutant Discharge Elimination System (NPDES) rule OAC 3745-33-05 requires the director to include any more stringent limitations necessary to comply with any other state or federal law or regulation. Ohio adopted the ORSANCO Compact into state law; see Ohio Revised Code Section 6113.

**West Virginia** - WV NPDES permitting rule section 47-10-6.1 states, "In addition to conditions required in all permits, the Director shall establish conditions in permits as required on a case-by-case basis to provide for and assure compliance with all applicable requirements of the CWA and the State Act and regulations. An applicable requirement is a State or Federal or interstate compact ..." The State interprets this as a requirement to follow the PCS of ORSANCO if they are more stringent than the States.

*Committee Comments: It appears that states implement the water quality standard portion of our rules through three principal mechanisms:*

- a. *NPDES Permits – Without actually adopting the ORSANCO Pollution Control Standards, some states directly apply PCS at the time of issuance or reissuance of NPDES permits. Generally speaking these states treat the PCS the same as their own standards applying the most stringent of the applicable standards to the development of water quality based effluent limitations. Member state utilizing this approach include:*

*Indiana,*

*Illinois,*

*New York (to the extent that the PCS apply to that state), and*

*West Virginia.*

- b. *Direct adoption of PCS– One state directly adopts the PCS by reference without additional state administrative proceedings. Once adopted, the PCS are then used to set*

*water quality based effluent limitations where they are more stringent than other applicable requirements. Member states utilizing this approach include:*

*Pennsylvania.*

- c. *Adoption of PCS following state rulemaking – In order to satisfy state law (and perhaps a constitution prohibition against incorporation of future regulation by reference), certain states adopt PCS only after undertaking rulemaking proceedings under state law. Once adopted under state law, the PCS are then used to set water quality based effluent limitations where they are more stringent than other applicable requirements. Member states utilizing this approach include:*

*Ohio.*

#### Question 2 - Designated Uses:

Article I of the Ohio River Sanitation Compact sets forth beneficial uses of the Ohio River and its tributaries that the states agree to work to achieve. Those uses are repeated as designated uses for the Ohio River in Chapter 2 of the ORSANCO Pollution Control Standards. Does your state include this language in its Water Quality Standards? Is the language included directly or by reference? Does it apply to interstate tributaries to the Ohio River?

Responses to Question 2:

**New York** - We do not reference or link to ORSANCO in parts 700-706 WQS regs.

**Indiana** – No.

**Illinois** - No. IL has similar language in our water quality standards but not this exact language directly or indirectly. Our regulation applies to all waters of the State.

**Pennsylvania** - Included by reference; applies to the main stem Ohio River; See references in # 1, above.

**Ohio** - Yes, Ohio includes the beneficial uses for the Ohio River directly in rule OAC 3745-1-32. The uses are considered in setting permit limitations for dischargers to interstate tributaries to ensure protection of the downstream use.

**West Virginia** - All waters of WV are protected for fishable and swimmable uses. With the exception of waters that have had the use removed in the WQS process, all waters are protected for the drinking water use. This would include the Ohio and all its tributaries.

*Committee Comments: It appears that member states apply a set of designated use to the Ohio River that are comparable to those set by ORSANCO. In some cases states adopt the ORSANCO uses. In other cases states are applying use designations under their own authority or as part of the implementation of the federal Clean Water Act (CWA). Notwithstanding the differing approaches being undertaken to establish designated uses, there does not appear to be any appreciable difference in use being protected by each member state.*

#### Question 3 - Water Quality Criteria:

Chapter 3 of the ORSANCO Pollution Control Standards contains water quality criteria that must be attained in order to protect the designated uses. Do your state's Water Quality Standards include these criteria in a specific section for the Ohio River? Or do your standards include these criteria by reference?

Responses to Question 3:

**New York** - N/A.

**Indiana** – No.

**Illinois** - IL does not include the ORSANCO standards in a specific section of our standards. We do not reference these standards in IL standards.

**Pennsylvania** - Both, by reference and in a specific section of the regulations (§93.9w Drainage List W. Ohio River in Pennsylvania).

**Ohio** - Yes, Ohio's Water Quality Standards contain ORSANCO's criteria that are more stringent than statewide criteria in OAC 3745-1-32.

**West Virginia** - No. Based on section 47-10-6.1, specified in question 1, the state implements in permits the more stringent of the WQS, for each parameter, whether it is the WV WQS or ORSANCO Pollution Control Standards.

*Committee Comment: See discussion under Question 1 above.*

Question 4 - Mixing Zones:

Chapter 4 of the ORSANCO Standards sets forth mixing zone requirements, including a prohibition of mixing zones for Bioaccumulative Chemicals of Concern. Does your state have a similar requirement? If not, do you utilize the ORSANCO requirement in developing permits for dischargers of BCCs?

Responses to Question 4:

**New York** - Yes, but only for the Great Lakes.

**Indiana** – Yes.

**Illinois** - IL does not have any prohibition of mixing zones for bioaccumulative chemicals of concern that applies to the Ohio River. We do have this for the Lake Michigan Basin. IL has never had to consider a mixing zone for a BCC to the Ohio River. If we faced this situation we would cite the ORSANCO prohibition as in force and we would not grant the mixing zone.

**Pennsylvania** - Pennsylvania does not have a similar requirement except in the Great Lakes basin. Pennsylvania is aware of the ORSANCO prohibition on allowing for in stream dilution of BCCs for discharges to the Ohio River and the associated implementation schedule. Based on that implementation schedule, we have not yet had to implement the requirement in any NPDES permit.

**Ohio** - Yes, Ohio has a ban on mixing zones for BCCs in rule OAC 3745-2-08. It applies to all waters of the state.

**West Virginia** - No WV has no prohibition on mixing zones for bioaccumulative chemicals but WV's WQS has a more restrictive mixing zone section in the WQS and it is followed in the NPDES permits on the Ohio River.) WV places the ORSANCO mixing zone prohibition in the NPDES permits on the Ohio.

*Committee Comments: It appears that member state general consider the mixing zones ban of ORSANCO to be part of the implementation of WQS. Significantly, however, the implementation of mixing zone bans for BCCs occurs in three principal ways:*

a. *Independent states bans – Certain member states not apply the ORSANCO mixing zone ban in much the same manner as they apply WQS, certain member states have independent mixing zone bans. The state based bans generally include their own variance mechanisms. Generally speaking these states apply the most stringent of the applicable bans to the development of water quality based effluent limitations. Member state utilizing this approach include:*

*Kentucky,<sup>1</sup>  
Indiana, and  
Ohio.*

b. *States Implementing ORSANCO Ban – One state does not have a mixing zone ban of its own for BCCs and currently is directly implementing the ORSANCO ban in NPDES permits being issued. The member state utilizing this approach includes:*

*West Virginia.*

c. *States which have not yet been called upon to implement the ORSANCO ban – Certain members states do not have a mixing zone ban of their own have not yet been called upon to implement the ORSANCO mixing zone ban in the issuance of NPDES permits. Member states utilizing this approach include:*

*Illinois, and  
Pennsylvania.*

#### Question 5 - Wastewater Discharge Requirements:

Chapter 5 of the ORSANCO Standards sets forth requirements for specific categories of wastewater discharges. Does your state adopt these into regulation?

Responses to Question 5:

**New York** - No.

**Indiana** – No.

**Illinois** - IL has not adopted these ORSANCO regulations into our regulations.

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<sup>1</sup> This information was offered by one or more committee members in absence of a response from the states.

**Pennsylvania** – No. Treatment requirements promulgated by the Commissions are not typically adopted into regulation, but are applied as needed on a case-by-case basis.

**Ohio** - No.

**West Virginia** - WV regulations are comparable or more restrictive and are followed in issuing NPDES permits on the Ohio River.

*Committee Comments: It appears that member states do not specifically adopt or apply the ORSANCO discharge requirements relying instead on the implementation of either state or CWA programs to set effluent limitations. There is indication in this review that the ORSANCO discharge limits are generally met or exceeded by alternative programs.*

#### Question 6 - Antidegradation:

The ORSANCO Standards do not include antidegradation requirements other than a sentence in Chapter 2 that states that degradation that would interfere with or be injurious to the designated uses will not be allowed. How does your state's antidegradation policy apply to the Ohio River?

Responses to Question 6:

**New York** - NY's antidegradation requirements apply to all waters of NY.

**Indiana** - Same as rest of state.

**Illinois** - Given the absence of ORSANCO standards, the IL antidegradation standard is in full force for the Ohio River in our state.

**Pennsylvania** - Pennsylvania's antidegradation requirements are statewide, and therefore apply to the Ohio River, as well. (see §§ 93.4a and 93.9c).

**Ohio** - Ohio implements antidegradation requirements for the Ohio River as it would for any other general high quality water. Ohio antidegradation requirements are described in OAC 3475-01-05 and apply to all water of the state.

**West Virginia** - WV has a 12 page legislative rule, 63CSR5, that details the implementation of antidegradation requirements in NPDES permits and it is followed in all waters of the state.

*Comments: It appears that member states have independent antidegradation programs under either state law or the CWA and that no additional action is needed to satisfy the ORSANCO requirements.*

#### Question 7 - Incorporation of Revised Standards:

How long after the Commission adopts revisions to its Pollution Control Standards is your agency able to incorporate the revised standards into NPDES permits for Ohio River dischargers?

Responses to Question 7:

**New York** - New York's water quality standards regulations at 6 NYCRR 701.1 prohibit causing impairment of the best usages of waters at other locations that may be affected by such discharge. This includes downstream and in shared and other states' waters which have more stringent water quality standards.

**Indiana** – Immediately.

**Illinois** - IL would incorporate new standards as permit limits as the NPDES permits expire.

**Pennsylvania** - ORSANCO's revised PCS's are considered effective immediately upon adoption by the Commission since they are incorporated by reference, as indicated I#1 & #2 above.

**Ohio** - The Clean Water Act requires states to review and update their water quality standards at least every three years. Additional Ohio's legislation requires state agencies to review and revise all state rules every five years.

**West Virginia** - As soon as an ORSANCO standard is in effect it can be utilized into a WV NPDES permit.

*Committee Comment: See discussion under Question 1 above.*

#### Question 8 - Protection of Downstream/Adjacent States' Waters:

Article VI of the Ohio River Valley Water Sanitation Compact established the guiding principle that wastewaters discharged in one member state shall not interfere with beneficial uses of the waters of another state. It is assumed that the ORSANCO Pollution Control Standards provide the mechanism to assure this principle is met on the Ohio River. How does your state assure that this principle is met on interstate tributaries to the Ohio River? Could ORSANCO do more to assist the states in meeting this principle?

Responses to Question 8:

**New York** - See answers above.

**Indiana** - Through discussions with respective state; No.

**Illinois** - IL notifies IN of permits issued to shared waters and IN does the same. If IN had a comment, we would attempt to resolve the issue. IL does not have past or ongoing issues with IN on this subject and therefore there is no need for ORSANCO to take on additional roles.

**Pennsylvania** - Pennsylvania recognizes the need to achieve any applicable downstream water quality standards at any state border. From an NPDES point source perspective, this generally is not an issue, since discharges must meet Pennsylvania water quality standards at the point of discharge for most pollutants and the situation only improves downstream. Should the situation occur whereas a more stringent standard applied at the state line, Pennsylvania would handle that situation on a case-by-case basis. PA is unsure what ORSANCO could do to assist the states in this regard. 40 CFR Section 122.4 (d) states the following: No permit may be issued when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states. This provision is incorporated by reference at 25 Pa. Code section 92a.5(a).

**Ohio** - Protections of downstream uses are important component of Ohio's regulatory system. Ohio has developed guidance documents to ensure that these downstream impacts are considered. Ohio would be willing to work with ORSANCO and other states to make sure downstream uses are consistently evaluated.

**West Virginia** - WV WQS rule 47CSR2 section 6.1.c requires the state to "take into consideration the quality of downstream waters and shall assure that its water quality standards provide for the attainment of the water quality standards for downstream waters." The protection of downstream waters is addressed in the NPDES permit issuance.

*Committee Comments: While member states have not specifically adopted an ORSANCO requirement prohibiting interference with another states water uses, such a mandate is in fact being implemented under other authority including state authority and the federal CWA.*

## **VII. Conclusion.**

It seems apparent from the responses received to the survey of states, that member states are, for the most part, implementing programs that fairly implement the requirements of the PCS. This seems to be clearly the case for maintaining designated uses.

Each of the member states manage programs for implementation of the federal Clean Water Act and in many cases many of the Compact states utilize those programs to implement ORSANCO requirements.

The Committee recognizes that many factors influence the precise manner in which member states implement their obligations to ORSANCO and the Compact, many of which appear to be related to state administrative processes that require the direct adoption of the ORSANCO water quality standards to be subject to state administrative rulemaking processes.

During the course of the Committee's work, a more general question was discussed concerning the relationship of the Commission's Pollution Control Standards to the water quality standards and water pollution permitting programs adopted by the signatory states in conjunction with EPA pursuant to the Clean Water Act.

The development of the Pollution Control Standards by ORSANCO was in furtherance of the commitment by the signatory states of the Ohio River Valley Water Sanitation Compact (Compact) to control future pollution and to abate then-existing pollution in the waters of the basin in order to "place and maintain the waters of said basin in a satisfactory sanitary condition, available for safe and satisfactory use as public and industrial water supplies after reasonable treatment, suitable for recreational usage, capable of maintaining fish and other aquatic life, free from unsightly or malodorous nuisances due to floating solids or sludge deposits, and adaptable to such other uses as may be legitimate."

The Clean Water Act enacted by Congress in 1972 incorporated many of these same principles – control of pollution, development of treatment standards, protection of recreational,

drinking water, and other “legitimate uses,” and a narrative standard of freedom from nuisance conditions, among others.

With the enactment of the 1972 amendments to the Clean Water Act, the EPA and ORSANCO recognized the need for an in-depth study of the roles which “ORSANCO could perform in complementing the Member State’s and the federal government’s activities, in carrying out the responsibilities contained in the Federal Water Pollution Control Act Amendments of 1972.” To that end, a study was commissioned by EPA in 1974 as a means of better defining “the areas of opportunity for effectively discharging these responsibilities in a cooperative spirit and an efficient mode.” That study, titled *A Study of Prospective Water Pollution Control Activities For The Ohio River Valley Water Sanitation Commission*, was released in March 1975, and with respect to “stream standards,” recommended that:

ORSANCO should work with the states in developing consistent stream standards for the main stem and tributaries having significant impacts on the main stem; and in periodic review of the standards. Its interest should be primarily in achieving interstate compatibility and equity.

Each state formulates stream standards for its own purposes and also for submission to EPA. However, the emphasis of each state is necessarily on its particular waters both in and out of the Ohio Basin. Since the Ohio is a boundary river, and because there are many other relationships as among the several state segments of the river system, the interstate agency should provide the overall view and the comparative analyses needed for coordination, consistency and equity. ORSANCO’s stream models will be found useful.

The Committee believes that an Executive Session should be scheduled to discuss whether ORSANCO’s maintenance and periodic revision of mandatory pollution control standards for the basin is the most effective strategy for implementing the principles and goals of the Compact. The Committee is not recommending a particular path or prejudging the answer to that question going forward, but believes that periodic reassessment of the relationship between the Compact and the Clean Water Act is a valuable and appropriate exercise. Among the options that the Commission may wish to consider are:

- Maintaining the current approach to development and revision of mandatory standards;
- Modifying the current program by charging the PCS Committee to review state implementation of the ORSANCO Pollution Control Standards as part of each PCS review, and providing the Commission with a recommended course of action with respect to any areas of concern;
- Modifying the current program by inclusion of a mechanism to allow a state to request that ORSANCO acknowledge and approve state implementation provisions that differ from a comparable ORSANCO provision;
- Limiting ORSANCO to participating in development of state and EPA standards

affecting the basin and working with the states to assure consistency and equity in water pollution policies affecting the basin;

- Limiting ORSANCO to publication of recommended model water quality standards for the mainstem in lieu of the current mandatory standards;
- Completely disengaging ORSANCO from standards development; or
- Some combination of the above.

The ultimate question to be answered is which of these, or other alternatives, would best implement the Compact principles while allowing the most efficient use of the resources of the Commission, EPA and the signatory states.

Respectfully submitted this 11th day of May 2015.

ORSANCO AD HOC WATER QUALITY  
STANDARDS IMPLEMENTATION COMMITTEE