

Pollution Control Standards

- 1) Proposed 2012 PCS Revisions
- 2) Draft Variance Process
- 3) Consideration of PPG Variance Request
- 4) Potential Future Variance Requests

Note: Report of the PCS Committee
attached to Commission Meeting agenda.

Proposed 2012 Revisions to ORSANCO Pollution Control Standards

Issues Under Consideration

- 1) Reorganization of standards document to enhance its usability.
 - Temperature criteria for aquatic life revised.
 - Temperature criterion for human health added.
 - Selenium criteria revised.
 - Contact Recreation Criteria revised.
 - Variance section revised.

Document Reorganization

Content of 2011 Standards

- Authority and Purpose
- Definitions
- Designated Uses
- Water Quality Criteria
- Waste Water Discharge Requirements
- Mixing Zone Designation
- Limitation
- Variance
- Analytical Methods
- Severability Clause
- Appendices

Content of Proposed 2012 Standards

Chapter 1: General Provisions

- Authority & Purpose
- Definitions
- General Conditions
- Limitations
- Severability
- Variances
- Site Specific Criteria

Chapter 2: Designated Uses

Chapter 3: Water Quality Criteria

- Summary Table of Criteria (Added)
- Aquatic Life
- Human Health

Chapter 4: Mixing Zones

Chapter 5: Wastewater Discharge Requirements

Temperature Criteria for Aquatic Life Protection

- Revisions based on more recent scientific data on temperature endpoints for aquatic life and more recent ambient temp data for the Ohio River.
- Justification
 - Existing criteria have been in place since 1980's.
 - Current summer criteria based on biological endpoint studies conducted in 1970's.
- New criteria are segmented into upper, middle & lower sections of the river to reflect differences in temperature regimes.
- Recommendations developed by temperature work group of experts including states, USEPA, Power Industry, Fish & Wildlife, others.

Time Period	Current °F	Averages of Proposed Daily Maxima °F		
		<u>Upper</u>	<u>Middle</u>	<u>Lower</u>
January 1-31	50	45.7	46.8	49.3
February 1-29	50	44.0	48.1	48.7
March 1-15	56	49.0	55.2	53.0
March 16-31	59	54.1	60.0	57.2
April 1-15	64	59.1	64.9	61.4
April 16-30	69	64.1	69.5	65.4
May 1-15	73	69.0	74.2	69.4
May 16-31	80	74.1	79.0	73.6
June 1-15	85	80.0	84.1	78.8
June 16-30	87	87.8	87.8	87.8
July 1-31	89	87.8	87.8	87.8
August 1-31	89	87.8	87.8	87.8
September 1-15	87	84.1	86.1	85.0
September 16-30	86	84.1	86.1	85.0
October 1-15	82	76.2	79.2	77.7
October 16-31	77	71.6	73.8	72.9
November 1-30	72	64.7	65.9	65.8
December 1-31	57	55.5	55.3	56.5

Temperature Criterion for Human Health Protection

- To protect human health from exposure to contact with water; to prevent burns.
- Maximum temperature of 110 deg F.
- Applies everywhere: inside and outside the mixing zone.
- Temperature workgroup recommended 116.5 deg F.

- American Burn Association – Scald Injury Educator's Guide
 - 5 min exposure to **120** = adult 3rd degree burn
 - Children have thinner skin & less surface area
- PADEP
 - Public safety value = **110**
- WHO
 - Hot tub temperatures should be **<104**
 - = prolonged exposure (15-20 min)
- Antiscald Inc (based on Moritz & Henriques 1947)
 - **120** = 2nd degree burn in 8 min
 - Pub says 9 min 30 sec to 2nd degree burn at 120.2 degrees
 - **118.4** = 2nd degree burn in 15 min
 - **116.6** = 2nd degree burn in 20 min (25 according to original pub)
 - **113** = 2nd degree burn in 2 hours
- Diller 2006
 - Reduce temp standards by **3-4** degrees to apply to children
- Huyer et al 1997
 - **108-113** = "too hot for activities; threshold for sensation of pain in adults"

Recreational Use Criteria

- 1) Recreation season extended from May-Oct to Apr-Oct.
- 2) Revisions based on USEPA's proposed criteria:
 - a) Fecal coliform criteria removed from Chapters 3 & 5.
 - b) Monthly geometric mean *E. coli* criterion of 130/100mL revised to 90-day geometric mean criterion.
 - c) Single sample monthly max *E. coli* criterion of 240/100mL revised to not to be exceeded in more than 25% of samples in 90 day period.

Comparison of Proposed Revisions

30-Day Geo Mean E. coli 130/100mL

	# Mos. Exceed	% Mos. Exceed	Assessment
ORM 462.5	3	10%	Full Support
ORM 477.5	11	37%	Non-Support

90-Day Geo Mean E. coli 130/100mL

	# Mos. Exceed	% Mos. Exceed	Assessment
ORM 462.5	1	5%	Full Support
ORM 477.5	3	15%	Partial Support

Maximum Criterion E. coli 240/100 mL

Current single sample max criterion not exceeded in > 10% of all samples.

Proposed 25% in 90 days: Allows 3 exceedances in any 90 day period.

Selenium Criteria

- Current Selenium Criteria are considered outdated.
- States have been reluctant to delete criteria without replacement.
- US EPA is said to be close to issuing new criteria.
- Acute aquatic life criterion of 20 ug/L removed while the chronic aquatic life criterion of 5 ug/L has been retained.

Revisions to Variance Section

- 1) Removed provision requiring concurrence from all affected states that a variance would be considered.
- 2) Added a statement that ORSANCO would seek the state's regulations that would allow the requested variance to be implemented (intended to be done prior to evaluating a variance application).
- 3) Added a provision that approved variances would become part of the standards.

Note: This would require conducting the full standards revision process.

PCS Review Process

- Public Comment Period Opened May 11, 2012.
 - Several hundred postcards.
 - Several thousand emails.
 - Public notice to newspapers basin-wide.
- Webinars held May 24, 2-4PM & May 30, 6-8PM.
- Hearing June 19, 2012, 4-7PM, Cincinnati Airport Holiday Inn.
- Comment period closes July 20, 2012.
- Commission Action on Proposed Revisions October 11, 2012.

How to Comment

- In Writing
 - ORSANCO, Attn: PCS Comments, 5735 Kellogg Ave, Cincinnati, OH 45230.
- Email: pcs@orsanco.org.
 - Emails must originate from the sender; No third party emails accepted.
 - No email attachments accepted.
 - Fax: 513/231-7761
- Verbal testimony accepted at hearing.
- All materials can be found at Website: www.orsanco.org, click on Pollution Control Standards.

Variance Application & Review Process

- Draft "Variance Application and Review Process " included with Commission agenda.
- PCS Committee is recommending:
 - 1) Draft be followed for all requests until finalized.
 - 2) Draft be finalized after completing the first variance request.
 - 3) Initially no application fees but continue to monitor workload.
 - 4) Generic process will apply to all variance requests.
 - 5) Approved variances adopted into standards.

Public Process

- 1) Public notification within 30 days of receipt of variance application.
- 2) PCS Committee evaluation & recommendation to Commission.
- 3) Commission authorization for 30-day public comment period.
- 4) Commission consideration at next meeting.
- 5) Standards adopted into standards if approved.

Approval Criteria

- 1) Demonstrate cannot meet standards without mixing zone.
- 2) Demonstrate there are no reasonable alternatives.
- 3) Submission of an adequate Pollution Minimization Plan.
- 4) Identification of best effluent quality achievable.
- 5) Demonstration that best achievable effluent quality will meet standards outside mixing zone.

PPG Variance Request

- Made public notification within 30-days of receipt of PPG's request.
- Initial information submittal and two subsequent submittals from ORSANCO's info requests.
- Site visit with WVDEP made.
- All info on ORSANCO's website.

Standards Committee Preliminarily Recommending Commission Approval

- 1) At this meeting approve opening a public comment period.
- 2) Commission consideration at its October meeting.

Specifics of Proposed Approval

- 1) Variance not to exceed 5 yrs beginning Oct 16, 2013.
- 2) Monthly avg limit not to exceed 55 ng/L.
- 3) WVDEP may establish daily max limits.
- 4) Submitted mercury reduction plan must be fully implemented (attached).
- 5) Annual progress reports required.

Specifics (cont.)

- 6) Monthly Ohio River instream sampling required to demonstrate compliance with 12 ng/L Tot Hg criterion outside the mixing zone.
- 7) Commission shall have sole authority to modify, renew or revoke the variance.
- 8) Variance would not limit WVDEP's authority to impose additional or more stringent requirements.

Questions?