

Below is attendance list for September 16, 2003 DEP meeting with the Chemistry Council, followed by industry power point presentation.

DEP meeting notes reveal that discussion focused on "Cost of compliance" and industry agenda to avoid compliance with strict standards: "need legal way to protect from end of pipe limits"

WLC meeting

9/16/03

<u>Name</u>	<u>Affiliation</u>	<u>Phone Number</u>
Leslie McGeorge	NJDEP - WM+S	609-292-125
TONY RUSSO	CCNT	609-392-4214
Barb Kruter	DePant	302-774-8076
George Bakun	ConocoPhillips Co.	908-523-5896
Valdis Krūmins	Passaic Valley Sewerage Comm.	973-466-2974
Anthony Genearolo	Nahway Valley S.A.	732-388-0868
John Maxwell	NJPC	609.392.0800
Tyler Linton	Great Lakes Environmental Center	(614)487-1040
Kevin Aiello	MCUR/REA	(732)721-3800
Narinder Ahuja	NJDEP-DWA	(609)292-4543
* Russell FURNRY	PSEG/NJ State Chamber of Commerce	(973)430-8848
JEFFREY READING	NJDEP/DWQ	(609)292-997
Debra Hammond	NJDEP/WQS	(609)777-1753
ERNEST HAHM	NJDEP/LAND USE	(609)292-2178
* Fred AVOSS	B&T/NJPC	312/214-8310

Sept 16, 2003

Wildlife Criteria -

CIC, Petroleum Council, PVSC, Rahway
Valley, MCUB, AMSA, Chamber of Commerce

Science issue - hopefully addressed
in response to comments

Bart Reuter

FRED
Layman - GLWQ Coalition -
from Chicago.

- Attainability & Cost of Compliance
- ~~Attainability~~ Need legal way to protect
from end pipe limits
 - Permits are not being issued
Variance is backlogged.
Ohio good model but uncertain
- TMDL must include WLA will occur
in 2005.

Increase power needs result in greater
Hg & PCB emissions

No WQBEL until we reach ~~an~~
specified levels

NJ Proposed Wildlife Criteria

September 16, 2003

Associations/Companies Represented

- New Jersey Petroleum Council
- NJ State Chamber of Commerce
- CCNJ
- AEA
- AMSA
- NJBIA

Concerns with Proposed Wildlife Criteria

- Endangered wildlife species in NJ are improving.
- Science is not yet sufficiently developed to set technically valid wildlife criteria.
- NJ has not shown that its criteria would be attainable, or that economic impacts would be reasonable.

Concerns with Proposed Wildlife Criteria

- Proposed criteria would force industry and POTWs to install enormously expensive controls, which will not result in attainment of standards in NJ waters.
- Proposed criteria would force numerous discharges to apply for variances and/or appeal their permits, slowing permitting process and efforts to implement the controls that will improve water quality.

Basis for Concerns

- Technical Issues with Criteria
- Criteria Attainability
- Ability of WWTP to meet WQBEL
- Costs of WW Treatment to Meet WQBEL
- Regulatory Issues

Technical Issues with Criteria

- Examples of Technical Issues
 - EPA's Science Advisory Board has criticized the GLI wildlife approach.
 - Cross Species Data Transfer, i.e. mallard duck
 - Use of human health methodology for wildlife
 - Use of BAFs are not defensible
 - etc..

Criteria Attainability

- NJ Proposed Wildlife Criteria
 - DDT 4 pg/L
 - Total Mercury 530 pg/L
 - Total PCBs 72 pg/L

Criteria Attainability

- Mercury, PCB and DDT are ubiquitous in the environment at levels above the criteria.

Criteria Attainability

Remote Areas

(Arctic, Sweden, Finland)

	Total Mercury	Total PCBs	Total DDT
Lake	1.9 - 7.8 ng/L	90 - 420 pg/L	7 - 122 pg/L
River	1.3 - 7.2 ng/L	640 - 4,830 pg/L	0 - 250 pg/L
Rainfall	11.9 ng/L	88 - 9703 pg/L	No Data

Proposed

Criteria	.530 ng/L	72 pg/L	4 pg/L
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Criteria Attainability

- Ambient New Jersey Concentrations
 - NJ PCB Data (Van Ry, et al, 2002)
 - Rain 870 - 13,000 pg/L
 - Gas Phase 340 - 6600 pg/m³
- Detroit NPS Study (Khalil, 2000)
 - Rain 20 - 56,000 pg/L
 - Heavy/Light Ind. run-off 22,000 - 200,000 pg/L
 - Residential run-off 30 - 190,000 pg/L

Criteria Attainability

- Example of PCB Sources: preliminary sources to Delaware Estuary:
 - Haz Waste Sites 108,000 mg/day
 - Tributaries 66,600 mg/day
 - Point Source Discharges 45,700 mg/day
 - CSOs 15,500 mg/day
 - Atmospheric Deposition **3,500 mg/day**
 - Total Loading 282,000 mg/day
- Preliminary TMDL **380 mg/day**

Criteria Attainability

- Ambient Mercury Concentrations
 - NJ Mercury Task Force 2001
 - Rain 5 - 94 ng/L
 - Detroit NPS Study (Khalil, 2000)
 - Rain 4.5 - 82 ng/L
 - Heavy/Light Industrial run-off 10 - 90 ng/L
 - Residential run-off 6.6 - 103 ng/L
 - Mercury Source Control (AMSA, 2002)
 - “8” Municipal WWTP 3.22 to 9.0 ng/L
 - Maine DEP POTW Hg Data
 - POTW Effluent range of Hg Data 1 - 115 ng/L

Ability of WWTP to Meet WQBELS

- Example
 - EPA RRREL Treatability Data Base “PCB”:
 - Activated Sludge lowest effluent 20,000 pg/L
 - Chemical Oxidation lowest effluent 200,000 pg/L
 - Reverse Osmosis lowest effluent <50,000 pg/L
- Gosh, et al WERF 1999
 - Filtration/Granular Activated Carbon <100,000 pg/L

Cost of WW Treatment to Meet WQBEL

- Estimated Costs to treat PCB & DDT using filtration followed by activated carbon.

	Capital	O&M
Delaware Estuary	\$1.0 billion	\$195 million
NY/NJ Harbor	<u>\$3.5 billion</u>	<u>\$378 million</u>
Total	\$4.46 billion	\$574 million

Includes costs for WWTP in bordering States who will be impacted by the Wildlife criteria in shared State waters

Cost of WW Treatment to Meet WQBEL

- Estimated Costs to treat mercury reverse osmosis, ion exchange and brine treatment costs.

Annual Treatment Costs for
Removing Mercury

Delaware Estuary	\$1.9 billion
NY/NJ Harbor	<u>\$4.0 billion</u>
Total	\$5.9 billion/yr.

Includes costs for WWTP in bordering States who will be impacted by the Wildlife criteria in shared State waters

Quotable Quote

- When available data do not allow adequate confidence in a criterion, the only acceptable alternatives are to obtain additional information or to not derive a criterion... *Charles E. Stephan ... Environmental Scientist, EPA - ERL Duluth..*

Quotable Quote

- Water quality standards are the benchmark for establishing whether a waterbody is impaired; if the standards are flawed (as many are), all subsequent steps in the TMDL process will be affected

“Assessing the TMDL Approach to Water Quality Management” ... National Research Council, 2001

Recommendations

- DEP should not publish criteria at this time.
- DEP should establish an independent scientific panel to assess the need for wildlife criteria and, if there is a need, to determine what additional information is needed to develop valid wildlife criteria.
- Any criteria that are developed should be attainable.

Recommendations

- DEP should perform studies to determine contributions from the major sources of mercury, PCB and DDT to the environment.
- DEP should determine what programs could be implemented to cost-effectively reduce the major sources of these pollutants in the environment.
- All the actions above should involve full stakeholder participation.

Conclusions

- These recommended measures will;
 - result in less cost to the public,
 - allow more efficient use of DEP resources and
 - will cost-effectively reduce the pollutants.