

April 22, 2014

Honorable Andrew M. Cuomo  
Governor of New York State  
New York State Capitol  
Albany, NY 12224

Greetings:

I write respectfully to request that you take immediate action to safeguard New York's environment from the Department of Environmental Conservation's (DEC) inadequate regulation of natural gas drilling wastewater dumping hazards. This highly polluted wastewater contains a wide range of metals, organic chemicals and radionuclides that are toxic and persistent.

As you will recall, I wrote on April 7, 2011 to request that you: "investigate potential environmental and public health impacts associated with approximately 20 million gallons of natural gas drilling wastewater reportedly accepted by the Auburn, Canandaigua and Cayuga Heights Publicly Owned Treatment Works (POTWs)."

I noted that: "This matter warrants your immediate attention because those facilities are neither designed, constructed nor maintained to be able to remove the Total Dissolved Solids, toxic chemicals and radionuclides documented to be present in gas drilling wastewater."

See: <http://www.toxictargeting.com/MarcellusShale/documents/letters/2011/04/07/cuomo-letter>

### **DEC Failed to Regulate Gas Drilling Wastewater Dumping into POTWs**

I was concerned that highly contaminated gas drilling wastewaters were dumped into upstate POTWs without any requirement by DEC to: a) characterize the full spectrum of toxic chemicals present in the gas drilling wastewaters or b) conduct a "headworks analysis" to determine if those pollution loads could be treated by each POTW.

### **Gas Drilling Wastewater Dumping Into the Auburn POTW**

The POTW that accepted the largest volume of gas drilling wastewater was in Auburn, NY. In early 2011, Auburn reportedly accepted 13,400 gallons per day of drilling wastewater generated by conventional vertical gas production wells.

After *The New York Times* reported this practice, public concerns persuaded the Auburn City Council to pass a ban on accepting gas drilling wastewater at its POTW in July 2011.

In the spring of 2012, a change in the Democratic leadership of the City Council led to the rescinding of that ban. When the City sought to gain DEC and EPA (U. S. Environmental Protection Agency) approval for accepting gas drilling wastewater, it was required to conduct a "headworks analysis" to assure that the plant could manage the pollution load.

## **March 2014 Auburn POTW Headworks Analysis Report**

I invite you to review Auburn's final Headworks Analysis report. As you will see, it concludes that no gas drilling wastewater should be accepted at the plant:

"The headworks analyses performed herein indicate that the Auburn WPCP [Water Pollution Control Plant, not in the original] does not have the additional capacity for the acceptance of hauled VGWW [Vertical Natural Gas Well Wastewater, not in the original] due to excess chloride loading to the plant (emphasis added). The results of the evaluation were made based on available data and literature inhibition values for nitrification, a biological treatment process used at the Auburn WPCP."

Regarding future regulation of gas drilling wastewater at POTWs, the report concludes that:

"Acceptance of hauled VGWW will constitute a major change to the Auburn WPCP's existing IWPP [Industrial Wastewater Pretreatment Program, not in the original], and as such, this change will likely be subject to intense scrutiny from the NYSDEC and USEPA during the approval process. The USEPA is unlikely to approve a major modification of the existing IWPP without significant additional efforts by the Auburn WPCP to verify its ability to accept VGWW, through inhibition studies and additional demonstration of process compatibility."

The report references possible stringent new requirements for accepting gas drilling wastewater:

"Recalculation of allowable headworks loads and an update of the headworks analysis for each new well from which VGWW is to be accepted. This analysis will require actual monitoring data from each well applying for acceptance of its hauled VGWW at the Auburn WPCP."

See: <http://toxicstargeting.com/MarcellusShale/documents/2014/4/22/ghd-headworks-analysis>

## **Auburn Gas Drilling Wastewater Regulatory Shortcomings**

Appendix A, Section I of the Auburn Headworks Analysis Report documents that DEC authorized acceptance of gas drilling wastewater dumping at Auburn on 10/17/2008 by reportedly leaving a phone message for local authorities. DEC required no additional wastewater characterization investigation or regulatory changes to the plant's effluent discharge permit.

The Auburn plant reportedly received more than 16 million gallons of "gas well drilling process wastewater" from 7/1/09 to 6/30/10 that its own headworks analysis now concludes should not have been accepted due to high chloride levels that could inhibit its treatment process.

As you will see from the attached documents, gas drilling wastewater accepted by the Auburn facility was inadequately characterized. Dozens of pollutant parameters were "Not Sampled," including Total Dissolved Solids subject to pretreatment restrictions.

See: [http://toxicstargeting.com/sites/default/files/pdfs/AubDEC\\_Jan09letter-N...](http://toxicstargeting.com/sites/default/files/pdfs/AubDEC_Jan09letter-N...)

Auburn reportedly accepted gas drilling wastewater from a number of firms, including Fortuna Energy, Inc., Range Resources, Inc., Lenape Resources, Inc., Epsilon Energy USA, Inc., Southwest Energy Company, Strategic Environmental, LLC, Norse Energy Corp. USA and Chesapeake Appalachia LLC. On 3/31/11, Auburn cited six natural gas firms for "Significant Non-Compliance With City of Auburn Sewer Use Law."

<http://www.toxicstargeting.com/MarcellusShale/documents/letters/2011/04/07/cuomo-letter>

### **DEC's Gas Drilling Wastewater Regulatory Failures**

Given these findings, it is beyond dispute that DEC failed to safeguard New York's environment from gas drilling wastewater dumped into the Auburn POTW. The municipality's own "headworks analysis" concludes the plant could not treat that pollution properly.

POTWs that provide "secondary" treatment are not designed to treat gas drilling wastewater containing toxic metal and organic chemical constituents, extraordinarily high levels of total dissolved solids, notably chlorides, and radionuclides. Those pollutants "pass through" the treatment system, inhibit the biological sanitary waste treatment process and accumulate in sludge.

Despite these concerns, DEC failed to prevent tens of millions of gallons of gas drilling wastewaters from being dumped without adequate characterization or controls into a wide variety of POTWs, including Auburn, Cayuga Heights, Canandaigua, Sherburne and Watertown.

This incident calls into question DEC's fundamental ability to regulate gas and oil extraction activities in New York. I respectfully ask you to investigate this matter and report how it happened.

### **Ban Gas Drilling Wastewater Dumping In New York POTWs**

Against that background, I request that you require DEC to ban disposal of all types of gas drilling wastewater at conventional POTWs in New York pending adoption of "categorical standards" for gas drilling wastewater, elimination of all regulatory exemptions and implementation of the EPA recommendations referenced in my aforementioned 4/7/11 letter, notably:

"EPA recommends against approving disposal of flowback water through conventional wastewater treatment until a review of chemical makeup of flowback and New York State ambient water quality standards demonstrates the establishment of water quality criteria necessary to developing protective numeric SPDES [State Pollutant Discharge Elimination System, not in the original] permit limits for all pollutants of concern not substantially removed by conventional treatment."

"For approved pretreatment programs, EPA Region 2 is the Approval Authority under the definition at 40 CFR, § 403.3(c). As such, EPA Region 2 must provide approval of local discharge limits, including any such limits for additional pollutants which may need regulation due to acceptance of flowback water and production brine (including barium, benzene, cadmium, chloride, silver, tetrachloroethylene, and total dissolved solids)."

(Source: EPA Region 3 Redline suggestions for Technical Comments Section, See Attachment C at: [http://www.toxicstargeting.com/sites/default/files/pdfs/docs\\_110303.pdf](http://www.toxicstargeting.com/sites/default/files/pdfs/docs_110303.pdf))

## **Conclusion**

In conclusion, I reiterate the request that you begin to resolve DEC's inadequate regulation of gas drilling wastewater by withdrawing DEC's Revised Draft Supplemental Generic Environmental Impact Statement (SGEIS) and requiring a new GEIS to be adopted.

DEC's original thesis in requiring a Supplemental GEIS instead of an entirely new GEIS was that its existing 1992 gas and oil extraction regulatory controls were entirely adequate to protect public health and the environment. DEC believed its 1992 GEIS only needed to be supplemented to address high-volume hydrofracturing and horizontal drilling concerns.

Since 2008, extensive information has been brought to light which reveals DEC has improperly regulated gas and oil extraction activities in New York for decades. Given the documented wastewater dumping problems in Auburn and elsewhere in New York, the SGEIS proceeding must be halted and a new GEIS proceeding undertaken. This is precisely what EPA proposed in 2009.

You are in receipt of a coalition letter with more than 22,000 signatories which requests that you withdraw the Revised Draft SGEIS for at least 17 documented reasons, notably DEC's proposal to permit continued disposal of gas drilling wastewater in conventional POTWs without the safeguards specified herein as well as on-going dumping on roads for deicing, dust control and roadbed stabilization. Those dumping practices should have been banned decades ago.

See: [http://www.toxicstargeting.com/MarcellusShale/cuomo/coalition\\_letter/2011](http://www.toxicstargeting.com/MarcellusShale/cuomo/coalition_letter/2011)

I trust that you will find these requests to be self-explanatory, but please do not hesitate to contact me if I can answer any questions that you might have about them.

I reiterate my offer to meet with you in person to discuss these matters.

Thank you for your consideration and your public service.

Very best regards,

Walter L. T. Hang