



## **Marcellus Shale Water Safety Issues Policy Hearing**

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**Testimony of:  
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President, McCutcheon Enterprises Inc**

Good morning, I am Calvin S. McCutcheon, President of McCutcheon Enterprises, Inc. Thank you for the opportunity to speak to you today regarding Marcellus Shale water safety issues within the Commonwealth of Pennsylvania.

First let me begin by sharing with you some information about McCutcheon Enterprises, Inc. or, as many of you may know us by, MEI. McCutcheon Enterprises, Inc. has been a leader in "Complete Waste Management" since 1947 and is certified by the National Strike Force Coordination Center as an Oil Spill Removal Organization (OSRO) as outlined in the Coast Guard OSRO Classification Guidelines dated 27 April 2001. McCutcheon Enterprises, Inc. is also Pennsylvania "Act 165" Certified to respond to accidental releases of hazardous materials in the Commonwealth of Pennsylvania pursuant to Section 209, Pennsylvania Act 1990-165. McCutcheon Enterprises, Inc. PEMA Certified Hazardous Materials Teams currently serve six Pennsylvania Counties (Armstrong; Clarion; Lawrence; Mercer; Venango; Warren), and we are the Official Emergency Response Contractor for the Pennsylvania Turnpike Commission for sections between New Stanton (mile post 75) and Fort Littleton (mile post 180) including toll road 66 & 43. McCutcheon Enterprises, Inc. has been a Methamphetamine Lab Cleanup Contractor for the DEA in 6 States (PA; NJ; DE; MD; VA; WV) and has worked with the Pennsylvania State Police Tactical Narcotics Task Force (TNT) and the Commonwealth of Pennsylvania Attorney General. We are also recognized as an approved external training provider for the U.S. Environmental Protection Agency.

Further, McCutcheon Enterprises, Inc. is an asset based environmental service provider focusing on waste related transportation, treatment, disposal, field services and 24/7 emergency spill response. McCutcheon Enterprises, Inc. owns and operates a large transportation fleet, has a specialized equipment inventory, OSHA Compliant work force, a Health & Safety training group and operates a non-hazardous waste processing facility. Our facility specializes in the processing and treatment of Municipal and Residual wastes including those produced from the Marcellus oil and gas industry.

A few months ago I had the opportunity to be part of the Pennsylvania Chamber of Commerce Quarterly PADEP briefing, at which time Acting Secretary Krancer of the Pennsylvania Department of Environmental Protection spoke regarding his vision and views on specific environmental issues and how they impact Pennsylvania businesses and its residents. There was a great deal of discussion and concerns shared between him, his staff and the Pennsylvania Chamber of Commerce members regarding the impact of the regulations, and the structuring of the departments regions and programs.

One Item that everyone in the room was able to agree on was that the Department was in great need of consistency. Secretary Krancer made the comment that we have seven PADEPs. He was indicating the six operating regions within the department plus the central office. Further, Secretary Krancer was very clear when he testified at his confirmation hearing March 2, 2011, "DEP is one DEP, we are not seven DEP's, though we have six regional offices and a Central Office, we are one DEP. We owe it to the citizens of Pennsylvania to strive all the time for consistency in decision making." This statement stuck with me. I bring this up today to share with you how this impacts the water safety issues of our Commonwealth.

Pennsylvania has multiple types of permits issued or being issued to waste processing facilities that accept the Marcellus Shale wastes for treatment.

1. The first type of permit is a Water Quality Permit where facilities operate under a NPDES permit. These facilities have direct discharge to a stream or waterway. These would also include Publicly Owned Treatment Works or Sewage Treatment Facilities.
2. The second type of permit would be a Permit by Rule. The PADEP defines these facilities as "Permit-by-rule is limited to processing facilities that present relatively little environmental risk." These facilities have minimal incoming waste acceptance plans and monitoring requirements.
3. The third type of permit is a General Permit. This includes Beneficial Reuse which is defined as follows. Processing prior to beneficial use or beneficial use of a residual waste may qualify for a general permit. Wastes must be similar physically and chemically and used and processed in a similar fashion.

4. The fourth type of permit is a Solid Waste Permit. This type of permit has the strictest “waste acceptance criteria” along with pre-treatment standards and monitoring requirements. If liquid discharge goes to a Publicly Owned Treatment Works, (POTW) it will be required to be a categorized user under the Federal Pretreatment Program. It requires the facility to have a Radiological Protection Program where every incoming load is screened for any potential radiological contamination.

These permits are issued under multiple programs within the Pennsylvania Department of Environmental Protection. Each one has its own level of requirements for both incoming waste monitoring as well as discharge monitoring. We believe that the criteria for how the waste is accepted and the quality of its discharge should be the same regardless of the program by which they are regulated and permitted. The wastes being accepted are the same, and for the protection of our Commonwealth, should be monitored the same. Every facility should have the same incoming requirement with limits regardless of the permit type. Many facilities do not have waste acceptance criteria. Their criteria for acceptance is generic at best based on the type of permit they have been issued. Radiological screening should be part of every incoming waste acceptance plan that is accepting waste from the oil and gas industry.

Many questions and concerns were raised by the New York Times on radiation contamination in our drinking water as a result of inadequate treatment of the Marcellus flow back waters. EMS Extension Associate David Yoxtheimer from Penn States Marcellus Center for Outreach and Research stated the levels of radium-226, radium-228, gross alpha, gross beta, and benzene cited in the articles were compared to US EPA drinking water standards; however, this wastewater was not used directly for drinking water purposes, therefore this is not a representative comparison. He further went on to say the dedicated oil and gas wastewater treatment facilities generally use chemical precipitation treatment to remove the metals in flow back water. This process is also effective at removing a large percentage of the radionuclides. In closing he stated the ultimate concentrations of radionuclides in the Commonwealths waters depends on the initial concentrations in the flow back water, the treatment removal efficiency, and the level of dilution in the receiving stream. None of these factors were considered in theses series of articles.

The point I bring forward is that if the ultimate concentrations of radionuclides in the Commonwealth’s waters depend on the initial concentrations in the flow back water and the treatment removal efficiency, should we require upfront radiological screening prior to acceptance of these materials into a facility that is permitted to treat these waste streams?

McCutcheon Enterprises Inc. operates under a "Solid Waste Permit" and accepts Oil & Gas Industry waste, including Marcellus Shale flow back waters, drilling fluids and cuttings under this permit for treatment. The PADEP Southwest region Waste Management Program has determined that we must sample each waste type from every well pad for the PADEP established Form U requirements less Herbicides and Pesticides, and PCBs. These sampling requirements vary from PADEP region to region for facilities that operate under Solid Waste Permits (this includes landfills) and from program to program within these regions. We have been proactively encouraging the Department to institute a uniform sampling policy state wide. To date, this has not happened.

There are many oil and gas producers that feel knowing the constituents in the waste being produced at the well site is a benefit, not only environmentally but for liability reasons. However with that said, the momentum of this industry has a tendency to push many well operators and producers to not want to wait for the turn around time required to complete the analytical and will take their waste to a facility that is either in a region with less restrictive requirements, or to a facility that is regulated under a different program that requires little to no acceptance sampling or profiling criteria.

We believe that the conservative sampling approach that the PADEPs Southwest Region Waste Management Program has implemented utilizes sound waste acceptance practices and that they are doing their environmental due diligence by requiring it. Further this same requirement should be implemented statewide within all regions and recognized between department programs for like waste streams regardless of the type of permit that has been issued.

There are several different general permits for onsite treatment available to the well operators during the permitting process. It is hard to understand how onsite treatment for reuse can be monitored and or controlled at the well site. As a waste treatment processor McCutcheon Enterprises, Inc. understands the quality assurance and quality control required to maintain compliance in the handling and treatment of the residual wastes that are generated at the well sites.

It leaves you to wonder how the same materials offered for treatment at a waste processing facility with multiple stringent control measures in place starting with the required sampling and analytical of each waste stream can simply complete onsite treatment by mixing chemicals in their onsite impoundments to some unknown quality and transferring it over the road to another well site where it will be deposited into another impoundment to be used again.

The reuse of this wastewater to help minimize the utilization of our most valuable resource (fresh water) is very important in maintaining a critical balance between keeping this industry moving forward and the protection of our natural resources and should be strongly promoted. This should not be done at the well site at the risk of creating a new waste legacy for the state of Pennsylvania. This industry is moving too fast to drop the standards the state has set in place through the years that have proven to be effective in the enforcement of the clean water standards and waste management practices.

As a result of sampling bottom sludge in a flow back water impoundment, we have recently experienced a waste with high metals concentrations and radionuclides. This sludge was a result of onsite treatment of flow back water. As such, one has to question the logic behind this on-site chemical treatment when the process itself is incomplete and generates potential hazardous waste streams. Numerous companies are appearing on the scene promoting unproven technology and making claims they can "treat" the water. The major question is, "what waste streams & concentrations are they leaving behind?" Some operators after removal of the flow back water are not cleaning the impoundments, removing the liners and disposing of the impoundment bottom waste prior to closure of the sites. They simply solidify this material onsite and bury it where possibly over time it can leach to the surface and or contaminate our ground water thereby creating an environmental impact. On the other hand some producers are proactively taking an environmentally sound approach, and removing all waste from the site. This is the approach that we as Pennsylvania residents should be encouraging by a gentle regulatory push which will mandate the industry to do what they already know is right.

In closing, our hope is that together with the Oil and Gas Industry, we can continue to move forward in a safe environmental direction as summarized by McCutcheon Enterprises, Inc. tag line, "***Protecting Our Environment For Tomorrows Generations,***" while keeping in mind the tremendous benefits this industry can provide to the Commonwealth and its residences.

Thank You