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From : Stephen H. Kaiser, PhD

Proposed Permit Approval for Beneficial use Determination : Springfield Power Plant BWP SW 40 Transmittal No. X226904 TF-22 C&D Derived Fuel

I am hereby submitting my comments on the Provisional Permit Approval for the above project, as prepared by WERO and dated October 28, 2009. My technical comments will be limited because I believe that there is no statutory authorization for such a regulatory procedure as "Beneficial Use Determinations" or BUD. The words "benefit" and "beneficial" are not included anywhere in the referenced legislation, M.G.L. Chapter 111 Section 150A. Moreover, contrary to established DEP policy in other instances such as wetlands and water withdrawal, the regulations at 310 CMR 19.060 contain no reference to any statutory authorization or delegation of authority by the Legislature.

The BUD regulatory provisions 19.060 appear to have been developed in-house within DEP as a response to the moratorium on the construction of new incinerators. This moratorium was due primarily to a concern among health professionals over air emissions of mercury and similar chemicals. The "solution" unilaterally included as 19.060 is to create a new concept of beneficial use. In this manner a solid waste is redefined and no longer is identified as a solid waste -- if the material becomes the fuel for an energy generating plant. As such, the plant itself is redefined by regulation to NOT be an incinerator, even thought the combustion and exhaust system may be similar to or identical with an incineration operation.

The entire BUD process can be criticized in public health policy terms as simply a clever definitional device to sidestep established protections associated with solid waste disposal and especially incinerators. I believe a much more critical concern is the legal matter of DEP not have legal authorization to engage in such definitional exercises.

It is the normal presumption that state agencies are agents of the Legislature, in the sense that it is the Legislature that passes the laws and the Executive branch that implements them. There has been a trend in recent years for executive officials to assume upon themselves such powers of law-making. Such trends should not work to undermine environmental protection.

IMPLICATIONS OF THE MOOT CASE

It was just over two years ago that the Department received a very clear signal from the courts as to its obligations and the limits of its powers. You are probably aware of the case of Moot vs. DEP, a tidelands case brought to challenge the exemption by DEP in its Chapter 91 regulations 310 CMR 9.04. The matter at hand was the creation of a concept called "landlocked tidelands" which provided for a blanket exemption from licensing for a particularly class of properties.

The decision was rendered by the Supreme Judicial Court on February 12, 2007 (SJC-09774) and concluded that the landlocking provisions in the regulations as inserted in the 1990s has been accomplished without Legislative authorization.

> "For more than one and one-half centuries, the Legislature has been fully cognizant of its authority to relinquish the public rights in tidelands by means of appropriate legislation. This authority belongs to the Legislature alone. The rights of the public in Commonwealth tidelands --filled, landlocked, or otherwise -- cannot be relinquished by departmental regulation.... Because the department has exceeded its authority by promulgating a regulation that relinquishes its obligations under G.L. c. 91, we reverse the decision of the judge in the Superior Court."

The Public Trust Rights in tidelands have been an established concept in Massachusetts laws since the 1640s when they were originated by the colonial legislature. They assure traditional rights of the public to fishing, fowling and navigation on tidal lands of the Commonwealth, and these rights are extinguishable only through a definitive action by the State Legislature. DEP under Chapter 91 controls the licensing process.

ARTICLE 97 IMPLICATIONS ARISING FROM THE MOOT CASE

Other environmental rights are more generically protected by the provisions of Article 97 of the Amendments to the Constitution. Passed and adopted into the state Constitution in 1972, Article 97 begins : "the people shall have the right to clean air and water ...." To the extent that the people have the right to clean air, only the Legislature can alter or amend that right. Such action cannot be taken by a state environmental protection agency as part of its regulatory duties.

Clearly, the public's right to clear air is a matter of direct relevance to the Springfield energy project, because the combustion of construction and demolition debris presents a special risk of increased pollution to a dense urban area, in particular an environmental justice neighborhood in Springfield.

By analogy to Moot vs DEP, the Department is proceeding with an independent form of exemption for solid wastes that happen to be burned through an incinerator-like process to generate energy. I contend that such a procedure is more than a mere violation of the General Laws. It is a violation of the Constitution. Such an issue should be reviewed scrupulously by General Counsel to DEP and EEA, and a public determination should be issued prior to any action on this BUD permit.

DEP would be well advised given the precedent of Moot vs. DEP to cease all action on a BUD permit until the legal justification for the procedure can be determined in compliance with the standards set by Moot vs. DEP. If DEP continues in its efforts to process a permit subject to 310 CMR 19.060, the legal questions are of such an obvious nature that an appeal to Superior Court would clearly be in order, simply on the basis of the propriety of the regulations.

THE BUD APPLICATION FROM "PALMER RENEWABLE ENERGY"

Notwithstanding the legal objections noted above, the BUD process and this permit warrant further comment The applicant is obligated to seek an Air permit from DEP, properly identified as a separate procedure in the current draft BUD permit. Throughout the MEPA review and DEP's BUD and air processes, the applicant has identified the project as the "Palmer Renewable Energy" plant, without explanation of the characterization of the term "renewable" in DEP permitting considerations. The awkwardness springs from the provisions of DEP's own air pollution regulations, which state that "Energy generated from nuclear fuel, biomass, landfill gas, fuel cells that employ a fuel processor that emits NOx, and hydro using pumped storage are **not** renewable energy under 310 CMR 7.32." (emphasis added)

Over the past year, I have pointed out the reality of 310 CMR 7.32 in several communications to DEP and MEPA, and the response has been a remarkable stony silence. Surely, if DEP determines within its own regulatory process that a biomass plant is not a renewable fuel facility, it cannot accept a submission from a biomass plant claiming to be a "renewable energy" plant.

Any such labeling should be seen as fundamentally inconsistent and lacking in compliance with those DEP regulations. This issue may be more appropriate to raise when the public review process will consider the air pollution permit for the Springfield plant. However, for reasons of consistency, DEP should be highlighting the inconsistency that the department will have with alternate definitions of "renewable."

It is fair to note that the Springfield plant is not the only biomass plant that labels itself as a "renewable"energy facility. The Greenfield 47 MW generator is a notable example. By contrast, the Russell Biomass plant has consistently identified itself as a biomass plant, and not labeled the facility as "renewable."

A COVERED SHED FOR THE C&D FUEL : YES OR NO?

The Springfield plant also has a fairly unique feature of being the only large biomass plant in the state to propose a covered shed to enclose the wood fuel. The Pine Tree plant in Fitchburg and the two proposed biomass plants in Russell and Greenfield have open lot storage, exposed to the elements.

It is my understanding that DEP water quality regulators insisted upon such a requirement, as reflected in the permit reference on page 5 -- that fuel storage shall be "under a roof to prevent stormwater from contacting the fuel." I presume that stormwater leaving the site could become contaminated by certain elements within the Construction and Demolition debris proposed as fuel for the plant.

It is ironic and inexplicable that such stormwater protections would be applied, when the same fuel is proposed for combustion in an urban neighborhood, with residences in fairly close proximity. Is the intent to identify stormwater as a priority consideration, but not for air pollution? Was there an explicit decision by DEP to find that water pollution was serious enough to require protective action, while air pollution was not? How did the location of the plant in an environmental justice neighborhood enter into DEP decision?

CONTENT OF C&D FUEL AND QUALITY ASSURANCE

It is unclear to me how the project will address the mercury issue which has so concerned state regulators and public health experts. The BUD process includes a expansive level of detail which I was not able to penetrate. It may be that mercury as an element in building construction has not been identified as a priority concern.

However, the provisional permit on page 2, line 5 says that the plant "will accept only preprocessed wood fuel" and not other C&D materials. This would mean no paints of any sort, no glues, no nails, no asphalt shingles, no wood preservatives, no floor tiles, no plaster, no insulation, no asbestos and so forth. I cannot conceive of a pre-sorting process that would guarantee this level of assurance in the fuel supply.

LEAD CONTENT IN WOOD DEMOLITION DEBRIS

I am no expert on the toxicology of chemicals in building materials, but I am aware of the lead problem in paint and the extreme problem of "deleading" existing buildings. But no one should be reassured by the statement in the permit that the equipment used by C&D processors "(crushers and screeners) also tends to reduce the quantity of lead paint" in the fuel. (page 2). I can testify on the basis of painting my house four times that lead paint "tends" to hold tenaciously to wood in many situations. There will still be lead attached to the shredded wood fuel, and this lead will be part of the combustion process.

It is a legitimate concern to worry about the levels of lead emitted from the smokestack, if the permit recognized no more exactitude in the solid waste process than " ...tends to ...." I do not see how any form of risk analysis can be performed with such a primitive concept.

There is the possibility of lead acting as a coating and undermining the effectiveness of air pollution control equipment/catalysts/etc. The experience with leaded gasoline in automobiles showed that leaded gasoline severely damaged the early catalytic mufflers designed by General Motors in the 1970s. Officials seeking a solution to smog problems acted to ban leaded gasoline in the U.S., but the driving force was not the public health threat posed by leaded gas, but the threat to catalytic mufflers.

POLICY IMPLICATIONS OF REDEFINING POLLUTANTS AS BENEFICIAL

I am very uncomfortable with a policy which allows for the creation of an incinerator in all but name. It does not seem an appropriate environmental or public policy solution to address the incinerator problem by arranging for incinerators that are not called incinerators. Next we will be identifying air pollution that is not called air pollution, or water pollution that is not called water pollution.

When such conditions arise, the trustworthiness of all government actions is called into question, and the only proper public relief is an extended ability to appeal decisions by its governments. The solution is not a restriction on such appeals, as recent Administrations have favored over the past several years.

GOVERNMENT ACTIONS TO EVALUATE HEALTH RISKS

I am not familiar with major cases of public health concern and risk analysis in Western Mass. A decade or two ago, the City of Cambridge engaged in a public process of risk analysis over issues of nerve gas and biological experimentations. At the former Boston City Hospital site the matter of biological laboratories was heard by the Supreme Judicial Court in the case of Klare

Allen vs. Boston Redevelopment Authority in 450 Mass. 242 (2007) overturning a MEPA case and the EEA Secretary's finding relative to alternatives. I have no sense for whether DEP's procedures for BUD risk analysis represent either good or bad applications of risk analysis.

The methods of risk analysis are controversial in some ways. Theoretically, they should be very useful, but problems arose in the nuclear power industry which sought to apply risk analysis justifications for plant design and operations, yet these studies failed to include all events which were below the threshold of recognition for whatever reason. In other words, the alternatives for failure were not adequately listed, so their risk was not evaluated. This failing occurred for both Three Mile Island and Chernobyl by neglecting to recognize human error in particular.

Another element of risk applies to plant employees. Within the storage shed, what are the possibilities for dust contamination and risk for plant employees? Both Russell and Greenfield have also argued against shed covers because they are worried about fires in the stored wood fuel. If this issue has validity, it raises health and safety concerns for the Springfield plant. If the fire concern is easily resolved, then the Russell and Greenfield plants should have protective sheds as well.

EVALUATION OF SIMILAR SITES

In reviewing the BUD, I wondered about the proper consideration of experience and analogy. Have there been any other sites which attempted to burn wood wastes using similar technology? What were the results in terms of measured pollution, health studies and public complaints? I did not get a sense that this project application and the permit properly provided any historical context.

APPLICATION OF BEST MANAGEMENT PRACTICES

When any such project is evaluated, I would hope that the application of standards of Best Management Practices would be applied in a way to be just that -- the best practices and not the almost best or half-best. There should be a table showing the actual best management practices which have been achieved in industrialized nations, and what BMPs are being considered by DEP for the Springfield plant.

CLAIMS OF CARBON NEUTRALITY

The matter of carbon sequestration and carbon neutrality did not seem to be mentioned in the permit. A recent issue of Science magazine contains a withdrawal of key claims for the carbon neutrality of biomass. The issue of the emissions of CO_2 from the Springfield plant remain a factor to be determined in any assessment of beneficial use.

ACHIEVING QUALITY CONTROL IN THE FUEL SUPPLY

There is a fundamental problem in achieving quality control in the fuel for the project. regardless of the supplier. There will be variations in both quality and content of the fuel. What happens to any shipment of fuel which is sampled and found defective or otherwise unacceptable for combustion?

If the fuel sample is rejected, it become a solid waste once again. It will become subject to proper and tightly controlled handling. Will a rejection decision be accepted under these difficult circumstances?

Such rejection creates problems for the supplier and for the operators of the plant. It will be too easy to simply look the other way and send the polluted smoke up the smokestack. The incentives in the system are not to reject deficient materials, but rather to accept whatever is delivered. This response is not a formula for quality control and low pollution. It is a formula for urban pollution.

DEP must find a way in its review process to recognize and deal with the difficulties of one entity receiving a waste or other polluting product subject to quality controls. The Department must find ways of assuring that those quality controls will be respected and enforced.

And if there are risks in the process generally, how does DEP evaluate a proposal to locate an operation in an urban area, where the level of exposure is so much greater? Even of the BUD process were legal, the application of strong and fair policies by DEP would appear to be an absolute prime requirement.

THE SERVICE FUNCTIONS OF THE DEPARTMENT

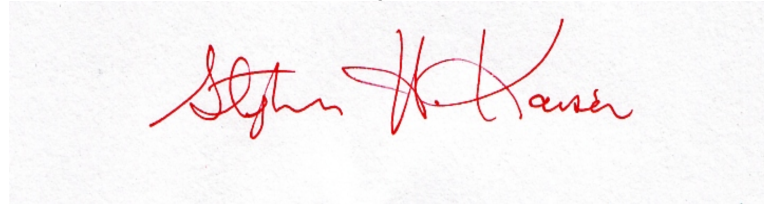
The BUD process and the manner of its application raises fundamental questions about the service function of DEP in dealing with matters of public health. In the Springfield case it is air pollution. I would offer the following guidance, based on Article 7 of the Declaration of Rights of the Constitution of the Commonwealth. This document, as written by John Adams in 1780, declares that :

> "Government is instituted for the Common good; for the protection, safety, prosperity and happiness of the people; and not for the profit, honor, or private interest of any one man, family, or Class of men: Therefore the people alone have an incontestable, unalienable, and indefeasible right to institute government; and to reform, alter, or totally change the same, when their protection, safety, prosperity and happiness require it."

In simple modern terms, Article 7 means that it is not for governments to be looking out primarily for the welfare of profit-making applicants. Governments should not place themselves in the position of viewing certain applicants as "too big to be turned down." The function of government is not to serve these interests, but instead to serve the objectives of the People. Article 7 gives the People the right to change any government which violates this precept.

The Commissioner of DEP must understand this concept. The Secretary of Energy and Environmental Affairs must understand it. So should the Governor and his staff. And so should all candidates running for the office of Governor.

Sincerely,



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