



State of South Carolina Office of the Inspector General

August 11, 2015

Director Catherine E. Heigel
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Re: Preliminary Inquiry - Risk Assessment of the Financial Assurance Requirements for Solid Waste Landfills

Dear Director Heigel,

The purpose of this letter is to notify the Department of Health and Environmental Control (DHEC) that the State Inspector General (SIG) has closed its preliminary inquiry risk assessment of the financial assurance (FA) requirements for solid waste landfills. Based on the SIG's analytical review with some audit testing, DHEC appears to be in substantial compliance with its own FA policies. However, DHEC should consider FA policy enhancements to address the financial risk to the State and taxpayers from pollution events emanating from closed solid waste landfills, to include establishing a landfill owner trust fund.

Incident Predicating Preliminary Inquiry

On 6/4/2015, the SIG initiated its preliminary inquiry as a result of recent news articles regarding a landfill fire at the Bennett Landfill (Bennett), Chester County, South Carolina, which resulted in the federal Environmental Protection Agency (EPA) intervening to extinguish the fire. It was also reported the Bennett owner had previously withdrawn the FA mechanism required under DHEC regulations without DHEC's knowledge. While an FA mechanism (certificate of deposit) was initially provided, including an assignment of collateral, the owner was able to withdraw this certificate of deposit through the assistance of the issuing financial institution in 2008.

Based on a new DHEC 2008 regulation, Bennett, as well as all Class II landfills, had to either close by November 2009 or agree to comply with a new regulation. The new regulation required landfill owners commit to paying for environmental pollution monitoring for 20 years after closing, as well as increasing their FA to pay for 20 years of monitoring. Bennett missed its November 2009 deadline to provide the additional FA, estimated at \$81,000, yet continued to operate. Over the next four years, periodic regional field inspections of Bennett identified incremental compliance violations, to include the failure to properly cover and contain asbestos materials. These ongoing violations resulted in DHEC issuing a consent order with civil money penalties to the Bennett owner. The Bennett owner provided substantial compliance to the consent order, but failed to make the final payment of the civil penalty nor increased FA. Ultimately, DHEC issued a cease and desist order in April 2014. It was during the lead up to the cease and desist order that DHEC discovered the

Bennett owner's removal of the FA mechanism in 2008. This was a breach of the agreement (assignment of collateral) between the financial institution and DHEC, and resulted in DHEC pursuing legal recourse to collect on the certificate of deposit for payment of closing costs for the landfill.

In November 2014, Bennett caught on fire, and an emergency EPA response unit and local resources put the fire out in several days. However, Bennett began smoldering again in December 2014, but EPA's assets could not be deployed again and local emergency and fire resources were quickly exhausted, which included pouring a million gallons of water on the fire. During early 2015, DHEC and EPA conducted extensive testing at Bennett to develop a sufficient case to warrant EPA funding to extinguish the fire. Ultimately, DHEC and EPA were able to document significant health hazards associated with the landfill fire, to include asbestos containment with the potential to affect the neighboring community, which triggered the EPA to authorize a million dollars in funding for a time-critical removal action to put out the fire. If the landfill fire had a lesser, non-time sensitive health impact on the community, the EPA would not have funded the project. DHEC would then have been faced with mitigating these environmental and landfill closing issues without a clear means to recover state funds expended, thus exposing taxpayers to fund remediating the situation.

Solid Waste Landfill Financial Assurance Program

With the support of DHEC senior management and legal counsel, the SIG worked with Kent Coleman, Director of Mining and Solid Waste Management, DHEC Bureau of Land and Waste Management, to review the FA program for both active and closed landfills (Class I – III). Prior to the SIG initiating its preliminary inquiry, DHEC self-initiated a review of its FA mechanism policies, standard operating procedures, and the assignment of collateral agreement contract language. DHEC represented Bennett was the first occurrence of an FA mechanism being withdrawn without DHEC's knowledge since the 1991 enactment of The Solid Waste Policy and Management Act. Additionally, according to DHEC, only one incident ("Bennett") has occurred since 1991 requiring cleanup funds, which have been absorbed by the EPA, to date, to mitigate landfill pollution and inadequate closure problems.

It was learned the FA mechanism only provided sufficient funding for closing costs and, recently added since 2008, pollution monitoring costs for up to 30 years after closure (20 years for Class II; 30 years for Class III).

The FA mechanism does not include any funds for the remediation of pollution events identified by post-closure monitoring, particularly of concern are availability of funds for emergency situations such as Bennett. This review determined that except for the \$250,000 emergency fund under the control of the DHEC director, there was no budget available, nor law or regulation regarding a financial assurance landfill "cleanup" fund.

The risk of active landfills exposing the State to financial risk for mitigating pollution events seems to be low inasmuch as the landfill owners would be motivated to remedy the hazard in order to maintain its permit to continue to operate. Further, the vast majority of "closed" landfills belong to active permit holders who open new landfills within their geographical permit area, thus these owners are equally motivated to remedy any hazard in a closed landfill in order to maintain its permit to continue to operate. It is this "intrinsic" value of a landfill permit that DHEC primarily relies upon as reasonable assurance that pollution events will be addressed without impacting the State and taxpayers.

At the time of this review, there were 125 active and 64 closed landfill permits which were tracked since 2008 after implementing the new landfill requirements of post-closure monitoring. To better understand the risk of pollution events fiscally impacting the State in closed landfills, the SIG sampled twelve (19%) of the 64 closed landfill permits, and also reviewed the seven active landfills under some form of DHEC enforcement action. The FA mechanisms were in place with no fiscal issues identified in the 12 closed landfills sampled. However,

two of the seven landfills under DHEC enforcement action had FA mechanism fiscal risks to the State. These two were:

- Appleton Class III (enforcement action) – Potential exposure of state/taxpayer funds for any corrective action, cleanup, and other post-closure costs resulting from litigation in the sale of the permit to the new owner. The new permit owner claimed no responsibility for post-closure monitoring costs or remediation, and the bank supporting the FA mechanism for the previous owner was no longer in business.
- Bennett Class II (enforcement action) – Potential exposure to cleanup and closure costs associated with fire extinguished and asbestos cleanup through EPA funds due to abandonment of landfill by the owner.

The SIG determined seven solid waste landfills, both private and government owned, have closed since the 2008 regulation requiring an FA mechanism for assurance of post-closure monitoring for up to 30 years. Except for the Appleton Class III landfill, the residual six landfills were in compliance with DHEC regulations for post-closure monitoring and financial assurance, and were compliant in addressing any identified remediation or corrective action. It was noted that four (57%) of the seven closed landfills with monitoring had groundwater exceedance measurements requiring remediation, which were all addressed by the landfill owners.

Closed Solid Waste Landfills Risk to the State & Taxpayers

It appears the State has not spent a dollar on solid waste landfill remediation since the initiation of the 1991 FA requirements. However, the State would have incurred substantial costs remediating Bennett if it were not for the escalation of the pollution event into a health crisis making it eligible for federal EPA intervention. Further and more important, South Carolina has suffered from the State's inability to remediate Bennett through expending a million federal dollars, of which South Carolinians certainly contributed; consumed tens of thousands of dollars in local emergency and fire resources; and the Chester County community suffered from the fire's smoke from late 2014 through early June 2015 when the fire was extinguished.

Other risk indicators to taxpayers include the Appleton Class III Landfill change of ownership due to litigation, no FA, and an active avoidance of accepting future responsibility by the current owner. The small sample of seven closed landfills now requiring long-term monitoring revealed 57% required remediation in only the first few years since closing. A survey of landfill science clearly points out that the risk of pollution events at closed landfills is more likely a risk in perpetuity rather than confined to the 20 or 30-year monitoring period. Relying on the "intrinsic" value of the landfill permit as the only assurance landfill owners will remedy pollution events at closed landfills in perpetuity comes with fiscal risks to the State and taxpayers. The business world changes fast as does environmental science; and we all know just how difficult it is to predict future events — just look at the Pinewood Hazardous Waste Landfill and Blockbuster Video.

A survey of other states appears to indicate DHEC's FA program policies are comparable with most states. However, at least two states, Arkansas and California, have enhanced FA policy establishing solid waste trust funds, which clearly shifts the fiscal risk of future pollution events at closed landfills to where it belongs — landfill owners rather than taxpayers. Arkansas collects fees from landfill owners until its trust fund reaches \$25 million, and then only collects additional fees if the trust fund falls below \$15 million.

The Solid Waste Landfill program compliance and enforcement continuum of the Bennett event illustrated a small window and early warning signal into the downstream risks to the State and taxpayers. By all accounts, DHEC's inspection and enforcement process proceeded in a logical format. However, the Bennett owner's abandonment of the site was illogical given DHEC's reliance on the landfill permit's intrinsic value as the

deterrence to bring a landfill owner into compliance. Consequently, consideration should be given for a new FA mechanism beyond the “intrinsic” value of the landfill permit to ensure funds are available to timely mitigate future events and protect taxpayers. One option would be a solid waste trust fund, which is used in other states. Had a trust been available in April 2014 when DHEC essentially closed Bennett with a cease and desist order, Bennett may have been sealed and closed properly thereby substantially reducing the risk of a fire, which would then allow the judicial process to operate in order to recover these funds from the landfill owner, often taking many years.

Recommendation

Based on the SIG’s preliminary inquiry risk assessment, DHEC appears to be in substantial compliance with its own FA policies. However, the SIG offers one recommendation for DHEC’s consideration to address the financial risk to the State and taxpayers from pollution events emanating from closed solid waste landfills, which is:

Recommendation: DHEC should conduct a formal risk assessment by solid waste landfill subject matter experts on the potential long-term fiscal impact on the State and taxpayers from closed landfills, while fully recognizing the current FA mechanism does not provide funding for future remediation in closed landfills. The risk assessment should develop mitigation mechanisms, most notably a trust fund, to ensure the State and taxpayers are protected from any financial risk, as well as establish internal controls (i.e., defaults on required remediation; legal actions against FA mechanisms; or frequency of closed landfills failing monitor testing) to provide DHEC executive management an early warning indicator of any change in the risk of pollution events at closed landfills impacting the State or taxpayers.

The SIG appreciates DHEC personnel’s time, efforts, and experience helping in this review. If you have any questions, concerns, or need clarifications, please do not hesitate to call me anytime.

Sincerely,

Patrick J. Maley
State Inspector General

Cc: Elizabeth Dieck, Director of Environmental Affairs
Daphne G. Neel, Chief, Bureau of Land and Waste Management
W. Marshall Taylor, Jr., General Counsel
Kent M. Coleman, Division Director, Mining and Solid Waste Management

Administrative Note: Please see [DHEC Director Heigel's response](#) to the SIG's management review.