

Alabama Department of Environmental Management adem.alabama.gov

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September 27, 2011

CERTIFIED MAIL RETURN RECEIPT REQUESTED

(Public Commentors)

RE:

Solid Waste Disposal Facility Permit

Arrowhead Landfill

Permit 53-03

Dear Sir or Madam:

The Alabama Department of Environmental Management (ADEM) has made a final determination to renew the Solid Waste Disposal Facility Permit to Perry County Associates, LLC for the Arrowhead Landfill. The permit is effective September 27, 2011 and the permit will expire September 26, 2016.

A public notice was given by ADEM on June 8, 2011. A public hearing was held at the Uniontown Municipal Building on July 14, 2011. The comment period ended July 21, 2011. The permit application and the proposed permit were available to the public at the Alabama Department of Environmental Management located in Montgomery, Alabama.

All comments were carefully considered and appropriate responses have been prepared. Enclosed is a copy of the comments received and the Department's response to the comments. It has been determined that the permit application and the permit complies with the ADEM Administrative Code Division 13 regulations.

The permit issuance may be appealed as provided in §22-22-A-7 of the <u>Code of Alabama</u> 1975. The procedures for hearing appeals are outlined in the ADEM Administrative Code 335-2-1, "Rules of Procedures for Hearing Appeals of Administrative Actions of the Alabama Department of Environmental Management."

On behalf of the Alabama Department of Environmental Management, we thank you for your participation in the permitting process.

Sincerely,

Phillip D. Davis, Chief Solid Waste Branch

Land Division

256) 340-9359 (FAX)

Summation of Comments Received and Response-to-Comments Proposed Arrowhead Landfill Renewal Permit 53-03

COMMENTS RELATED TO PERMIT APPLICATION AND RENEWAL

- How many acres are permitted at the Arrowhead Landfill?
- With EPA and ADEM both being involved with the Arrowhead Landfill, we want to know who is in charge of the site.
- Who checks to see if the permit application is legitimate?
- ADEM has actually completed the application for PCA, and PCA was dictating what was and was not to be in the permit.
- No statement of consistency was provided for local approval.
- PCA admitted to fraud in their original permit application and those items of fraud were never fixed.
- How did PCA initially get a permit when the company did not exist?
- I have just heard of the renewal of the Arrowhead Landfill permit recently and now understand why it has been kept so quiet.
- Several comments were made general opposing the permit renewal. Specifically, Alabama is considered a "bottom of the barrel" state and issuing this permit would only further add to this perception.

RESPONSE TO COMMENTS

Arrowhead Landfill has 976.97 acres permitted with 256.151 acres approved for disposal operations. ADEM is responsible for the permitting and compliance of the Arrowhead Landfill and the Department verifies the legitimacy of the permit application during its review process. ADEM's Solid Waste Program has been approved by EPA and meets or exceeds all requirements of the federal solid waste regulations. As part of the application process, ADEM reviews all information submitted by the applicant within the application. During the review, there were several documents that did not reflect current permitted conditions. ADEM commented that this information should be updated before a permit would be issued and the review of applications conducted by the Department is not influenced by the applicant.

The Alabama-Tombigbee Regional Commission provided a Statement of Consistency for the proposed landfill on June 23, 2005, and also provided a Statement of Consistency for the increase in volume and service area on December 15, 2008. Since the pending matter is a simple

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permit renewal, in accordance with Code of Alabama §22-27-48(a), no local approval or statement of consistency was required for this application.

Perry County Associates, LLC was formed in Montgomery County, Alabama on June 10, 1999 and records do not disclose that said entity has been dissolved, cancelled, or terminated. The Alabama Entity Identification number for this entity is 665-008.

The Department met the public notice requirements of ADEM Administrative Code r. 335-13-5-.03 concerning the proposed permit renewal. On April 27, 2011, a public notice of the Department's intent to renew the Arrowhead Landfill permit was published in the Marion Times and the Selma Times Journal. Additionally, adjacent landowners of the Arrowhead Landfill received specific notice of the public notice period by certified mail. While on notice, several requests were made that a public hearing be held in order to provide the public with an additional opportunity to comment on the renewal of the permit. As a result of these requests, the Department decided to hold a public hearing for the proposed permit renewal. The Department ran a public notice in the Marion Times and the Selma Times Journal on June 8, 2011, as well as sent letters out to adjacent landowners providing information on the Public Hearing held on July 14, 2011. In addition to meeting the required public notice procedures, the Department also placed notice of the proposed permit renewal and the public hearing on the ADEM website.

Comments generally opposing the reissuance are duly noted and no specific response is offered.

COMMENTS RELATED TO LANDFILL CLOSURE

• Several comments were received that coal ash was to be buried in cells, but instead is being placed on the ground and turning into a mountain.

RESPONSE TO COMMENTS

ADEM Administration Code r. 335-13-1-.03(19) defines a "cell" as "a volume of compacted solid waste that is covered by means of compacted earth or some other approved alternative cover usually on a daily or weekly basis in a landfill unit". Nothing within this definition confines cells to being buried in ground excavations. Furthermore, ADEM Administration Code r. 335-13-4-.23(1)(c) allows waste to be placed in landfill cells vertically at a slope of 4 to 1 (25%). Within the application, the applicant has provided a closure plan that displays the final elevations of the landfill cells. Once these elevations are achieved, the landfill cell will be closed in compliance with ADEM Administration Code r. 335-13-4-.20.

COMMENTS RELATED TO COAL ASH AND SPECIAL WASTE DESIGNATION

- Several comments were received regarding the classification of coal ash as a hazardous waste and as such should not have been disposed of at the Arrowhead Landfill.
- Is Arrowhead the only landfill that can accept the coal ash?
- Since coal ash was considered a special waste it should go to a hazardous waste landfill.

- Proposed permit gives advance approval to "Special Wastes". Such an advanced approval is contrary to ADEM's Regulations. Additionally, such an advanced clearance turns the Arrowhead Landfill into a continual permit exception and fails to take into account the hazardous nature of these materials.
- Petroleum-contaminated soil is considered a characteristic hazardous waste when it exhibits any of the following characteristics: ignitability, corrosively, reactivity, or toxicity. The degree of hazard and of toxicity must be determined by lab testing; therefore, to give a blanket advance clearance without first making such a determination is irresponsible.
- Extensive testing shows that automotive shredder residue (ASR) is contaminated with toxic heavy metals. Studies have concluded that ASR should be decontaminated before such waste matter is disposed. Municipal solid waste landfills are not appropriate for the disposal of these materials.
- Several comments were made stating the coal ash is hazardous and requesting it be removed from the community.

Currently, EPA is reviewing the disposal classification of coal ash and determining how disposal of the material should be handled in the future. However at this time, based on historical analytical characteristics, coal ash is not classified a "hazardous waste", but instead is a material that contains hazardous constituents. In the case of Arrowhead Landfill, the waste disposed of from the TVA Kingston spill was determined by EPA Region 4's CERCLA Division to be non-hazardous remediation waste and EPA approved this remediation waste to be disposed at a RCRA Subtitle D Landfill. After considering other options, EPA Region 4 determined the most viable option for disposal of this remediation waste was at the Arrowhead Landfill. For disposal purposes, remediation waste is considered a special waste and the facility must submit to the Department for its review, a solid waste profile application prior to disposal of the waste at any Subtitle D landfill in the State. The Department approved the special waste application for the remediation waste to be disposed at the Arrowhead Landfill on April 9, 2009 based on analytical results obtained from the TVA waste that indicated the waste did not contain hazardous constituents in such concentrations as to classify the waste as "hazardous waste."

Petroleum contaminated soils and automotive shredder residue are also considered special wastes. As with the TVA remediation waste, approval from the Department is required before these types of wastes can be disposed or used as alternate daily cover at a municipal solid waste landfill. Such approval must include a determination that the waste is not a hazardous waste. Only after specific approval by ADEM, may these types of wastes be accepted at a municipal solid waste landfill for disposal.

COMMENTS RELATED TO ODOR AND AIR ISSUES

- Several comments were received regarding odor and air pollution from the landfill. Specifically, several comments were received regarding wind blowing the coal ash and dust from the landfill into the environment compromising air, soil, and water quality as well as adversely impacting the health of humans and wildlife.
- Daily operations have led to more flies in the area and the landfill does not cover on the weekends. That is why there are buzzards flying around the community.
- Leachate recirculation should not be allowed at this landfill because it is known to cause odors and no demonstration has been made that leachate recirculation would not increase odors. Specifically, the applicant provided unsupported assurance that the rate and manner of leachate recirculation would not cause odor.

RESPONSE TO COMMENTS

ADEM Administrative Code r.335-13-4-.22(1)(a)1. requires a minimum of six inches of compacted earth or other approved alternative cover material that may include but is not limited to foams, geosynthetics or waste products, shall be added at the conclusion of each day's operation or as otherwise approved by the Department to control disease vectors, fires, odors, blowing litter and scavenging. Section III.H of the proposed permit renewal addresses the cover requirements at the Arrowhead Landfill. Additionally, the cell in which the remediation waste was disposed has begun closure operations and, as required in the approved closure plan, has been covered with 12" thick protective soil layer, 40 mil LLDPE geomembrane, a geocomposite drainage layer, 18" protective soil layer, and 6" vegetative layer. Additionally, fugitive dust is controlled at the Arrowhead Landfill by utilizing a water truck on hauling roads on the site.

Odors that may result from the recirculation of leachate are controlled by meeting the daily cover requirements. Furthermore, during normal landfill inspections, the ADEM inspector checks for the presence of unusual odor at the landfill. To date, the ADEM inspectors have not found any odors uncommon to typical Subtitle D landfills.

COMMENTS RELATED TO ALTERNATE DAILY COVER

- Where do the federal regulations allow coal ash, shredded automobiles, and petroleum contaminated soils to be used as an alternate daily cover?
- No demonstration has been performed on the different forms of alternate daily cover, therefore these forms of alternate daily cover should not be allowed in the permit.
- Several comments were received stating that the use of coal ash, shredded automobiles and petroleum contaminated soils are unacceptable as alternate daily covers and their uses has led to an increase in vectors, odors, and scavenging.

ADEM approved alternate daily cover materials in July 2009 as a minor modification. These
alternate daily covers constitute a major modification and should have been approved with
the full scope of requirements for legal notice and review of proposed modifications to the
permit by all interested agencies and parties.

RESPONSE TO COMMENTS

40 CFR §258.21(b) states that alternative materials of an alternative thickness (other than at least six inches of earthen material) may be approved by the Director of an approved State if the owner or operator demonstrates that the alternative material and thickness control disease vectors, fires, odors, blowing litter, and scavenging without presenting a threat to human health and the environment.

ADEM has used prior knowledge of these alternate covers at other landfills and has evaluated their ability to control disease vectors, fires, odors, blowing litter, and scavenging in the decision to approve these alternate daily covers at the Arrowhead Landfill. Additionally, the EPA Solid Waste Disposal Facility Criteria Technical Manual specifically mentions ash from utility companies, tarps, and spray on foams as examples of alternate covers for landfills.

ADEM Administration Code r. 335-13-5-.06(1) states that a change in the permitted service area, a change in a landfill type to a higher designation, an addition or design change to the liner and/or leachate collection system, or an addition of disposal acreage inside the permitted perimeter constitute a major modification and require public notice. Therefore, the ADEM Solid Waste Regulations do not require a legal notice for approval of an alternate daily cover. ADEM accepts applications for an alternate daily cover as a variance request as was the case in the approval of the permit modification dated July 20, 2009.

Upon the State Legislature's approval of Act 2011-258, coal ash became a regulated solid waste within the State of Alabama. Now that coal ash is a regulated waste, it is also considered a special waste that requires special waste approval for disposal. To date, ADEM has not received a Form 300 Solid Waste Profile Sheet to accept coal ash waste. Therefore, the use of coal ash as an alternate daily cover has been removed from the permit.

COMMENTS RELATED TO LEACHATE

- Leachate recirculation has been shown to cause a variety of problems with landfill operations
 including: formation of side-slope seeps, more frequent clogging of the leachate collection
 system, flooding of gas wells and the gas collection main lines, and slope instability and
 failure. These problems not only require more extensive monitoring, but also require that the
 original landfill design provides adequate monitoring capacities to be able to properly assess
 the development.
- Leachate recirculation should not be allowed at this landfill because the proximity of disposal cells is too close to neighboring residents.

- The landfill was supposed to have a state of the art leachate collection system. Instead, PVC pipes run down the ditch along the side of County Road 1.
- Leachate recirculation also leads to an increased concentration of toxic heavy metals, making treatment and disposal of that leachate more problematic and ultimately more environmentally damaging. Also, this leachate is sent to Demopolis Municipal Water and Sewage Plant and then dumped into the Tombigbee River and on to Mobile Bay and may contaminate these waterways.

The Department has approved the Arrowhead Landfill and other similar municipal solid waste landfills to recirculate leachate because of the potential benefits that may be achieved through leachate recirculation such as an increase in the decomposition of the waste in the cell, and as a way to manage leachate at the site. If problems such as clogging of the leachate collection system, formation of seeps in the landfill or slope stability issues should occur, then the leachate would enter the sediment pond through the site drainage system. The landfill would be required to remove the leachate from the sediment pond so that the leachate does not discharge to the environment. Further, the landfill would be required to make repairs to the side slopes. The ADEM Solid Waste Program would review the cause of the problem(s) and may withdraw permission to recirculate the leachate if it is determined that the problem was due to landfill negligence or there is a likely possibility of a future problem occurring.

The PVC pipes located in the ditches are part of the storm water run-off system. Leachate is prohibited from being discharged within the storm water run-off system.

Leachate sent to the Demopolis Waste Water Treatment Plant (WWTP) is regulated by State Indirect Discharge (SID) permit number IU 39-53-00144. The discharge from the Demopolis WWTP is regulated by National Pollutant Discharge Elimination System (NPDES) permit number AL0043168. The ADEM Water Division is responsible for overseeing SID and NPDES permit compliance and ensuring all applicable state and federal water quality standards are met. According to the ADEM Water Division, the Arrowhead Landfill is in compliance with the conditions within their NPDES and SID permits.

COMMENTS RELATED TO STORM WATER RUNOFF

- Several comments have been received regarding coal ash erosion from the landfill to the community and what will happen once the ash gets out.
- Several comments were made regarding pollution from the landfill making it from the creeks to the Alabama River, then all the way to the Mobile Bay.
- Regarding the washing of railroad cars, would water become hazardous and contaminate local streams and groundwater?

The proposed solid waste disposal permit renewal requires the permittee to construct and maintain run-on and run-off control structures as required by the ADEM Administrative Code r. 335-13-4-.17. Any discharges from said control structures are regulated under NPDES permit number ALG160167. The submitted plans include drainage plans to minimize the release of sediment into the creeks and onto adjacent properties. Storm water run-off and leachate are to be segregated and managed appropriately. If waste were to leave the property boundary, the facility would be required to remove the off-site waste and remediate any contamination that may be caused by said waste.

The rail spur is not located within the permitted landfill facility, and is not subject to the requirements of the proposed permit renewal. Furthermore, the rail spur has been inactive since the last shipment of coal ash was received on December 4, 2010. Potentially contaminated storm water resulting from the washing of railcars is regulated under NPDES permit number ALG140902.

COMMENTS RELATED TO LINER REQUIREMENTS AND GROUNDWATER

- Several comments were made stating that ADEM authorized PCA to leave out one compacted soil layer (the 24 inch compacted soil layer) of the landfill liner.
- By allowing PCA to omit this required component of the landfill liner, groundwater quality near the landfill will be adversely impacted.

RESPONSE TO COMMENTS

ADEM Administrative Code, Division 13 and the federal RCRA Subtitle D regulations require that landfills accepting municipal solid waste be lined. The composite liner system is designed and installed to create an impermeable layer between the waste and the underlying groundwater features. The composite liner system for the Arrowhead Landfill consists of two feet of 1×10^{-7} cm/sec compacted soil, a 60 mil HDPE geomembrane, a 16 oz. non-woven geotextile fabric, and a 12 inch thick drainage layer with a minimum hydraulic conductivity of 1×10^{-2} cm/sec.

The soil component of the composite liner system consists of two feet of 1 x 10⁻⁷ cm/sec compacted soil which meets the minimum requirements of the ADEM Administration Code. The drainage layer was originally permitted as a 24-inch thick drainage layer with a minimum hydraulic conductivity of 1x10⁻² cm/sec. A permit modification request was submitted by the applicant requesting that the drainage layer be modified to consist of a 16 oz. non-woven geotextile fabric and a 12 inch thick soil layer with a minimum hydraulic conductivity of 1x10⁻² cm/sec. The calculations within the application verified that the requested drainage layer meets the performance standards of the originally permitted drainage layer. Therefore, ADEM approved the permit modification on October 25, 2010.

The ADEM regulations require that the base of the composite liner system shall be a minimum of five (5) feet above the temporal fluctuation of the groundwater table. The composite liner system as described above complies with ADEM Administration Code r. 335-13-4-.18(3).

ADEM Administrative Code, Division 13, as well as the federal RCRA Subtitle D regulations, require that a groundwater monitoring system be installed at MSW landfills. The groundwater monitoring system is designed to verify the integrity of liner system. Should the liner system fail, ADEM would be made aware of this from groundwater contamination observed through the approved groundwater monitoring system. The groundwater monitoring system consists of a sufficient number of wells at the appropriate location and depth. The groundwater monitoring system must include consistent sampling and analysis procedures that are designed to provide an accurate representation of groundwater quality. A Groundwater Monitoring Plan for the landfill has been reviewed and approved by the Department. The groundwater monitoring plan consists of eight groundwater monitoring wells for Tract 1, five groundwater monitoring wells for Tract 2, and four groundwater monitoring wells for Tract 3. The groundwater monitoring system serves as an early warning system should groundwater contamination occur. In the event that this sampling and analysis reveals that contamination has occurred, proper assessment and corrective measures would be selected and implemented. Since the start of disposal operations at the Arrowhead Landfill, no groundwater contamination has been detected by the approved monitoring system.

COMMENTS RELATED TO MONITORING REQUIREMENTS

- Someone should be at the landfill 24/7 checking the water to make sure it is not contaminated.
- Several comments were made about not having accessibility to monitoring records at the landfill and that the Department should be required to publish reports and records of the landfills operations in a timely manner.
- Several comments were made regarding the potential for groundwater contamination. Specifically, who will tell us if the groundwater is contaminated, and what will be done once the water becomes contaminated?
- Who does the monitoring at the landfill? Who gets the landfill monitoring reports? Are the people on the payroll of ADEM or the landfill?
- Sixteen wells were installed before landfill was opened. After taking the caps off the wells, there were locks on the wells, and it looked as though the locks have not been removed.

RESPONSE TO COMMENTS

See the response to comment related to liner requirements and groundwater. Also, ADEM Administrative Code r. 335-13-4-.27(3)(b)1. states that the frequency for monitoring groundwater at a municipal solid waste landfill is to be semiannually. These monitoring events are performed by a third party hired by the landfill and the reports are submitted to ADEM for review. Copies of all monitoring records, reports, and correspondence of the landfill are available through ADEM's e-file service which can be found at www.adem.alabama.gov or by contacting the ADEM Records Manager at (334) 271-7712. As mentioned previously, surface

water run-off from the onsite drainage system is regulated by NPDES permit number ALG160167, and discharge of leachate to the Demopolis WWTP is regulated under SID permit number IU 39-53-00144.

The sixteen wells mentioned by the commentor are piezometers. In this case, the piezometers in question were installed before the landfill was constructed to determine groundwater elevations at the site. Groundwater monitoring is conducted from the other wells that were located and installed pursuant to the Groundwater Monitoring Plan within the permit application prior to waste disposal. Therefore, the locks on the piezometers may not have been removed since the landfill was constructed.

COMMENTS RELATED TO LANDFILL GAS

 Several explosions have happened at the landfill with no damages or consequences being reported.

RESPONSE TO COMMENTS

Arrowhead Landfill conducts explosive gas monitoring quarterly as outlined by ADEM Administration Code 335-13-4-.16. To date, the landfill is in compliance of the explosive gas monitoring requirements as the monitoring points have been below the 25% LCL levels for all monitoring events. Additionally, ADEM conducts periodic inspections at the Arrowhead Landfill and no evidence of any explosions has been observed at the landfill.

COMMENTS RELATED TO FINANCIAL ASSURANCE

- Several comments were made that PCA has declared bankruptcy and is trying to dodge responsibility for its operations. Specifically, the health of nearby neighborhoods has been compromised, and with bankruptcy they will continue to be compromised.
- We want ADEM to provide evidence of PCA's financial assurance as required by federal law.

RESPONSE TO COMMENTS

PCA has provided the Department with adequate financial assurance in compliance with ADEM Administration Code r. 335-13-4-.28. Additionally, once PCA had declared bankruptcy, EPA Region 4 reviewed documentation of PCA's financial assurance and determined that it was also in compliance with the applicable federal requirements. Documentation of PCA's financial assurance is available on ADEM's efile service located at www.adem.alabama.gov or by contacting the ADEM Records Manager at (334) 271-7712.

COMMENTS RELATED TO TIPPING FEES

• Several comments were made regarding ADEM profiting from the one dollar per ton tipping fee for waste disposed at the landfill. More specifically, ADEM allowed coal ash to be

disposed at the Arrowhead Landfill because its budget has been slashed and the coal ash helps make up the budget shortfall. As a result, this makes a conflict of interest and ADEM should not be making this decision.

RESPONSE TO COMMENTS

As required by State law, the State of Alabama through the Department of Revenue receives one dollar per ton tipping fee for waste disposed at the landfill as with every public landfill in the State. However, ADEM receives only a portion of this revenue to fund its Solid Waste Program. The rest is used to provide grants for recycling programs and to clean up unauthorized dumps. The ADEM's Solid Waste Program's purpose is to verify that landfills are operating in compliance with ADEM Administration Code 335-13 and State and Federal law. Like many other regulatory programs, funding for these activities is derived from fees paid by the regulated community. ADEM has made the determination that the acceptance of remediation waste at the Arrowhead Landfill is in compliance with ADEM Administration Code 335-13 and all State and Federal laws and sees no conflict of interest.

COMMENTS RELATED TO ENDANGERED SPECIES

- The official review for threatened and endangered species in June 2001 identified three endangered species. The list of endangered and threatened species for the area of the landfill is much larger.
- Several comments were made that to ensure not further jeopardizing endangered or threatened species, the applicant should be required to submit a new endangered species and critical habitat survey.

RESPONSE TO COMMENTS

On June 30, 2005 the U.S. Fish and Wildlife Service reviewed the submitted reports from the applicant and made the determination that no listed, proposed, or candidate species were located at the site. ADEM Administration Code, Division 13 does not require concurrence from the U.S. Fish and Wildlife Service for a permit renewal.

Additionally, a copy of the public notice for permit renewal of the Arrowhead Landfill was sent to the U.S. Fish and Wildlife Service via U.S. mail and email. ADEM did not receive comment from the U.S. Fish and Wildlife Service regarding the permit renewal.

COMMENTS RELATED TO WETLANDS

- The applicant should be required to submit a new jurisdictional wetlands survey.
- The applicant declined the option to have the Corps of Engineers perform an approved jurisdictional determination for wetlands and instead, the applicant relied on the same wetlands assessment performed in 1999 using the Corps of Engineers Wetlands Delineation Manual. Furthermore, the applicant has not considered the Regional Supplement to the

Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (U.S. Army Corps of Engineers, Nov. 2010).

- The renewal application contains a drawing of future tracts submitted by the facility to the Corps of Engineers. It appears that these drawings including a "Proposed Landfill Unit 3 Expansion" into jurisdictional wetlands. The permit obtained by the application only authorizes wetland impacts associated with the widening of a previously permitted rail spur. Thus, the proposed expansion of Landfill Unit 3 into wetlands is prohibited without a permit from the Corps of Engineers.
- Several comments were made that the applicant should be required to modify its design plans
 to provide clearly marked, 100 foot buffers around wetlands to prevent contamination of the
 wetlands by waste disposal.

RESPONSE TO COMMENTS

On May 13, 2003, the applicant received concurrence from the U. S. Army Corps of Engineers that the project is designed to avoid all jurisdictional waters including wetlands. ADEM Administrative Code, Division 13 does not require the applicant to receive an additional concurrence from the U. S. Army Corps of Engineers for permit renewal.

Additionally, a copy of the public notice for permit renewal of the Arrowhead Landfill was sent to the U.S. Army Corps of Engineers via U.S. mail and email. The ADEM did not receive comment from the U.S. Army Corps of Engineers regarding the permit renewal.

Upon review of the comment submitted regarding the proposed landfill unit 3 expansion, ADEM has added the following sentence to Section 3.U. of the permit: "Additionally, the Department will verify that the Permittee has obtained a valid permit from the U. S. Army Corps of Engineers regarding an unnamed tributary located within Tract 3 before the construction of Tract 3 may commence."

The Department's Solid Waste regulations require 100 foot buffers around landfill perimeters. All permitted landfill units at the Arrowhead Landfill are located at a minimum of 100 foot from jurisdictional wetlands. Any future landfill units would be required to meet the same standard.

COMMENTS RELATED TO HISTORICAL SITE ISSUES

- Protection to on-site graves has not been provided as promised and graves were bulldozed during landfill construction.
- Additionally, the archaeological artifacts were to be gathered and donated to local universities or museums, but never happened.

On September 20, 2005 and September 21, 2007 the applicant received concurrence from the State of Alabama Historical Commission that the permitted landfill would not impact historically sensitive artifacts. Any concerns with this assessment or PCA's compliance with any applicable conditions should be voiced to the Alabama Historical Commission.

COMMENTS RELATED TO EMPLOYEE PROTECTIVE EQUIPMENT

- Workers from the Arrowhead Landfill have protective clothing; however, they do not change
 clothes and are not decontaminated before leaving the landfill, and as a result they are
 contaminating their community, vehicles, and their homes. Also, several comments were
 received regarding trucks not being washed before leaving the landfill and leaving mud on
 the highway.
- The landfill was supposed to have state of the art protective gear, but workers do not have state of the art protective gear and they even have masks that workers cannot breathe through.

RESPONSE TO COMMENTS

This is outside the jurisdiction of ADEM's Administration Code Division 335-13. Worker protective gear is regulated under the jurisdiction of the Occupational Safety & Health Administration (OSHA). The transportation of waste outside the landfill is under the jurisdiction of the Alabama Department of Public Health (ADPH), and the condition and maintenance of public roads would fall under the jurisdiction of Perry County or the Alabama Department of Transportation.

COMMENTS RELATED TO FACILITY ACCESS

- A comment was made regarding access control at the landfill and people do not know what is going on in the landfill because they are not allowed inside the facility boundary.
- Public access to on-site graves has not been provided as promised by the landfill.

RESPONSE TO COMMENTS

ADEM Administration Code 334-13-4-.19 states that the owner or operator of the facility must control public access and prevent unauthorized vehicular traffic and illegal dumping of wastes by using artificial barriers, natural barriers, or both, as appropriate to protect human health and the environment. Based on these regulations, the landfill is in compliance without putting a fence around the property. Additionally, ADEM code states that the facility must control public access to the landfill. However, public information related to the operation of the landfill is available on ADEM's e-file service located at www.adem.alabama.gov or by contacting the ADEM Records Manager at (334) 271-7712.

The Department is limited in its analysis to technical comments concerning environmental matters. The comment concerning access to on-site graves is outside the Department's jurisdiction. Since the landfill site is private property, members of the public wishing to gain access to the facility should contact the landfill directly.

COMMENTS RELATED TO ENVIRONMENTAL JUSTICE

Several comments were made that this landfill was placed in a poor African American
community and as a result is environmental injustice. Furthermore, by placing the landfill in
this community, you were subjecting the community to groundwater contamination, surface
water contamination, landfill gas emissions, disease vectors, odors, and traffic noise and
safety problems.

RESPONSE TO COMMENTS

The proposed permit complies with all ADEM solid waste regulations, regulations which are based on EPA's Subtitle D regulations. The Subtitle D regulations were designed to prevent ground and surface water contamination, to prevent air pollution caused by landfill gas emissions, to prevent the attraction of rodents, flies, and other disease vectors, and to minimize odors. Therefore, any issue with the protectiveness of ADEM's solid waste standards is ultimately an issue with the EPA Subtitle D regulations and is a national problem; it is not with ADEM's implementation of its solid waste regulatory program.

To date, Arrowhead Landfill has had no significant noncompliance issues with its solid waste permit, thus there is no basis to conclude that the permittee will not comply with the terms and conditions of its permit renewal. Should the permittee fail to comply with its permit, ADEM is committed to vigorously enforcing the terms and conditions of the permit.

Therefore, any alleged discriminatory impact would come as a result of the actual siting of the landfill near an area whose residents are protected by Title VI. ADEM, however, does not site landfills; that responsibility lies with the local host government.

MISCELLANEOUS COMMENTS RELATED TO LOCAL ISSUES

- Several comments were made that the people in the community were there before the landfill. Also, the Perry County Commission ignored the will of the people. Furthermore, the Commissioners and ADEM need to consider the communities concerns in issuing the renewal permit and get with the community before any additional waste is allowed to be accepted at the landfill.
- Several comments were made opposing the expansion of the service area to 33 states and the increase in daily volume to 15,000 tons per day of waste at the Arrowhead Landfill.
 Specifically, the size of the landfill is too much for the area to handle and amount of waste being delivered to the landfill will cause wear and tear on highways.

- Several comments were made concerning the health of the community and the landfill has not brought the new jobs and county revenues promised.
- Several comments were made stating the landfill is destroying the natural resources in the
 area. Specifically, the landfill has caused fruit trees to wilt and that fruits and vegetables
 grown in the area have been contaminated as a result of the coal ash and cannot be eaten.
- Several comments were received regarding noise.
- Several comments were made regarding property values dropping in the area.
- Several comments were made opposing landfill being allowed to accept industrial waste.
- Several comments were made stating that a local health clinic should be provided to make assessments of local residents' current physical condition.
- We need a water station and the landfill needs to install a truck wash so that the roads are not tracked with mud.
- Nobody from PCA is offering to buy out the properties of residents near the landfill and people from the community should have gotten the money that was equal to what the people in Tennessee received.
- A resident claims that animals from the landfill damage contents of property.

The Department is limited in its analysis to technical comments concerning environmental matters. Comments concerning property values, transportation of the wastes, other socioeconomic factors, etc. are outside the Department's jurisdiction. Rather, these issues are to be considered by the local host government as part of the local approval process, in accordance with Code of Alabama §22-27-48(a). The Perry County Commission originally granted local approval to this landfill in 2005 and to a major modification in 2008.