WAKE COUNTY NORTH CAROLINA
Environmental Services

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June 25, 2010

Mr. Brad Bailey, Environmental Senior Specialist
North Carolina Department of Environment and Natural Resources
Solid Waste Section, Division of Waste Management
401 Oberlin Road, Suite 150
Raleigh, NC 27699-1646

Subject: Response to NCDENR
Subsurface Oxidation at North Wake Landfill

Dear Mr. Bailey:

Thank you for your email of June 14, 2010, regarding the suspected subsurface oxidation event at the North Wake Landfill (Permit No. 92-09). In accordance with regulatory requirements (Fire Occurrence Notification), I am submitting information to the North Carolina Department of Environment and Natural Resources regarding this suspected event.

At this time, we believe the subsurface oxidation event has been arrested and suppressed in response to control measures implemented by DTE Biomass Energy. These control measures will remain in place until August 1, 2010, and DTE Biomass Energy will continue to collect landfill gas data to monitor gas temperature, methane concentrations, oxygen concentrations, and carbon monoxide concentrations.

If you have any questions, or require additional information, please do not hesitate to contact me at your earliest convenience by email at tommy.esqueda@wakegov.com, or telephone me at 919-856-7444.

Sincerely,

Thomas C. Esqueda, P.E., Director
Environmental Services Department
Wake County Government

Cc: Ms. Jaclynne Drummond, NCDENR, Solid Waste Section
Jason Watkins, NCDENR, Solid Waste Section
Johnny Beal

Subsurface Oxidation

Bailey, Bradley to: Tommy.Esqueda@wakegov.com 06/14/2010 03:22 PM
Cc: "Watkins, Jason", "Drummond, Jaclynne"

History: This message has been replied to and forwarded.

Mr. Esqueda,
I have attached a form that will need to be completed based upon the results being collected by DTE.

Please keep me updated with any additional information that you receive. The bottom section will be completed by me.

v/r

Brad

Brad Bailey, Environmental Senior Specialist
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http://wastenotnc.org/swhome

E-mail correspondence to and from this address may be subject to the North Carolina Public Records Law and may be disclosed to third parties.

FireOccurrenceReport.pdf

SOLID WASTE MANAGEMENT FACILITY FIRE OCCURRENCE NOTIFICATION

NC DENR Division of Waste Management
Solid Waste Section

Notify the Section verbally within 24 hours and submit written notification within 15 days of the occurrence.
(If additional space is needed, use back of this form)

NAME OF FACILITY: _____ PERMIT #_____

DATE AND TIME OF FIRE: _____/_____/_____ @ _____: ____ AM / PM (circle one)

HOW WAS THE FIRE REPORTED AND BY WHOM: _____

_____

LIST ACTIONS TAKEN:_____

_____

_____

_____

WHAT WAS THE CAUSE OF THE FIRE:_____

_____

_____

_____

DESCRIBE AREA, TYPE, AND AMOUNT OF WASTE INVOLVED: _____

_____

_____

WHAT COULD HAVE BEEN DONE TO PREVENT THIS FIRE:_____

_____

_____

_____

CURRENT STATUS OF FIRE: _____

_____

_____

DESCRIBE PLAN OF ACTIONS TO PREVENT FUTURE INCIDENTS: _____

_____

_____

_____

NAME_____TITLE_____DATE_____

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SOLID WASTE MANAGEMENT FACILITY

FIRE OCCURRENCE NOTIFICATION

NC DENR Division of Waste Management
Solid Waste Section

NAME OF FACILITY: North Wake Landfill

PERMIT #: 92-09

DATE AND TIME OF ~~FIRE~~ SUBSURFACE OXIDATION: The date and time when the suspected subsurface oxidation event was initiated has not been determined.

HOW WAS THE ~~FIRE~~ SUBSURFACE OXIDATION REPORTED AND BY WHOM: Based on landfill gas data provided by DTE Biomass Energy during May 2010, and field observations by Wake County staff during May 2010, a communication was issued to DTE Biomass Energy on June 4th, requesting additional investigations be conducted to determine if subsurface oxidation was present at the NWLF.

On June 9, 2010, a conference call was conducted with representatives from DTE Biomass Energy to review information suggesting subsurface oxidation was present. On June 10th, the Wake County Fire Marshall, at the request of Wake County staff, conducted a site visit of the North Wake Landfill to observe for the presence of subsurface oxidation. Based on information from the June 9th conference call with DTE Biomass Energy and field observations from June 10th by Wake County Fire Marshall, Wake County staff contacted NCDENR staff on June 11, 2010, to report a suspected subsurface oxidation event at the North Wake Landfill.

LIST ACTIONS TAKEN: DTE Biomass Energy has shutdown landfill gas wells in the vicinity of the suspected surface oxidation. Specifically, the vacuum to wells 210, 209, 211, 129,130, 131, 305, 306, and 307 has been shut off. Additional landfill gas monitoring for these wells is being conducted for temperature, methane concentration, oxygen concentration, and carbon monoxide concentration.

WHAT WAS THE CAUSE OF THE ~~FIRE~~ SUBSURFACE OXIDATION: The cause of the suspected subsurface oxidation has not been determined, but an investigation will be conducted upon confirmation that any potential subsurface oxidation event has been completely extinguished.

DESCRIBE AREA, TYPE, AND AMOUNT OF WASTE INVOLVED: The North Wake Landfill was permitted as a municipal solid waste disposal facility, and therefore, municipal solid waste is involved with this suspected subsurface oxidation event. The area impacted by the suspected subsurface oxidation is characterized by excessive settlement. A topographic survey will be conducted by Wake County to determine the geographic extent of the subsurface oxidation. The findings of this topographic survey will be compared with the final closure topographic survey to provide an estimate of the volume of waste involved with this suspected subsurface oxidation event.

WHAT COULD HAVE BEEN DONE TO PREVENT THIS ~~FIRE~~ SUBSURFACE OXIDATION: Since the cause of the suspected subsurface oxidation has not been determined, preventative measures can not be

SOLID WASTE MANAGEMENT FACILITY

FIRE OCCURRENCE NOTIFICATION

NC DENR Division of Waste Management
Solid Waste Section

identified at this time. However, Wake County will conduct a more thorough investigation upon confirmation that any potential subsurface oxidation event has been completely extinguished. Upon completion of these additional investigations, revised policy and procedures will be implemented as necessary.

CURRENT STATUS OF ~~FIRE~~ SUBSURFACE OXIDATION: At this time, we believe the suspected subsurface oxidation event has been arrested and suppressed in response to control measures implemented by DTE Biomass Energy. These control measures will remain in place until August 1, 2010, and DTE Biomass Energy will continue to collect landfill gas data to monitor gas temperature, methane concentrations, oxygen concentrations, and carbon monoxide concentrations.

DESCRIBE PLAN OF ACTIONS TO PREVENT FUTURE INCIDENTS: Upon completion of additional investigations to determine the cause of this suspected surface oxidation event, revised policy and procedures will be implemented as necessary in cooperation with DTE Biomass Energy.