

State of Illinois
Pollution Control Board
James R. Thompson Center
100 W. Randolph Street, Suite 11-500
Chicago, Illinois 60601
<http://www.ipcb.state.il.us/>

RECEIVED
CLERK'S OFFICE
JUN 05 2012
STATE OF ILLINOIS
Pollution Control Board

FORMAL COMPLAINT

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

In The Matter Of:)
)
LARRY D. WELCH)
)
)
Complainant(s),)
)
)
v.)
)
DEKALB SANITARY DISTRICT)
)
)
Respondent(s))

ORIGINAL
RETURN TO CLERK'S OFFICE

PCB 20 **12 - 131**
(For Board use only)

Note: If you do not use this formal complaint form and instead draft and type your own, it must contain all of the information requested by this form. All items must be completed. If there is insufficient space to complete any item, you may attach additional sheets, specifying the number of the item you are completing. Once completed, you must file the original and nine copies of the formal complaint, notice to respondent, and certificate of service with the Clerk of the Board at the above address.

1. Your Contact Information

Name: Larry D. Welch
Street Address: 3336 Meadow Trail E
DeKalb
County: DeKalb
State: Illinois 60115
Phone Number: (815) 748 - 4390

2. Place where you can be contacted during normal business hours (if different from above)

Name: _____
Street Address: _____
County: _____
State: _____
Phone Number: (815) 341 - 3064

3. Name and address of respondent (alleged polluter)

Name: DeKalb Sanitary District
Street Address: 303 Hollister Ave.
P.O. Box 624, DeKalb, 60115-0624
County: DeKalb
State: Illinois
Phone Number: (815) 758 - 3513

4. Describe the type of business or activity that you allege is causing or allowing pollution (e.g., manufacturing company, home repair shop) and give the address of the pollution source if different than the address above

This formal complaint is being brought against the DeKalb Sanitary District for the failure of their sewage lift station located at 457 Redwing Lane in DeKalb, IL. on June 16th, 2011.

5. List specific sections of the Environmental Protection Act, Board regulations, Board order, or permit that you allege have been or are being violated

This complaint alleges that the DeKalb Sanitary District has violated three specific areas of Title 35 of the Illinois Administrative Code.

Specifically Section 370, Illinois Recommended Standard for Sewage Works.

1. Section 370.440 Alarm Systems

2. Section 370.450 Emergency Operations

3. Schedule F Application for Lift Station Construction/Operation

6. Describe the type of pollution that you allege (e.g., air, odor, noise, water, sewer back-ups, hazardous waste) and the location of the alleged pollution. Be as specific as you reasonably can in describing the alleged pollution

On June 16th, 2011 the lift station located at 457 Redwing Lane and operated by the DeKalb Sanitary District failed. Due to that failure, a sewage back up occurred and damaged property in my home at 3336 Meadow Trail E. DeKalb, IL. The ensuing damage consisted of all flooring, baseboards, drywall and costs included mitigation Services.

7. Describe the duration and frequency of the alleged pollution. Be as specific as you reasonably can about when you first noticed the alleged pollution, how frequently it occurs, and whether it is still continuing (include seasons of the year, dates, and times of day if known)

The lift station failure occurred between midnight on June 15th and 10AM on June 16th 2011. The required alarm system failed to activate. The backup was discovered at 10AM on June 16th and mitigation began at approximately 1:30PM that afternoon. The only known backup prior to this event was in July of 1996. To my knowledge there have been no changes made to the lift station in question that would prevent another event from occurring.

8. Describe any bad effects that you believe the alleged pollution has or has had on human health, on plant or animal life, on the environment, on the enjoyment of life or property, or on any lawful business or activity

As a result of this failure, there was substantial damage to my finished basement which did not allow me to use 30% of my household living space for a period of 3 months.

9. Describe the relief that you seek from the Board (e.g., an order that the respondent stop polluting, take pollution abatement measures, perform a cleanup, reimburse cleanup costs, change its operation, or pay a civil penalty (note that the Board cannot order the respondent to pay your attorney fees or any out-of-pocket expenses that you incur by pursuing an enforcement action))

I am seeking the following relief from this Board:

1. An order to bring the sewage lift station within compliance immediately (Alarm functionality, Storage Capacity & Fencing)
 2. A Fine for clear violations that caused damage to personal property
-
- *Repair costs were awarded through a civil suit settlement.
-
-

10. Identify any identical or substantially similar case you know of that is already pending before the Board or in another forum against this respondent for the same alleged pollution (note that you need not include any complaints made to the Illinois Environmental Protection Agency or any unit of local government)

I have no knowledge of any existing case before the Illinois Pollution Control Board pertaining to the named respondent for this or any other similar event.

11. State whether you are representing (a) yourself as an individual or (b) your unincorporated sole proprietorship. Also, state whether you are an attorney and, if so, whether you are licensed and registered to practice law in Illinois. (Under Illinois law, an association, citizens group, unit of local government, or corporation must be represented before the Board by an attorney. Also, an individual who is not an attorney cannot represent another individual or other individuals before the Board. However, an individual who is not an attorney is allowed to represent (a) himself or herself as an individual or (b) his or her unincorporated sole proprietorship, though the individual may prefer having attorney representation.)

I am representing myself as an individual. I am not an attorney nor am I acting on anyone's behalf except my own.

12.

Larry D. Welch
(Complainant's signature)

CERTIFICATION
(optional but encouraged)

I, Larry D. Welch, on oath or affirmation, state that I have read the foregoing and that it is accurate to the best of my knowledge.

Larry D. Welch
(Complainant's signature)

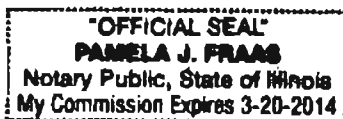
Subscribed to and sworn before me

this 26th day

of May, 2013

Pamela J. Fraas
Notary Public

My commission expires: 3-20-2014



National Electrical Code, to prevent the atmosphere of the wet well from gaining access to the control center. The seal shall be so located that the motor may be removed and electrically disconnected without disturbing the seal.

3) Power Cord

Pump motor power cords shall be designed for flexibility and serviceability under conditions of extra hard usage and shall meet the requirements of the National Electric Code (1996) for flexible cords in sewage pump stations. Ground fault interruption protection shall be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable. Power cord terminal fittings shall be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, shall be provided with strain relief appurtenances, and shall be designed to facilitate field connecting.

d) Valves

Valves required under Section 370.132(e) shall be located in a separate valve pit. Provision shall be made to remove accumulated water from the valve pit. Accumulated water in valve pits deeper than 4 feet shall be pumped to the wet well or gravity drained to the ground surface. Valve pits 4 feet deep or less may be gravity drained to the wet well through a trapped and vented drain that meets the applicable requirements found in 77 Ill. Adm. Code 890, "Illinois Plumbing Code". Such pits shall have entrances that fully expose the pit to the atmosphere. Check valves that are integral to the pump need not be located in a separate valve pit provided that the valve can be removed from the wet well in accordance with subsection (b) above. Provision shall be made for the use of portable ventilation equipment during periods of maintenance.

(Source: Amended at 21 Ill. Reg. 12444, effective August 28, 1997)

<BSection 370.440 Alarm Systems>>

Alarm systems shall be provided for pumping stations. The alarm shall be activated in cases of power failure, pump failure, unauthorized entry, or any cause of pump station malfunction. Pumping station alarms shall be telemetered to a municipal facility that is manned 24 hours a day. If such a facility is not available and a 24-hour holding capacity is not provided, the alarm shall be telemetered to city offices during normal working hours and to the home of the person(s) in responsible charge of the lift station

during off-duty hours. Audio-visual alarm systems with a self-contained power supply may be acceptable in some cases in lieu of the telemetering system outlined above, depending upon location, station holding capacity and inspection frequency.

<BSection 370.450 Emergency Operation>>

a) Objective

The objective of emergency operation is to prevent the discharge of raw or partially treated sewage to any waters and to protect public health by preventing back-up of sewage and subsequent discharge to basements, streets, and other public and private property.

b) Emergency Pumping Capability

Provision of emergency pumping capability is mandatory and may be accomplished by connection of the station to at least two independent utility substations, or by provision of portable or in-place internal combustion engine equipment which will generate electrical or mechanical energy, or by the provision of portable pumping equipment. Emergency standby systems shall have sufficient capacity to start up and maintain the total rated running capacity of the station. Regardless of the type of emergency standby system provided, a riser from the force main with rapid connection capabilities and appropriate valving shall be provided for all lift stations to hook up portable pumps.

c) Emergency High Level Overflows

For use during possible periods of extensive power outages, mandatory power reductions, or uncontrollable emergency conditions, consideration should be given to providing a controlled, high-level wet well overflow to supplement alarm systems and emergency power generation in order to prevent backup of sewage into basements, or other discharges which may cause severe adverse impacts on public interests, including public health and property damage. Where a high level overflow is utilized, consideration shall also be given to the installation of storage/detention tanks, or basins, which shall be made to drain to the station wet well. Where such overflows affect public water supplies or waters used for culinary or food processing purposes, a storage detention basin, or tank, shall be provided having 2-hour detention capacity at the anticipated overflow rate.

d) Equipment Requirements

1) General

automatic start-up and operation of pumping equipment unless manual start-up and operation is justified. Provisions shall also be made for manual start-up. Where manual start-up and operation is justified, storage capacity and alarm system must meet the requirements of subsection (d)(2)(C).

C) Portable Pumping Equipment

Where part or all of the engine-driven pumping equipment is portable, sufficient storage capacity shall be provided to allow time for detection of pump station failure and transportation and hookup of the portable equipment.

3) Engine-Driven Generating Equipment

Where permanently-installed or portable engine-driven generating equipment is used, the following requirements shall apply in addition to general requirements of subsection (d)(1):

A) Generating Capacity

- i) Generating unit size shall be adequate to provide power for pump motor starting current and for lighting, ventilation, and other auxiliary equipment necessary for safety and proper operation of the lift station.
- ii) The operation of only one pump during periods of auxiliary power supply must be justified. Such justification may be made on the basis of the design peak flows relative to single-pump capacity, anticipated length of power outage, and storage capacity.
- iii) Special sequencing controls shall be provided to start pump motors unless the generating equipment has capacity to start all pumps simultaneously with auxiliary equipment operating.

B) Operation

Provisions shall be made for automatic and manual start-up and load transfer unless only manual start-up and operation is justified. The generator must be protected from operating conditions that would result in damage to equipment. Provisions should be considered to allow the engine to start and stabilize at operating speed before assuming the load. Where manual start-up and transfer is justified, storage capacity and alarm system must meet the requirements of subsection

(d)(3)(C).

C) Portable Generating Equipment

Where portable generating equipment or manual transfer is provided, sufficient storage capacity shall be provided to allow time for detection of pump station failure and transportation and connection of generating equipment. The use of special electrical connections and double throw switches are recommended for connecting portable generating equipment.

4) Independent Utility Substations

Where independent substations are used for emergency power, each separate substation and its associated transmission lines must be capable of starting and operating the pump station at its rated capacity.

(Source: Amended at 21 Ill. Reg. 12444, effective August 28, 1997)

<BSection 370.460 Instructions and Equipment>>

Sewage pumping stations and portable equipment shall be supplied with a complete set of operational instructions, including emergency procedures, maintenance schedules, tools and such spare parts as may be necessary.

<BSection 370.470 Force Mains>>

a) Velocity and Diameter

At design pumping rates, a cleansing velocity of at least 2 feet per second should be maintained. Lower velocities may be permitted for very small installations. The minimum force main diameter for raw sewage shall be 4 inches except for grinder pump lift stations as allowed under Section 370.410(c)(3).

b) Air and Vacuum Relief Valve

An air relief valve shall be placed at high points in the force main to prevent air locking. Vacuum relief valves may be necessary to relieve negative pressure on force mains. Force main configuration and head conditions shall be evaluated as to the need for and placement of vacuum relief valves.

c) Termination

Force mains should enter the gravity sewer system at a point not more than 2 feet above the flow line of the receiving manhole.

d) Design Pressure

The force mains and fittings, including reaction blocking, shall be designed to withstand normal pressure and pressure surges

Instructions for Application for Construction/Operation Permit for Sewer System Lift Station/Force Main Schedule F

This schedule must be submitted with all lift station and/or force main permit application.

1. The name of the project must be the same as that used on WPC-PS-1.
2. The completion and occupancy dates for the project are requested so Agency field engineering visits can be planned.
3. The design population item refers to the area to be served by the lift station in the design year.

The area to be served is the maximum acres to be served by this project.

The population to be served should indicate the estimated number of population to be served and the estimated organic industrial population equivalents in the design year.

The design flow pertains to the hydraulic loading for the population to be served as well as the industrial waste hydraulic load to be attached to the lift station in the design year.

The maximum flow shall be determined from Appendix D of the Illinois Recommended Standards for Sewage Works.

Rule 602(a) of Chapter 3, Pollution Control Board Regulations indicates that the installation of new combined sewers is prohibited except where sufficient retention or treatment capacity is provided to ensure that no violation of the effluent standards in Part IV of Chapter 3 occurs. Therefore, new lift stations serving new combined sewers must be equipped with some means of providing treatment to meet the effluent standards if overflows at the lift station are included in the design.

5. Ascouring velocity of at least two (2) feet per second shall be maintained in the force main. An automatic air relief must be placed at high points in the force main to prevent air locking. It is recommended that a clean-out or blowoff be provided at low points, but it is not mandatory.
6. The piping friction losses must be computed at $C = 100$ for unlined iron or steel pipe. For other smooth pipe materials higher C value not to exceed 120 may be used.
7.
 - a. All pumps shall be capable of passing spheres of at least 3 inches in diameter.
 - c. The capacity of the lift station must be sufficient to pump peak flows with the largest pump out of service.
8. Suitable shut-off valves shall be placed on suction and discharge lines of each pump. A check valve shall be placed on each discharge line, between the shut-off valve and the pump.
10. The maximum retention time in the wet well shall not exceed 30 minutes. The effective capacity of the wetwell shall be based on design average flow and a filling time shall not exceed 30 minutes.
11. Complete buoyancy calculations shall be submitted.
13. Paragraph 32.7 of the Illinois Recommended Standards for Sewage Works gives the requirements for ventilation. Ventilation may either be continuous or intermittent depending on the method and period of operation.
17. Emergency Operation
 - 17.1 An alternate source of emergency power must be provided. This may be accomplished by the connection of the station to at least two independent public utility sources (sub-stations), or by the provision of portable or in-place internal combustion engine equipment which would generate electrical or mechanical energy by the provision of a portable pump for each lift station although documentation must be provided to show that by using storage in the wet well and sewers, an overflow of sewage into waters of the State or basements served by the sewers will not occur during the power outages anticipated.
 - 17.2 The statement from the proper authority may be in the form of a letter from the power company or companies.
 - 17.3 Emergency pumps, generators, portable ventilation equipment, ladders, etc., are in the category which may be listed.
 - 17.5 This will depend on: the type of alarm system; and concern of employees involved; the times before basement flooding or overflows to streams occurs.
 - 17.6 The storage volume in the wet wells, sewers and manholes should be computed along with expected flows to give the time interval.
 - 17.7 Personnel are expected to be available at all times.
 - 17.8 An alarm system is highly recommended and considered mandatory where there are no personnel on duty on a 24-hour basis.
18. Flow measurement is considered mandatory at every lift station. Paragraph 32.8 of the Illinois Recommended Standards for Sewage Works gives the requirements for flow measurements.
19. Unless the "Standard Specifications for Water and Sewer Main Construction in Illinois, September, 1978" or other approved municipal or sanitary district specifications are indicated as being applicable on the plan drawings, separate specifications must be submitted.
20. All pumping stations and related equipment shall be protected against vandalism (by fencing or other suitable provisions).

**Instructions for Application for Construction/Operation Permit for Sewer System Lift Station/Force Main
Schedule F**

22. Emergency, high-level wet well overflows will be permitted only if the lift station design meets all applicable requirements of the Illinois Recommended Standards for Sewage Works, including provision of emergency power or emergency pumping capability and alarm system.

SCHEDF.INS

DeKalb Sanitary District



Lift Stations

If not Gravity

Whenever possible, gravity is used to move sanitary sewer water from place to place. Large sewer mains are placed very deep into the earth to allow the smaller mains to siphon towards them, using gravity to assure that the water moves away from residences and businesses.

Occasionally the relative positions of housing or business units and the nearest sewer mains require lift stations to be installed. These installations have wells similar to the headworks wet well, but much smaller. Water moves by gravity into the lift station well, and is then pumped up to the level necessary to allow it to again move by gravity into the sewer main or interceptor sewer and be carried to the plant.

Constant staff supervision is necessary to watch for problems and prevent overflow. Each lift station connects to the main plant through a SCADA (Supervisory Control and Data Acquisition System) and feeds data about its operating status so that prompt action can be taken to prevent trouble. Backup generators protect each lift station.

Current Lift Station Locations

Lift Station Name	Service Address
Meadow Trails	Red Wing Lane
Glidden	North Annie Glidden Road
Country Club	Buena Vista Drive
Lions Park	West Taylor Street
Regional	Sangamon Street
North First Street	North First Street
West Dresser	West Dresser Road



[Return to Plant Tour](#)

Bob Haeger

From: Steve Olsen [SOlsen@dakalbsanitarydistrict.com]
Sent: Thursday, June 23, 2011 8:35 AM
To: haegerb@langanins.com
Cc: Mark Eddington; Janice Tripp
Subject: Damage Claim

Bob,

On June 16th our Meadow Trail lift station experienced a dual pump failure. In addition to that, the alarm system also failed. When District crews found this problem on a routine check of the lift station, a basement back up had already caused significant damage to a finished basement.

The pump failures were both related to a start capacitor failure, which are used in a single phase voltage system. Additionally, one of the pumps also had internal problem causing a high amperage output.

The alarm system failure was caused by a failed intrinsically safe contact barrier. This device serves as a safety barrier between the wet well and the electrical controls. The high water float was connected to this device, and because of its failure it didn't trigger the alarm system.

While I can't pinpoint any direct strike, my gut feeling is that lighting or a voltage surge probably caused some if not all of these failures.

Fortunately, only one basement back up was caused. This home has a nine foot basement instead of the standard eight feet. The owner, Mr. Larry Welch is seeking repair costs from the damage at \$10,574.19. I'll also send some pictures of the damage.

If you have any questions, please contact me

Steve Olsen
DeKalb Sanitary District
Tel:815-758-3513
Fax:815-758-6615

PROJECT INFORMATION

Report Completion Date: June 29, 2011

Prepared for: Larry D. Welch
3336 Meadow Trl. E
Dekalb, IL 60115
Attn: Larry D. Welch

Case Reference: Dekalb Sanitary District

Date of Incident / Loss: June 15-16, 2011

Location of Loss / Incident: 3336 Meadow Trl. E
Dekalb, IL 60115-5324

Type of Incident: Lightning

Scope: Site specific lightning strike from 12:00pm June 15, 2011 through 12:00pm June 16, 2011.

STRIKEnet Report 291812

Report Number: IL061611LG
Claim Number:
Insured/Claimant Name: Dekalb Sanitary District
Approx. Claim/Loss Value:
Items Damaged/Loss Type:
Claim Address: 3336 Meadow Trl E, Dekalb, IL, 60115-5324
Search Period: Jun 15, 2011 12:00:00 PM US/Central to Jun 16,
2011 12:00:00 PM US/Central
Search Radius: 5 mi/8 km around the given location.
Comments: Lightning WAS NOT detected by the National Lightning Detection Network
for the given time period and location.

STRIKENet Report 291812

Report Title: IL061611LG

Total Lightning Strokes Detected: 0

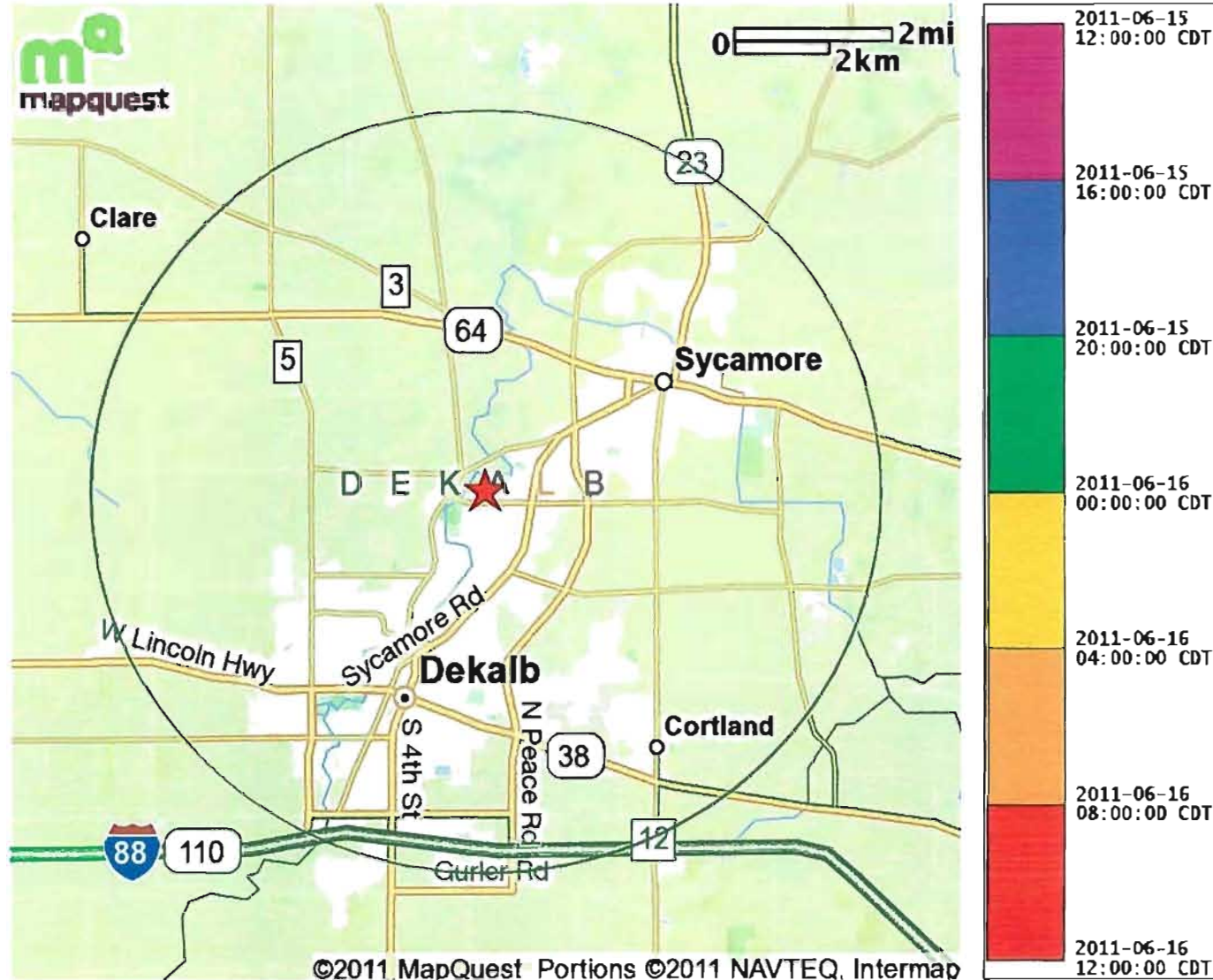
Lightning Strokes Detected within 5 mi/8 km radius: 0

Lightning Strokes Detected beyond 5 mi/8 km whose confidence ellipse overlaps the radius: 0

Search Radius: 5 mi/8 km

Time Span: Jun 15, 2011 12:00:00 PM US/Central to Jun 16, 2011 12:00:00 PM US/Central

Location Points For Lightning Strokes



Decoder for Lightning Data

Basic Report

Claim Address: Address of the Search Location

Search Period: Start and End time of Search

Search Radius: Radius distances searched from the Search Location

Also indicates the number of Strikes detected for the given time period and location

Details for Closest 50 Strikes (Ordered by Distance) and Details for all Strikes (Ordered by Time)

- **Date/Time:** Date and Time of the lightning strike
- **Peak Current (kA):** Magnitude of the lightning strike in Kilo-Amps (“+” means positively charged and “-” means negatively charged)
- **Distance from Center:** Distance in miles/kilometers of the lightning strike from the Search Location
- **Latitude:** Latitude of the lightning strike
- **Longitude:** Longitude of the lightning strike

ComEd
Rockford Business Office
125 Energy Avenue
Rockford, IL 61109-1099

www.exeloncorp.com

October 3, 2011

Mr. Larry Welch
3336 Meadow Trail East
DeKalb, IL 60115

Re: Inquiry into power issues on June 16th, 2011, at the address of 457 Red Wing Drive, DeKalb, IL

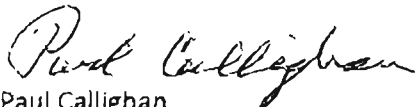
Dear Mr. Welch:

This is in response to your inquiry regarding possible electric utility power issues between midnight on June 15th, 2011, and noon on June 16th, 2011, that would have affected 457 Red Wing Drive, DeKalb.

After reviewing our data for the power supply at 457 Red Wing Drive in DeKalb, we have no record of any power fluctuations or power outages that would have affected this site on the date in question.

If you have any questions, or if we can be of further service, please do not hesitate to contact our office.

Sincerely,



Paul Callighan

ComEd External Affairs Manager

Phone: (815) 490-2729

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Dekalb Sanitary District
303 Hollister Ave
Dekalb, IL 60115

2. Article Number

(Transfer from service label)

7011 3500 0003 5330 1053

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

Alison Yates Agent Addressee

B. Received by (Printed Name)

Alison Yates

C. Date of Delivery

6-1-12

D. Is delivery address different from item 1?

 Yes

If YES, enter delivery address below:

 No

P.O. Box 624

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes





West Dresser





Regional



Meadow Trail (Red Wing, MN)









