

**DIRECT TESTIMONY**

**of**

**Robert Fortelka**

**On Behalf of Resource Technology Corporation**

**Illinois Commerce Commission v. Resource Technology Corporation**

**Citation to show cause for continued QSWEF Certification of Pontiac Facility and  
to investigate compliance with final order in Dockets 97-0031 through 97-0045  
Consolidated**

**Resource Technology Corporation – Pontiac Facility**

**Docket No. 02-0461**

**August 15, 2005**

1           **Q.     Please tell us your name, place of employment and job title?**

2           A.     Robert Fortelka. My title is Operations Manager for Resource Technology Corp.

3

4           **Q.     How long have you been employed by RTC and how long have you been**  
5           **Operations Manager?**

6           A.     I've worked for RTC for 9 years and been Operations Manager for 6 years.

7

8           **Q.     What are your qualifications to work for RTC in this capacity?**

9           A.     I have a BS in civil engineering from the University of Wisconsin and have  
10           worked in the solid waste industry for over 15 years. I've been employed by  
11           Waste Management Inc; Rust Environment and Infrastructure; and Sexton  
12           Companies prior to working for RTC. Over the years, I've worked in landfill and  
13           landfill gas collection system design and permitting, landfill gas to energy plant  
14           and collection system construction, and operations management.

15

16           **Q.     Are you familiar with the use of natural gas as a supplemental fuel at the**  
17           **Pontiac Plant?**

18           A.     I requested the use of natural gas for the Taurus turbines, to blend with the landfill  
19           gas fuel, to offset declining landfill gas quantity that had become very  
20           problematic to the operation of the Plant.

21

22           **Q.     Why was there a decline in landfill gas quantity at the Livingston Landfill?**

23           A.     During 2002 RTC expected to see landfill gas quantities increasing as gas  
24           production neared its peak for that portion of the landfill. Instead gas collection

25           seemed to be declining which was evident due to increases in collection system  
26           vacuum and declining landfill gas quality.

27

28           **Q.    What explanation do you have for the unanticipated decline in landfill gas**  
29           **collection?**

30           A.    The landfill experienced a series of subsurface fires starting in September 2002  
31           that were attributed to air intrusion into the waste mass through breaches in the  
32           landfill's cover and leachate collection systems installed by the landfill owner.  
33           This air intrusion, in addition to causing subsurface fires, will retard the  
34           generation of landfill gas by the waste mass.

35

36           **Q.    Were there other factors that contributed to a decline in landfill gas**  
37           **collection?**

38           A.    Yes. It was later discovered through a well casing survey on site that mounded  
39           water, or what we refer to as leachate, existed over a large area of the landfill.  
40           The waste mass saturated by this leachate mounding will not produce landfill gas  
41           in optimal or anticipated quantities. This leachate was accumulating over time  
42           and contributed to the decline of the landfill gas generated.

43

44           **Q.    Is the quantity of landfill gas collected at the plant currently still less than**  
45           **anticipated?**

46           A.    Yes. Landfill gas generation models prepared by various engineering consulting  
47           firms for the site indicate actual collection is less than anticipated.

48

49 **Q. You referred to this decline in landfill gas quantity to be problematic to the**  
50 **operation of the plant. Can you explain why?**

51 A. Without the use of natural gas as a blending fuel, RTC Pontiac was under risk of  
52 either underutilizing the landfill gas onsite and in turn violating IEPA laws and  
53 potentially affecting public health, safety or welfare, or over utilizing the landfill  
54 gas onsite and causing declining fuel quality to the point of losing flame  
55 stabilization, operating the plant in violation of its air permit and causing  
56 unanticipated equipment outages.

57

58 **Q. Can you explain how not having natural gas as a blending fuel would**  
59 **contribute to loss of flame stabilization?**

60 A. The site's IEPA air permit required the turbines to operate with a minimum  
61 combustion temperature to assure effective destruction of landfill gas constituents.  
62 This dictated a minimum operating load of each turbine and a subsequent  
63 minimum fuel usage per turbine. The available landfill gas did not match the fuel  
64 amounts required to operate the plant in accordance with its permits so without  
65 blending natural gas to offset this incremental fuel required, the plant would over  
66 utilize the available landfill gas and cause declining fuel quality leading to loss of  
67 flame stabilization and turbine shutdown.

68

69 **Q. Can you explain how not having natural gas as a blending fuel would**  
70 **contribute to unanticipated equipment outages?**

71 A. If natural gas was not used as a blending fuel, RTC ran the risk of over utilizing  
72 the available landfill gas, as the landfill gas available at the time was not  
73 sufficient to operate the plant within its permit limitations. In the process of over

74 utilizing the available landfill gas, the overall fuel quality would decline to the  
75 point of causing the turbines to shutdown and thus causing unanticipated  
76 equipment outages.

77

78 **Q. RTC has not used natural gas since June 2004. How can you explain your**  
79 **ability to operate the plant since then without natural gas?**

80 A. RTC received approval from USEPA to eliminate the minimum combustion  
81 temperature requirement. This allowed more flexibility in tailoring the fuel  
82 required by the turbines to the amount of landfill gas fuel available from the  
83 landfill. Natural gas would still be beneficial to the operation of the plant and  
84 may enhance to operational compliance of the gas collection system and  
85 improved efficiency of the turbines.

86

87 **Q. Is it true as Mr. Carolan testifies that the Titan and Tauruses are**  
88 **independently connected only at the Pontiac facility's interconnection with**  
89 **ComEd?**

90 A. No. Mr. Carolan states only that it "appears" to him the Titan unit and the Taurus  
91 units are combined at the ComEd interconnect. In fact, the ComEd interconnect  
92 divides the generation side of the plant from the distribution side. The Titan and  
93 Tauruses connect together upstream of the ComEd interconnection on the  
94 generation side of the plant. In addition, the Titan was designed to carry the  
95 parasitic loads associated with the Taurus units.