

08/04/99 08:10 FAX 2122190256  
08/03/99 18:01 FAX 212 615 3700

SWANKE HAYDEN CONNELL  
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*Cosentini*  
ASSOCIATES LLP

August 2, 1999

Mr. Joe Aliotta  
Swanke Hayden Connell  
295 Lafayette Street  
New York, NY 10012

Re: Mayor's Office of Emergency Management  
(Generator Test)  
Our Job No. 1854

Dear Mr. Aliotta:

The following are the results of the Emergency Generator test for the noted project on 7/31/99.

List of Attendees:

|                     |   |                       |
|---------------------|---|-----------------------|
| Juan Mejia          | - | Swanke Hayden Connell |
| Mazen Batarsem      | - | Ambassador            |
| Tom Papsonero       | - | DCAS                  |
| Richard Jarde       | - | R.B. Samuels          |
| Tony Coyle          | - | R.B. Samuels          |
| Manny Georgioudavis | - | R.B. Samuels          |
| Brian Reynolds      | - | Russel Electric       |
| Frank Trimarco      | - | H.O. Penn             |
| Glen Neville        | - | APT                   |
| Charles Magee       | - | SPT                   |

1. The generator full load test started approximately 6:00A.M., engines 1, 2, and 3 ran at full load for 2½ hours. During this run H.O. Penn monitored and recorded all vital characteristics on the generators (~~enclosed please find a copy of H.O. Penn's test report~~).  
refer to
2. The transient voltage load step test was performed for each of the 3 generators for each of and total system. During the test "APT" with recording instrumentation recorded each step. The record charts will be examined by Cosentini for proper voltage deviation.

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Consulting Engineers

Partners  
M. A. Mass, PE  
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Mr. Joe Aliotta  
Swanke Hayden Connell  
Page Two

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3. A simulated power outage was performed on automatic transfer switches (A.T.S.) numbers 2 thru 9. During loss of normal power all "A.T.S.'s" transferred to the alternate power source with no difficulties. Time set points were set on all switches.
4. A simulated power outage was performed on A.T.S. #1. During loss of normal power A.T.S.#1 started the generators and was on line in approximately 7 seconds. All other switches transferred to alternate power source.
5. A total power outage was performed by opening all transfer switches alternate power disconnect switches. Loss of normal power to A.T.S. #1 started the generators. All other transfer switches remained at primary power source position until generators were on line (approximately 7 seconds) and served each of the transfer switch loads.

The following items were noted to be addressed and completed:

1. Russel Electric to modify their software to perform priority load shedding sequence.  
Remark: At this point of the system it does not affect the operation to deliver emergency power, but must be incorporated and tested.
2. Correct the fuel oil pump system not operating for this test.  
Remark: The system is connected to a building fuel pump for temporary use. Operation of system is not affected.
3. Electrical contractor to label all buss duct and local disconnect switches.  
Remark: R.B. Samuels to complete
4. Correct on all 3 generator's cracks in muffler insulation.  
Remark: Ambassador to address.

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Mr. Joe Aliotta  
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Page Three

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5. Install emergency break glass stop button per contract drawing.  
Remark: R.B. Samuels to install.
6. Correct load bank on generator #2. Remove jumper and install new components.  
Remark: Ambassador to address.
7. Investigate why on initial generator start-up generator #3 stopped running due to air in the fuel line.  
Remark: Was this an isolated or re-occurring problem? H.O. Penn to investigate.  
Conclusion: The emergency generator system was left in the automatic position and is ready to deliver emergency power at demand. The items noted above should be addressed as soon as possible for proper design operation.

If more information is required, please contact me at (212) 615-2665.

Very truly yours,

COSENTINI ASSOCIATES



Robert LeDonne

|     |                 |   |                       |
|-----|-----------------|---|-----------------------|
| cc: | Juan Mejia      | - | Swanke Hayden Connell |
|     | Val Lemeshev    | - | CA                    |
|     | Michael Maybaum | - | CA                    |
|     | Ed Martinez     | - | CA                    |

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