# Case No. 10-2368-EL-REN
# Auglaize Hydroelectric Plant Unit 3
# Staff Interrogatories – Initial Set

Question 1: If the capacity of unit 3 has increased due to repairs and retrofits that were done since January 1, 1998, please submit the following:

- Documentation showing the capacity of unit 3 pre-January 1, 1998
- Documentation proving the capacity increase of unit 3 due to repairs and retrofits since January 1, 1998

Answer 1:

- This unit was installed in 1993. The unit was not in operation in 1995 when a feasibility study was performed but a comment by an operated stated it had been run at 45%. The first documentation that indicates a test of the unit being performed was in a report faxed to Craig Preston on January 30, 1998 from the operator at the time stating the unit was back up to 1000 kW. A copy of this report is included. There are Operation Log entries that support this was the maximum output during 1997 and 1998.
- New SCADA installed 2009
- Included is a 2010 SCADA report with a maximum output during one hour run of the new Unit 3.
- Included is a 2002 SCADA report of the highest 24 hour old Unit 3 average output under normal operating conditions.
- Included is a 2010 SCADA of the highest 24 hr new Unit 3 average output under normal operating conditions.

CRAIG,

HERE'S A LIST OF THE WORK WE ACCOMPLISHED WHILE LEE MECHANICAL WAS HERE:

1. #3 MACHINE

A. MOUNTED NEW ACCUMULATOR TANKS, REPLUMPED PIPES TO THE TANKS, AND CHARGED TANKS.

B. 2 OF THE 4 AIR BRAKES WERE ENGAGED AT ALL TIMES, REPAIRED THE 2 THAT WERE STICKING.

C. CLEANED STICKS THAT WERE JAMMED BETWEEN THE RUNNER BLADES AND THE DISCHARGE CASE.

D. INSPECTED COMPLETE UNIT

E. MACHINE IS BACK UP TO 1000 KWS (RIVER WAS RIGHT AT CREST OF DAM WHEN WE TESTED IT, I THINK IT WILL COME UP MORE WITH MORE HEAD)

2. INSTALLED WATER LEVEL SENSOR

A. MOUNTED 6" PVC PIPE (20 FEET) TO WALL BY #5 UNIT AND #1 FLOODGATE

B. RAN CONDUIT FROM PVC PIPE BACK TO CONTROL ROOM

C. INSTALLED METER IN CONTROL ROOM, CONNECTED METER

# Unit #3 Daily Production From SCADA June 2010

| TIME | GenHoursOnline | Positive_mWh (cumulative) | Hrs | kWh (daily) | AveragekW |
|---|---|---|---|---|---|
| 06/01/2010 00:00 | 15797.00 | 3586.99 | 6 | 5020 | 837 |
| 06/02/2010 00:00 | 15821.00 | 3609.75 | 24 | 22760 | 948 |
| 06/03/2010 00:00 | 15844.00 | 3631.60 | 23 | 21850 | 950 |
| 06/04/2010 00:00 | 15867.00 | 3653.39 | 23 | 21790 | 947 |
| 06/05/2010 00:00 | 15881.00 | 3666.75 | 14 | 13360 | 954 |
| 06/06/2010 00:00 | 15885.00 | 3670.62 | 4 | 3870 | 967 |
| 06/07/2010 00:00 | 15909.00 | 3693.82 | 24 | 23200 | 967 |
| 06/08/2010 00:00 | 15933.00 | 3717.64 | 24 | 23820 | 992 |
| 06/09/2010 00:00 | 15956.00 | 3739.65 | 23 | 22010 | 957 |
| 06/10/2010 00:00 | 15980.00 | 3763.55 | 24 | 23900 | 996 |
| 06/11/2010 00:00 | 16004.00 | 3786.12 | 24 | 22570 | 940 |
| 06/12/2010 00:00 | 16027.00 | 3808.13 | 23 | 22010 | 957 |
| 06/13/2010 00:00 | 16051.00 | 3830.95 | 24 | 22820 | 951 |
| 06/14/2010 00:00 | 16075.00 | 3852.42 | 24 | 21470 | 895 |
| 06/15/2010 00:00 | 16099.00 | 3873.87 | 24 | 21450 | 894 |
| 06/16/2010 00:00 | 16123.00 | 3895.40 | 24 | 21530 | 897 |
| 06/17/2010 00:00 | 16147.00 | 3914.43 | 24 | 19030 | 793 |
| 06/18/2010 00:00 | 16170.00 | 3935.06 | 23 | 20630 | 897 |
| 06/19/2010 00:00 | 16193.00 | 3957.57 | 23 | 22510 | 979 |
| 06/20/2010 00:00 | 16212.00 | 3975.67 | 19 | 18100 | 953 |
| 06/21/2010 00:00 | 16212.00 | 3975.67 | 0 | 0 | 0 |
| 06/22/2010 00:00 | 16213.00 | 3977.21 | 1 | 1540 | 1540 |
| 06/23/2010 00:00 | 16220.00 | 3983.18 | 7 | 5970 | 853 |
| 06/24/2010 00:00 | 16220.00 | 3983.18 | 0 | 0 | 0 |
| 06/25/2010 00:00 | 16220.00 | 3983.18 | 0 | 0 | 0 |
| 06/26/2010 00:00 | 16220.00 | 3983.18 | 0 | 0 | 0 |
| 06/27/2010 00:00 | 16220.00 | 3983.18 | 0 | 0 | 0 |
| 06/28/2010 00:00 | 16220.00 | 3983.18 | 0 | 0 | 0 |
| 06/29/2010 00:00 | 16222.00 | 3986.01 | 2 | 2830 | 1415 |
| 06/30/2010 00:00 | 16246.00 | 4008.72 | 24 | 22710 | 946 |

Peak output on 6/22/2010 for 1 hr = 1540 kW

# Unit #3 Daily Production From SCADA May 2002

OnPeak/OffPeak Report — *Unit #3 Monthly Output*
From: 5/1/2002 12:00:00 AM To: 5/31/2002 11:45:00 PM Interval: 1 Minute Average
Adding Items: 2031 On Peak Total = 14066.86
Subtracting Items: Off Peak Total = 9135.74
Accumulated Total: 23202.60 Load Factor (%): 3.08 Percent good: 99.35

| Date | On Peak Total | Off Peak Total | Daily Total | Day |
|---|---|---|---|---|
| 5/1/2002 | 14066.86 | 8089.83 | 22156.69 | Wed |
| 5/2/2002 | 0.00 | 1045.91 | 1045.91 | Thu |
| 5/3/2002 | 0.00 | 0.00 | 0.00 | Fri |
| 5/4/2002 | 0.00 | 0.00 | 0.00 | Sat |
| 5/5/2002 | 0.00 | 0.00 | 0.00 | Sun |
| 5/6/2002 | 0.00 | 0.00 | 0.00 | Mon |
| 5/7/2002 | 0.00 | 0.00 | 0.00 | Tue |
| 5/8/2002 | 0.00 | 0.00 | 0.00 | Wed |
| 5/9/2002 | 0.00 | 0.00 | 0.00 | Thu |
| 5/10/2002 | 0.00 | 0.00 | 0.00 | Fri |
| 5/11/2002 | 0.00 | 0.00 | 0.00 | Sat |
| 5/12/2002 | 0.00 | 0.00 | 0.00 | Sun |
| 5/13/2002 | 0.00 | 0.00 | 0.00 | Mon |
| 5/14/2002 | 0.00 | 0.00 | 0.00 | Tue |
| 5/15/2002 | 0.00 | 0.00 | 0.00 | Wed |
| 5/16/2002 | 0.00 | 0.00 | 0.00 | Thu |
| 5/17/2002 | 0.00 | 0.00 | 0.00 | Fri |
| 5/18/2002 | 0.00 | 0.00 | 0.00 | Sat |
| 5/19/2002 | 0.00 | 0.00 | 0.00 | Sun |
| 5/20/2002 | 0.00 | 0.00 | 0.00 | Mon |
| 5/21/2002 | 0.00 | 0.00 | 0.00 | Tue |
| 5/22/2002 | 0.00 | 0.00 | 0.00 | Wed |
| 5/23/2002 | 0.00 | 0.00 | 0.00 | Thu |
| 5/24/2002 | 0.00 | 0.00 | 0.00 | Fri |
| 5/25/2002 | 0.00 | 0.00 | 0.00 | Sat |
| 5/26/2002 | 0.00 | 0.00 | 0.00 | Sun |
| 5/27/2002 | 0.00 | 0.00 | 0.00 | Mon |
| 5/28/2002 | 0.00 | 0.00 | 0.00 | Tue |
| 5/29/2002 | 0.00 | 0.00 | 0.00 | Wed |
| 5/30/2002 | 0.00 | 0.00 | 0.00 | Thu |
| 5/31/2002 | 0.00 | 0.00 | 0.00 | Fri |

Maximum one day output for 2002 occurred on 5/1
Recorded 22,156.69 kWh for 24 hour period
22,156.69 kWh / 24 hr = 923 kW average output

# Unit #3 Daily Production From SCADA July 2010

| TIME | Positive mWh (cumulative) | kWh (daily) |
|---|---|---|
| 07/01/2010 00:00 | 4031.00 | 22280 |
| 07/02/2010 00:00 | 4055.52 | 24520 |
| 07/03/2010 00:00 | 4068.40 | 12880 |
| 07/04/2010 00:00 | 4068.40 | 0 |
| 07/05/2010 00:00 | 4068.40 | 0 |
| 07/06/2010 00:00 | 4068.40 | 0 |
| 07/07/2010 00:00 | 4068.40 | 0 |
| 07/08/2010 00:00 | 4068.40 | 0 |
| 07/09/2010 00:00 | 4070.81 | 2410 |
| 07/10/2010 00:00 | 4070.81 | 0 |
| 07/11/2010 00:00 | 4070.81 | 0 |
| 07/12/2010 00:00 | 4070.81 | 0 |
| 07/13/2010 00:00 | 4070.81 | 0 |
| 07/14/2010 00:00 | 4070.81 | 0 |
| 07/15/2010 00:00 | 4070.81 | 0 |
| 07/16/2010 00:00 | 4070.81 | 0 |
| 07/17/2010 00:00 | 4070.81 | 0 |
| 07/18/2010 00:00 | 4070.81 | 0 |
| 07/19/2010 00:00 | 4070.81 | 0 |
| 07/20/2010 00:00 | 4070.81 | 0 |
| 07/21/2010 00:00 | 4070.81 | 0 |
| 07/22/2010 00:00 | 4070.81 | 0 |
| 07/23/2010 00:00 | 4070.81 | 0 |
| 07/24/2010 00:00 | 4073.81 | 3000 |
| 07/25/2010 00:00 | 4073.81 | 0 |
| 07/26/2010 00:00 | 4073.81 | 0 |
| 07/27/2010 00:00 | 4073.81 | 0 |
| 07/28/2010 00:00 | 4073.81 | 0 |
| 07/29/2010 00:00 | 4073.81 | 0 |
| 07/30/2010 00:00 | 4073.81 | 0 |
| 07/31/2010 00:00 | 4073.81 | 0 |

Maximum one day output for 2010 occurred on 7/2
Recorded 24,520 kWh for 24 hour period
24,520 kWh / 24 hr = 1,022 kW average output

Summary: Response to interrogatories from Mathew Killion electronically filed by Mr. Craig K. Preston on behalf of CITY OF BRYAN