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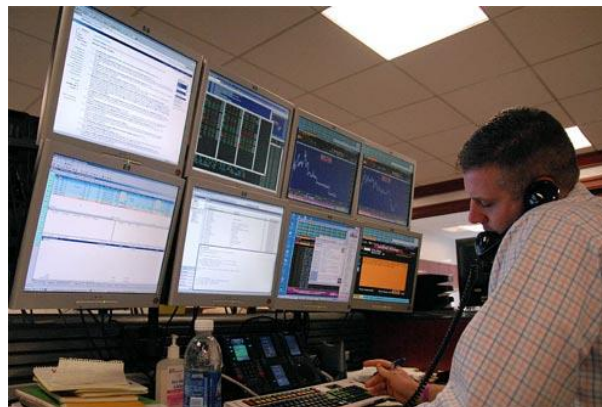
ANR Power Plant Overview



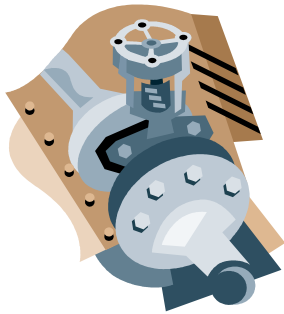
Power Plant Operator (PPO)



Shipper



Pipeline



Regional Transm. Organizations (RTO)





- **Standards for Business Practices (June 25, 2007)**
 - Docket No. RM96-1-027 (Order 698)
 - Docket No. RM05-5-001
- **Communications of Operational Information between Natural Gas Pipelines and Electric Transmission Operators (November 15, 2013)**
 - Docket No. RM13-17-000 (Order 787)

Order 698



- **Pipelines and Power Plant Operators to establish procedures to communicate changes in hourly flow rates.**
- **RTOs/ISOs to receive pipelines Operational Flow Orders and critical notices.**
- **Power Plant Operator should not operate without an approved scheduled quantity.**

ANR Pipeline Company Communication Procedures for Power Plants



PPGC Responsibilities

1. Contact ANR Gas Control at 1-888-GAS-CTRL (1-888-427-2875) for current and expected operational conditions and feasibility of service request.
2. All Power Plant Gas Coordinators (PPGC) shall submit an hourly burn estimate for the entire location on a daily basis using the Projected Hourly Consumption Forecast form that includes the appropriate distribution provided by ANR prior to operations at the PPGC's facility.
3. In addition to the hourly burn estimate and daily activity, the PPGC will also identify the shipper(s)/supplier(s) who will be responsible for nominating the daily supply to the facility.
4. The PPGC will also submit changes to their burn estimate as needed throughout the gas day using the same procedure and identify which shippers will be responsible for changing nominations.

ANR Pipeline Company Communication Procedures for Power Plants



Shipper/Supplier Responsibilities

1. Shipper(s)/Supplier(s) will provide nominations on the GEMS system within the appropriate ANR deadlines. The total of all nominations should be consistent with the total burn estimate on the Projected Hourly Consumption Forecast form.
2. All ITS3 services and FTS3 services with the 2hr option have the ability to nominate outside the ANR nomination cycles up to 9am for the prior gas day.
3. ANR will schedule volumes based on available capacity and priority of service.

ANR Responsibilities (TSP)

- Other – ANR will provide all PPGC's, Independent System Operators (ISO), Balancing Authorities (BA) and Reliability Coordinators, and any other appropriate independent transmission operators (ITO) with electronic notification via GEMS of any or all Planned Service Outages (PSO), Critical Notices, and Operational Flow Orders (OFO) as appropriate.
- If you have any questions, please contact the ANR Noms and Scheduling Team at 1-800-8ASK-ANR (1-800-827-5267) for assistance.

Communication Example



Meter Station ANR Meter/Contract

for Gas Day: Starting **February 3, 2014** Ending **February 3, 2014**

e-mail: 1) AnrGasControl@transcanada.com
 2) ANR_Power_Plants@transcanada.com
 3)
 4)
 5)
 6)
 7)

Subject: Covert (Tenaska) - Covert Meter Station Hourly Gas Forecast

| Central Clock Time (CPT) Hour Ending | Hourly Gas Burn Estimate [Dth] | Hourly Noms [Dths] | Actual Burns |
|--|--------------------------------------|--------------------------|-----------------|
| 10:00 | 4,600 | 4,015 | 4,577 |
| 11:00 | 4,600 | 4,015 | 4,572 |
| 12:00 | 4,600 | 4,015 | 4,403 |
| 13:00 | 4,600 | 4,015 | 4,421 |
| 14:00 | 4,600 | 4,015 | 4,437 |
| 15:00 | 4,600 | 4,015 | 4,421 |
| 16:00 | 4,600 | 4,015 | 4,423 |
| 17:00 | 4,600 | 4,015 | 4,433 |
| 18:00 | 4,600 | 4,015 | 4,645 |
| 19:00 | 4,900 | 4,015 | 5,900 |
| 20:00 | 5,400 | 5,015 | 5,975 |
| 21:00 | 5,800 | 5,015 | 5,905 |
| 22:00 | 6,400 | 6,615 | 5,723 |
| 23:00 | 6,600 | 6,615 | 6,338 |
| 0:00 | 5,400 | 5,783 | 6,146 |
| 2/4 1:00 | 4,600 | 4,168 | 4,514 |
| 2:00 | 4,600 | 5,615 | 4,396 |
| 3:00 | 4,600 | 5,615 | 4,362 |
| 4:00 | 4,600 | 5,615 | 4,641 |
| 5:00 | 4,600 | 5,615 | 4,648 |
| 6:00 | 4,600 | 5,615 | 4,702 |
| 7:00 | 4,600 | 5,615 | 5,485 |
| 8:00 | 4,600 | 5,615 | 5,548 |
| 9:00 | 4,600 | 5,615 | 5,637 |
| DAILY BURN FORECAST (Dth) | 117,300 | 118,281 | 120,252 |

Contacts:

Normal Business Hours

Name
 Bus#
 Cell #
 Fax #
 E-mail:

After Business Hours

Name
 Bus#
 Bus#
 Fax #
 E-mail:

Plant
 Operator
 Plant#

ANR Gas Control (888) 427-2875

Communication Example



Power Plant ANR Meter/G EMS Loc ID

for Gas Day: Starting: December 16, 2013 Ending: December 17, 2013

e-mail:

- 1) Anr_Gas_Control@transcanada.com
- 2) Anr_Noms_Scheduling@transcanada.com
- 3)
- 4)
- 5)
- 6)

(Note: In order for macro to work, only insert e-mail addresses in the above six spots)

| | Central Clock Time (CPT) Hour Starting | Hourly Gas Burn Estimate [Dth] | Hourly Noms [Dths] | Actual Burns |
|----------------------------------|--|--------------------------------------|--------------------------|-----------------|
| GD16 | 9:00 | 7,041 | 6,041 | 7,528 |
| | 10:00 | 6,556 | 6,041 | 7,242 |
| | 11:00 | 6,134 | 6,041 | 6,347 |
| | 12:00 | 6,073 | 6,041 | 6,301 |
| | 13:00 | 6,959 | 6,041 | 6,415 |
| | 14:00 | 6,084 | 6,041 | 6,596 |
| | 15:00 | 6,186 | 6,041 | 7,014 |
| | 16:00 | 6,464 | 6,041 | 7,368 |
| | 17:00 | 7,224 | 6,041 | 7,482 |
| | 18:00 | 7,347 | 6,041 | 7,245 |
| | 19:00 | 6,661 | 6,041 | 7,233 |
| | 20:00 | 5,862 | 6,041 | 6,660 |
| | 21:00 | 5,651 | 6,041 | 6,541 |
| | 22:00 | 5,052 | 5,212 | 5,761 |
| GD17 | 23:00 | 2,700 | 5,208 | 5,877 |
| | 0:00 | 2,816 | 5,208 | 5,806 |
| | 1:00 | 2,580 | 5,208 | 5,918 |
| | 2:00 | 2,772 | 5,208 | 5,676 |
| | 3:00 | 2,366 | 5,208 | 5,733 |
| | 4:00 | 2,295 | 5,208 | 6,043 |
| | 5:00 | 2,572 | 5,208 | 6,672 |
| | 6:00 | 2,272 | 5,208 | 7,233 |
| | 7:00 | 2,831 | 5,208 | 7,381 |
| | 8:00 | 2,521 | 5,208 | 6,518 |
| Daily Consumption Forecast (Dth) | | 115,018 | 135,825 | 158,590 |

Shipper(s)/Supplier(s):

Contacts:

Normal Business Hours

Name
Bus#
Cell #
E-mail:

After Business Hours

Name
Bus#
Cell#
E-mail

Plant
Operator
Plant#

ANR Gas Control

(888) 427-2875

Order 787



- **Authorize exchange of non-public operational information.**
- **No specific list of non-public operational information to be shared.**
- **Non-public operation information is any information that helps maintain a reliable pipeline and electric transmission system.**
- **Adopted a No-Conduct Rule.**

ANRPL/MISO Communication Procedure



Purpose of this procedure is to provide MISO with ANRPL operational updates which may potentially impact the reliability of power generation facilities in the MISO service territory.

- Step 1: Attached is the current list of MISO operated facilities directly served by ANRPL. (11 – Wisconsin; 5 – Michigan; 2 – Iowa; 1 –Indiana; * need update for generation formerly operated by PJM in Illinois & Ohio)
- Step 2: At the beginning of each month, ANRPL personnel will review and discuss planned ANRPL Posted Outages and their potential service impacts to power generation facilities with MISO staff.
- Step 3: Because posted outages may be added/updated throughout the current month, ANRPL personnel will review and discuss these changes and there potential service impacts to power generation facilities with MISO staff.
- Step 4: To ensure reliability of the operations of the pipeline’s system, the gas flows at power generation facilities may need to be limited or shut off outside of normal nomination timelines. In those instances where ANRPL needs to make operational changes to flows at power generation facilities, ANR on a best efforts basis, will provide MISO with at least one hour notice prior to taking any action.
- Step 5: Discuss any other generation & transmission issues that may impact utilization of ANRPL Power Plant operators with MISO staff.
- Step 6: During Emergency Conditions, ANRPL & MISO personnel will communicate issues that could impact pipeline operations and gas flows to power generation facilities.

ANRPL/MISO Communication Procedure



| ANRPL Contacts | | | | |
|----------------|--|--------------|--------------|---------------------------------|
| Name | Title | Phone | Mobile | E-mail |
| Joe Pollard | Director: Commercial Services | 832-320-5257 | 713-724-3095 | Joseph_Pollard@transcanada.com |
| Keith Flynn | Manager: Central Noms & Scheduling | 832-320-5326 | 713-249-6549 | Keith_Flynn@transcanada.com |
| Kim Aleman | Principal Scheduling Rep | 832-320-5243 | 832-622-0671 | Kimberly_Aleman@transcanada.com |
| Ralph Del Rio | Principal Scheduling Rep | 832-320-5233 | 713-933-9556 | Ralph_delrio@transcanada.com |
| MISO Contacts | | | | |
| Rob Benbow | Director: Operations | 317-249-5609 | 317-408-5718 | rbenbow@MISOEnergy.org |
| Tag Short | Manager: IRAC – Unit Commitment | 317-249-5307 | | TShort@misoenergy.org |
| Bill Johnson | Manager: Region Generation Dispatch | 317-249-5070 | | BJohnson@misoenergy.org |
| Steve Swan | Manager: Region Generation Dispatch | 317-349-5075 | | sswan@misoenergy.org |
| Terry Wright | Manager: Shift Operations (Shift Managers) | 317-249-5865 | | twright@misoenergy.org |
| John Jenkins | Shift Manager | 317-249-5611 | | jjenkins@misoenergy.org |
| Eric Thoms | Advisor II: Policy Studies | 651-632-8454 | | ethoms@misoenergy.org |
| Tessa Haagenon | Engineer II: Policy Studies | 651-632-8495 | | thaagenon@misoenergy.org |
| Aaron Casto | Sr. Manager: Day Ahead Market Admin | 317-249-5596 | | acasto@misoenergy.org |

2013/14 Winter Communications



MISO

- **Communications Procedures**
- **Daily calls during peak days**
- **Assessment of gas and electric system operations**

PJM

- **Daily calls during peak days**
- **Assessment of gas and electric system operations**