



Customer Operations, BC Pipelines and Field Services

Overproduction Charges – Customer Operations

Prepared by: Customer Service Representatives

Revision Tracking	
Date Created	09/01/2002
Last Updated	04/13/2015
Document No.	
Revision	2.03

Table of Contents

1.	Overproduction Charges.....	2
1.1	Overview	2
1.2	Policy	2
1.2.1	Raw Gas	2
1.2.2	Residue Gas	3
1.3	Receipt Point Operator as Agent.....	4
1.4	Procedures	4
1.4.1	Combined Raw, Acid Gas and Sulphur Gas Overproduction	4
1.4.1.1	Locations and Effective Date.....	4
1.4.1.2	Tolerance	4
1.4.1.3	Basis for Calculations.....	5
1.4.1.4	Overproduction Volume Calculation	6
1.4.1.5	Conversion to GJ Equivalent	6
1.4.1.6	Overproduction Charge Calculation	6
1.4.1.7	Reporting	6
1.4.2	Residue Gas Overproduction	7
1.4.2.1	Location and Effective Dates.....	7
1.4.2.2	Tolerance	8
1.4.2.3	Basis for Calculation	8
1.4.2.4	Overproduction Volume Calculation	8
1.4.2.5	Conversion to Residue and GJ Equivalent	8
1.4.2.6	Overproduction Charge Calculation.....	8
1.4.2.7	Reporting	8

1. Overproduction Charges

1.1 Overview

Overproduction charges are applied to the greater of the thermal equivalent of Acid Gas Overproduction, Sulphur Gas Overproduction and Raw Gas Overproduction at Spectra Zone 2 treatment facilities. Overproduction charges are also to be applied to Residue Gas Overproduction at Dry Gas Receipt Points.

The purpose of Overproduction charges is to motivate minimal overproduction on the part of shippers. The rationale for the charges is to ensure that all shippers have equitable access to the Spectra system.

A charge will be applied when a series of conditions are met which include:

1. An overproduction flag has been raised at the raw gas facility or dry gas receipt point;
2. The actual volumes witnessed at the facility exceed the capacity of that facility; and
3. The shipper's individual delivered production exceeds the sum of the shipper's authorized receipt volume plus tolerance.

Charges are evaluated as follows:

1. Raw gas – on an aggregate basis at each plant;
2. Acid gas – on an aggregate basis at each plant;
3. Sulphur gas – on an aggregate basis at each plant; and
4. Residue gas – at individual dry gas receipt points.

1.2 Policy

1.2.1 Raw Gas

Step 1 – An overproduction flag is raised

Spectra establishes the capacity for each facility for total volume as well as for each gas component. If the volume being delivered to a facility is equal to or exceeds the capacity Spectra has determined is available at the facility, then Spectra will post a critical notice on the Customer Interface (CI) indicating that an incident of overproduction may occur. The notice also indicates which gas components are at capacity (acid, sulphur, raw, or any combination thereof) and what the constraint level is set at for the component(s). If the notice is placed on CI at or prior to 3 PM Mountain Clock Time, the overproduction flag will be effective for the following gas day. If the notice is not placed until after 3 PM Mountain Clock time, the flag will be effective for the 2nd following gas day.

Step 2 – Actual volumes will be compared with facility capacity volumes

The actual measured volumes at the plant are compared to the defined capacities outlined in the overproduction flag notice. If the actual volumes equal or exceed the capacities as outlined in the overproduction flag notice, then charges will be assessed on those parties responsible for the overproduction.

Step 3 – Calculation of individual charges

Once the first two conditions are met, each shipper who has entered into a service agreement for firm or interruptible **RGT** service and who:

- delivers raw gas into Zone 1; or
- delivers raw gas directly in Zone 2 (e.g., Martin Creek, Sikanni)

Each Shipper is responsible for ensuring that the volume of **raw gas** delivered on their behalf does not exceed their aggregate authorized raw receipt volumes.

Each shipper is responsible for any charges arising out of their failure to ensure that the **raw gas** volumes delivered to a Spectra treatment facility do not exceed their authorized raw receipt volume at that facility.

Each shipper who has entered into a service agreement for firm or interruptible **Treatment** service and who:

- delivers raw gas into Zone 1; or
- delivers raw gas directly in Zone 2 (e.g., Martin Creek, Sikanni)

Each shipper will be responsible for ensuring that the **acid gas** and the **sulphur gas** volumes contained in their raw gas deliveries into the system each day for processing at a Spectra treatment facility do not exceed the volume of acid gas and the volume of sulphur gas, respectively, authorized by Spectra for that shipper at that facility.

Each shipper is responsible for any charges arising out of their failure to ensure that the volumes of **acid gas** and **sulphur gas** delivered to Spectra for processing at a plant do not exceed their authorized acid gas and sulphur gas volumes, respectively, at that plant.

All three conditions must be met before a shipper will incur any over production charges. Again, an overproduction warning flag must be in place at the plant for any charges to be a possibility. Next, the defined capacity as outlined in the overproduction warning notice must be exceeded for any charges to be imposed. If the plant does not meet or exceed capacity, no charges will be applied. Lastly, the individual shipper may always avoid charges by ensuring that their authorized nominations completely cover their allocated production. Only when a shipper fails to cover their allocations with authorized nominations will they be subject to penalties. It is important to add that charges are only applied on the gas components that exceed plant capacity. For example, assume that a warning flag is in place at McMahon plant for both raw and total acid volumes. Assume that a shipper has exceeded their authorized nominations on raw but covered their allocated volumes in terms of total acid. Further, assume that the plant exceeded capacity on total acid, but did not on raw volume. The shipper in question would not incur any charges. Though there was a warning flag in place and the shipper did exceed their authorized nominations for raw, the plant only went over capacity on total acid. For acid, the shipper covered their production and is therefore free of any charges.

There is one further special condition in the area of raw gas charges. In the case where a shipper incurs overproduction charges on acid and/or sulphur and their **total allocated** acid and/or sulphur production is $0.5 \times 10^3 \text{m}^3$ or less, charges will not be assessed. In no other cases will a shipper be relieved of their overproduction charges.

1.2.2 Residue Gas

Step 1 – An overproduction flag is raised

Spectra establishes the capacity for each pipeline segment. If the volume of nominations being authorized over that segment on the Timely and/or Evening cycle is equal to or exceeds 98 per cent of the capacity Spectra has determined is available, then Spectra posts a critical notice on

the Customer Interface (CI) indicating that an incident of overproduction may occur. The notice also indicates what the constraint level is set at for the segment(s). The notice must be sent out prior to the day of gas flow.

Step 2 – Actual volumes will be compared with pipeline segment capacity volumes

The actual volumes delivered at the dry gas receipt points are compared to the defined capacities outlined in the overproduction flag notice. If the actual volumes equal or exceed the capacities as outlined in the overproduction flag notice, then charges will be assessed on those parties responsible for the overproduction.

Step 3 – Calculation of individual charges

Once the first two conditions are met, each shipper who has entered into a service agreement for firm or interruptible transportation service in Zone 3 or Zone 4 and who delivers residue gas into Zone 3 or Zone 4 at dry gas receipt points (DGRP's) is responsible for ensuring their residue gas deliveries into the system on each day at each DGRP do not exceed their Spectra authorized receipt volume at that DGRP.

Each shipper is responsible for any charges arising due to their failure to ensure that the residue gas volumes delivered to Spectra at each DGRP do not exceed their authorized receipt volumes at that DGRP.

As with raw gas charges, all three conditions must be met before a shipper will incur any dry gas overproduction charges. Again, an overproduction warning flag must be in place for any charges to be a possibility. Next, the defined capacity as outlined in the overproduction warning notice must be exceeded for any charges to be imposed. If the pipeline segment does not meet or exceed capacity, no charges will be applied. Lastly, the individual shipper may always avoid charges by ensuring that their authorized nominations completely cover their allocated production. Only when a shipper fails to cover their allocations with authorized nominations will they be subject to penalties.

1.3 Receipt Point Operator as Agent

The Receipt Point Operator (RPO) for each production source delivering volumes at a Zone 1 RGT Receipt Point, each Zone 2 processing plant inlet or Zone 3 or Zone 4 DGRP are deemed to be operating as the agent of the shipper or shippers at that location. Actions taken by the RPO, including allocations, are deemed to be the actions of the shipper.

1.4 Procedures

1.4.1 Combined Raw, Acid Gas and Sulphur Gas Overproduction

1.4.1.1 Locations and Effective Date

Raw gas, acid gas and sulphur gas overproduction are evaluated at Zone 2 processing plants and became effective under the Raw Gas OPC Pilot on August 15, 2002.

1.4.1.2 Tolerance

Overproduction tolerances are set for each plant and the mechanism for adjusting the tolerance are triggered when the plant is within 10 per cent of its capacity for either raw gas, acid gas or sulphur gas. If the aggregate inlet quantity of one of these components is or will exceed 90 per cent of plant capacity for that component then Spectra may reduce the overproduction tolerance for that component to a level consistent with the provision of reliable service. The maximum

overproduction tolerance for all three components is 10 per cent of the volume authorized for delivery by the shipper on that day. The minimum overproduction tolerance level for raw gas is 5 per cent and the minimum overproduction tolerance for acid and sulphur gas is 2 per cent.

Spectra does not utilize an acid gas or sulphur gas overproduction tolerance which is below 5 per cent at a plant unless Spectra is able to reconcile theoretical and actual recovered or accounted volumes to the same or better level of accuracy.

1.4.1.3 Basis for Calculations

Calculations are based on:

- actual daily production; and
- daily authorized nominations.

Actual daily raw production is determined by multiplying the daily allocated residue volume for that shipper at each production source by the ratio of the daily allocated raw for each production source to the daily allocated residue for that production source.

Actual daily acid gas production is determined by multiplying the daily allocated residue volume for that shipper at each production source by the ratio of the daily theoretical acid gas at each production source to the monthly allocated residue for each production source.

Actual daily sulphur gas production is determined by multiplying the daily allocated residue volume for that shipper at each production source by the ratio of the daily theoretical sulphur for each production source to the daily allocated residue for each production source.

Daily authorized raw gas, daily authorized acid gas and daily authorized sulphur gas is calculated by multiplying the authorized residue nomination at each production source by the conversion factor for raw gas, sulphur gas and acid gas, respectively recognized for that same production source.

The sum of all of the shipper's authorized raw gas nominations, the sum of all of the shipper's authorized sulphur gas nominations, the sum of all of the shipper's authorized acid gas nominations at Zone 1 and Zone 2 receipt points delivering to a processing plant are compared to the sum of all the shipper's actual raw volumes, the sum of all the shipper's actual acid gas volumes, and the sum of all the shipper's actual sulphur gas volumes, respectively, at all Zone 1 and Zone 2 receipt points delivering to that same processing plant.

The conversion factors for raw gas, acid gas and sulphur gas are based upon data from the most recent plant allocation and are calculated by dividing the monthly raw volume by the monthly allocated residue volume, the monthly theoretical sulphur by the monthly allocated residue volume and monthly theoretical acid by the monthly allocated residue volume respectively, for that production source.

In the absence of data from the most recent allocation, Spectra uses, in priority order, the most recent available historical data or the latest manually entered conversion factors. In the absence of allocation data or previous manually entered conversion factors, Spectra and the production source owner utilizes the latest well analysis along with a plant shrinkage table to determine the appropriate conversion factors.

It is the responsibility of the production source operator to notify Spectra if a manual adjustment must be made to the conversion factors in order to compensate for well analyses that have been updated since the last plant allocation.

1.4.1.4 Overproduction Volume Calculation

The overproduction volume calculation for each plant is:

$$\text{Raw gas overproduction} = \text{sum actual raw gas production} - \text{sum authorized raw gas} * ((100 + \% \text{tolerance}) / 100)$$

If the result at a plant is less than zero, then there is no raw gas overproduction at that plant.

$$\text{Acid gas overproduction} = \text{sum actual acid gas production} - \text{sum authorized acid gas} * ((100 + \% \text{tolerance}) / 100)$$

If the result at a plant is less than zero or the sum actual acid gas production is equal to or less than $0.5 \text{ } 10^3 \text{ m}^3$, then there is no acid gas overproduction at that plant.

$$\text{Sulphur gas overproduction} = \text{sum actual sulphur gas production} - \text{sum authorized sulphur gas} * ((100 + \% \text{tolerance}) / 100)$$

If the result at a plant is less than zero or the sum actual sulphur gas production is equal to or less than $0.5 \text{ } 10^3 \text{ m}^3$, then there is no sulphur overproduction at that plant.

1.4.1.5 Conversion to GJ Equivalent

A shipper's raw gas overproduction, acid gas overproduction and sulphur gas overproduction is converted to their GJ equivalents by:

- Calculating a shipper's Weighted Average Residue to Raw Ratio (WARRR), Weighted Average Residue to Acid gas Ratio (WARAR) and Weighted Average Residue to Sulphur gas Ratio (WARSR) at a processing plant for each day by dividing the shipper's actual allocated residue at that processing plant for each day by the shipper's actual allocated raw gas, acid gas and sulphur gas respectively, at that processing plant on that same day.
- Multiplying the raw gas overproduction, acid gas overproduction and sulphur gas overproduction by the WARRR, WARAR and WARSR respectively, for that shipper at that processing plant to produce their residue volume equivalents.
- Multiplying these residue volume equivalents by the average annual heating value recognized for the plant to calculate a residue GJ equivalent overproduction for each of raw gas, acid gas and sulphur gas.
- The residue GJ equivalent for purposes of the raw gas, acid gas and sulphur gas overproduction charge calculation will be the greater of the residue GJ equivalent for raw gas, acid gas and for sulphur gas.

1.4.1.6 Overproduction Charge Calculation

Charges are based on the product of the residue GJ equivalent (as determined above) multiplied by 50 per cent of the Station 2 price as calculated by Spectra per the Settlement.

Spectra invoices for the sum of the charges for overproduction at all plants.

1.4.1.7 Reporting

An overproduction report is issued 2 days following each gas day. These reports are based on *estimates of production* as reported by the shipper's agent. Final month end reports are issued following month end allocations.

Spectra makes available to shippers intra-day updates on predicted production vs. authorized receipt volume. This prediction of overproduction charge exposure is based on the data available

to Spectra and is updated at a minimum of once every 4 hours during the gas day. The intraday production report is available both in CI and Westflo, though the CI report offers a more complete look at total authorized nominations.

1.4.2 Residue Gas Overproduction

1.4.2.1 Location and Effective Dates

Residue gas (Dry gas) overproduction is evaluated at Zone 3 & 4 dry gas receipt points and became effective under the Dry Gas OPC Pilot on June 1, 2002. The pilot is effective until May 31, 2003.

There are several defined constraint locations that Spectra utilizes to determine when charges are put into place. Each of these constraint locations has a list of associated dry gas receipt points that become subject to charges when a flag is raised at that particular constraint location. These locations and their associated receipt points are:

1. Fort Nelson Mainline from Ft. Nelson Plant to Compressor Station #2
 - a. #520 Buckinghorse
 - b. #953 Caribou
 - c. #503 Cypress
 - d. #980 Highway
 - e. #867 Jedney #1
 - f. #981 Jedney #2
2. Gordondale to Compressor Station #1
 - a. #96 Parkland
 - b. #3843 Parkland (06-29)
 - c. #3068 Star Parkland
 - d. #375 West Doe
3. Compressor Station #1 to Gordondale
 - a. #96 Parkland
 - b. #3843 Parkland (06-29)
 - c. #3068 Star Parkland
 - d. #375 West Doe
4. Boundary Lake to Compressor Station #1
 - a. #98 Boundary Conservation
 - b. #771 Flatrock Creek
5. Compressor Station #1 to Compressor Station #2 (Station #1 Westbound)
 - a. #2877 Berkley Sunset
 - b. #98 Boundary Conservation (Westbound flows)
 - c. #771 Flatrock Creek (Westbound flows)

- d. #96 Parkland (Westbound flows)
- e. #3843 Parkland (06-29) (Westbound flows)
- f. #3068 Star Parkland (Westbound flows)
- g. #375 West Doe (Westbound flows)

1.4.2.2 Tolerance

The tolerance for residue gas overproduction is the greater of:

- 5 per cent of the aggregate residue volume authorized at the receipt point for delivery by the shipper on that day;
- or
- $7.0 \times 10^3 \text{m}^3$

1.4.2.3 Basis for Calculation

Calculations are based on actual residue production and authorized residue nominations for each day at each DGRP.

Each individual shipper's *actual residue production* is determined by:

- allocating production source actual production to the appropriate shippers at that production source at the receipt point; and
- aggregating each shipper's allocated production to the receipt point level.

Each shipper's *authorized residue nomination* at the receipt point is calculated by:

- aggregating the authorized residue nominations for that shipper at each production source behind the receipt point.

1.4.2.4 Overproduction Volume Calculation

The overproduction volume calculation at a DGRP is:

$$\text{Residue gas overproduction} = \text{actual residue production} - (\text{authorized residue nomination} + \text{tolerance})$$

If the result at a DGRP is less than zero, then there is no overproduction at that DGRP.

1.4.2.5 Conversion to Residue and GJ Equivalent

The total residue overproduction at the DGRP is multiplied by the actual daily heating value recognized for that DGRP to calculate a GJ equivalent overproduction.

1.4.2.6 Overproduction Charge Calculation

Charges represent the residue GJ equivalent as described above times 10 per cent of the Station 2 price as calculated by Spectra per the Settlement.

1.4.2.7 Reporting

An overproduction report is issued 2 days following each gas day. These reports are based on *estimates of production* reported by the shipper's agent.

Spectra makes available to shippers intra-day updates on predicted production vs. authorized receipt volume. This prediction of overproduction charge exposure is based on best data available to Spectra and is updated at a minimum of once every 4 hours during the gas day. This data is available after the completion of the gas day in Westflo in the Shipper Dry Gas Receipt Point Summary Report. Another report useful for monitoring the pipeline segments is the "S&T Unutilized" capacity report found in CI under **Informational Postings**. The report allows a daily view of which segments have excess capacity and which ones are nearing capacity.

Final production, overproduction volumes and related charges are made available to shippers following the allocation of actual receipt point volumes back to individual shippers.



Reviewers

Name	Position/Department
Melanie Bird	Business Analyst and Documentation Specialist – BFS

Approvals

Name	Position/Department	Signature

Revision History

Date	Author	Revision	Revision Comments
06/01/2007	Melanie Bird	2.02	Converted to new template
04/13/2015	Joycelyn Creed	2.03	Updated template

Related Documents

Document Title	Document Reference