- C. System Operations, Reliability Standards and Capacity Management
- 1. Demonstrate that the restructuring plan will maintain the standards and procedures for safety and reliability presently in effect as required by Section 2203(3).

Response:

Distribution will continue the standards and procedures for safety and reliability that it currently provides in its customer choice program. As in its Energy Select Pilot and in the customer choice program, Distribution's main goal is to provide all of its customers the opportunity to make an informed choice regarding their NGS through a program that provides the same reliability of service that customers have experienced historically. See Exhibit 3, Description at 3, 8-11, Appendix F.

The following items assure that Distribution will maintain the current level of reliability:

1) <u>Physical Gas Service</u>.

Distribution shall remain responsible for all issues related to the physical gas service provided to the customers; i.e., system maintenance, gas control, system operator, metering, turn-on, termination and gas emergencies. See Exhibit 3, Description at 6, Exhibit 4, Rate Schedule SATS at 83AR - 83AV.

2) <u>Upstream Capacity Requirements</u>.

Distribution will continue the practices it established in the Energy Select Pilot and its customer choice program. See Exhibit 3, Description at 8-10, Exhibit 4, Rate Schedule SATS at 83AI - 83AN, Appendix F. These capacity practices assure that gas is delivered where and when needed throughout the service territory. Such capacity practices will continue to require that the Company be authorized by the FERC to continue to receive a waiver of its shipper must have title policy as was received by Distribution in Docket No. Rp99-190.

<u>Released Storage and EFT Capacity</u>. Just as in the current program, SATS Suppliers will receive National Fuel Gas Supply Corporation (referred to throughout as "NFG Supply") Storage and associated EFT. Minimum inventory

levels will continue to be required to assure the necessary deliverability from storage is available. This will account for 43% of Suppliers extreme peak day requirement. See Exhibit 5, at 83AI.

<u>Released Capacity</u>. Additional transportation and storage capacity will be released to SATS Suppliers on a mandatory basis. Over time, as these contracts may be terminated or adjusted, Distribution will make the contracts available to Suppliers through the collaborative process, as described in Exhibit 2, Schedule H. SATS Supplier-obtained capacity may also be substituted for these contracts to the extent such capacity meets the Company's standards for comparable capacity, i.e. is as reliable and firm as the capacity it replaces. This will account for 27% of extreme peak day requirement. See Exhibit 5, at 83AL.

<u>Retained Capacity</u>. Upstream capacity critical to the operation of the system (reliability, operational and flexibility, load pocket capacity and balancing) will continue to be retained. The costs of this capacity will continue to be included in the SATC rates. For this retained capacity, the Company will allocate receipt point capacity in the production area at which suppliers will access gas supplies. This capacity assures that the flexibility within the current contracts continue and as well assure that the Company can efficiently deliver gas as needed to customers. This will account for 30% of extreme peak day requirement. See Exhibit 5, at 83AM.

One change to the current retained capacity is that Distribution will retain additional storage that will account for the variation between forecasted delivery requirements and actual gas requirements on the system as well as capacity for extreme day requirements. See Exhibit 2, Schedule C 3.

As discussed in its current choice program, Distribution plans to have under contract and retain capacity in the future to assure deliveries in peak winter periods. Distribution proposes here to retain additional high deliverability storage capacity which will provide for nondeliveries as well as peak winter deliveries. As Supplier-provided gas supplies become an ever larger portion of the gas meeting customer needs, the impact of non-deliveries will become ever greater as well. Therefore, in the future, Distribution expects to contract for high deliverability sources of supply.

<u>Supplier Provided Capacity</u>. SATS Suppliers, as noted above, may bring capacity to the system to the extent releasable contracts terminate and the

Company determines the supplier's capacity is comparably firm. The process by which Suppliers may do this is set out in Exhibit 2, Schedule C 2d.

3) <u>SATS Supplier Delivery Requirements</u>.

SATS Suppliers will be required to deliver an amount equal to their customers' forecasted daily requirement up to 59 Degree Day requirement discussed at Exhibit 2, Schedule C 2b every day of the year. Requirements of customers in excess of 59 degree days will be provided from the Company's retained storage. These requirements, as well as peak day, seasonal, and annual requirements of the customers will continue to be forecast by the Company. See Exhibit 3 Schedule C 2 a. These daily forecasted requirements will differ from actual usage due to the impossibility of predicting weather and associated consumption. As noted, an additional piece of storage therefore will be retained and included in rates to ensure that sufficient capacity exists for this difference. See further discussion at Exhibit 2, Schedule C 3.

4) <u>System Maintenance Orders, Flow Orders and Penalties</u>.

Distribution will continue the practice, established in its current choice program, of issuing system maintenance orders, operational flow orders as well as its strong penalty provisions which will help assure that gas flows are made as necessary to assure that Distribution can serve its customers. See Exhibit 3, Description at 13, and Exhibit 4, Rate Schedule SATS at 83AP-83AQ.

- C. System Operations, Reliability Standards and Capacity Management
- 2. Set forth the natural gas distribution company's proposed procedures for:
- a. Requiring all natural gas suppliers to supply the natural gas distribution company with natural gas at locations, volumes, qualities and pressures that are adequate to meet the natural gas supplier's supply and reliability obligations as well as those of the natural gas distribution company (Section 2205(a)(2)).

Response:

As noted in response to Filing Requirement C. 1., Distribution will continue the supply and reliability practices established in its customer choice program.

Retaining critical reliability, operational and flexibility, and load pocket capacity and requiring assignment of other capacity, will assure that gas will be available where and when needed across Distribution's webbed distribution system. By retaining the NFG Supply EFT capacity associated with upstream pipeline capacity and the Tennessee Gas Pipeline Company ("Tennessee") capacity Distribution can receive gas at hundreds of points on its system as needed while requiring Suppliers to deliver at relatively few points. It is because of Distribution's webbed system (and its interconnectedness with NFG Supply and Tennessee) that managing deliveries from Suppliers for residential customers is most efficiently and reliably done by Distribution. As well, isolated pockets of customers which are served by particular pieces of capacity will be assured a choice of supply, similar to other customers. See Exhibit 3, Description at 8-10, Appendix F, and Exhibit 4, Rate Sched. SATS at 83AI - 83AN.

SATS Service requires that gas quality and pressure requirements be met when gas supplies flow into the upstream pipelines through which all gas supplies for SATC Service will flow. Therefore, reliability will not suffer as a result of gas quality and pressure. See Exhibit 4, Rate Sched. SATS at 83 AH.

The specific percentages of released capacity, retained capacity, and storage that each NGS will take to meet the SATC Customers' service needs are provided in Exhibit 2, Schedule C 1, and in Exhibit 4, Rate Schedule SATS at 83AI - 83AN.

- C. System Operations, Reliability Standards and Capacity Management
- 2 Set forth the natural gas distribution company's proposed procedures for:
- b. Assigning capacity to natural gas suppliers.

Response:

Distribution will continue its current customer choice practice of assigning capacity and allocating receipt points into retained capacity for SATS Suppliers. See Exhibit 3, Energy Select Description at 11. In assigning released capacity, Distribution attempts to accommodate Suppliers' requests for particular paths of capacity on a first-come, first-serve basis. In practice, some receipt points are unavailable because they are currently associated with Distribution's long term firm purchase obligations for its sales customers. A surcharge/credit mechanism is used to assure Suppliers pay the system average.

For receipt points into retained capacity, Distribution initially allocates points in the same manner as for released capacity, however each April the points can be reallocated. See Exhibit 4, SATS Tariff at Sheet Nos. 83AL, 83AM.

The quantity of capacity assigned is determined by a formulation designed to approximate the cumulative daily consumption on a 59 degree day deficiency day. Each customer in the aggregation pool contributes a base load and heat load factor based upon historical data or a standard load profile where data is unavailable. The consumption is normalized which means that actual weather is factored out and replaced with 30 year normal weather. The cumulative normalized base load is added to the product of the cumulative normalized heat load factor times 59 degree days to compute the 59 degree day day consumption for the aggregation pool. This quantity is then grossed up by 3.25% to accommodate the Distribution retainage factor and converted to Dekatherms using the average citygate BTU for the most recent April to March period to determine the citygate requirement on a 59 degree day day. The BTU factor, based upon April 1998 to March 1999, is 1.045.

The Company performs this calculation approximately 15 days before the start of the month in which the capacity will be released. The 15th has evolved as a convenient point in time because it permits the releasing party and the NGS

sufficient lead time to handle the administrative processes associated with capacity release.

The load associated with each aggregation pool is a function of the enrollment process which means that the number of customers in the pool, the associated load and thereby capacity requirement, can change daily. Capacity release, on the other hand, is a calendar month process. Because of the associated administrative overhead for both Distribution and the NGS with each capacity release, it is not practical to change the release quantity every day. Therefore, capacity is released on a monthly basis based on the number of customers the NGS will have during the month.

- C. System Operations, Reliability Standards and Capacity Management.
- 2. Set forth the natural gas distribution company's proposed procedures for:
- c. Nominations

Response:

Distribution's current nomination procedure is fax based. Customers are organized into market pools and producers into production pools. Suppliers place "Gas In" nominations to identify which supplies, delivered into the system at the citygate or from a production pool, are to be delivered to which market pools. Suppliers serving aggregation pools must deliver, within a tolerance, a specified Distribution forecasted Aggregater Daily Delivery Quantity ("ADDQ"). The Suppliers obtain the ADDQs each day from Distribution's web site.

Suppliers serving non-aggregation pools do not have an ADDQ but are expected to deliver gas in a quantity that approximates the cumulative consumption of the customers in the pool. The Supplier also places a "Gas Out" to identify the quantities of gas to be transported for each of the non-aggregation customers. Additionally, "pool to pool transfer" nominations may be placed to transfer supplies from one market pool to another.

Suppliers (and in a few cases, large enduser customers that manage their own gas supplies) place timely nominations by faxing nominations to Distribution's Transportation Services Department at 11:30 A.M. each business day to become effective at the beginning of the next gas day (10:00 AM). For Monthly or MMT service, nominations that would be received on non-business days such as Saturday and Sunday are due on the business day that precedes the non-business day (e.g. Friday). For customers served under Daily or DMT service, as well as those served under aggregation service, nominations may be placed on weekends although in practice, these nominations have rarely, if ever, been placed. Intraday nominations to adjust supplies into the systems are processed during business days on a best efforts basis.

All transportation customers are organized into market pools, irrespective or whether they are served through aggregation or traditional stand-alone transportation. Aggregation customers are assigned to pools via the enrollment process and stand-alone customers are assigned to pools through a pool

building nomination submitted a few days prior to the start of the month. No customer may belong to more than one pool and pools are segregated by service type, i.e. DMT customers cannot be placed in the same pool as MMT customers. The smallest market pool may contain only one enduse customer thereby permitting an individual enduser the capability to place nominations. Similarly, all production meters are organized into production pools. Meters are assigned to pools through a pool building nomination submitted a few days prior to the start of the month. No meter may belong to more than one pool and pools are segregated by measurement type, i.e. meters with telemetered daily measurement cannot be placed in the same pool as meters with monthly measurement. Suppliers may nominate from daily production pools to Monthly, Daily or Aggregation market pools but monthly production pools may only supply monthly market pools. The smallest producers an active role in transportation if they wish.

The overall design of the nomination system is predicated upon the availability of key assets. Most important there are no geographic restrictions on which meters or which customers may be placed in which pools. The lack of restrictions is due in large part to the retention of upstream storage and transportation assets, most specifically those held on NFG Supply and Tennessee. Absent these assets, many geographic restrictions would have to be imposed to maintain the operational integrity of the system. This would lead to a balkanized system with certain load pockets exposed to a lack of supply options.

ADDQs are forecast each night, as the CIS system is updated by the enrollment system. Burner tip customers enter or leave aggregation pools. Each customer, based upon available historical data or a standard load profile where data is unavailable, contribute an individual based load quantity and heat load factor. These quantities are aggregated up to the pool level and a weather forecast is used to convert this information into an ADDQ. As a means of providing some insight to upcoming changes, ADDQs are forecast four days at a time based upon the long range weather forecast. Only the first day's ADDQ is relevant, however. Distribution may recalculate the ADDQs each day, if necessary but in practice attempts to keep changes to a minimum.

Distribution is currently developing an internet based Transportation Scheduling System ("TSS") along the lines of the interactive internet standards developed by the Gas Industry Standards Board ("GISB"). The TSS should be completed and operational by April 2000. After a short transition period, it will be

mandatory for Suppliers to use the TSS to place nominations. Fax based nominations will only be available emergency backup.

Once the TSS is operating, Suppliers will be responsible for entering the nominations themselves. The current fax based system requires Distribution to re-key nomination data into the current scheduling system. Since the re-keying process will no longer be necessary, timely nominations will be due at 12:30 PM in most cases. One exception will be for nominations that utilize capacity retained on Tennessee. Since Distribution must place nominations on the Tennessee's system by 12:30 PM, one hour of lead time is required to coordinate Supplier nominations with those supplies for Distribution's remaining core sales customers as well as to determine which points of delivery into NFG Supply are required to operate Distribution's system.

The internet nature of the system will permit Distribution to provide 7 day a week, 24 hour a day nomination coverage although Distribution personnel will not necessarily be at their normal work (on-site) location. On-site staffing will be available from 8:00 A.M. to 7:00 P.M. and a 24 hour telephone number will be made available. Distribution will require that all Suppliers have corresponding coverage capabilities. GISB intraday nominations will be supported for the scheduling of gas into Distribution's system, with certain caveats.

For example, Distribution expects that Suppliers will still utilize timely nominations to schedule the bulk of the gas into the system because that nomination cycle has the highest likelihood of success. In addition to the timely cycle, only the evening intraday nomination has a chance to schedule a full day's quantity of gas beginning at the start of the gas day. The other intraday nomination cycles result in gas showing up at 6:00 P.M. or 10:00 P.M. These quantities correspond to two-thirds or one-half of the daily flow quantity, respectively. Even if the flow rate is increased to recover the full daily quantity, the later start will miss the peak consumption period of the day.

Further, Distribution's intraday support is contingent upon the Suppliers' understanding that the primary purpose of such nominations is to correct mistakes made in earlier cycles. Distribution must be ready to purchase replacement gas supplies upon Suppliers' non-performance. It will be difficult, if not impossible, to operate an efficient, reliable system based upon the promise that gas will show up at later cycles. While penalties for non-performance will be issued, all market participants need to understand that communication and coordination are key to operations in an unbundled environment. It is Distribution's sincerest wish that penalties are never issued. Distribution

reserves the right to reject a Supplier's intraday nominations if it sees an abusive nomination pattern developing.

Further, Production Pool Operators will be required to utilize the TSS also but individual producers may conduct business as usual because the only action they must take each month is to have their meter assigned to a production pool. The TSS will utilize enhanced ranking and pre-determined allocation features to ensure that Pennsylvania produced gas is allocated to market pools and ultimately to customers. Further, Production Pool Operator may elect to actively confirm which suppliers nominate (or control the quantity of gas nominated by Suppliers) via a TSS confirmation screen.

- C. System Operations, Reliability Standards and Capacity Management
- 2. Set forth the natural gas distribution company's proposed procedures for:
- d. Obtaining new and renewed capacity contracts (Section 2204(e)).

Response:

For capacity contracts up for renewal, Distribution has established procedures in its current customer choice program by which it advises the Suppliers that have expressed an interest in the customer choice program of such contracts to ascertain whether the Suppliers have any interest in obtaining such capacity. To date one Supplier has expressed interest and the Company is evaluating the request to provide replacement capacity. Additional procedures which will be applied following the grace period noted in the Act are provided here. See attached National Fuel's Procedures for Renewing and Acquiring Capacity Contracts.

- C. System Operations, Reliability Standards and Capacity Management
- 2. Set forth the natural gas distribution company's proposed procedures for:
- e. Capacity contract mitigation parameters; (Section 2203(3), 2204(d)).

Response:

Under restructuring, Distribution will evaluate the overall needs on the system and the resultant upstream capacity requirements. Distribution will communicate with Suppliers throughout its ongoing collaborative if capacity can be renewed by an NGS or replaced by other capacity contracted by an NGS, pursuant to the procedures identified in Exhibit 2, Schedule C 2d. In the meantime, Distribution will continue to inform Suppliers if capacity becomes available for them to take and/or replace.

- C. System Operations, Reliability Standards and Capacity Management
- 2. Set forth the natural gas distribution company's proposed procedures for:
- f. Notice requirement and procedures for natural gas suppliers to exit the system. Section 2207(I), (j), (k).

Response:

Under Distribution's current customer choice model, the NGS must provide the customer and the company 15 days notice before discontinuing supply service. Customers will be transferred to the Company on the customers' next control date. See Exhibit 3, SATS Rate Schedule, page 83AT. For such terminated customers, the Company has the right to recall capacity released to the NGS or to require capacity assignment in order to serve the customer. Exhibit 3, SATS Rate Schedule, page 83AS.

For Suppliers terminated by the Company, the Supplier's customers are to be given notice of such termination and transferred to the Company. See Exhibit 3, SATS Rate Schedule, page 83AQ. The Company then has the option to recall from the terminated Supplier capacity it has released to it or to require the Supplier to assign to the Company capacity it was using to serve such customers. Also, gas in storage is to be sold to the Company at the Company's lowest monthly weighted average commodity cost during the last 12 months.

Distribution proposes to continue these procedures, and clarify procedures applicable to Suppliers exiting ("Exiting Supplier") the system.

An Exiting Supplier shall serve written notice to its customers 60 days prior to exiting the system. The Exiting Supplier shall advise its customers that, effective upon its stated date or effective with the next cycle bill after the 60 days, the Exiting Supplier will no longer be the provider of their natural gas requirements. The notice shall include: (a) information regarding the customer's ability to select another NGS (b) assurances that their service will be provided by the named SOLR; and (c) information regarding payment of their final bill for services rendered by the Exiting Supplier. Further, the Exiting Supplier shall provide the SOLR or any other NGS with the opportunity to obtain the released capacity or other capacity it was using to serve its customers. Also, gas in storage is to be sold to the Company at the Company's lowest monthly weighted average

commodity cost during the last 12 months if the customer returns to the Company.

Upon completion of notice requirements by the Exiting Supplier to Distribution, Distribution will notify the Exiting Supplier's customers that effective with their next cycle bill they will no longer receive their natural gas requirements from the Exiting Supplier. The notice will contain information regarding: (a) the customer's right to select another NGS from an included list of other approved Suppliers; (b) assurances that their service will not be interrupted during the switching period; (c) information regarding the change in service rates upon return to the SOLR.

In any event where the Supplier exits the system, the Supplier remains responsible for deliveries, billing, collection and payments until all customers have been switched to a new NGS or to the Company. In addition, the Exiting Supplier will be responsible for any contractual obligations relating to existing capacity requirements.

Further, security provided by the supplier to Distribution will not be released until all financial obligations of the Exiting Supplier are paid in full.

Distribution will exercise its rights to maintain the integrity of its system without compromising deliveries on behalf of other Suppliers or as the SOLR. The circumstances under which an NGS requests exit from the system may directly affect the manner in which the request is handled.

A Supplier exiting the system is a critical event. It is important to work with the Exiting Supplier in order to provide for an orderly exit as Distribution's tariff currently provides. The above-described policy does this. However, in the case of an abrupt exit from the system, Distribution is prepared to continue physical deliveries to the customers and honor the marketers rate for the remainder of the billing cycle. At that point the customer will return to Distribution's sales service. To the extent Distribution is not informed of the Exiting Supplier's rate, Distribution shall bill the customer at Distribution's sales rate.

- C. System Operations, Reliability Standards and Capacity Management
- 3. Provide a full explanation of how balancing service is to be provided on the natural gas distribution company's system. Explain any limitations associated with receiving customer gas supplies at any receipt point and explain how the company proposes to address any such limitations. Include a detailed system map that identifies receipt points and capacities for interconnecting gas suppliers.

Response:

Distribution's current customer choice program assures that deliveries and balancing are accomplished through the critical capacity retained by the Company. This critical capacity identified in Exhibit 2, Schedules C 1 and C 2. Exhibit 3, Appendix F, Upstream Capacity Requirements also describes the unique challenges posed by providing customer choice on Distribution's webbed system.

The unique characteristics of the National Fuel (both Distribution and Supply) system require that any unbundling plan must deal with existing physical limitations related to availability of competing capacity, the location of gas delivery points and the isolation of certain market areas. The retained capacity does this.

Distribution proposes to change the capacity requirements of its current customer choice program, and retain sufficient storage for ADDQ temperature/usage sensitivity and peak day deliverability as described further here. Distribution will also use this capacity to serve Suppliers which do not deliver. These changes necessitate a change in the percentages of the different capacity types making up an NGS capacity used for its customers. See Exhibit 2, Schedule C 1.

Currently, under the SATS Service, SATS Suppliers must make available for delivery to the Distribution Citygate quantities equivalent to the ADDQ of its customer group. The ADDQ represents Distribution's forecasted requirements for a given Supplier's pool of customers.

The ADDQ is calculated by Distribution based upon weather forecasts prior to the actual date of gas flow in order for Suppliers to nominate sufficient gas

supplies on the upstream pipelines and from storage. Because the ADDQ is highly dependent on the forecasted temperature, it can change on a daily basis. In fact, from the time the ADDQ's are posted on the Distribution EBB to the time of actual gas flow, weather conditions can change significantly, thus the ADDQ can be different than the actual needs of the Supplier's customers.

To calculate how much the actual temperature can vary from the forecasted temperature, we performed a statistical analysis using projected mean temperature data provided by "The Weather Channel" and compared it to the actual temperature data obtained from the National Weather Service office located at the Buffalo International Airport. This analysis demonstrated that actual temperatures can be as much as 15% colder than those forecast in advance for a given day. This means that the ADDQ which was provided to a supplier in advance might, as a result, cause the supplier to deliver less gas supply than its customer group will actually require. This difference between the quantity of gas that the supplier delivers and the quantity which its customer group will require will be supplied using NFG Supply ESS storage service and NFG Supply EFT capacity retained by NFGDC. To calculate how much ESS storage deliverability would be required to serve the additional customer requirements associated with this weather variability, we reviewed the core customer requirements associated with the mean extreme day temperature of the last 30 years, or 61 Degree Days, and increased them by 15%, using a 70.2 Degree Day day. This associated incremental level of deliverability is 36,698 Mcf/day. The level of ESS inventory capacity associated with this deliverability is 1.7 BCF. For this reason it is critical for NFGDC to retain 1.7 BCF of nonotice service on NFGSC to balance the variance in requirements on the system due to changing weather conditions not reflected in Supplier's deliveries.

Distribution will also retain its 0.1 BCF of capacity on its 10-day storage contract with Engage along with the associated firm transportation capacity on Empire and NFG Supply and .2 BCF of capacity on its 30-day storage contract with Columbia along with the associated firm transportation capacity on Columbia and NFG Supply. This capacity will be retained to meet the requirements on the system during extreme days as well as to provide backup deliverability to the system when Suppliers fail to deliver their full ADDQ obligation. It is Distribution's intent to purchase additional 10-day peaking storage in the future to provide additional backup for Supplier transportation deliveries in the winter and most particularly on peak days. The total deliverability associated with the combined 2 BCF of storage retained for these assets is 51,170 Mcf/day.

Since the current system requires the full deliverability associated with these contracts on a 72 DD peak day, Distribution will provide deliveries to marketer's customers from this retained 2 BCF of capacity. A 1 Degree Day difference on Distribution's system equates to a variance in core customer requirements of 3,998 MCF. Since Distribution will retain deliverability of 51,170 Mcf/day, this means that it will release enough capacity to the suppliers to meet a level of customer requirements equal to a 59 DD day. The remaining deliverability necessary to meet suppliers requirements above a 59 DD day will be provided from the 2 BCF of retained storage capacity. Suppliers will never be issued an ADDQ based on weather conditions above a 59 DD day. On any day when weather conditions are forecast to, or actually exceed, 59 degree days, Distribution's retained storage capacity will provide the incremental deliverability required by the Supplier's customers. The calculation of the cost of this retained capacity and deliverability is shown on Exhibit 2, Schedule A 2 workpaper page 4 of 4.

Suppliers' ADDQs will be adjusted upwards, subject to the 59 degree day day limit, on the next available subsequent day(s) to return to Distribution the quantities of gas which have been provided to the Suppliers from this retained balancing.

- C. System Operations, Reliability Standards and Capacity Management
- 4. Set forth the natural gas distribution company's plan for post-July 1, 2002, assignment of gas supply contracts with Pennsylvania producers. (This item is optional since natural gas distribution companies may file after restructuring.) Section 2204(d)(7).

Response:

Currently Distribution has a very small amount of gas supplies under contract committed with Pennsylvania Producers (less than .33 Bcf /year). The majority of Pennsylvania production gas is already flowing to existing Transportation Markets, therefore assignment of Pennsylvania production contracts will not be an issue in restructuring.