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Draft Regulatory Analysis

Notice of Proposed Rulemaking Motor Gasoline Allocation Revisions

June 1980

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Prepared by:
U.S. Department of Energy
Economic Regulatory Administration
Office of Regulations and Emergency Planning



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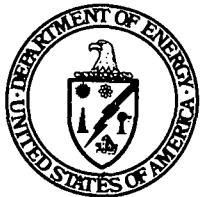
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EXECUTIVE SUMMARY

The Economic Regulatory Administration (ERA) of the Department of Energy (DOE) is required to prepare a regulatory analysis of those proposed regulations which either may have a major impact on the general economy, individual industries, or geographic regions and levels of government, or may be significant in that they affect important DOE policy concerns and are the object of public interest.^a The regulatory analysis provides a written and comprehensive review of the level and incidence of impact associated with the proposed regulatory actions. The analysis also provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives to solve the problems, including non-regulatory alternatives.^b The purpose of the analysis is to ensure that the regulatory agency systematically and comprehensively considers all available alternatives, so that the public welfare can be enhanced in the most efficient and cost effective way.

A. Objectives of the Motor Gasoline Allocation Program

This analysis examines the problems and proposed solutions contained in the Economic Regulatory Administration's Notice of Proposed Rulemaking and Public Hearings on the Motor Gasoline Allocation Program.

The ERA's mandate for this program is set out in the Emergency Petroleum Allocation Act of 1973. Under this Act, the President is empowered to enforce, at his discretion, price and allocation controls on petroleum and petroleum products, including gasoline, through September 30, 1981. The Act sets the following allocation goals:

- protect public health;
- maintain public services and agricultural operations;
- foster competition in the petroleum industry;
- distribute petroleum among industry sectors and U.S. regions equitably; and
- minimize economic disruption and unnecessary interference with market mechanisms.

Through the revisions proposed in this rulemaking, ERA is seeking to further all of these goals. But in particular, the revisions focus upon promoting competition, ensuring equitable distribution of available supplies, and minimizing economic disruption.

^a See Executive Order 12044, "Improving Government Regulations" (43 FR 12661, March 23, 1978) and the Department of Energy's Implementing DOE Order 2030.1, "Procedures for the Development and Analysis of Regulations, Standards and Guidelines" (44FR 1032, January 3, 1979).

^b Federal Energy Guidelines, Volume III, p. 39554.

B. Limitations of the Gasoline Allocation Program

The Gasoline Allocation Program is designed to distribute a fixed supply of gasoline to a variety of purchasers, including gasoline wholesalers who distribute it through a retail outlet to end users. The allocation program does not apply to the entire production, refining, and marketing process. Rather, it is responsible for gasoline distribution after gasoline leaves the refinery gate. Unlike a gasoline rationing plan or an unregulated market which allocates product, the allocation program focuses on wholesalers and bulk consumers. This distinction is significant because the program is limited in its ability to respond to end use demand changes, either short or long term.

Any inability to respond would stem from inherent limitations in the program. These limitations, which are described in detail below, are not criticisms of the program. Rather, they are components of almost any regulatory structure and must be understood when examining how the program does not and cannot respond to changes in gasoline supplied and demanded in the same manner as a free market would.

To expect the gasoline allocation program to mimic perfectly a free market system is unreasonable. No changes to the program can accomplish that feat. The program distributes fixed supplies of motor gasoline to wholesalers, based on their purchases during an historical period. The emphasis of the program is on the allocation of limited supplies, not upon increasing supplies or reducing demand. Like many regulations, the program is historically based, linking current gasoline supplies with base period demand. And, the product supply guarantees are to wholesalers and to industrial and commercial users. The guarantee does not necessarily extend to motorists.

C. Definition of the Problem Areas and Proposed Solutions

The Economic Regulatory Administration has identified two serious problem areas related to the distribution of gasoline. The first problem area relates to the ongoing nature of the gasoline allocation program, which does not allow the market to respond well to demand patterns that are changing over time. The second problem area is crisis related and concerns the inability of the program to adapt to demand patterns that shift temporarily during a gasoline shortage such as the one experienced in the summer of 1979.

Market Structure and Long-term Demand Changes

A serious shortcoming of a base period oriented allocation program is that it risks distorting the normal evolution of supplier-purchaser relationships or market structure. For example, by determining supplier-purchaser relationships, the allocation program ensures that short supplies will generally be distributed pro rata among a supplier's historic or assigned customers, wholesalers, and retailers. However, this also means that firms wishing to enter new markets or to experiment with new marketing concepts and to respond to shifts in demand cannot readily obtain additional supplies through open bidding. Thus, efficient firms may be limited in their ability to expand operations, while inefficient firms are protected. As a result, the evolution of the gasoline market in response to competition is hindered.

The regulatory analysis describes three major approaches to alleviating the adverse effects of the inflexible market structure imposed by the motor gasoline allocation program. They are: make no program changes; revise the program; eliminate the program.

1. Make no changes

Maintenance of the established program with its flaws would be the least disruptive in the marketplace and, in light of the program's expiration date of September 30, 1981, may be the most desirable course.

2. Replace the current unusual growth adjustment with a revised unusual growth adjustment provision

The current rule provides for a one-time upward adjustment for firms whose average monthly purchases during the October 1978 through February 1979 period were at least ten percent higher than its purchases in a base period month. The current adjustment may be an inadequate indicator of real growth because it tends to reflect seasonal variations in demand rather than sustained growth! The proposed adjustment would correct this effect by comparing the average monthly purchases of the October 1978 through February 1979 period to the average monthly purchases during the same period the year before. The new provision would also limit any such adjustment to the amount in excess of a ten percent increase.

The draft regulatory analysis concludes that:

The proposed adjustment would mitigate the seasonal effect of the existing adjustment and would measure real growth more accurately.

The new proposed ten percent deductible feature could dramatically reduce the number of firms qualifying for the adjustment.

The large number of base period relationships that the change could affect could result in substantially increased administrative costs.

3. Adopt New Guidelines for New and Existing Station Assignments

The current presumption in favor of new station assignments would be eliminated, and assignments would not be made unless all suppliers were willing. The proposed change would also provide operators of existing retail sales outlets with substantially increased opportunity to qualify for upward allocation adjustments. Two alternative proposals are suggested. In the first proposal, assignments would be made only if the supplier had an allocation fraction of greater than one or some other fraction specified by ERA. The rationale is that new assignments are not appropriate where supplies are inadequate to meet existing station demand. The second proposal requires only a willing supplier. An application otherwise qualifying could also be denied upon a demonstration that the assignment would seriously jeopardize the competitive viability of other outlets within the affected market. In the first proposal, assignments could be made, irrespective of the foregoing, if necessary to meet new demand within a market. The second proposal also limits the increased volumes that an existing station could receive to 60,000 gallons per month or to volumes of a comparable station, whichever volume is greater.

The draft regulatory analysis concludes that:

The allocation fraction is probably an inadequate indicator of local supply conditions and, thus, for assessing the appropriateness of new outlet assignments.

Requiring all suppliers to be willing could potentially grant refiners final say over all new assignment decisions. Currently, a jobber can declare himself a "willing supplier" without the consent of his suppliers. However, no conclusive evidence is available to support the conclusion that refiners would exert undue influence over new station applications.

Restricting the procedures for granting new assignments would provide some protection to existing stations and could impede development of new, more efficient outlets.

The first proposal would alleviate inequities being felt by independent lessee dealers under the current provisions by granting equal access to upward adjustments to reflect new demand, and this could contribute to economic efficiency.

The second proposal allows limited opportunity for current stations to convert to higher volume outlets. Even under the proposed restrictions that applicants would be required to obtain willing suppliers with a minimum allocation fraction, potential administrative back logs at regional offices could be increased significantly. The analysis estimates that a 25 percent increase in regional staff might be required to respond to existing station applications.

4. Eliminate Interim Assignment Provisions

The proposal would delete the current provisions which (i) allow resellers to supply new retail outlets on an interim basis upon the filing of an application and (ii) require their suppliers to furnish the additional volumes pending ERA action.

Our regulatory analysis concludes that:

The proposed change would tend to curb apparent reseller abuses without inhibiting legitimate new station applications.

5. Increase Supplier Flexibility to Shift Allocation Entitlements

The proposal would grant resellers and refiners increased flexibility to reassign base period volumes of closed outlets so long as the proportional share of product among company-operated and independent classes of purchaser is maintained. An alternative proposed would require volumes to be kept within the same market or defined geographic area.

The draft regulatory analysis concludes that:

The rule would increase suppliers' ability to respond to demand changes since the base period and could contribute to more efficient distribution systems.

Its impact on overall supply patterns may be minimal. Without a downward certification requirement, jobbers generally enjoy this flexibility presently.

The "market area" alternative would be difficult to define and apply.

Suppliers may be in a position to use the flexibility to exert competitive pressures.

6. Allow Resellers Separate Allocation Fractions for Separate Brands

The proposed change would permit resellers discretion to maintain uniform allocation fractions or to have separate allocation fractions for different brands of product. Currently, jobbers supplied by more than one brand must apply a uniform allocation fraction to all purchasers irrespective of brand.

The draft regulatory analysis concludes that:

Under the proposal, gasoline jobbers would be allowed to place their customers on separate allocation fractions whenever the jobber's suppliers implement separate fractions. The regulations do not set upper or lower boundaries on the allocation fraction to be applied by jobbers to branded retail outlets. Accordingly, although the regulations do provide the flexibility required for jobbers to deal with separate refiner allocation fractions, the regulations also leave sufficient room for discriminatory distribution policies by jobbers.

7. Eliminate the Program.

An alternative to continuing current allocation rules or revising them would be to eliminate government regulation of the allocation of gasoline. The draft regulatory analysis concludes:

Elimination of the allocation program would provide a more responsive and efficient reallocation of gasoline during a shortage characterized by regional shifts in demand.

A more efficient allocation of gasoline during non-shortage periods, with or without price controls, would result.

Some retail outlets might exit the market.

The market for gasoline would remain competitive with low levels of seller concentration and low barriers to entry.

Temporary Regional Gasoline Shortages

Two major provisions of the DOE allocation regulations provide flexibility for reallocation of gasoline when shifts in demand caused excess supply. The first is the state set-aside program. The program was designed to allow states to meet any hardships or special needs that might arise during a shortage.

A second provision grants the DOE authority to "redirect" gasoline in response to imbalances. The redirection authority provided by Section 211.14 of the allocation regulations was designed to give the DOE additional flexibility when, for example, demand patterns change as they did in 1979.

The two mechanisms of the allocation program designed to alleviate excess supply and demand were not responsive to shifts in demand which occurred in the summer of 1979. As a result, the excess supply of gasoline in rural areas was not reallocated to urban areas. This, in turn, led to excess demand in some urban areas, most dramatically evidenced by long lines of motorists at gasoline stations, which persisted even though gasoline was available. Available reallocation mechanisms were not used effectively to reallocate surplus supply. The ERA has considered five proposals to improve the responsiveness of the allocation program during any future disruption in the supply of gasoline. Several of these proposals are not included in the Notice of Proposed Rulemaking, but have been analyzed.

1. Continue Reliance on the State Set-aside Provision

The state set-aside program faced a major challenge in the spring and summer of 1979 when it was called upon to help bring relief to localized supply disruptions as evidenced by long gasoline lines. The crisis brought forth problems of the set-aside program as it then existed.

The regulatory analysis concludes that:

The ERA is currently making changes to the state set-aside program that should improve its efficiency.

The state set-aside program cannot solve either multi-state supply-demand problems, and should not be relied upon to correct long-term supply imbalances.

2. Grant Priority Allocation Level for Low Volume Stations

This proposal, which has not been included in the NOPR, would provide that the first 20,000 gallons-per-month of the base period use of all retail sales outlets would not be subject to a supplier's allocation fraction. An alternative approach would limit this new priority allocation level to outlets located in certain urban SMSA's or other defined urban areas. No further action on this proposal is anticipated.

The draft regulatory analysis concludes that:

Even if allocations flow to stations as intended, the proposed levels would probably not provide an adequate incentive to increase hours of operation.

Adjustments would be made at the expense of non-priority users which, during a shortage, could tend to aggravate lines at retail outlets.

Gasoline would tend to flow from larger, more efficient size outlets to smaller, less efficient outlets.

If rural areas are served by a large proportion of small gasoline stations, gasoline could be reallocated from urban areas to rural areas.

3. Provide Temporary Allocation Adjustments for Areas Experiencing Shortages

Provide ERA with authority to redirect gasoline to areas in which the majority of the retail outlets are experiencing significant gasoline lines. One proposal would authorize the ERA to increase by 1,000 gallons per month the base period use of all outlets located in certain SMSAs or other defined geographic areas. An alternative proposal would allow an increase of two percent of an outlet's base period volume up to a ceiling of 5,000 gallons.

The draft regulatory analysis concludes that:

Because a number of factors can combine to contribute to localized shortages that result in gasoline lines, there probably is no single set of common characteristics that are present in each case. Supply availability, inventory management practices, and demand psychology can all result in lines. Furthermore, it is fair to assume that future shortages will affect areas with different numbers of outlets and different size distribution of outlets. The shortages themselves, moreover, will probably vary in magnitude and duration. Thus, any fixed reallocation method based on pre-defined geographic designations, outlet size and location is inappropriate.

4. Redirect Gasoline to Areas Experiencing Significant Gasoline Lines.

To combat the problem of shifts in demand during a shortage of gasoline that leave some areas with temporary surpluses and others with exacerbated shortages, the ERA could be authorized to reallocate gasoline to areas in which a majority of retail outlets face customer queues. This authority could be used after the states and localities exhausted the means of their disposal to solve the problem. The draft regulatory analysis finds that:

The information necessary for implementation of such a program during a shortage takes several months, even under optimal conditions and efficiency. This is too long to be of much assistance in a shortage such as the 1979 shortage.

The required state and local actions, verification and allocation mechanism would be too awkward and slow to provide the prompt reallocation of gasoline required.

In shortages more protracted than the one that occurred in 1979, there is no guarantee that excess supply will appear in rural areas for reallocation to urban areas.

5. Allow Governors to Redirect State Supplies

The proposal would enable the governor to require suppliers to redirect petroleum product from surplus to shortage areas within the state. Current regulations, which allow refiners and importers to redirect at their discretion, have been ineffective in diminishing or equalizing intrastate shortages.

The regulatory analysis concludes that:

The proposal needs clarification. Moreover, the objectives can be more readily attained by amending the set-aside authority rather than changing Section 211.14(b).

I. BACKGROUND OF THE GASOLINE ALLOCATION PROGRAM

A. Legislative Mandate

The federal government's direct involvement in the gasoline market began in 1971 with Phase I of a three-phased wage and price control program. For the next two years, gasoline prices were controlled, but the distribution of gasoline was not. Control of gasoline distribution began in May, 1973, when the Congress amended the Economic Stabilization Act in reaction to spot shortages in 1972. The amendments empowered the President to allocate the supply of both crude oil and refined products. Of particular concern at the time was the apparent imbalance in the geographical availability of petroleum products and an erosion in the position of independent refiners and marketers who were having trouble locating suppliers. President Nixon responded to the Congressional initiative by creating a voluntary allocation program on May 10, 1973.

Responding to the Arab states' oil embargo in October, 1973, Congress passed the Emergency Petroleum Allocation Act of 1973 (EPAA). The Act mandated price controls and allocation of refined petroleum products, including gasoline, and set the following allocation goals:

- protect public health;
- maintain public services and agricultural operations;
- foster competition in the petroleum industry;
- distribute petroleum among industry sectors and U.S. regions equitably; and
- minimize economic disruption and unnecessary interference with market mechanisms.

Although the Arab Oil Embargo precipitated Congressional action, Congress recognized that the foreign supply reduction alone had not created the energy crisis. In Section 2 of the EPAA Congress noted that "inadequate domestic production, environmental constraints and the unavailability of imports" in combination created the shortage situation. The problem then was of a general shortage in domestic and foreign crude oil and refined products. In this context, Congress designed the allocation program which was intended to be temporary and to alleviate immediate shortages.

As the House Report on EPAA states:

[This Act] is not designed to increase supplies . . . The shortage problem is the result of policies which have been in effect over a number of years, and it awaits a more far reaching and long range solution. Instead this bill focuses on the short term objectives of

seeing to it that during times of shortage our priority needs are met and that whatever limited supplies we have are equitably distributed throughout the nation to meet regional needs and preserve competition in the marketplace.¹

For this purpose Congress directed the President to "promulgate a regulation for the mandatory allocation of crude oil, residual fuel oil, and each refined petroleum product ... and at prices specified in ... such regulation."²

By August 30, 1975, the scheduled expiration date for EPAA, attention had shifted from dealing with an acute shortage to dealing with the consequences of the high price of imported oil. Testimony offered during the consideration of the Energy Policy and Conservation Act of 1975 (EPCA) linked a large portion of the 1974-1975 recession to the embargo and increased oil prices. It was suggested that "instant decontrol" of prices would be harmful to economic recovery. Thus, although Congress recognized that petroleum supplies had returned to near pre-embargo conditions it was decided that: "To the extent that mandatory controls are no longer needed or desirable, a gradual return to an unregulated market is preferable to sudden decontrol."³ As a consequence, allocation authorities along with price controls were continued with a provision allowing the President to exempt categories of product subject to disapproval by either House.

The EPCA set June 1, 1979, as the expiration date for mandatory price and allocation controls. Controls continue on gasoline, however, under a provision which allows the President to continue the program at his discretion. All authority under the EPAA expires September 30, 1981.⁴

Prior to June 1, 1979, if the President had chosen to convert the mandatory gasoline allocation program to a standby basis--i.e., exempted gasoline from active controls--he would have been required to demonstrate to Congress:

- that gasoline was no longer in short supply;
- that the exemption would not reduce the supply of any other oil or refined product; and
- that the exemption would be consistent with the attainment of the objectives set forth in the EPAA. (See Exhibit 1).

Congress would then have had 15 days from the submission of the decontrol proposal to reject it.

¹ House Report 93-521, p. 6.

² EPAA Sec. 4(a).

³ Conference Report 94-163, p. 203.

⁴ EPAA Sec. 18.

OBJECTIVES OF THE EMERGENCY
PETROLEUM ALLOCATION ACT

Section 4(b)(1) of the Emergency Petroleum Allocation Act of 1973 requires that the regulatory program shall to the maximum extent practicable provide for:

- (A) protection of public health (including the production of pharmaceuticals), safety and welfare (including maintenance of residential heating, such as individual homes, apartments and similar occupied dwelling units), and the national defense;
- (B) maintenance of all public services (including facilities and services provided by municipally, cooperatively, or investor owned utilities or by any State or local government or authority, and including transportation facilities and services which serve the public at large);
- (C) maintenance of agricultural operations, including farming, ranching, dairy, and fishing activities, and services directly related thereto;
- (D) preservation of an economically sound and competitive petroleum industry; including the priority needs to restore and foster competition in the producing, refining, distribution, marketing, and petro-chemical sectors of such industry, and to preserve the competitive viability of independent refiners, small refiners, nonbranded independent marketers, and branded independent marketers;
- (E) the allocation of suitable types, grades, and quality of crude oil to refineries in the United States to permit such refineries to operate at full capacity;
- (F) equitable distribution of crude oil, residual fuel oil, and refined petroleum products at equitable prices among all regions and areas of the United States and sectors of the petroleum industry, including independent refiners, small refiners, nonbranded independent marketers, branded independent marketers, and among all users;
- (G) allocation of residual fuel oil and refined petroleum products in such amounts and in such manner as may be necessary for the maintenance of, exploration for, and production or extraction of -
 - (i) fuels, and
 - (ii) minerals essential to the requirements of the United States, and for required transportation related thereto;
- (H) economic efficiency; and
- (I) minimization of economic distortion, inflexibility, and unnecessary interference with market mechanisms.

B. History of Implementation

Introduction

The gasoline allocation program has undergone numerous revisions since its initial promulgation in January 1974. As illustrated in Exhibit 2, the most important of these amendments occurred in the first year of the program and in the months following the reduction in Iranian crude oil production.

These revisions have not altered the basic structure of the allocation program. The program continues to seek to meet the Congressional objectives set forth in the EPAA by apportioning short supplies according to historical purchasing patterns, down through the gasoline supply system. Generally, this preservation of pre-shortage purchasing patterns provides assured supplies at historic levels to all marketers, and assures that fuel is available at the places where consumers traditionally seek it.

As shown in Exhibit 3, the allocation rules are intended to govern all gasoline transactions to the retail level and to certain bulk purchasers. The allocation program recognizes a number of priority uses, consistent with its statutory objectives.

Two elements--an historical base period and a broadly defined priority classification--combine to form a fairly rigid system for apportioning supplies during supply shortfalls. To provide some flexibility in allocations, limited supplies are deemed available to state governments monthly for distribution to bulk gasoline consumers or retail stations. More centralized mechanisms for seeking relief from allocation rules, or for obtaining additional supplies, are also available through DOE regional offices, and through DOE's Office of Hearings and Appeals.

As the Allocation Program has evolved over the past six years, four major program areas of importance have drawn considerable attention. These include:

- Priority Allocation Levels

Each purchaser is classified, according to priority rules. These rules, and changes to them, influence the distribution of gasoline to different economic sectors.

- Base Period

The allocation of current supplies is based upon purchase patterns that existed during an historic base period, which has undergone several revisions.

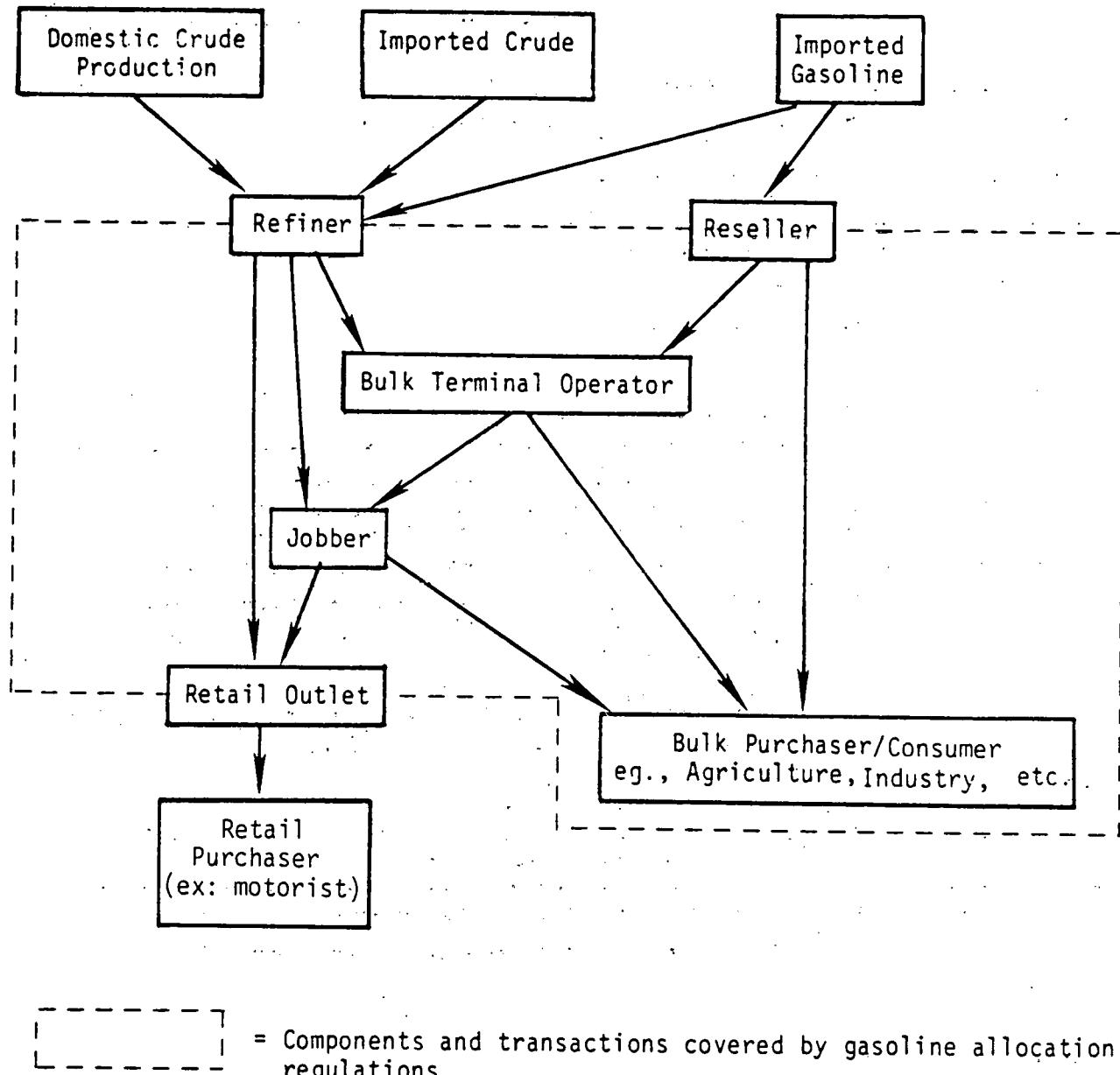
HISTORY OF THE GASOLINE ALLOCATION PROGRAM

| | | |
|-------|----------------|--|
| 1971 | Third Quarter | • ECONOMIC STABILIZATION PROGRAM, Phase I: Wage and Price Freeze |
| | Fourth Quarter | • ECONOMIC STABILIZATION PROGRAM, Phase II: 3% increase allowed |
| <hr/> | | |
| 1972 | | |
| | | |
| 1973 | First Quarter | • ECONOMIC STABILIZATION PROGRAM, Phase III: voluntary limits to Phase II levels |
| | Second Quarter | • ECONOMIC STABILIZATION ACT (1970) amendments: Presidential authority to allocate crude and products Voluntary Petroleum Allocation Program (base period for Phase IV) 60-Day Price Freeze |
| 1974 | Third Quarter | • ECONOMIC STABILIZATION PROGRAM, Phase IV: Included two-tier system for crude (old and new oil) Amendment to an appropriations bill: dollar-for-dollar increases for costs (cost passthrough) |
| | Fourth Quarter | <p style="text-align: center;"><u>ARAB OIL EMBARGO</u></p> <ul style="list-style-type: none"> • EMERGENCY PETROLEUM ALLOCATION ACT (EPAA): Office of Petroleum Allocation established, Department of Interior; FEO established; Limited allocation regulations became effective; Mandatory Allocation Program became effective |
| <hr/> | | |
| 1975 | First Quarter | <ul style="list-style-type: none"> • Allocation regulations applicable to motor gasoline became effective • Suppliers permitted to adjust gasoline base periods without prior government approval |
| | Second Quarter | • Clarification of allocation program, procedures established for sale of surplus product |
| 1976 | Third Quarter | <ul style="list-style-type: none"> • Rules established for unleaded gasoline • State role in review of New Assignments reestablished • Rule 74-13 established right of independent marketers to retain allocation entitlement of closed retail outlets • Deletion of changed circumstances provision [211.13(c)] |
| | Fourth Quarter | <ul style="list-style-type: none"> • Adjustments to gasoline base period restricted for existing outlets • Flexibility to assign product between stations increased from 20% to 30% |
| <hr/> | | |

EXHIBIT 2
(continued)

HISTORY OF THE GASOLINE ALLOCATION PROGRAM

| | | |
|---|----------------|---|
| 1976 | First Quarter | |
| | Second Quarter | <ul style="list-style-type: none"> • Residual fuel oil exempted from regulations |
| | Third Quarter | <ul style="list-style-type: none"> • Miscellaneous "other products" exempted from regulations • Middle distillate exempted from regulations |
| | Fourth Quarter | <ul style="list-style-type: none"> • Naphtha base jet fuel exempted from regulations • Gasoline exemption proposed |
| 1977 | First Quarter | <ul style="list-style-type: none"> • Gasoline exemption proposal withdrawn |
| | Second Quarter | <ul style="list-style-type: none"> • Definition of new stations revised |
| | Third Quarter | <ul style="list-style-type: none"> • Gasoline exemption proposed |
| | Fourth Quarter | |
| 1978 | Second Quarter | <ul style="list-style-type: none"> • FERC approves gasoline exemption |
| <u>IRANIAN CRUDE OIL PRODUCTION FALLS</u> | | |
| 1979 | First Quarter | <ul style="list-style-type: none"> • Gasoline base period updated from 1972 calendar year to 7/77-6/78 • Aviation gasoline and kerosene base jet fuel exempted from regulations |
| | Second Quarter | <ul style="list-style-type: none"> • President announces phased decontrol of crude oil, mandatory controls expire, program continues at President's discretion • Gasoline base period updated to 11/77-10/78. Unusual Growth Adjustment created for consumption from 10/78 to 2/79. Activation Order #1 codified • Special Rule No. 8 permits State Set-Aside Programs to assist retail outlets, volumes set-aside increased from 3% to 5% |
| | Third Quarter | <ul style="list-style-type: none"> • Defense non-essential needs placed on allocation fraction • First priority allocation changed from 100% current requirements to 100% base period • 50,000 gallon per month ceiling proposed for new station entitlements • Wholesale purchase-resellers required to submit sworn statements to obtain upward certifications • Downward Certification proposed then deferred • Governors' emergency authority specified |
| | Fourth Quarter | <ul style="list-style-type: none"> • 50,000 gallon per month ceiling overturned in courts • State set-aside increase from 3% to 5% made final |
| 1980 | First Quarter | <ul style="list-style-type: none"> • Passenger transportation first priority allocation broadened to include vanpooling • Policy guidance recommends tightening New Assignments during shortage situations |
| | Second Quarter | |
| | Third Quarter | |
| | Fourth Quarter | |
| 1981 | First Quarter | |
| | Second Quarter | |
| | Third Quarter | <ul style="list-style-type: none"> • President's Discretionary Authority under EPAA expires on September 30, 1981 |
| | Fourth Quarter | |

OVERVIEW OF GASOLINE SUPPLY SYSTEM AND
APPLICABILITY OF GASOLINE ALLOCATION REGULATIONS

- Supplier/Purchaser Relationships

The ability of suppliers to effect discretionary distribution of their gasoline has been limited by the allocation program. The program requires suppliers to provide product to their base period purchasers; however, the purchasers are not obligated to purchase product from their base period suppliers.

- Product Redirection Mechanisms

The discretionary provision of the program provides some flexibility to DOE, states, and some suppliers to allocate product irrespective of historic supplier/purchaser relationships.

Each of these four areas, and the changes that have occurred in each, are discussed below:

1. Priority Systems

A principal purpose of the allocation program is to assure an adequate supply of gasoline for certain defined uses which have been deemed essential for safety and well being. These uses are outlined broadly by the legislative mandate and given specific meaning by the priority rules in the allocation regulations. Priority rules developed for motor gasoline in 1974 continued to be in effect until July 31, 1979. The original priority system and the changes made in mid-summer are outlined in Exhibit 4.

Under the original rules, first priority customers were entitled to receive 100 percent of their current requirements. Current requirements were supposed to be the actual needs of the purchaser, as certified to its supplier. Deliveries to first priority purchasers were not to be limited by historical use, or by the availability of supplies; hence, allocation entitlements of such purchasers were "not subject to [application of the supplier's] allocation fraction."⁵

Second priority customers were to receive their current requirements, but reduced by application of their suppliers' allocation fraction. Current requirements for second priority customers were also supposed to mean actual needs. But these requirements enter into the calculation of a supplier's "Supply Obligation."⁶ Deliveries to second priority customers were also supposed to be limited by the resulting allocation fraction.

5 The allocation fraction expresses each supplier's relative availability of gasoline after certain priority and state set-aside obligations are met.

6 A supplier's supply obligation each month, which is subject to an allocation fraction, is the sum of all adjusted base period entitlements, exclusive of Priority I uses and state set-aside amounts. Base period customers include those assigned by the DOE. See 10 C.F.R., Section 211.10(b)(2).

PRIORITY SYSTEMS FOR ALLOCATING
GASOLINE SUPPLIES

BEGINNING OF PROGRAM - JULY 31, 1979

First Priority

Entitlement: 100 percent of current requirements

Department of Defense
Agricultural production

Second Priority

Entitlement: Current requirements subject to an allocation fraction

Emergency services
Energy production
Sanitation services
Telecommunication services (only during disruption)
Passenger transportation services
Cargo, freight, and mail hauling by truck
Aviation ground support vehicles and equipment

Entitlement: 100 percent of base period use subject to an allocation fraction

Industrial use
Commercial use
Governmental use
Social service agency use

Wholesale purchasers-resellers**

* The allocation level for this use may be raised during any period to 100 percent of current requirements if the Secretary of Defense certifies that such level is necessary as a result of unusual circumstances.

** These volumes are determined by a method set forth in Section 211.10.

The majority of end-users falls into the segment of customers entitled to receive their historical requirements as reduced by application of the supplier's allocation fraction.

Gasoline retailers, although not specifically included in the priority groups, received a quantity of gasoline equal to their historical purchases during a specified base period multiplied by their supplier's allocation fraction.

This system continued in effect through most of the 1979 shortage. It was changed on August 1, 1979, to combine the first and second priority levels and to remove "current requirements" from calculations of allocation rights. All users previously accorded first or second priority treatment now receive 100 percent of their base period volumes. Remaining users are entitled to an allocation level of 100 percent of base period use subject to application of the supplier's allocation fraction.

The August change in priority rules increased supplies available to most end-users by reducing the volumes committed to the Department of Defense and agricultural production. Allowing purchasers to receive all of their current needs, as was the case prior to the August changes, provided no incentives for conservation. The expression of allocation rights, in terms of "current requirements," provided incentives for overstatement of needs and rendered difficult the verification of supply obligations.

The priority system seeks to conform to a legislative mandate which quite clearly gives some gasoline users preference over others. The difficulty is in translating this mandated preference into an enforceable system. The pre-August rules provided for no checking of current requirements claims other than what the suppliers themselves could apply. Suppliers were likely to differ in both the zeal and objectivity they could bring to validating claims from their purchasers.

The present system favors priority users by allocating them volumes at least equivalent to their base period use, when most other customers can receive significantly less. This system is defined in terms of a recorded use, and is thus more easily and uniformly enforceable. But it cannot recognize the variety of needs, stemming from seasonal, cyclical or long term trends in growth, that are likely to arise for particular users. This issue will be discussed further in the later section on problem definition.

2. Base Period

The allocation program provides that gasoline be distributed with reference to purchases made during an historic base period. Most gasoline is distributed to Priority II purchasers. Each purchaser is entitled to receive at least a proportion of his base period supplies from his supplier. The fraction used to determine the allocated portion is the supplier's allocation fraction. The allocation fraction is intended to express a supplier's availability of gasoline after first priority and state set-aside commitments have been filled and is intended to measure the proportion of a generalized shortage that each purchaser is required to bear. This fraction must, with certain limited exceptions, be the same nationwide for each supplier.

The calculation of the allocation fraction is summarized in Exhibit 5. First, each supplier estimates the supply it anticipates delivering nationwide for the following month. Then, the supplier translates that quantity into the total supply it anticipates delivering into each state in the following month. Next, it assigns five percent of the anticipated supply to the State Set-Aside Program. Prior to April, 1979, the amount available for assignment under the set-aside was three percent of all prime supplier's estimated monthly deliveries for consumption within the state. The supplier then deducts the gasoline it must provide first priority customers. This portion of anticipated supplies is designated "Amounts Not Subject to Allocation Fraction."

The remainder is designated "Allocable Supply," that is, the amount of gasoline available for lower priority uses. The Allocable Supply is divided by the "Supply Obligation" to these uses, generally determined by their base period volumes.

The result of this division is the Allocation Fraction. An Allocation Fraction of, for instance, .75 means that a company expects to be able to satisfy 75 percent of the adjusted base period requirements of appropriate customers.

Motor gasoline is allocated on a monthly basis, so historical purchases are also expressed in terms of a monthly base period. Prior to the 1979 shortage, the base period for each current month was the corresponding month during 1972. Three changes to the base period rules were made in the spring and summer of 1979. These are discussed below.

a. March Changes to Base Period Rules

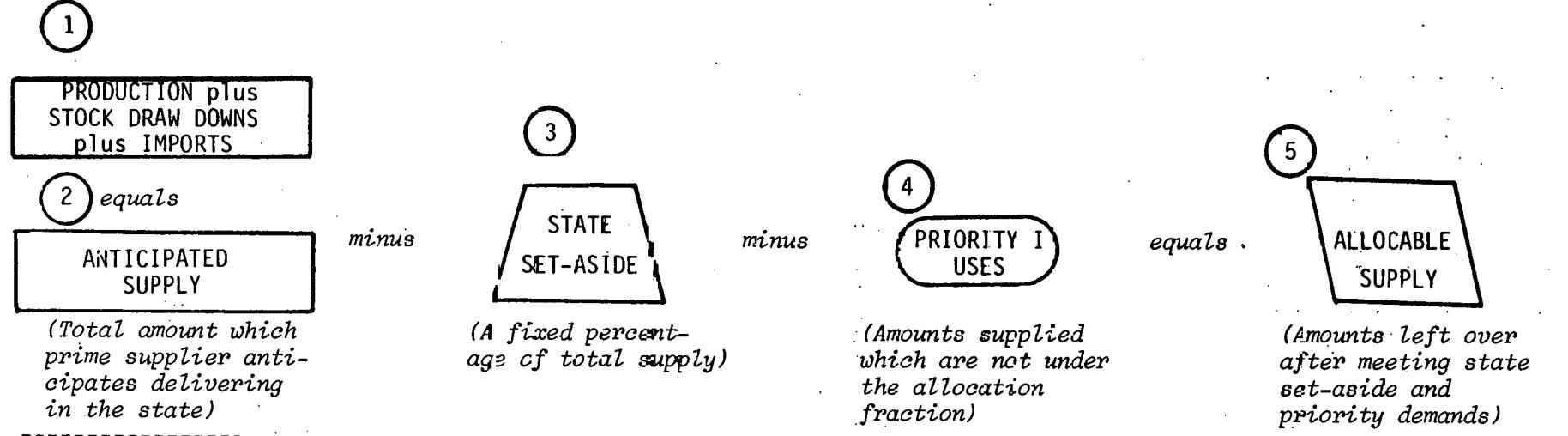
In November 1978, a number of major refiners requested that either the base period be updated, or that they be relieved of the obligation to use it in allocating supplies. Supplies of gasoline were growing increasingly tight, and the possibility of a shortage was becoming more real.⁷ Allocations tied to a base period in 1972 would not reflect current market conditions or distribution patterns. In addition, wholesalers continued to receive supplies for retailers that were no longer in the market, skewing the accuracy of the base period obligations.

In order to reflect more realistically current market conditions, the base period was changed to the corresponding month of the twelve-month period from July 1, 1977 through June 30, 1978. The Economic Regulatory Administration (ERA) effected this change on March 1, 1979.⁸

7 See Monthly Energy Review, DOE, October 1978 and July 1979 for gasoline stock position in winter 1978-79.

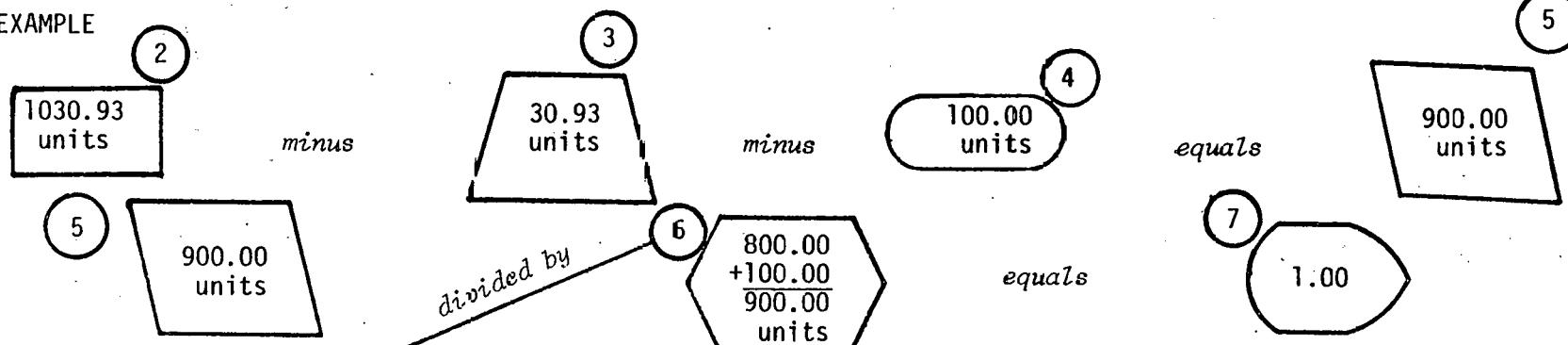
8 ERA Activation Order No. 1, Department of Energy, March 1, 1979, IV (a.).

DETERMINING THE ALLOCATION FRACTION



The supply obligation is the supplier's total obligation for a given allocation period to its base period customers whose requirements are subject to the allocation fraction. Base period customers include those assigned by the Department of Energy. See 10 C.F.R. Section 211.10(b)(2)

EXAMPLE



Source: Evaluation of the Gasoline Allocation Program (Draft Report), p. 39.

In justifying the new base period rule, ERA explained that the July 1, 1977 through June 30, 1978 period had been selected because it was "the most recent twelve-month period in which supplies have been adequate and distribution relatively normal."⁹

There was a general exception to the new base period rule. If a firm, during any month of the 1977-78 base period, purchased at least ten percent less motor gasoline than in the corresponding month of the period July 1, 1976 through June 30, 1977, because of a facility shut-down or other temporary exigent circumstance, it could use the volume of the corresponding month of the previous year as its base period.

b. May Changes to Base Period Rules

On May 1, 1979, ERA issued interim rules providing that the base period be changed to the corresponding month from November 1, 1977 through October 31, 1978.¹⁰

The interim rules also provided for an "Unusual Growth Adjustment" to base period volumes, reflecting purchases during October 1978 to February 1979. If, during that five-month period, a firm purchased an average of at least ten percent more gasoline than during its current base period month, it could use the higher amount as its base period volume.

ERA also allowed substitution of the October 1978 through February 1979 monthly average as the April 1979 base period volume, if that average was at least 35 percent greater than purchases in April 1978.

The interim rules announced in May were in effect during most of the 1979 shortages and became final on September 1, 1979. The May rules were intended to reflect the most up-to-date market conditions. However, by including the latter half of 1978, the base period now included months when, according to some critics, demand was relatively high, and there were abnormal supply patterns.¹¹ ERA, in announcing the new base period, explained that "by excluding the months of November and December 1978, we believe that most of the serious 1978 distortions will not be included in the base period."¹²

9 Standby Petroleum Product Allocation Regulations - Notice of Activation Order to Update the Motor Gasoline Allocation Base Period, Department of Energy, February 22, 1979, p. 11.

10 Interim Final Rule and Notice of Proposed Rulemaking, Department of Energy, May 1, 1979, pp. 1, 2 and 3.

11 Standby Petroleum Product Allocation Regulations - Notice of Activation Order to Update Motor Gasoline Base Period, Department of Energy, February 22, 1979, p. 5.

12 Interim Final Rule and Notice of Proposed Rulemaking, Department of Energy, May 1, 1979, p. 24.

c. The Unusual Growth Adjustment

The Unusual Growth Adjustment was intended to assist in remedying one drawback in an historically based allocation program: its failure to reflect variations in growth since the base period. But between the 1977-1978 base period and 1979's shortage, only winter months intervened. Growth adjustments derived from the October to February span risked reflecting seasonal driving changes as well as different trends in stations' sales. To the extent seasonal changes were determining adjusted base periods, the provision would be worsening, rather than remedying, allocation imbalances in summer months.

To estimate the overall impact of the unusual growth adjustment, ERA staff asked eight major oil companies to calculate the effect of the adjustment on base period volumes by state. The calculations of the eight firms, which represent from 50 to 60 percent of most states' gasoline sales, were then used to describe the overall effect of the adjustment on stations in each state.

Exhibit 6 summarizes the result of these estimates. And, while it does not support allegations of simple regional favoritism, it appears to indicate seasonal factors may have played a strong part in the adjustment's effect. However, because the survey sample may not be totally representative and includes slightly more than half of most states' gasoline sales, no definitive conclusion is possible.

The exhibit depicts the change in estimated base period volumes, due to the adjustment, for the entire year and for the May-July period. One qualification should be recalled in inspecting the exhibit. It aggregates to state levels what are really a host of changes affecting individual stations and local markets. Each state is classified according to the percent change in the total base period volumes of its retail outlets and other purchasers.

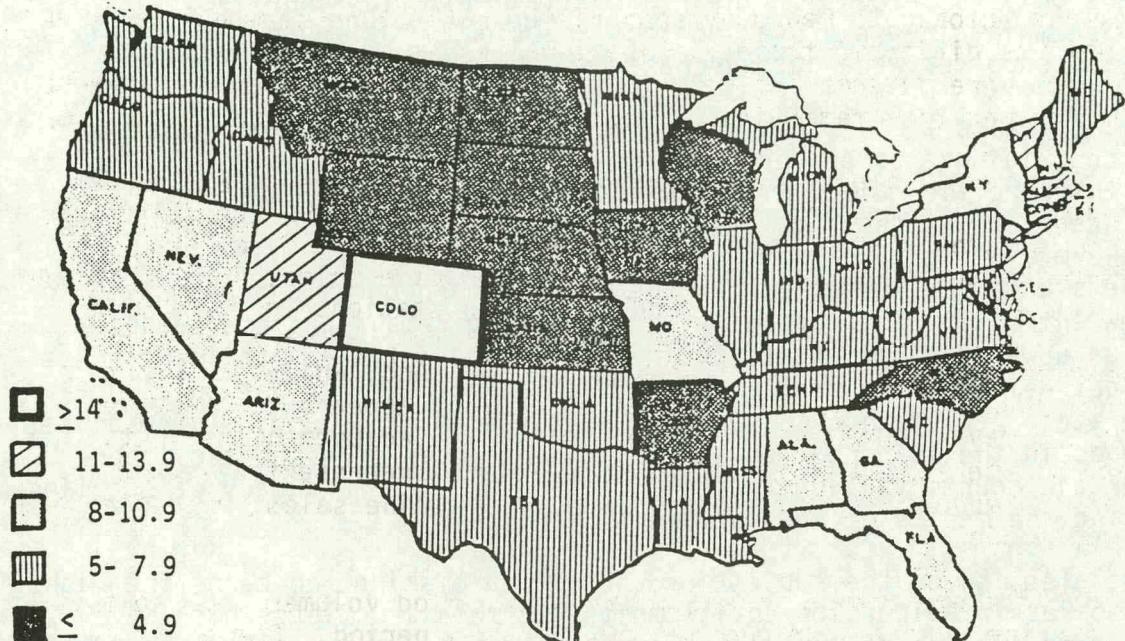
The indication that seasonal factors influenced the adjustment is that states which received more than an eight percent increase in summer volumes included Florida, Arizona, Colorado and states in or enroute to New England's ski areas. The first three states would, along with much of the Southwest, be considered rapidly growing states, but the four New England states are growing at less than average national rates. The adjustment's favorable impact on the four New England states may be traced to seasonal, rather than trend, driving changes.

3. Supplier/Purchaser Relationships

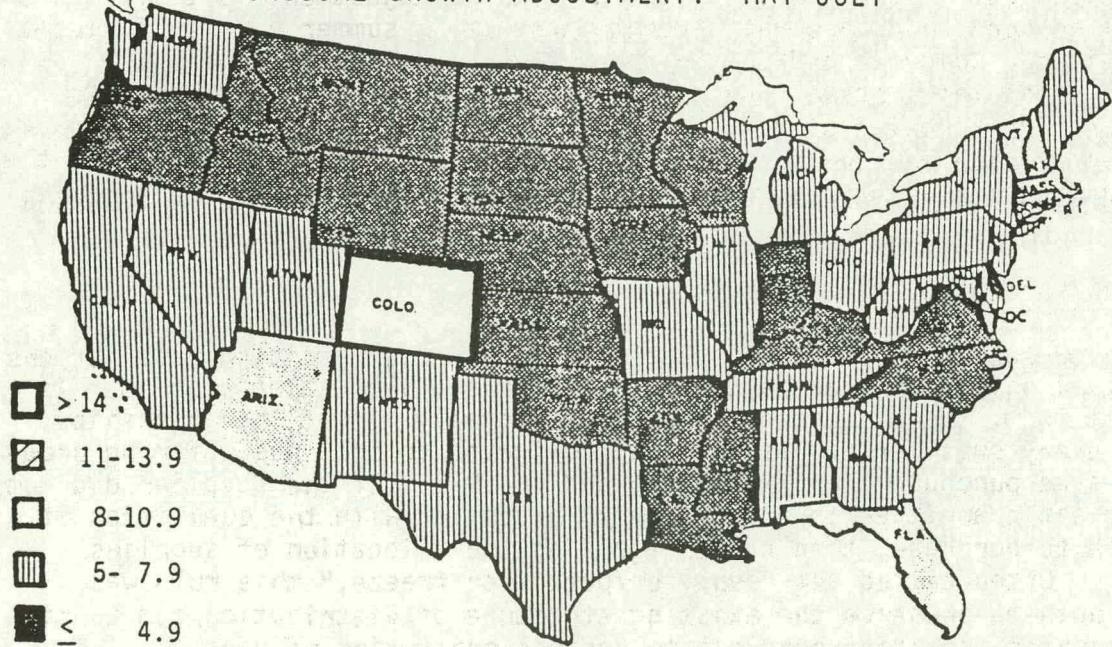
Maintenance of supplier/purchaser relationships and the resulting restrictions on contractual obligations are a central part of the allocation program. In its earliest form, the allocation program essentially "froze" relationships. Initially, every supplier of gasoline was obligated to continue offering product to the same purchasers who were supplied in 1972. If the supplier did not have sufficient quantities to provide every purchaser with the quantities it was entitled to purchase, then rules regarding the allocation of supplies would apply. Often called the "supplier/purchaser freeze," this rule was instituted both to preserve the existing structure of distribution and to simplify the task of providing products to various priorities of uses.

EXHIBIT 6

ESTIMATED PERCENT INCREASE IN BASE PERIOD VOLUMES DUE TO
UNUSUAL GROWTH ADJUSTMENTS: FULL YEAR



ESTIMATED PERCENT INCREASE IN BASE PERIOD VOLUMES DUE TO
UNUSUAL GROWTH ADJUSTMENT: MAY-JULY



Source: Estimates by ERA staff from submissions by eight major gasoline suppliers.

See: Evaluation of the Gasoline Allocation Program (Draft Report),
prepared for the Office of Policy and Evaluation, Department of
Energy, by R. Shriver Associates, December 1979, p. 37.

The supplier is required to offer each historical purchaser the allocation to which he is entitled. The purchaser, on the other hand, is not required to buy from his assigned supplier. At any time, the purchaser may look elsewhere for his requirements, without penalty and without jeopardizing his entitlement with the assigned supplier. In March, 1980, Cities Service had available for its customers only 75 percent of their gasoline allocation supplies; that is, Cities Service maintained a .75 allocation fraction. Yet seven percent of Cities Service supplies were not purchased by its customers.¹³

In the past, entrants to the gasoline market have benefitted from government guidelines containing a strong presumption in favor of assigning a supplier to purchasers entering the market with new retail sales outlets. Accommodating the supply needs of new entrants is still viewed as a means to promote competition. However, a great deal of public comment has alleged that existing retail outlets unfairly suffer due to the allocation program's presumption in favor of new entrants. The reason is that existing retail outlets cannot easily get an upward adjustment to their base period entitlements in response to new product demand in an area. However, a new entrant can get an allocation to operate a new station in response to the growing demand. In response, recent changes in the Guidance for New Assignments have stressed the importance of certain countervailing factors, particularly the adequacy of supplies, in determining the merits of an assignment request.

A closely-related issue, the subject of another rulemaking, concerns the right of jobbers to retain allocation entitlements for retail outlets which have closed or for end-use needs which have diminished. Commonly called the "downward certification" rule, the problem centers on allegations that some marketers obtain supplies greater than their needs with the intention of disposing of the surplus illegally on the spot market. This is said to be possible because while the regulations provide a means for marketers to increase their allocations of gasoline for new and increased customer requirements, there is no corresponding downward adjustment when retail outlets close and customer requirements decrease. This creates a situation in which a supplier's obligations can be increased, but not decreased. If supplies remain constant, then as a supplier's obligations increase, its allocation fraction will decrease. An alternative approach now being considered to tie more closely allocation allotments with actual requirements would require that marketers seeking increased base periods, so called "upward certifications," to swear to having made corresponding downward adjustments necessary to reflect decreased supply obligations.

Jobbers in general oppose the adoption of a "downward certification" provision, claiming it would diminish their ability to serve the changing needs of their service areas. When stations close, it is argued, the volumes formerly allocated to the closed stations should presumptively belong to and be used to serve the people of the same market area. If returned to their suppliers, marketers point out, the allocation volume would be put back into the supplier's national pool and for all practical purposes be lost to the

13 "Will the Gasoline Glut Drown the Import Fee?," Business Week (McGraw-Hill, May 5, 1980), p. 38.

existing neighborhood outlets. Refiners argue that the resultant higher allocation fraction from multiple downward certification coupled with the ability to open new stations assures continued product to all areas where demand has not decreased.

As will be detailed in a following section, the current rulemaking proposes to go further in limiting entry of new retail outlets during shortage periods as well as in increasing the flexibility for the distribution of supplies made available by the closure of retail outlets. These efforts are part of a two-fold thrust aimed both at protecting existing retailers during times of shortage and at directing supplies to areas which in the past have proved vulnerable to gasoline lines.

4. Discretionary Product Redistribution Provisions

Several programs have been established within the Gasoline Allocation Program to provide flexibility in redistributing product. Each of these is described below.

a. State Set-Aside Program

No allocation program can anticipate the hardships or special needs that might arise in every circumstance. In order to provide for flexibility and to minimize hardships, each state is allowed to control the distribution of a specific volume of gasoline to be held by the supplier. This volume is a fixed percentage of the total fuel to be delivered monthly into the state and is called the state set-aside.

Until April of 1979, the state set-aside for motor gasoline was three percent of the supplies to be delivered for consumption within the state. States were authorized to distribute the set-aside to wholesale purchaser-consumers and end-users within the state.¹⁴ The state could also direct that wholesale purchaser-resellers be supplied from the state set-aside but only so that they

14 A wholesale purchaser-consumer is any firm that is an ultimate consumer and which, as part of its normal business practices, purchases or obtains an allocated product from a supplier and receives delivery of that product into a storage tank substantially under the control of that firm at a fixed location and which either (a) purchased or obtained more than 20,000 gallons of that allocated product for its own use in agricultural production in any completed calendar year subsequent to 1971; (b) purchased or obtained more than 50,000 gallons of that allocated product in any completed calendar year subsequent to 1971 for use in one or more multifamily residences; or (c) purchased or obtained more than 84,000 gallons of that allocated product in any completed calendar year subsequent to 1971.

could supply wholesale purchaser-consumers and end-users experiencing a hardship or an emergency.¹⁵ These rules initially excluded gasoline stations from obtaining a part of the set-aside for resale to private automobile customers.

On April 19, 1979, the rules were changed to allow states to direct gasoline to retail outlets, and to increase the amount of the state motor gasoline set-aside to five percent during the months of April through September 1979. This increase in the set-aside to five percent was eventually made a permanent part of the allocation program. Wholesale purchaser-consumers and end-users, however, were still to receive priority over gasoline retailers, who now can receive assignments from the state set-aside.

In addition to the State Set-aside Program, a number of other allocation rules currently allow the redirection of gasoline to meet special needs or demand pressures. These rules for product redirection are potentially important because they provide a measure of additional flexibility to DOE and to gasoline suppliers.

b. Redirection by the Department of Energy

A regional office or the national office of DOE's Economic Regulatory Administration (ERA) can transfer specific amounts of gasoline from one area to another or can order that different allocation fractions be used in different areas to meet imbalances. Such supply imbalances could result from weather variation, seasonal demand, or other special circumstances.

In March of 1979, ERA ordered 20 gasoline suppliers to redirect approximately one-half million barrels of gasoline to four agricultural co-operatives in the Mid-west. The co-ops had sought fuel because their refineries had been cut off from their normal supplies of foreign crude oil.

This order was challenged in the District Court in New York by one of the suppliers. Two issues were raised: the adequacy of the notice, and whether such an order could be issued when there was still product available in the market place, although at higher prices. An injunction was issued with the result that only about 60 percent of the gasoline was actually delivered.¹⁶ There has been no further attempt by ERA to redirect product using this rule.

15 A wholesale purchaser-reseller is any firm which purchases, receives through transfer, or otherwise obtains (as by consignment) an allocated product and resells or otherwise transfers it to other purchasers without substantially changing its form. This definition includes, most prominently, jobbers and retail gasoline stations.

16 Conversation with Mr. Alan Lockard, ERA staff.

c. Redirection by Gasoline Suppliers

Refiners and importers of gasoline may reduce the allocable supply of gasoline for any region or area by up to five percent and redirect this supply to other areas which are experiencing relatively more severe shortages. They can also redirect within a state if the governor of that state declares that a shortage situation exists. This redirection is allowed without prior DOE approval but must be reported to the appropriate regional and national DOE offices and the state office of any state affected by either the reduction or the increase. Any redirection of more than five percent of supplies requires prior approval by DOE.

d. Redirection Among Retail Outlets

The allocation rules allow additional latitude for operators of two or more retail sales outlets. They provide that these operators can, at their own discretion, reassign up to 30 percent of one retail outlet's allocation to another, provided that it does not increase the favored outlet's allocation by more than 30 percent. This rule applies only among outlets actually operated by a single firm or individual, that is, where the redirection will not shift income among different parties.

Industry spokesmen indicate that this rule was chiefly useful to large jobbers who operate a number of retail sales outlets and to major companies which own and operate some of their branded stations.¹⁷ There are very few independent station owners who operate more than one outlet. There did not appear to be any serious objection to this rule, and it was cited as being helpful in limited circumstances.

e. DOE Relief Mechanisms

Relief from provisions of the allocation program, or inclusion under its protection, may be obtained through DOE regional offices and through the Office of Hearings and Appeals.

f. Applications to DOE Regional Offices

Regional offices, representing the various functions within DOE, are located in at least one major city within each of the ten DOE Regions. They provide guidance to state governments, petroleum suppliers and users of petroleum products and others who may either be interested in or under the control of the DOE regulations. In addition, DOE regional offices receive and process applications of various types relating to the allocation program. Regional offices handle applications for allocation assignments. An assignment is an action designating that an authorized purchaser be supplied a specified entitlement level by a specified supplier. Regional offices also handle matters pertaining to supplier/purchaser relationships. Both types of applications are decided in accordance with the allocation regulations prescriptions.

¹⁷ Telephone conversations with representatives of the Pennsylvania and Delaware Service Station Dealers Association; Northern Ohio Petroleum Retailers Association; Southern California Service Station Association; and Getty Oil Company, Washington, D.C.

g. Allocations Assignments

The regulations provide criteria for Regional Offices to determine the base period volumes for purchasers requesting assignments of base period uses. Those that purchased gasoline during at least three months of the October 1978 through February 1979 period are assigned a base period volume according to their purchases during that period. Those that made no purchases in that period are given assignments based on comparisons with the base period quantities of others in that area.

There is also provision in the allocation regulations for a growth adjustment for assignments made after November 1, 1977. If a firm is eligible for a growth adjustment, the assigned supplier must supply the assigned or base period volume, whichever is higher, for the base period months during which there were no purchases. The firm's actual suppliers must supply the adjusted base for the base period months in which there were purchases. If a firm is not eligible for an automatic adjustment, then actual purchases and suppliers during the base period month determine the volume and supplier.

h. Supplier/Purchaser Designations

If a firm terminated one supply obligation and established another during or after the base period, then the newly-assigned supplier is the base period supplier. If actual base-period purchases from the supplier whose obligations were terminated were greater than the volumes reassigned, the original base period supplier is the base period supplier for the difference. Any other suppliers are also base period suppliers.

A branded reseller who has a base period supplier different from its supplier on February 28, 1979 had a limited time period to designate as its base period supplier its supplier on February 28, 1979, and terminate its relationships with all other suppliers. The relinquishing base period suppliers are required to adjust downward their base period use accordingly.

If a retail sales outlet has experienced a temporary exigent circumstance for a month during the base period causing at least a ten percent reduction in normal purchases, the base period month may be revised to equal the volumes purchased in the November 1976 through October 1977 period. No assignment by FRA is required but if the supplier is a major refiner subject to the jurisdiction of DOE's Office of Special Counsel, the DOE audit team assigned to that refiner is notified. Volumes purchased and sold during the base period year under an order from the state set-aside program do not create mandatory supplier/ purchaser relationships. Purchasers that received such volumes may apply to the supplier for equivalent volumes of product.

C. Summary

The Gasoline Allocation Program has been the major tool for allocating supplies. This section has described the legislative mandate for the program and the history of its implementation, including a discussion of program provisions which allow flexibility in the discretion of product distribution. The next section of this regulatory analysis discusses inherent limitations of the Gasoline Allocation Program.

II. THE GASOLINE ALLOCATION PROGRAM TODAY

The original purpose of the Gasoline Allocation Program was to spread the effects of the shortage of a critical product equitably across all segments of the country. This attempt to distribute the shortage equitably also designated certain priority needs, itemized in Exhibit 4, that should take precedence over all other uses of gasoline. The Program is a structured mechanism for distributing a fixed supply of gasoline to a variety of users. Before examining the specific problems that may require federal action, it is important to understand the basic allocation process and limitations of the Gasoline Allocation Program.

A. The Basic Allocation Process

Under the Allocation Program, the amount of gasoline available to a purchaser is determined by four major criteria:

- the amount of gasoline his supplier has available for distribution;
- the purchaser's priority classification;
- the quantity of gasoline he purchased during the base period (as adjusted); and
- the total base period obligations of his supplier.

The classification system is divided into two types of users, Priorities I and II, as described in Section I. Customers classified as Priority I receive 100 percent of the supplies purchased during the base period, regardless of the amount of gasoline that their suppliers have released into the marketplace.

Although gasoline retailers are not specifically mentioned in any of the priority classifications, the computation of their allocation is effectively the same as if they were part of Priority II.

Priority II customers are allocated supplies only after supplies have been made available for customers in Priority I, and the state set-aside program. The amount of gasoline set aside for state programs is equal to five percent of the monthly supplies estimated to be delivered into a state. Priority II customers receive their supplies from the allocable supply that remains after the state set-aside program requirements and Priority I base period obligations have been met.

$$\boxed{\text{Available Supply}} = \boxed{\text{Production +/- stock drawdowns + gasoline imports}} - \boxed{\text{State set-aside program obligations}} - \boxed{\text{Priority I customer base period obligations}}$$

The allocable supply of a prime supplier is a limited pool of gasoline that must be shared by the Priority II users. This concept of a closed system is significant because if the gasoline allocation rules are altered to allow one set of customers additional gasoline supplies, then another set of customers will receive less supplies. The allocation regulations distribute a fixed supply; they do not increase supplies, nor do they reduce demand.

Each purchaser in Priority II receives a proportion of his base period volume. With a few exceptions, the proportion does not vary among customers of the same supplier. However, the proportion does vary among customers of different suppliers because the allocation fraction is supplier-specific. Initial base period volumes can be adjusted through exception relief, the unusual growth provision, or new assignments. The base period adjustments are approved by the Office of Hearings and Appeals, the Economic Regulatory Administration or DOE regional offices. A prime supplier's total supply obligation is equal to his Priority II base period requirements plus DOE assignments of new customers, adjusted growth provisions, and hardship approvals. The quantity of gasoline that a customer is entitled to each month is equal to the supplier's allocable supply divided by his supplier's total supply obligations multiplied by the customer's adjusted base period.

$$\boxed{\text{Each customer's Entitlement}} = \boxed{\text{Supplier's Allocable Supply}} \div \boxed{\text{Supplier's Supply Obligation}} \times \boxed{\text{Customer's Adjusted Base Period Volume}}$$

Allocation Fraction

If a supplier's allocable supply is constant, and his obligations increase, through new assignments or upward certifications, his allocation fraction will decline and, therefore, each of his customer's allocations will decline.

For example, assume that Refiner A produced 400,000 barrels of gasoline a month during the base period, and neither added to nor drew from stocks, did not import gasoline, and supplied 50,000 barrels to customers in Priority I. For a given month in 1980, Refiner A produces 400,000 barrels, the same quantity as during the base period. He neither adds to nor draws from stocks and imports no gasoline. After he supplies his Priority I customers with 50,000 barrels and the state set-aside program with 20,000 barrels (5 percent of 400,000), his allocable supply is 330,000 barrels. $(400,000 - 20,000 - 50,000 = 330,000)$ He also sold 330,000 barrels a month during the base period to customers classified as Priority II. Therefore, his original base period supply obligation was 330,000 barrels. Since the base period, however, he has received assignments from the Department of Energy to supply an additional 50,000 barrels per month to customers who have received upward certifications, unusual growth adjustments, and new station approvals. Therefore, the adjusted base period supply obligation is 380,000 barrels per month $(330,000 + 50,000 = 380,000)$. (Base period supply obligation is exclusive of Priority I customers and set-aside.)

The additional 50,000 barrels in supply obligation comes from the other participants in the supplier's obligation pool. The supply of gasoline does not increase, only the obligations of the supplier. Refiner A continues to produce only 400,000 barrels per month, neither adding to nor taking from stocks. His allocation fraction would, then, be 87 percent:

$$\frac{(400,000 - 20,000 - 50,000)}{380,000} = 87\%$$

That is, each Priority II customer is offered 87 percent of his adjusted base period requirements. Because the entitlement supply pool has not increased, each customer receives less. Some of the additional supply obligations come from current customers who have received an upward adjustment to their base period. This is accomplished through the unusual growth provision and special hardship appeals. For this example, in order to "break even" and receive the same quantity of gasoline received during the base period, a customer would require a 15 percent adjustment to his base period. $[(1 \div .87) = 1.15]$

If a retail sales outlet does not qualify for or does not apply for base period adjustments, then it loses supplies to other customers of his supplier. That is, as other customers (purchasers) increase their base period entitlements, their increases come from those purchasers who have not received adjustments. This occurs because the supply pool is fixed.

In summary then, the amount of gasoline available to a customer or purchaser, depends upon: its classification as a Priority I or II purchaser; the quantity of its supplier's allocable supply; its adjusted base period requirements; and adjusted base period requirements of its supplier's other customers.

B. Limitations of the Gasoline Allocation Program

The Gasoline Allocation Program is designed to distribute a fixed supply of gasoline to a variety of purchasers, including gasoline wholesalers who distribute it through a retail outlet to end users. The allocation program does not apply to the entire production, refining, and marketing process. Rather, it is responsible for gasoline distribution after gasoline leaves the refinery gate. (See Exhibit 3). The program stops when the gasoline is received by retail sales outlets or bulk consumers. It does not cover transactions at gasoline stations. Unlike a gasoline rationing plan or an unregulated market which allocates product, the allocation program focuses on wholesalers and bulk consumers. This distinction is significant because the program is limited in its ability to respond to end use demand changes, either short or long term.

Any inability to respond would stem from inherent limitations in the program. These limitations, which are described in detail below, are not criticisms of the program. Rather, they are components of almost any regulatory structure and must be understood when examining how the program can and should be altered. The gasoline allocation program does not and cannot respond to changes in gasoline supplied and demanded in the same manner as a free market would.

Freely adjusting prices reconcile demand and supply in most markets, most of the time. At all stages of the production-distribution system, rising price can signal the desire of consumers for increased supplies, or the need for consumers to align their demand with restricted or suddenly more expensive supplies. Unregulated prices can perform this function well because suppliers and demanders respond in complementary ways to simple changes in market price. When costs rise or supplies have become more scarce than formerly, for example, suppliers will seek higher prices and in response, purchasers will reduce the quantities they use until a new equilibrium is reached at a higher price and a lower quantity. And when this equilibrium price fails to coincide with long-run equilibrium cost, further corrective actions are motivated. Price above long-run cost leads to expansion of supply, and price below long-run cost causes contraction. The free market, however, does not necessarily respond well to national priorities or public needs such as equitable end user allocations, which can be accommodated in an allocation program.

Market prices are very effective in coordinating the use of resources, but price changes are not perfectly costless. There may be delays before adjustments in production can alter supplies, or changes in consumption patterns will change quantities demanded. And prices under new conditions can be burdensome for some parties, particularly those who must sacrifice dearly to pay them. Indeed, a market system brings efficient choices to an economy partly by its ruthlessness in forcing responses to changing conditions.

Therefore, to expect the gasoline allocation program to mimic perfectly a free market system is unreasonable. No changes to the program can accomplish that feat. Three principal reasons are described below.

- Supply Orientation

The emphasis of the program is upon the allocation of limited supplies, not upon increasing supplies or reducing demand.

- Base Period Orientation

Like many regulations, the program is historically based, linking current product supplies with base period demand.

- Wholesale Orientation

The product supply guarantees are to wholesalers and to industrial and commercial users. The guarantee does not necessarily extend to motorists.

1. Supply Orientation

The gasoline allocation program allocates product. The program does not increase supplies of gasoline, but simply dictates how available supplies will be distributed. The program begins at the point where gasoline enters the distribution system. It does not determine the quantity that will enter the system. That determination is made by a supplier as he assesses the quantity of gasoline he should produce and sell. A supplier's decision will be based on a variety of factors, including his crude oil availability and alternative

products he can produce. The program, basically, cannot solve a gasoline supply shortfall because it can neither increase supplies nor reduce demand. Unlike the free market, the program cannot match quantity of gasoline supplied with quantity of gasoline demanded. The program, rather, focuses on spreading the shortage equitably among bulk purchasers and wholesalers. In addition, as highlighted in the previous section on the allocation process, the system is a closed loop. Purchasers who gain product do so at the expense of their competitors. The supply pie does not increase; it merely gets sliced differently.

2. Base Period Orientation

Like many regulations, the gasoline allocation program is base period oriented. That is, the program freezes purchaser/supplier relationships and supply obligations that existed during a given historical period. The current base period is November 1977 through October 1978. There are several problems inherent in any regulatory program that has a base period orientation.

First, suppliers and purchasers are locked into relationships that occurred several years before and may no longer be the best relationship for either party. Secondly, the historic base period reflects demand patterns that may no longer exist. Demand patterns change over time, and a base period system may have difficulty adjusting to the altered patterns. Therefore, the allocation program matches historic suppliers with current demand. Although aspects of the program could perhaps be modified to improve the base period/current supply match, the match will never be perfect.

3. Wholesale Orientation

The dictator of gasoline demand is the end-user, whether that is a wholesale user or a motorist. The gasoline allocation program does not allocate to motorists. Rather, it ensures a share of available product to wholesalers and retail outlets that service motorists.

The reason for the distinction goes back to one of the original purposes of the EPAA which was, in part, "to preserve the competitive viability of independent refiners, small refiners, nonbranded independent marketers, and branded marketers."¹⁸ One of the concerns of Congress was that during a gasoline supply shortage, the integrated refiners would provide product to their own retail gasoline stations to the detriment of independents. The gasoline allocation program ensures the independents the same access to product as refiner-owned stations receive. Ensuring that wholesalers have access to product does not necessarily translate into assurances that motorists have access to product. This is true because supplies are limited and they are distributed to wholesalers and retailers based on historical patterns and priority entitlements.

¹⁸ The Emergency Petroleum Allocation Act of 1973, Section 4(b)(1)(D).

C. Summary

Given the limitation cited above, the Economic Regulatory Administration nevertheless has a responsibility to recognize regulatory problems and explore alternative solutions to those problems. For purposes of this regulatory analysis, two general problem areas have been identified that may require federal action. The first problem area relates to the ongoing nature of the gasoline allocation program and considers how the Department of Energy can be more responsive to demand patterns that are changing over time. The second problem area is crisis related and questions how the Department of Energy can adapt to demand patterns that shift temporarily during a gasoline shortage such as the one experienced in the summer of 1979. Section III includes a definition of each problem and an analysis of each alternative solution.

III. DEFINITION OF PROBLEM AREAS AND PROPOSED SOLUTIONS

A. Market Structure and Long Term Demand Changes

Introduction and Definition of the Problem

A serious shortcoming of a base period oriented allocation program is that it risks distorting the normal evolution of supplier-purchaser relationships or market structure. For example, by determining supplier-purchaser relationships the allocation program ensures that short supplies will generally be distributed pro rata among a supplier's historic or assigned customers, wholesalers, and retailers. However, this also means that firms wishing to enter new markets or to experiment with new marketing concepts and to respond to shifts in demand cannot readily obtain additional supplies through open bidding. Thus, efficient firms may be limited in their ability to expand operations while inefficient firms are protected. As a result, the evolution of the gasoline market in response to competition is hindered.

The Department recognizes that one of several approaches could be taken in response to this problem, and similar problems, created by the allocation program. First, the program could be allowed to continue as now constituted. Arguably, since the program is scheduled to expire September 30, 1981, further revisions could risk creating more problems than they would solve. Any changes to the program will necessarily require firms to make changes in their manner of doing business. The cost and uncertainty involved in adjusting to a new scheme of regulations may outweigh the benefits which new rules could offer.

Second, amendments could be adopted to enable the program to obtain results more closely resembling those obtained in a competitive market. Accordingly, in this proposal, the Department is seeking to reduce the anti-competitive effects of the allocation program. Since many of these effects stem from the disparate treatment accorded by current rules to different types of gasoline marketers, the proposed revisions are meant to result in a more equitable application of the program's basic provisions.

Specifically, the Department is seeking public comment on several proposals aimed at alleviating inequities that may be affecting the three major marketing groups:

- Retailers operating existing retail sales outlets;
- Refiners who directly supply retail sales outlets; and
- Jobbers who distribute to retail sales outlets.

A third approach to alleviating allocation related problems would be to eliminate the program either alone or along with price controls. Certain aspects of the argument for decontrol were summarized by the Department's Office of Competition which concluded.

Fixing the price and allocation regulations can do little more than make certain individual firms whole, at the expense of other firms, of competition and of the evolution of healthy market trends. The distortions evident in the market at this point are so pervasive that regulatory amendments cannot correct them, but only add new, or at the very best, different distortions without eliminating the inherent problems. . . .

Imposing regulations in the market introduces rigidities which cause innumerable things to go wrong with the process. We then try to correct these unanticipated defects by introducing new regulations. But there is no hope of full correction because regulations try to freeze conditions that are inherently dynamic. Full correction of the defects can only be achieved by removing the regulations which have caused them.¹⁹

This section examines the three major approaches to alleviating the adverse effects of the inflexible market structure imposed by the allocation program. These approaches are:

- Make No Program Changes

Maintenance of the established program with its flaws would be least disruptive in the marketplace and in light of the program's expiration date of September 30, 1981 may be the most desirable course.

- Revise The Program

Proposal and adoption of revisions may add flexibility and alleviate inequities of the program.

- Eliminate The Program

Complete decontrol would permit free operation of market forces to improve product distribution and restrain price.

1. Make No Program Changes

- a. Summary and Purpose

The Emergency Petroleum Allocation Act of 1973 which is the statutory authority for the mandatory price and allocation regulations is scheduled to expire September 30, 1981. Without modification, the program can be expected to continue to exhibit the adverse effects which are the basis for the current proposals. Of particular concern are the apparent inequities associated with

19 See "Motor Gasoline Deregulation" Materials Submitted for the Record by William Lane, Director, Office of Competition, DOE, to Subcommittee on Energy Regulation of the Committee on Energy and Natural Resources. U.S. Senate 96-23, March 26, 1979, p. 59.

the assignment and certification of new allocation entitlements and the difficulties involved in the adjustment or redirection of existing allocation entitlements. In the past, these effects have included:

The assignment of new supply obligations to suppliers having fixed volumes of gasoline operates to reduce the volumes available to its other base period customers.

New assignments for high volume stations in an area experiencing constant demand can often have adverse competitive effects on existing outlets within the market.

The procedures for making new assignments do not necessarily require a finding that the market area needs additional product.

It is currently easier to obtain an assignment for a new station than to adjust upward allocations for existing stations. This may contribute to economic inefficiency.

The inflexibility of the current rules generally prohibit shifts of allocation entitlements within markets to reflect localized shifts in demand and to provide for more efficient product distribution.

b. Analysis of the No Change Provision

Administrative and compliance costs are an important and necessary consideration in the analysis of the economic impact of a proposed rulemaking. Several of the modifications proposed will entail an increase in such costs attributable to understanding, applying, and resolving disputes associated with the changes. Compliance costs are a burden to both businesses that are subject to the rules and the government. Since there are an estimated 250,000 gasoline retail outlets in the U.S., the administrative cost for each individual firm or dealer need not be large to result in a significant overall compliance burden.²⁰

20 There are approximately 153,000 service stations as identified by the Bureau of Census. In addition, another 87,000 retailers are estimated to sell gasoline but not in sufficient volumes to meet the census definition of 50 percent or more of sales. See The State of Competition in Gasoline Marketing, Part 1, Office of Competition, DOE, May 1980, Appendix B, p. 1.

Conversely, any reduction in the administrative burden of the allocation program could be expected to result in substantial savings. Thus, the Department's proposal to increase the flexibility of refiners and resellers to reassign base period volumes of company-operated and closed independent retail outlets appears to be a distinct improvement over current rules. Exclusive of the benefits realized by consumers due to a supplier's enhanced ability to organize distribution in a more efficient manner, the proposal would reduce administrative costs for both business and government by reducing the number of instances where government approval need be sought for ordinary business decisions.

Conceivably, procedures could be streamlined to expedite the review, verification, and decision making process. Already, the Department is moving to simplify the allocation assignment petition (Form ERA-99) and to implement a data retrieval system with which to evaluate all applications. These actions, when completed, will reduce the time required to process an application. However, in the interim most applications must be processed manually, often with the necessity of contacting the applicant to confirm or obtain additional information.²¹

Without offsetting benefits to the public, a proposal requiring an expenditure of public resources would ordinarily be rejected. However, as discussed in Section 3, the proposed revisions offer the operators of some existing retail outlets tangible benefits over the status quo. Whether these benefits sufficiently outweigh the concomitant administrative costs is a value judgment which will be decided upon completion of public hearings and a review of the submitted evidence.

Revise the Program

Introduction

The revisions primarily focus on problems which current rules cause for three groups: retailers operating existing retail sales outlets; refiners directly supplying retail sales outlets; and jobbers who are supplied by more than one refiner. In addition, the Department is examining alternatives to the current unusual growth provision that affects all market segments. The following sections will analyze the Department's proposed solutions in each of these problem areas.

²¹ As of May 20, 1980 DOE Region X's data retrieval system was nearing completion.

2. Revise Current Unusual Growth Adjustment

a. Summary of Findings

- The proposed regulation may operate to mitigate the effect of seasonal consumption variations currently reflected in the existing Unusual Growth Adjustment.
- Under the revised Unusual Growth Adjustment structure, the ten percent deductible could dramatically reduce the number of firms for which the Adjustment will be applicable, and could lessen the impact of the Adjustment for most individual firms.
- The accuracy of the October through February period as a measure of real growth has not been conclusively determined. However, some data suggest that changing the periods of comparison would be desirable.
- Depending upon the number of supplier-purchaser relationships affected, substantial increases in administrative costs could result.

b. Assumptions and Limitations

Data analysis has been limited to published information and brief interviews with Department of Energy officials and executives of affected industries. Data collection and analysis that could lead to definitive conclusions on the impact of the adjustment would require an extensive investigation that is far beyond the scope of this regulatory analysis. No federal government agency, including the Department of Energy, collects data on the Unusual Growth Adjustment *per se*; government forms include the information under general base period or base period adjustment information. A one-time survey of eight refiners was completed in the fall of 1979. Actual supply and unusual growth adjustment data were obtained from one supplier. These data, modified to protect confidentiality, are used to examine the impact of unusual growth on retailers. The extent to which these data are representative is unknown.

This study relies heavily on motor gasoline demand data from the Federal Highway Administration (FHA). For purposes of assessing the impact of the current unusual growth provision, these data are of limited value in that:

- (1) "Demand" represents deliveries made above and beyond base period requirements, either due to additional available supply or deliveries made under special order of the Office of Hearings and Appeals.
- (2) Retailer base periods are not reflected in the "demand" figures, which represent gross gallons of gasoline reported by wholesale distributors.
- (3) Supplies not subject to an allocation fraction are included in "demand," as defined by the FHA.
- (4) The Federal Highway Administration survey is based on state tax records, which may reflect timing differences, record-keeping requirements, and other factors.

The major focus of the analysis is the impact of the proposal on geographic regions. Certain other issues, including the impact on refiners, wholesalers, retailers, and ultimate consumers, have not been adequately addressed, although two case examples of retailer impact are given.

c. Summary and Purpose of the Proposed Revision

In anticipation of crude oil supply shortfalls during early 1979 and resulting petroleum product shortages due to lack of available crude, the Economic Regulatory Administration (ERA) within the Department of Energy (DOE) issued Activation Order No. 1,²² which updated the base period²³ for motor gasoline allocations from the corresponding calendar month in 1972, which had been the previous base period, to the corresponding calendar month between July 1, 1977 through June 30, 1978. The purpose of the base period update was to adjust the gasoline allocation program to reflect more recent market conditions. In the guidelines for implementation of the Activation Order,²⁴ ERA specifically requested comments as to:

whether a mechanism should be provided to enable purchasers with unusually low purchases in one or more months of the base period, as in a case, for example, where the volume of such purchases was at least 25 percent less than the average monthly purchases for the rest of the base period, to receive an upward adjustment to its base period volume for such months to reflect its actual average monthly purchases.

Written comments were solicited by the notice, and a hearing was held on March 21, 1979. The following general comments were received on the proposed growth adjustment:

- There was widespread agreement that some provision was needed to account for significant changes in volumes of gasoline purchased by firms during or after the base period.
- The Office of Hearings and Appeals could not address the numerous volume change requirements on a case by case basis.
- The adjustment would have to be standardized enough not to cause inequities, but flexible enough to deal with demand changes resulting from change in firm ownership, new businesses, or a new highway opened in the vicinity of a retail outlet, where large capital investments were made, or other circumstances existed.

22 Federal Register, Volume 44, page 11202 (February 28, 1979).

23 For the purposes of motor gasoline allocation regulations, the "base period" is the historical point in time upon which current allocations are based.

24 Federal Register, Volume 44, page 16480 (March 19, 1979).

Accordingly, on April 17, 1979, ERA issued a Notice of Intent to Issue a Final Rule to implement an "unusual growth adjustment" to deal with supply requirement increases after the last day of the base period.²⁵

In the meantime, the Office of Hearings and Appeals (OHA) had received literally thousands of applications for exemptions from the updated base period established under Activation Order No. 1. According to OHA, the majority of these exceptions requests involved the contention that the new base period did not reflect the firm's current operations. OHA determined that there were three general fact patterns under which firms suffered a serious burden in conducting retail gasoline operations:

- (1) where the firm purchased and sold substantially greater volumes of gasoline after the base period, and where that increase represented a "significant alteration in the ongoing business of the firm";
- (2) where a substantial capital investment had been made during the base period, with the expectation of increased gasoline sales after the base period;
- (3) where unusual or anomalous events occurred during the base period, which seriously distorted the intended use of the base period for measurement purposes as a relatively normal period of business activity.

Noting that the lack of an unusual growth adjustment had been adversely affecting thousands of small gasoline outlets, particularly those that had been in a developmental stage during the base period, the OHA issued an order²⁶ which, in effect, immediately activated the Unusual Growth Adjustment outlined in the ERA's April 17 Notice of Intent.

In July 1979, ERA issued the final rule with respect to the Unusual Growth Adjustment.²⁷ Since Activation Order No. 1 was issued, the gasoline base period had been updated to the period November 1977 through October 1978. Accordingly, the Unusual Growth Adjustment was based on the period October 1978 through February 1979. The current Unusual Growth Adjustment operates as follows:

25 Federal Register, Volume 44, page 23537 (April 20, 1980).

26 Class Exception Proceeding Adjusting April 1979 Base Period Volumes of Motor Gasoline for Retail Sales Outlets and Wholesale Purchaser-Consumers (Case No. DEE 3726, April 19, 1979).

27 Federal Register, Volume 44, page 42549 (July 19, 1979).

- A retail sales outlet, wholesale purchaser-consumer, or bulk purchaser of motor gasoline qualifies for a growth adjustment if it purchased gasoline during at least three months of the October 1978-February 1979 period, and if the average monthly volume of that period exceeded 110 percent the volume of actual gasoline purchases from all suppliers during any month of the base period. The higher average October 1978-February 1979 amount can be substituted for the lower amount of a base period month.
- If the amount of the adjustment is attributable to a particular supplier or suppliers, those suppliers are responsible for the increased allocation. If the amount is not attributable to a particular supplier, all suppliers are responsible for the increase based on the proportion of gasoline that the supplier sold to the firm in the base period month.
- The applicant certifies to his supplier that the unusual growth adjustment must be applied. Jobbers and other resellers may then certify the adjustment upward to their base period suppliers.

The Unusual Growth Adjustment was intended to assist in remedying a significant limitation of a historically based allocation program: its failure to reflect significant upward variations in growth since the base period. But between the 1977-1978 base period and 1979's shortage, only winter months intervened. Growth adjustments derived from a comparison of each month's sales to the October to February period risked reflecting seasonal driving changes as well as different trends in stations' sales. To the extent seasonal changes were determining adjusted base periods and not real growth, the provision would be worsening, rather than remedying, allocation imbalances in summer months. Outlets operating in areas that tend to experience peak demand during the October to February period selected would tend to qualify for the adjustment irrespective of whether they experienced real growth.

In order to modify the Unusual Growth Adjustment so that it will measure real growth more accurately, DOE is examining a regulatory change to the Unusual Growth Adjustment. A summary of the impact of the change on the present Unusual Growth Adjustment is presented in Exhibit 7. Briefly, the proposed regulation compares the average monthly gasoline purchased for October 1978-February 1979 to the average monthly purchase for October 1977-February 1978. If the increase is greater than 10 percent, the firm may adjust its base period volume for each month of the base period by one percent for every one percentage point more than ten percent that gasoline purchases have increased--subject to a maximum 100 percent increase over the base period volume. The proposed adjustment differs from the current adjustment in that it compares the two winter periods, and if sufficient increases are revealed between them, entitles the purchaser to increase each base period month by an equivalent percentage.

EXHIBIT 7

PROPOSED CHANGES TO THE UNUSUAL GROWTH ADJUSTMENT

| | <u>Current Regulation (May 1980)</u> | <u>Proposed Regulation</u> |
|--|---|--|
| Effective Date | May 1979 | January 1981 |
| "Growth Adjustment" Period | October 1978 through February 1979 | October 1978 through February 1979, as compared to October 1977 through February 1978 |
| Application of Adjustment Period | If the average monthly demand during the adjustment period exceeds 110 percent of the base period allocation for any month, the average monthly demand for the adjustment period may be substituted for the base period allocation in that month. | Where P_0 equals the average monthly demand for 10/77-2/78, and P_1 is the average monthly demand for 10/78-2/79, and where $P_1 - 0.1$ P_0 equals the Unusual Growth Factor (F), F is multiplied by the base period allocation volume in all months to arrive at a new base period not to exceed 200 percent of the previous base period allocation. |
| Impact to Previous Unusual Growth Adjustment Provision | (There is a previous unusual growth adjustment which, very briefly, allowed adjustments to the 1972 base period for unusual 1973 growth. That provision is not examined here.) | Upward adjustments to base period volumes made under the previous unusual growth provision are adjusted downward to the original base period volume. |
| Impact of Office of Hearings and Appeals Decisions | None. | Firms which have received upward adjustments to their base period volumes from OHA after May 1, 1979 are not entitled to the unusual growth adjustment. |
| Notification Requirement by Suppliers | Suppliers were required to notify purchasers of their eligibility for upward adjustments by September 15, 1979. | Suppliers are required to notify purchasers of any downward adjustments. |

d. Analysis of the Proposed Revision

The proposed unusual growth adjustment should mitigate the undesired seasonal effects of the current program. However, the regulatory change does not address several additional problems:

- Communication of the adjustment mechanism to dealers. DOE officials have expressed concern that suppliers, who have a vested interest in keeping base period allocations at a low level in order to maximize their "discretionary" level of sales, may not inform dealers of the availability of the Unusual Growth Adjustment, and that dealers are not well versed enough in DOE regulations to understand the regulatory mechanism involved. If the dealers do not apply for the adjustment, then the rule cannot shift product to areas with increased demand.
- Irregularities within the base period itself and/or the adjustment periods. One large independent supplier suffered a refinery fire toward the end of the November 1977-October 1978 base period. The refiner cut back on gasoline deliveries, with assurances to its customers that delivery volumes would be increased to greater than normal when the damaged refinery came back on stream. The refinery began producing gasoline, and the refiner maximized deliveries during the October 1978-February 1979 period, thus qualifying a large number of its customers for the Unusual Growth Adjustment, despite the fact that the large deliveries were a temporary aberration and not an indication of long-term growth.²⁸ No blanket adjustment rule will be free of anomalies, however, and individual aberrations may best be handled by the Office of Hearings and Appeals.
- Growth adjustment required due to increased capital investments. The Adjustment does not take into account new capital investment which has not translated into sales. However, this may best be handled by OHA and/or the upward certification process.

The chart in Exhibit 8 is based on gasoline consumption data from the Federal Highway Administration. As mentioned earlier, FHA statistics may be of limited value in assessing the Unusual Growth Adjustment; however, this information is available by state on a month-by-month basis, and even with more analysis time and resources, it is likely that FHA data may be the best available for this analysis. The first column in Exhibit 9 calculates the average monthly consumption, by state, for the period October 1978 through February 1979--that period which is used in both the current and proposed growth adjustment regulation. In the second column, the monthly average consumption is presented for October, 1977 through February 1978--the comparison period for the revised adjustment regulation. The third column presents the percentage increase or decrease between the two periods.

28 The facts in this illustration are based on a conversation with executives of the independent refiner.

EXHIBIT 8

ESTIMATE OF UNUSUAL GROWTH ADJUSTMENT CHANGE
(All figures in thousands of gallons unless otherwise indicated)

| | Average Monthly Gasoline Deliveries Oct. 78 - Feb. 79 | Average Monthly Gasoline Deliveries Oct. 77 - Feb. 78 | Percentage Increase (Decrease) | Calendar Year | | Number of Months for Which Original Adjustment Would Apply | | | |
|----------------------|---|---|--------------------------------------|------------------|-----------|---|---|---|--------------|
| | | | | 1977-1978 | 1978-1979 | 1 | 2 | 3 | 4 or more |
| Alabama | 177,424 | 171,475 | 3.4% | 3.9% | (3.7%)* | x | | | |
| Alaska | 13,232 | 14,794 | (10.5) | (5.9) | 7.3 ** | x | | | |
| Arizona | 117,599 | 111,538 | 5.4 | 6.0 | 0.5 | x | x | | |
| Arkansas | 106,218 | 104,661 | 1.4 | 3.3 | (4.6) | x | x | | |
| California | 986,290 | 925,292 | 6.5 | 5.0 | (3.2) | x | | | |
| Colorado | 119,702 | 124,356 | (3.7) | 9.1 | (2.3)* | x | x | x | |
| Connecticut | 119,698 | 116,309 | 2.9 | 1.1 | (4.2) | x | | | |
| Delaware | 23,020 | 24,017 | 4.1 | (0.2) | (2.2) | x | | | |
| District of Columbia | 18,486 | 18,091 | 2.1 | (0.7) | (2.9)* | x | | | |
| Florida | 412,278 | 393,481 | 4.7 | 5.6 | (0.5) | x | | | |
| Georgia | 253,127 | 246,250 | 2.7 | 3.6 | (2.6)* | | | | |
| Hawaii | 27,849 | 27,131 | 2.6 | 3.6 | -0- | | | | |
| Idaho | 44,104 | 41,031 | 7.4 | 6.3 | (4.4) | x | x | x | |
| Illinois | 500,326 | 451,967 | 10.7 | 7.2 | (6.8)* | x | x | | |
| Indiana | 244,750 | N/A | N/A | 2.8 | (4.0) | x | | | |
| Iowa | 154,752 | 152,997 | 1.1 | (0.3) | (3.6)** | x | x | | |
| Kansas | 108,154 | 125,720 | (13.9) | 0.4 | (6.3)** | x | x | | |
| Kentucky | 154,752 | 144,866 | 6.8 | 2.8 | (3.8) | x | x | | |
| Louisiana | 179,366 | 170,313 | 5.3 | 4.0 | -0- | x | x | | |
| Maine | 45,780 | 44,990 | 1.8 | 1.8 | (7.6) | x | x | | |
| Maryland | 165,627 | 160,658 | 3.0 | 3.7 | (5.6) | x | | | |
| Massachusetts | 206,903 | 195,401 | 5.8 | 1.4 | (2.2) | x | x | | |
| Michigan | 416,986 | 391,579 | 6.4 | 3.1 | (5.2) | x | x | | |
| Minnesota | 182,172 | 177,529 | 2.6 | 4.7 | (2.8)* | x | x | | |
| Mississippi | 110,413 | 107,321 | 2.8 | 1.1 | (3.0) | x | | | |
| Missouri | 234,577 | 228,449 | 2.6 | 2.7 | (5.4) | x | x | | |
| Montana | 38,601 | 37,476 | 3.0 | 15.7 | (6.9)** | x | x | x | x |
| Nebraska | 76,481 | 73,940 | 3.4 | 2.1 | (5.4) | x | | | |
| Nevada | 40,948 | 36,760 | 11.3 | 9.7 | (1.7) | x | x | x | x |
| New Hampshire | 36,992 | 35,555 | 4.0 | 2.7 | (5.0) | x | x | | |
| New Jersey | 288,206 | 274,848 | 4.8 | 1.6 | (3.9)* | x | x | | |
| New Mexico | 65,648 | 63,248 | 3.7 | 5.4 | (3.4) | x | | | |
| New York | 494,499 | 493,242 | 0.2 | 1.3 | (5.6)* | | | | |
| North Carolina | 266,666 | 254,512 | 4.7 | 4.3 | (4.0) | x | | | |
| North Dakota | 35,765 | 33,825 | 5.7 | 3.3 | (5.2) | x | x | | |
| Ohio | 453,306 | 436,389 | 3.8 | 1.2 | (2.6) | x | x | | |
| Oklahoma | 157,044 | 153,390 | 2.9 | 3.5 | (4.3) | x | x | x | |
| Oregon | 109,989 | 106,779 | 3.0 | 4.2 | (3.5)** | x | | | |
| Pennsylvania | 430,930 | 426,597 | 1.0 | 1.9 | N/A | x | | | |
| Rhode Island | 31,339 | 31,408 | (0.2) | 0.3 | (3.9) | x | | | |
| South Carolina | 138,137 | 132,453 | 4.2 | 5.4 | (3.5) | | | | |
| South Dakota | 39,339 | 37,512 | 4.8 | 1.5 | (8.7)* | x | x | x | |
| Tennessee | 216,363 | 199,634 | 8.3 | 4.4 | (3.0) | x | x | | |
| Texas | 715,002 | 684,710 | 4.4 | 2.7 | (0.3) | x | x | | |
| Utah | 60,702 | 56,566 | 7.3 | 6.7 | (3.8)* | x | x | | |
| Vermont | 22,330 | 21,133 | 5.6 | 3.5 | (6.2) | x | x | | |
| Virginia | 230,484 | 220,016 | 4.7 | 4.0 | (4.2) | x | x | | |
| Washington | 164,146 | 154,700 | 6.1 | 5.0 | (2.7) | x | x | | |
| West Virginia | 73,500 | 69,634 | 5.5 | 0.6 | (1.8)* | x | x | | |
| Wisconsin | 199,116 | 189,528 | 5.0 | 3.3 | (3.9) | x | x | x | |
| Wyoming | 28,832 | 25,882 | 11.3 | 7.5 | (1.6)* | x | x | x | |
| States' Total | 9,540,740 | 9,008,771 | 5.9% | 3.6% | (3.0%) | x | | | |

Source: Monthly Motor Gasoline Reported by State
 Federal Highway Administration, U.S. Department of Transportation

Note that the information presented above is a cumulative tabulation of gross gallons of gasoline reported by wholesale distributors in each state and is not the precise statistic to be examined in a base period analysis. Note also that the estimate of the number of months for which the current (May 1980) Unusual Growth Adjustment would apply is a highly theoretical estimate based on the data presented above. See text for further details.

* Data available for only the first eleven months of 1979. Percentage is based on the first eleven months of 1978, as well.

** Data available for only the first ten months of 1979. Percentage is based on the first ten months of 1978, as well.

The modified growth adjustment regulations require that the October 1978-February 1979 average monthly gasoline volume be at least ten percent greater than the comparable figure for October 1977-February 1978. The first three columns of Exhibit 8 indicate that only three states--Illinois, Nevada, and Wyoming--exceed this ten percent benchmark, on an aggregate basis. Although this does not rule out the possibility that individual firms within the other states will not qualify for the Unusual Growth Adjustment, it does indicate that the use of the revised adjustment will not be as widespread. On a nationwide basis, average monthly gasoline volumes in October 1978-February 1979 increased only 5.9 percent over the comparable 1977-1978 level.²⁹

The fourth and fifth columns of Exhibit 8 present the calendar year increases in gasoline consumption between 1977-1978 and 1978-1979. Whether October 1978-February 1979 is a reasonable period for assessing long-term gasoline demand growth has not been addressed here. However, calendar year growth can be compared qualitatively to the percentage growth presented in column three, with the understanding that:

- (1) Calendar year 1978 is largely represented in the base period year.
- (2) Calendar year 1979 was a period of severe gasoline shortage.

The remaining columns of the exhibit apply a hypothetical growth adjustment under current regulations, by taking 90 percent of the October 1978-February 1979 average monthly volumes for each state and comparing that figure to the average monthly consumption in the state during the November 1977-October 1978 base period. The number of months that the current growth adjustment would be applied in that state, if it were applied based on the presented data on an aggregated state-by-state basis, is indicated in the last columns of Exhibit 8.

Unlike the proposed Unusual Growth Adjustment, which would hypothetically be applied in only three states, the current adjustment would be applied in almost every state for at least one of the twelve base-period months. For most states, these months are generally the January and February 1978 base period months. Only four states--Georgia, Hawaii, New York and South Carolina--would not apply the theoretical adjustment, while two states--Montana and Nevada--would increase their hypothetical aggregate base period in four of the twelve months.

29 The 5.9 percent increase is based on Federal Highway Administration data. DOE figures indicate that the average monthly amount of motor gasoline supplied during October 1978 through February 1979 was only 3.7 percent greater than the amount supplied in the comparable 1977-1978 period. Monthly Energy Review, Energy Information Administration, March 1979 and April 1980.

It is important to recognize that retail sales outlets, bulk wholesale purchasers-consumers, and bulk purchasers, not states, receive the Unusual Growth Adjustment. The actual impact on a purchaser of the proposed revision will vary, depending upon its supplier, the amount of gasoline the supplier releases to the market, and the ability of its supplier's other customers to receive the Adjustment.

Each supplier has a unique Allocation Fraction. If two purchasers have identical base period volumes and identical sales growth during the five-month growth period, they may not receive the same amount of gasoline if they are supplied by suppliers with different allocation fractions.

The impact on purchasers is also difficult to assess because it is partially dependent upon the ability of the supplier's other customers to qualify for the Unusual Growth Adjustment. In the examples which follow, the supplier's unusual growth adjustment, based on the current provision, represents 13 percent of base period obligations. If the supplier's unusual growth adjustments are cut in half (by volume) under the proposed revision, and his supplies remain constant, his allocation fraction increases from .84 to .89. Therefore, even if a purchaser did not qualify under the current provision and does not qualify under the proposed provision, his actual allocation supply will increase under the proposed change. This is because the allocation system is a closed system. As one party gains product, another loses in order to maintain the equilibrium of a fixed supply.

The proposed revision is percentage-based. That is, each qualifying purchaser receives a percentage increase in its allocation. Assume that two purchasers qualify for a five percent increase in their base period allocation. Purchaser One had a base period allocation of 50,000 gallons a month, whereas Purchaser Two had a base period allocation of 150,000 gallons a month. The total adjustment to the supplier's obligation is 10,000 gallons per month, 2,500 to Purchaser One and 7,500 to Purchaser Two. If these two purchasers were serviced by two different suppliers, then the impact of the adjustment on the allocation fraction of Purchaser Two's supplier would be three times the impact of the adjustment on the allocation fraction of the supplier for Purchaser One.

The impact on the allocation fraction translates directly into the impact on purchasers, given a fixed supply.

Data are not available to assess effectively how the current provision affects either allocation fractions or actual supply entitlements. However, using average sales volume data and the allocation data of one supplier, the impact of the current and proposed provisions can be estimated.

The examples that follow describe two hypothetical retail sales outlets. Station A has experienced non-seasonal demand increases steadily since October, 1977, the first month in the base period.³⁰

30 Demand in these examples is measured by sales volumes, which can be influenced by the supplies available. That is, a station may sell all its gasoline, leaving unfulfilled demand, which cannot be estimated.

The relevant sales months for the analysis are:

- Base Period: November 1977-October 1978
- Unusual growth period: October 1978-February 1979
- Base months for new unusual growth provision:
October 1977-February 1978

Station A experienced stable sales until the summer of 1978, when a new highway was completed near the station. Its sales increased by ten percent immediately, remained stable for four months, increased again, and then leveled off at the new, higher volumes. (See Exhibit 9)

Under the current provision, Station A qualifies for the unusual growth provision and is eligible for the higher volumes that he sold during the unusual growth period. However, its supplier's allocation fraction has been 84 percent, due to increases, such as Station A, in unusual growth assignments, DOE assignments, and upward certifications. Therefore, Station A's actual allocated supply in 1980, assuming no change in the fraction, will be .4 percent more than the base period volumes until June, when it will drop below base period volumes.

Under the proposed revision, Station A will have lower entitlements for January through May, November, and December than it has currently. The reason is that the increased business that Station A experienced did not begin until June of the base year, which ended in October. The base period for November and December entitlements is November-December, 1977, prior to the time that Station A experienced sales growth. During June-October, Station A will be entitled to from .5 to 6 units of gasoline more than under the current provision. The significant change that may occur under the proposed revision is an increase in allocation fraction values, due to a decrease in unusual growth obligations. In this example, the supplier's allocation fraction rises to .86, two percentage points higher than it is under the current provision. (In actuality, the fraction would vary by month. An average annual fraction is used here for illustrative purposes.) If the fraction rises, then decreases in entitlements will lead to less dramatic decreases in actual supplies received. In January through May in Exhibit 9, Station A's entitlements decline by five units, but its actual supplies decline by only 3.1. Increases in entitlements will be magnified also. During June through September, the adjusted base period entitlement increases by .5 units, but the actual allocated supply increases by 1.6 units, because of the higher allocation fraction that results from lower unusual growth assignments.

This example points out how the proposed revision to the unusual growth adjustment may alter the distribution of gasoline to a steadily growing retail sales outlet. Several factors will determine whether the revised provision is a fairer representation of demand growth. First, when did the growth occur and at what rate? The formula for adjusting the base period is sensitive to changes from one winter season to the next and does not substitute for a rolling base period. The ten percent deductible may make most participants ineligible, if retail sales are comparable to the state growth rates described earlier. Second, how will the proposed revision affect the supplier's allocation fraction, if supplies are constant? Purchasers that lose base period entitlements due to the change may not lose as much in actual allocated

IMPACT OF CURRENT AND PROPOSED UNUSUAL GROWTH
PROVISIONS ON STATION A WITH NON-SEASONAL
DEMAND INCREASES

| | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. |
|--|-------|-------|-------|-------|-------|------|------|------|-------|------|-------|-------|
| 1977 | | | | | | | | | | | | |
| ACTUAL MONTHLY SALES VOLUMES | 50 | 50 | 50 | 50 | 50 | 55 | 55 | 55 | 55 | 50 | 50 | 50 |
| 1978 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| 1979 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| CURRENT PROVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements ^a | 60 | 60 | 50 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Actual Allocated Supply ^b | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 |
| PROPOSED REVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements ^c | 55 | 55 | 55 | 55 | 55 | 60.5 | 60.5 | 60.5 | 60.5 | 66 | 55 | 55 |
| Actual Allocated Supply ^d | 47.3 | 47.3 | 47.3 | 47.3 | 47.3 | 52.0 | 52.0 | 52.0 | 52.0 | 56.8 | 47.3 | 47.3 |
| CHANGE FROM CURRENT TO PROPOSED REVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements | (5) | (5) | (5) | (5) | (5) | .5 | .5 | .5 | .5 | 6 | (5) | (5) |
| Actual Allocated Supply | (3.1) | (3.1) | (3.1) | (3.1) | (3.1) | 1.6 | 1.6 | 1.6 | 1.6 | 6.4 | (3.1) | (3.1) |

Assumptions:

Supplier has constant supply of 1,000 units per month.

Base period obligation = 1,000
10% unusual growth assignment = 130
DOE assignments = 20
Upward certifications = 40

1,190

Ratio of 10 percent unusual growth adjustment to base period obligations is based on data submitted by one supplier. The ratio varies by supplier and is used here for illustration only. Adjustments and, therefore, total obligations varied by months. Adjustments ranged from 12.6 percent to 26.7 percent of base period volumes. Of the total adjustments each month, the 10 percent growth rule accounted for from 58 to 76 percent. These examples assume that all base period adjustments are a constant 19 percent of base period obligations (19/1,000) and that the unusual growth assignments account for a constant 68 percent of all base period adjustments (130/190).

(a) $\frac{60 + 60 + 60 + 60 + 60}{5} = 60; 60 - 50 = 1.2$, which is greater than 1.1. Therefore, station A is granted new base period entitlement.

(b) $\frac{1,000}{1,190} = .84; (.84)(60) = 50.4$

(c) $\frac{60 + 60 + 60 + 60 + 60}{50 + 50 + 50 + 50 + 50} - .1 = 1.1$, which is the Growth Factor to be applied to each month's base period entitlement.

(d) Assume supplier's unusual growth obligations declines to 10 percent, based on Station A's experience.

New obligation = $1,000 + 100 + 20 + 40 = 1,160$

Allocation Fraction = $\frac{1,000}{1,160} = .86$

supplies, due to increased allocation fractions. In this example, if the allocation fraction rises to .92, then Station A will not have lost any allocable supplies. This would require that unusual growth adjustments dropped to 2.6 percent of base period obligations.

Station B serves as a second example of how the proposed unusual growth provision may affect purchasers. In this example, Station B experiences seasonal demand increases. (See Exhibit 10) Under the current provision, Station B was able to replace the old base period volumes for March through August with the average for October, 1978 through February, 1979. However, the original base period remained unchanged for January and February, and September through December. This occurs because, although Station B experienced seasonal demand increases, they were not in excess of ten percent during the winter months.

Under the proposed revision, Station B would lose the entitlements it had gained during the summer months, because it could not meet the ten percent deductible rule. Any increase in the supplier's allocation fraction, due to the inability of other customers of the supplier to meet the new guidelines, would provide increased allocated supplies during peak demand periods.

Two aspects of the proposed revision may contribute to increased allocation fractions. First, base period entitlements would be increased on a percentage basis, whereas, under the current provision, the average unusual growth period volumes replace the base period. Second, the proposal calls for a ten percent deductible. That is, the percentage increase to the base period is the excess over ten percent. Few regions of the country experienced demand increases in excess of ten percent from late 1977 to late 1978.

The information analyzed for this proposal indicates that the revised adjustment will be less active than the current adjustment. Fewer firms will qualify for the adjustment, and the wide "swings" in state-by-state adjustments will be mitigated. Because fewer firms will qualify, the allocation fractions of suppliers should increase, given constant supply reductions facing individual firms that no longer qualify. In some cases, those firms may actually receive increased supplies.

**IMPACT OF CURRENT AND PROPOSED UNUSUAL GROWTH
PROVISIONS ON STATION B WITH SEASONAL
DEMAND INCREASES**

| | <u>Jan.</u> | <u>Feb.</u> | <u>March</u> | <u>April</u> | <u>May</u> | <u>June</u> | <u>July</u> | <u>Aug.</u> | <u>Sept.</u> | <u>Oct.</u> | <u>Nov.</u> | <u>Dec.</u> |
|--|---|-------------|--------------|--------------|------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|
| ACTUAL MONTHLY SALES VOLUMES | <u>1977</u> <u>1978</u> <u>1979</u> | 55 60 | 55 60 | 50 | 50 | 50 | 50 | 50 | 55 | 55 60 | 55 60 | 55 60 |
| CURRENT PROVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements ^a | 55 | 55 | 60 | 60 | 60 | 60 | 60 | 60 | 55 | 55 | 55 | 55 |
| Actual Allocated Supply ^b | 46.2 | 46.2 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 50.4 | 46.2 | 46.2 | 46.2 | 46.2 |
| PROPOSED REVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements ^c | 55 | 55 | 50 | 50 | 50 | 50 | 50 | 50 | 55 | 55 | 55 | 55 |
| Actual Allocated Supply ^d | 47.3 | 47.3 | 43.0 | 43.0 | 43.0 | 43.0 | 43.0 | 43.0 | 47.3 | 47.3 | 47.3 | 47.3 |
| CHANGE FROM CURRENT TO PROPOSED REVISION | | | | | | | | | | | | |
| Adjusted Base Period Entitlements | 0 | 0 | (10) | (10) | (10) | (10) | (10) | (10) | 0 | 0 | 0 | 0 |
| Actual Allocated Supply | 1.1 | 1.1 | (7.4) | (7.4) | (7.4) | (7.4) | (7.4) | (7.4) | 1.1 | 1.1 | 1.1 | 1.1 |

Assumptions:

Supplier has constant supply of 1,000 units per month.

$$(a) \frac{60 + 60 + 60 + 60 + 60}{5} = 60;$$

Base period obligation = 1,000
10% unusual growth assignment = 130
DOE assignments = 20
Upward certifications = 40
1,190

$$(b) \frac{1,000}{1,190} = .84; (.84)(55) = 46.2; (.84)(60) = 50.4$$

(c) $\frac{60 + 60 + 60 + 60 + 60}{55 + 55 + 55 + 55 + 55} - .1 = .99$, therefore, original base period entitlements continue.

(d) Assume supplier's unusual growth obligations decline to 10 percent.

$$\text{New obligation} = 1,000 + 100 + 20 + 40 = 1,160;$$

$$\text{Allocation Fraction} = \frac{1,000}{1,160} = .86;$$

Ratio of 10 percent unusual growth adjustment to base period obligations is based on data submitted by one supplier. The ratio varies by supplier and is used here for illustration only. Adjustments and, therefore, total obligations varied by months. Adjustments ranged from 12.6 percent to 26.7 percent of base period volumes. Of the total adjustments each month, the 10 percent growth rule accounted for from 58 to 76 percent. These examples assume that all base period adjustments are a constant 19 percent of base period obligations (19/1,000) and that the unusual growth assignments account for a constant 62 percent of all base period adjustments (130/90).

3. Modify Provision for Assignments to New Outlets and Adjustments for Existing Outlets

a. Summary and Purpose of Proposed Regulations

Under the current regulations, there is a strong presumption by ERA in favor of granting gasoline allocations to new retail outlets. An applicant must obtain a "willing supplier"--and current regulations make no distinction between a willing supplier with its own source of supply and one who is a mid-level marketer dependent for supply on another source. This means, for example, that a jobber who is applying for an assignment for a new station or proposes to supply a dealer seeking an assignment for a new station can be deemed to be a "willing supplier" notwithstanding that its total allocation entitlements would be insufficient to supply the proposed new stations. The rules permit the jobber to adjust upward his entitlement to his supplier without the ultimate supplier's agreement.

Given a fixed supply of gasoline, as suppliers are given new assignments, the volume of gasoline available to other historical purchasers is reduced. This is partially due to the fact that, while jobbers can increase their allocated supplies by opening new retail outlets, they do not have to decrease allocations (downward certify) if they close retail outlets. The downward certification issue will be examined here only briefly because it is the subject of another regulatory analysis that is currently being undertaken.

ERA has proposed four regulatory changes which would diminish the presumption in favor of new outlet allocations during periods of limited supply.

1. Only if all of the applicant's suppliers--including the ultimate supplier of the product (refiner-supplier)--have maintained for three months immediately prior to filing the application allocation fractions of greater than 1.0, or some other allocation fraction specified by ERA, would ERA grant an application for a new retail outlet allocation. However, there is one exception to this rule: notwithstanding low allocation fractions, ERA will make new assignments to satisfy "real growth" that existing stations cannot satisfy.
2. The refiner supplier, as well as the intermediate supplier, would have to be shown to be a "willing" supplier for the new allocations.
3. Even where allocation fractions are greater than 1.0, applications could be denied where it can be demonstrated that the competitive viability of an existing independent marketer would be jeopardized.
4. Adjustments for existing outlets would be made on the basis of the same standards as would be applicable to new outlet assignments.

These proposed changes are intended to minimize the adverse competitive impact that the present new assignment procedures can have upon existing outlets in the same market area.

Alternatively, DOE is requesting comments on a proposal which would omit any requirement for a threshold allocation, and omit the authority of ERA to make new assignments to unwilling suppliers to satisfy "real growth" that existing stations cannot satisfy. Major aspects of this alternative include:

- The refiner supplier, as well as the intermediate supplier, would have to be shown to be a "willing" supplier for the new allocations. No exceptions would be made.
- Applications could be denied where it can be demonstrated that the competitive viability of an existing marketer would be jeopardized.
- Adjustments for existing outlets would be made on the basis of the same standards as would be applicable to new outlets assignments. However, existing outlets could receive adjustments from willing suppliers to raise their base period uses to the average of other outlets of similar type and nature in the area or 60,000 gallons per month, whichever is greater.

No analysis of this alternative proposal has been completed. Analysis should be conducted on two issues. The upward adjustment provisions for existing stations, effectively do not enable stations to convert easily to high-volume self-serve outlets. Therefore, current stations do not receive the same opportunity as new entrants. Secondly, the administrative burden will be different from either the status quo or the first proposal. In addition, the no exception provision combined with the limitation on upward adjustment may have an impact on the ability of either current marketers or potential entrants to respond to new demand. The proposal assumes that suppliers will be willing to supply new outlets in a growing market, and that marketers will desire to open new outlets.

b. Analysis of the Revision

(1) Allocation to New Outlets

The major provision under consideration by the ERA specifies more restrictive standards that must be satisfied by applicants for new station assignments. The first requirement would establish a minimum allocation fraction for suppliers before any application would be considered. The proposed suppliers of the new outlet would be required, for example, to certify that for the previous three months they maintained an allocation fraction greater than a certain threshold. Whether the actual threshold level of the allocation fraction would be one or greater than one is not certain. The level would be determined on the basis of what fraction indicates that supplies are adequate to support new outlets.

A significant problem with this approach is that the allocation fraction, regardless of its level, is often an inadequate indicator of the adequacy of product supplies within a given market. A supplier's allocation fraction, which is the ratio of allocable supply to the base period obligations, can be low even when supplies are ample. This can occur in at least two ways. First, due to a reduction in demand for gasoline, the actual quantity demanded by retailers from suppliers can be less than the base period obligations. Second, while suppliers are obligated to sell, purchasers are not obligated to buy. A supplier's base period customers can shop around in spot markets for

cheaper supplies, leaving a higher-priced supplier with a product surplus. A refiner who responds by producing less, can meet all customers' needs at the refiner's price. Thus, to gauge accurately the availability of supply, a more accurate measure than that provided by the allocation fraction should be found.

An additional difficulty in relying on a supplier's allocation fraction as a measure of supply is the fact that it can be manipulated by refiners.

$$\text{Allocation Fraction} = \frac{\text{Allocable Supply}}{\text{Base Period Obligations}}$$

Because the numerator is allocable supply, it is possible, given a level of base period obligations, for a refiner to reduce his allowable supply to the point where the allocation fraction is just below any threshold level. Whether all or some refiners would manipulate the allocation fraction in this way is unknown. But to use the fraction to determine whether potential, new stations, which could rival refiner owned stations, will receive supply, sets in motion forces which could have this effect. It is fair to assume, however, that any discretion available to achieve a competitive advantage will be so used.

It can also be shown that an allocation fraction greater than one does not necessarily indicate that supplies are adequate to support new station assignments. An allocation fraction greater than one means that allocable supply is greater than the base period use. But the historical base period use by which the fraction is calculated is not equivalent to the current demand for gasoline. It is possible that current demand, in a region, or throughout the country, can exceed the base period volume. In such a situation, an allocation fraction greater than one would mask the fact that actual quantity demand exceeds the allocable supply and, as a result, there is a shortage of gasoline.

In addition to the threshold level of the allocation fraction, the proposal would require approval of the new station's would-be refiner-supplier (prime supplier) before the station would be granted supply. At present, only the wholesaler-supplier's willingness to sell is required. This new requirement raises an additional opportunity for the refiner to influence the outcome to the potential detriment of competition. This could occur, for example, if the refiner owns or operates retail stations and, thus, has an interest in limiting the number of his rivals. If he does, he can be unwilling to supply others, then expand himself or do both. It is unlikely, however, that this provision can be used to harm competition. In order to harm competition, it would need to be shown that within the relevant geographic market, refiners can raise their retail price while barring entry. No evidence exists to show that refiners can exert such economic power.³²

32 This is the conclusion reached by Drs. J.B. Delany and R.N. Fenili of the DOE in their report The State of Competition in Gasoline Marketing: The Effects of Refiner Operations at Retail, May, 1980.

(2) Provision to Protect Competitors

An additional proposal would prevent firms from obtaining gasoline allocations for new stations if existing stations could demonstrate that the opening of a new station would harm existing competitors. Such a rule would further the objective of the EPAA to assure the competitive viability of each segment of the petroleum marketing industry but frustrate its objective to protect and promote competition. If the goal of the ERA is to promote the greatest production of gasoline consistent with efficient depletion of crude oil, at the lowest possible price, it is highly probable that such a rule would undermine the goal. This is because the rule would allow existing retailers to block entry of more efficient stations. One would want to block entry of new stations, only if it seemed likely that once in the market the entrants could drive existing rivals out, raise price and not induce new entry. Given the large number of retailers and the low barriers to entry in this segment of the petroleum industry, this is a highly unlikely outcome. It seems more likely that by impeding new entry, through this proposed ERA rule, existing firms would be able to block the development of more efficient stations and, hence, the prospect of lower prices.

On the other hand, it could be difficult for a competitor to show specifically that a new or increased allocation would significantly impair its viability. Thus, it is not clear that this proposed rule would, in fact, block new entry into a market. Furthermore, in 10 CFR Section 211.12(e)4, there already exists a provision under which additional volumes are not supposed to be assigned on any basis that would give a new wholesale purchaser an unfair advantage over existing wholesale purchasers. The importance of this provision was highlighted recently in a decision of DOE's Office of Hearings and Appeals, Oettinger's Sunoco Service Station, Case No. BEA-0183, decided on April 4, 1980. The application was returned to the appropriate regional office for further consideration of possible damage to the viability of competitors.

(3) Equal Treatment for Existing Stations and Entrants

The proposed modifications to permit more liberal adjustments for existing stations are intended to eliminate the preferential treatment currently given to new entrants. If a current market participant or potential entrant can meet the tests posed in this revision, each has an equal opportunity for increasing its base period entitlement. This differs from the current provision, in which new entrants can receive base period entitlements as "gas-and-go"-type operations, but a current market participant cannot apply for increased entitlements by changing its marketing practices to become a high volume, self-serve retail outlet. New demand in an area is, therefore, met by new entrants, rather than an expansion in the operations of current market participants.

Theoretically, the proposed revision and its alternative encourage new market practices by offering equal access to limited supplies for all potential and current participants. An unregulated market would show no preference to current versus potential entrants, and the proposals attempt to mimic that non-preferential treatment. In an unregulated market, however, potential purchasers would deal directly with suppliers for gasoline supplies. Under the Allocation Program, potential purchasers must apply for gasoline allocations through the ERA. This may pose an extensive administrative burden on the ERA regional offices, who would be responsible for processing the applications for upward adjustments.

Assuming a given level of allocable supply, an approval of an allocation to a new station or an increased allocation to an existing station directly reduces the supply to existing stations which do not apply for additional allocations. As illustrated in Exhibit 11, the supply pie does not increase; it is merely carved differently. Consequently, a side effect of either rule would be to encourage retailers to take whatever actions are necessary to justify an increased allocation. This would be a reasonable response because if a purchaser takes no action, his actual supply will decline if any other station supplied by his suppliers requests and gets additional allocations. This response, while logical, could overwhelm ERA regional offices.

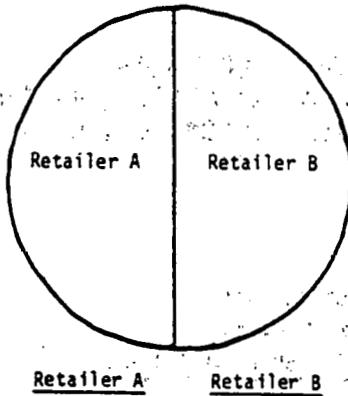
At the end of April, the Department of Energy employed 134 persons in all of its regional offices. The offices ranged in size from six to 21 employees. (See Exhibit 12) The total backlog of applications has risen from 9,007 at the end of February to 9,582 by the end of April. Although, as Exhibit 13 illustrates, the applications have been processed at an increasing rate in the past three months, the backlog continues to grow. Based on this three-month sample, the average processing time per application is 6.6 hours.

Given the processing time, and the total number of current market participants, the proposed revision and its alternative could pose an extensive administrative burden on the DOE regional staffs. Ordinarily, no regulation should be implemented or changed on the basis of administrative burden. Yet, the potential administrative costs should be understood before action is taken. If only one percent of the current retail sales outlets submitted applications for additional entitlements, an additional 16,500 man hours of work would be required to process them. (See Exhibit 14) Assuming that no application should take more than three months to process, an additional 34 employees, or a 25 percent increase in staff, would be required to process the applications.

If applications for adjustments are received for only a small fraction of the existing retail outlets, a substantial administrative burden will be placed upon the ERA. However, the adoption of fixed allocation fraction requirements for applications for new assignments would automatically reduce this workload unit without the need for extensive administrative review.

DISTRIBUTION OF LIMITED GASOLINE SUPPLIES

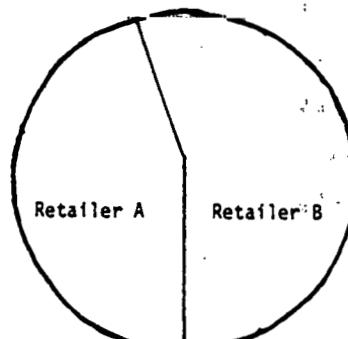
EXHIBIT 11



Case I: Retailers A and B have equal allocations, x , and share equally in available supply, $2x$.

Allocation Entitlement
 Supplier's Supply Obligation
 Supplier's Net Allocable Supply
 Allocation Fraction
 Volume Received

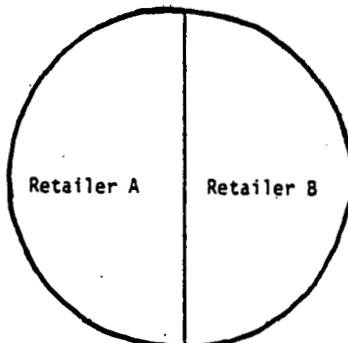
| | |
|------|------|
| x | x |
| $2x$ | $2x$ |
| $2x$ | $2x$ |
| 1 | 1 |
| x | x |



Case II: Retailer B obtains 50 percent increase in allocation entitlement. Retailer A does not apply for revised allocation. Since supply is assumed fixed, supplier can meet only $8/10$ of each retailer's needs. Retailer A receives $.8x$, Retailer B receives $1.2x$.

Allocation Entitlement
 Supplier's Supply Obligation
 Supplier's Net Allocable Supply
 Allocation Fraction
 Volume Received

| | |
|--------|-----------|
| x | $x + .5x$ |
| $2.5x$ | $2.5x$ |
| $2x$ | $2x$ |
| $8/10$ | $8/10$ |
| $.8x$ | $1.2x$ |



Case III: Retailer A also obtains 50 percent increase in allocation entitlement. Since supply is fixed, supplier meets only $2/3$ of each retailer's needs. However, Retailer A and B once more share available supply equally.

Allocation Entitlement
 Supplier's Supply Obligation
 Supplier's Net Allocable Supply
 Allocation Fraction
 Volume Received

| | |
|-----------|-----------|
| $x + .5x$ | $x + .5x$ |
| $3x$ | $3x$ |
| $2x$ | $2x$ |
| $2/3$ | $2/3$ |
| x | x |

DEPARTMENT OF ENERGY
 ECONOMIC REGULATORY ADMINISTRATION
 REGIONAL OFFICE PERSONNEL WORKLOAD

| <u>DOE Region</u> | <u>Number of Personnel (Temporary and Permanent)</u> | <u>Case Backlog as of April 30, 1980</u> |
|-------------------|--|--|
| I | 11 | 428 |
| I | 11 | 345 |
| III | 10 | 893 |
| IV | 17 | 2,061 |
| V | 21 | 860 |
| VI | 16 | 1,762 |
| VII | 11 | 355 |
| VIII | 6 | 62 |
| IX | 17 | 1,619 |
| X | 14 | 1,197 |
| Total | 134 | 9,582 |

ESTIMATED TIME TO COMPLETE
ALLOCATION ASSIGNMENT APPLICATIONS¹

| | <u>February</u> | <u>March</u> | <u>April</u> |
|--------------------------------------|-----------------|--------------|--------------|
| Total Cases Received | 3,789 | 3,294 | 4,238 |
| Total Cases Closed | 2,830 | 3,024 | 3,956 |
| Total Cases in Progress (Backlog) | 9,007 | 9,277 | 9,582 |

Total Man-Hours Per Month = Average Hours
Three-month Average of Cases Completed Per Case

(134)(160) = 6.6 hours per case
3,270

¹ Based on DOE reports from regional offices at the end of February, March, and April, 1980.

DEPARTMENT OF ENERGY'S INCREASED WORKLOAD RELATED TO
IMPLEMENTING NEW CRITERIA FOR ADJUSTMENTS TO EXISTING
ALLOCATION ENTITLEMENTS

| Fraction of Outlets Applying | Total Applications Received ¹ | Additional Man hours of work ² | Additional Personnel Requirements to Complete Applications in Three Months ³ |
|---------------------------------|---|--|--|
| .01 | 2,500 | 16,500 | 34 |
| .05 | 12,500 | 82,500 | 172 |
| .10 | 25,000 | 165,000 | 344 |

¹ Total Applications Received = fraction of stations applying x 250,000, the total estimated number of gasoline retail outlets. Estimate is based on The State of Competition in Gasoline Marketing. Part I, Office of Competition, The Department of Energy, May 1980, Appendix B, p. 1.

² See Exhibit 13 for calculation of average hours per case.

³ Assumes a 160-hour man-month.

4. Eliminate Provisions Permitting Interim Supplies and Adjustments

a. Summary and Purpose of the Proposed Revision

The Department is proposing to eliminate regulations which permit a wholesale purchaser-reseller, i.e., a mid-level marketer, to extend supplies of gasoline to new outlets, pending their certification by the Department.³³

The proposal would be implemented in one of three ways:

- Applicable to all interim supply arrangements in existence at the time of the final rule;
- Applicable only to interim supply arrangements initiated after the date of the final rule; or
- Applicable only to interim supply arrangements that begin after the date of the proposal.

Under the proposed Guideline revisions, the Department expects many applications for new assignments will be denied. However, under current interim supply and certification provisions, many of the applicants could obtain temporary allocation assignments pending the Department's final action. By eliminating the interim supply and certification provision, the ERA intends to prevent these temporary allocations which it intended initially only as a temporary measure.

b. Analysis of the Revision

When ERA updated the base period for the first time on March 1, 1979, the regional offices were overwhelmed with applications for new assignments and upward certifications. In order to allow purchasers to begin business or expand operations without months of administrative delay, ERA issued a rule granting interim supplies and adjustments to applicants, while their applications were being processed.

This rule was intended to supplement rather than supplant the provisions of Part 205, Subpart C governing temporary assignments. The interim assignment procedures permit resellers automatic upward adjustments upon filing of the application and are consistent with the existing presumption in favor of granting assignments for new stations.

The proposed rule change would eliminate the interim assignment provision and relieve suppliers of an interim allocation obligation in such cases. This change is based in part on an assumption that the proposed amendments to the guidelines for assignments to new outlets and adjustments to existing outlets (Section 3 of this analysis) will result in limiting allocation obligations to bona fide new station operations and may thereby serve to reduce the number of new station applications. Although the wording of the revised guidelines

33 NOPR, Section III. C.

would seem to indicate that a drop in such approved applications would occur, no significant analysis has been undertaken to establish that fewer approvals would result. If the volume of gasoline assigned by final ERA order under the proposed rule remains at the same level as the volume assigned under the current rule, a case could be made for the continued approval of interim supply assignments.

Such a finding, however, would not, in and of itself, justify the continued availability of interim supply assignments. According to DOE officials, DOE regional offices reported a combined backlog of approximately 9,582 cases at the end of April, 1980. The current interim supply assignments - generally applied in favor of the applicant - contribute to the backlog in two ways. First, the interim rule may encourage applications, since applications normally are subjected to minimal initial review and generally result in interim supply assignments pending approval or denial of the applications. Second, the current interim rule may contribute to delay within the application process. Under current DOE rules, when a purchaser, or supplier on behalf of a purchaser, applies for an assignment, the wholesale purchaser-reseller "may, on an interim basis, include such volumes in its base-period use as a temporary adjustment and may upward certify such volumes to its supplier . . ."³⁴, or the supplier and the purchaser may settle on an "agreed-upon volume."³⁵

In any event, the applicant generally receives an interim assignment for all or most of the applied-for product upon filing the application. The final action on the application usually serves either to make permanent the existing assignment, reduce the assignment, or eliminate the existing assignment completely. Accordingly, there may be an incentive for the applicant to continue the interim assignment as long as possible, and to postpone the date of the final decision; especially if the assignment has been made during a shortage. Although ERA generally requires that interim assignments in excess of amounts ultimately awarded be subtracted from future allocations, timing is critical. Clearly, access to product during a shortage is a much more valuable "right" than access when supplies are relatively ample and surplus product can be purchased on the spot market. No available analysis has been undertaken to examine the connection between the backlog of regional office applications and the interim rule mechanism; however, it is apparent by the terms of the procedure that, to some degree, such backlog may be encouraged. If the current backlog in regional office applications is due to a large extent to meritless allocation applications, an increase in the proportion of approved applications could serve as a sign of the success of the rule change - provided that the change in the rule is followed by a drop in the number of meritless applications for new assignments and adjustments.

34 Section 211.105(a)(3)(1)

35 Section 211.105(a)(1)

DOE cites indications that the interim supply provision may have been abused and may have resulted in large volumes of gasoline being directed to regions in which there was no need for additional product as the primary reason for the rule change.³⁶ The interim rule on its face encourages "abuse," where "abuse" is defined as the assignment of supply to a firm which cannot justify a final allocation order from DOE. Furthermore, no opportunity exists for the supplier to participate in the amount of the interim assignment. The interests of justice to both the supplier and the applicant may best be served by a preliminary screening mechanism, allowing a firm which makes a prima facie case for additional supply to receive an interim allocation. However, given the present backlog of regional DOE offices, the proposed rule may serve as an effective mechanism for reducing the case load of those offices and preventing abuse of the current interim supply rule.

Whether or not the interests of fair and equitable supply distribution are met by this rule change has not been determined. However, in general, a governmental agency should not propose rule changes simply because existing rules entail an administrative burden. Rather than proposing a rule change, the agency should determine whether (a) the purpose for which the regulation was originally implemented was invalid, and the agency made a mistake in implementing the regulation, (b) the purpose has been invalidated by conditions changing over time, or (c) the administrative burden has been proven to be greater than the benefit to the aggrieved parties.

Rescinding the interim supply provision should not discourage legitimate requests for new assignments. 10 CFR 211.12(e)(2)(iii) and the "Guidelines for Evaluation of the Applications for Assignments of Supplier and Base Period Use to New Gasoline Retail Sales Outlets" have consistently warned against making substantial investments in new retail outlets until formal assignments of base period volumes have been made.

36 NOPR, Section III. C.

5. Amend Rules to Allow Increased Refiner and Wholesale Marketer Flexibility

a. Summary and Purpose of the Proposed Revisions

In this proposal, the Department intends to provide more flexibility to refiners and wholesale marketers to shift their current entitlements to gasoline from some retail outlets to others.³⁷ Suppliers would be permitted to supply their existing base period volumes among their company-operated stations in any way they choose so long as they do not increase the total volume supplied in their company-owned outlets. Independents would retain their right to receive product and could be assigned volumes from closed, previously independently operated, retail outlets. This proposal would not take precedence over allocations transferred to successors on the same site.

Current rules allow firms to reassign no more than 30 percent of any outlet's assigned allocation among company-owned and operated stations. By relaxing restrictions on suppliers' distribution patterns, the ERA is seeking to increase the ability of marketers to respond to changing business conditions. However, the ERA is also concerned that this change may allow companies to withdraw from a market, to the detriment of consumers. Thus, as an alternative the ERA is considering an amendment requiring companies to obtain ERA approval where the reassignment of an allocation would shift product out of the immediate area of the closed outlet. If implemented, the ERA is seeking comments as to which definition of geographic area would be most appropriate:

- Standard Metropolitan Statistical Area (SMSA), the same state, county, or contiguous counties;
- Economic Regulatory Administration (ERA) Regions; or
- Petroleum Administration for Defense District (PAD).

b. Analysis of the Revision

The purpose of the proposal is to allow refiners and wholesale gasoline marketers greater freedom to allocate gasoline supplies and thereby to permit supply more easily to follow demand. The first change allows suppliers to allocate gasoline product to company-owned and operated outlets in any proportion, regardless of the base-period volumes of the individual outlets, so long as they "do not increase the total base period uses of their company-owned and operated outlets."³⁸

Refiners and wholesalers would have a strong economic motive to reassign product from company-owned and operated stations in a low demand area, to those in an area where demand is high. If refiners made allocation decisions on this basis, the theoretical competitive impact of the first part of this rule would be to remove some of the competitive pressure from the independent outlet in low demand areas, at the expense of increased competitive pressure in the high demand areas. The rule would enable refiners and wholesalers to respond to demand changes which have occurred since the base period.

³⁷ NOPR, Section III. D.

³⁸ NOPR, Section III. D..

However, in reality, if strict geographic limitations are placed on refiners' flexibility, the impact of this ability on overall supply patterns may be minimal. According to The State of Competition in Gasoline Marketing, Part 1, only a small percentage of retail outlets are owned and operated by major refiners. (See Exhibit 15)

Approximately ten percent of the 122,823 stations included in Groups I-VII are company-owned and operated. The company stores, as they are designated in Exhibit 15, sell larger average volumes than the lessee and open dealers, therefore, more than ten percent of gasoline volumes are represented by company stores. Nevertheless, if the refiner's flexibility is limited by a small geographic market area definition, such as SMSA, the flexibility rule may not allow product to flow to higher demand areas, as intended.

The second provision, which would allow greater supply flexibility, permits refiners to reallocate gasoline to independent outlets within a market area whenever an independent outlet within that area goes out of business. Under current regulations, when an outlet in a particular area goes out of business, the additional volume of gasoline must generally be redistributed, nationwide, among the other outlets supplied by that outlet's refiner. The effect of the closing is to reduce the availability of gasoline within the "market area." Under the proposed rule, the gasoline may be reassigned exclusively to outlets within that area, so that they may service the needs of the customers who were previously serviced by the closed outlet. This provision places refiners in the same position as resellers, who can currently keep supplies allocated for closed outlets. It may conflict with the downward certification provision that is currently being evaluated by ERA.

For this provision, DOE has not yet defined "market area." Several areas have been suggested by DOE:

- Standard Metropolitan Statistical Areas (SMSAs) are areas established by the Bureau of the Census. These areas have been determined to be major population centers within the United States. Not all parts of the United States are covered by SMSAs; these "market areas" would be defined by counties or contiguous counties. Non-SMSA areas are largely rural and sparsely populated. Much would depend on the size of the counties and sparseness of the population in defining these market areas.
- Petroleum Administration for Defense Districts (PADDs) were developed during World War II. They divide the United States into five large areas: roughly defined, those areas are the East Coast, the Midwest, the Gulf Coast, the Rocky Mountains, and the West Coast.
- Economic Regulatory Administration (ERA) regions, also sometimes referred to as Department of Energy (DOE) regions, divide the country into ten regions. The areas roughly correspond to the general regions established by the federal government. Like PADDs, the ERA regions have been established primarily for administrative purpose.

EXHIBIT 15

CHANGES IN THE NUMBER AND AVERAGE MONTHLY VOLUME
OF RETAIL OUTLETS FOR SELECTED REFINER GROUPINGS
1972 - 1978

Exhibit 15

| Refiner Group | Company Stores | | Lessee Dealers | | Open Dealers | |
|------------------------------------|----------------|---------------|----------------|---------------|---------------|---------------|
| | 1972 | 1978 | 1972 | 1978 | 1972 | 1978 |
| Group I | | | | | | |
| Number | 2,307 | 1,251 | 40,462 | 26,195 | 28,816 | 18,290 |
| Avg. Monthly Volume | 49.2 | 94.6 | 31.3 | 47.5 | 8.2 | 16.3 |
| Group II | | | | | | |
| Number | 907 | 1,917 | 35,623 | 18,176 | 36,061 | 25,654 |
| Avg. Monthly Volume | 55.3 | 81.4 | 25.4 | 40.6 | 9.6 | 15.0 |
| Group III | | | | | | |
| Number | 3,208 | 2,652 | 18,903 | 7,832 | 12,115 | 6,105 |
| Avg. Monthly Volume | 35.8 | 63.9 | 20.9 | 35.0 | 10.1 | 17.3 |
| Group IV | | | | | | |
| Number | 2,058 | 2,895 | 5,874 | 1,728 | 5,505 | 2,101 |
| Avg. Monthly Volume | 59.9 | 95.0 | 20.4 | 18.8 | 6.4 | 5.5 |
| Group V | | | | | | |
| Number | 427 | 799 | 1,742 | 1,515 | 1,343 | 1,443 |
| Avg. Monthly Volume | 27.3 | 72.5 | 70.0 | 47.3 | 17.0 | 18.9 |
| Group VI | | | | | | |
| Number | 733 | 2,136 | 2,551 | 1,006 | 74 | 26 |
| Avg. Monthly Volume | 39.2 | 57.6 | 46.1 | 35.3 | 17.0 | 89.0 |
| Group VII | | | | | | |
| Number | 788 | 778 | 460 | 259 | 96 | 65 |
| Avg. Monthly Volume | 53.9 | 109.0 | 46.3 | 71.6 | 23.9 | 19.3 |
| Total Number (Groups I-VII) | 10,428 | 12,428 | 105,615 | 56,711 | 83,818 | 53,684 |

Note: Gasoline monthly volume in thousands of gallons. These data include all outlets the refiner supplies directly, both primary and secondary locations. Note, this page does not include retail outlets which earn less than 50% of revenues from gasoline. This includes 87,000 retail outlets.

Source: Data taken from Form EIA-151, a nationwide survey of refiner's of motor gasoline, published in The State of Competition in Gasoline Marketing, Part 1, Office of Competition, DOE, May 1980, Table 2A-6, p. 58.

Note: Group I: Exxon, Amoco, Shell Texaco
 Group II: Gulf, Mobil, Arco, Chevron
 Group III: Sun, Sohio/BP, Union Phillips
 Group IV: Marathon, Conoco, Ashland, Citgo
 Group V: Getty, Tosco, Champlin, Amerada-Hess
 Group VI: Kerr-McGee, Charter, Clark, Coastal States
 Group VII: American Petrofina, Tenneco, Crown, Total Petroleum

Defining a market area is extremely difficult. A market area can be as small as an interchange on an expressway, or as large as a multi-state region. All proposed definitions rely upon geographic boundaries, although market areas are not fixed in the same fashion. If the market definition is too strict, then the proposal may not allow refiners and marketers to transfer product from low demand to high demand areas. However, a broad definition may not meet the intent of the program, which is to spread the effects of a shortage equitably across economic and geographic sectors of the country.

The proposed regulations, if abused, allow substantial room for suppliers to reward and punish independent outlets--particularly punish. Under the first proposed change, where suppliers may reallocate gasoline supplies among their owned outlets, suppliers can increase the competitive pressure on an unpopular dealer, or take the pressure off a favored one. Under the second proposed change, refiners have the option to allocate product from a closed independent outlet to other independent outlets in the same market area--if the refiner chooses to exercise that option.

The ERA cannot anticipate the extent to which the flexibility rule may be abused. The chief benefit to be gained from the provision is that refiners can close inefficient stations in low demand areas and reallocate to efficient stations in high demand areas, without risk of either the refiner's stations losing product. The degree to which this occurs depends on several factors, including the number of company-owned outlets within any given market area and the strictness of the definition of a market area.

6. Amend Regulations to Allow Separate Allocation Fractions for Separate Brands

a. Summary and Purpose of the Proposed Revisions

The Department is proposing to give resellers the discretion to maintain uniform allocation fractions or to have separate fractions for different brands of product.³⁹

Currently, suppliers are required, in general, to maintain uniform allocation fractions. The Department observed, however, that resellers receiving two or more brands of gasoline from different suppliers may not be able to commingle the branded product due to either their supply contracts or state branding laws. The proposed revisions are intended to ease the difficulties faced by resellers in such circumstances.

While the proposal would increase a reseller's flexibility, the Department is concerned that resellers not use their discretion so as either to favor or to discriminate against unbranded outlets, marketers, and consumers. Accordingly, the Department is also proposing that resellers that maintain separate allocation fractions also establish their unbranded allocation fractions at no less than the lowest allocation fraction supplied to any branded purchaser.

b. Analysis of the Revision

The proposed DOE revision deals with the problem of the jobber that receives product from two or more refiners, supplies two or more different branded outlets, and is under a contractual obligation or state branding law which requires that branded gasoline outlets be supplied with only that particular brand of gasoline. The revision also addressed the problem that a jobber faces when it is placed on different allocation fractions by different refiners, and faces a DOE regulation requiring all the outlets supplied by the jobber to be placed on a uniform allocation fraction. The practical effect of the regulation is to require that all of the jobber's outlets be placed at the lowest allocation fraction that the jobber receives from any of his refiners.⁴⁰

What, then, happens to the rest of the gasoline which the jobber receives? There are several current options:

- Return the gasoline to the refiner. This option has the effect of reducing the gasoline supply in the jobber's market area, since refiners are currently required to return this gasoline to the "national pool." However, in times of short gasoline supplies it is unrealistic to assume that all jobbers would willingly return product for which they have a ready market.

39 NOPR, Section II. E.

40 The "Notice of Public Rulemaking" indicates that jobbers have a second option--to offer "one brand of product to retail outlets maintaining a different brand." If purchasers can purchase a second brand of product under state branding laws or contractual relationships, the current DOE regulation ceases to be a problem.

- Distribute as "surplus" product. DOE regulations define "surplus" product as that product which remains available for distribution after the supplier's allocation fraction reaches 1.0, or that product which base period purchasers have declined to purchase. Jobbers may distribute the product.
- Ignore the DOE regulations. The jobber may place the branded outlets on allocation fractions equal to those invoked by the respective refiners. This violates the DOE requirement for uniform allocation fractions.

In short, the jobber is faced with an unattractive set of options for dealing with supplies which remain after gasoline is delivered at the minimum allocation fraction.

Under the revised rules, the jobber may place branded outlets on separate allocation fractions whenever the jobber's suppliers invoke separate fractions, provided that unbranded outlets receive no less than the minimum allocation fraction supplied to branded outlets. Jobbers are permitted to maintain allocation fractions different from the allocation fractions of the respective refiners. For example, assume the following:

| | <u>Brand "A"</u> <u>Retail Outlet</u> | <u>Brand "B"</u> <u>Retail Outlet</u> | <u>Unbranded</u> <u>Retail Outlet</u> | <u>Unallocated</u> <u>Supply</u> |
|-----------------------------------|--|--|--|-------------------------------------|
| Base Period Volume | 1,000 gal. | 2,000 gal. | 1,000 gal. | NA |
| Refiner Allocation Fraction | .90 | 1.00 | .80 | NA |
| <u>Jobber Allocation Fraction</u> | | | | |
| Current Regulations | .90 | .90 | .90 | 100 gal. |
| Proposed Regulation | .90 | .95 | .90 | -0- |

The jobber in the above hypothetical example supplies three outlets--two branded under different brands, one unbranded. The hypothetical jobber is supplied by three refiners--Refiner "A", Refiner "B", and Refiner "C". The product from Refiner "C" is used exclusively to supply the non-branded outlet. In a month when the outlet's base periods and refiner's allocation fractions are as outlined in the chart above, the jobber could allocate the full 900 gallons received from refiner "A" to outlet "A", allocate 1,800 of the 2,000 gallons received from refiner "B" to outlet "B", and allocate the 800 gallons received from refiner "C" plus 100 of the 200 remaining gallons from refiner "B" to the unbranded outlets. In this manner, the allocation fractions for all outlets would be uniform, although the jobber would be left with 100 gallons of unallocated supply.

The allocation fractions invoked by the refiner are "separate," but not equal to the allocation fractions imposed by the respective refiners. All "surplus" product has been allocated.

Under the proposed regulations, because the jobber allocation fractions need not be the equivalent of those of the respective refiners, the following situation could result:

| | <u>Brand "A"</u> <u>Retail Outlet</u> | <u>Brand "B"</u> <u>Retail Outlet</u> | <u>Unbranded</u> <u>Retail Outlet</u> | <u>Unallocated</u> <u>Supply</u> | |
|-----------------------------|--|--|--|-------------------------------------|--|
| Base Period Volume | 1,000 gal. | 1,000 gal. | 1,000 gal. | - | |
| Refiner Allocation Fraction | .70 | 1.0 | .50 | - | |
| Jobber Allocation Fraction | | | | | |
| Alternative 1 | .60 | 1.0 | .60 | - | |
| Alternative 2 | .65 | .9 | .65 | - | |

In Alternative 1, the jobber has transferred product to the unbranded outlet at the expense of brand "A", despite the fact that brand "B" has a higher allocation fraction. Moreover, the jobber has adjusted the refiner allocation fraction downward, and applied that fraction for the purpose of determining the minimum allocation fraction for the unbranded outlet. In Alternative 2, the fractions of Brand "A" and Brand "B" retail outlets have been reduced by .05 and .10, respectively, in order to increase the product available to unbranded retail outlets. Both actions are allowed under the proposed revision.

The flexibility that a jobber gains under this proposed rule will not translate into more product for all retail outlets. Given a fixed supply, the jobber will move product as it sees fit. This may not be to the benefit of all of his customers.

7. Eliminate the Program

a. Summary of the Revision

An alternative to revising the allocation rules would be to remove them. Under the current regulatory program, the price of gasoline is controlled and its allocation downstream from refineries to retail sales outlets determined by the ERA regulations. Thus, the quantity of gasoline supplied is distributed by government regulations. This proposal would eliminate the regulation of distribution and allow the market to distribute the quantity of gasoline supplied. Price controls are assumed to remain in effect.

b. Purpose of the Revision

During the shortage of 1979, the current regulatory distribution of gasoline was unable to redistribute gasoline supplies quickly enough from areas where excess supply was building to areas where excess demand, evidenced by lines, was growing. During and after the shortage, difficulties arose over the provisions of providing gasoline to new stations, and the resulting reduced supplies to other stations. These difficulties were accompanied by conflicting claims about whether the allocation regulations increased or decreased competition. This proposed revision is designed to improve efficiency in the distribution of gasoline during shortage and non-shortage periods and to do so in a manner which maintains competition.

c. Analysis of the Revision

During the 1979 shortage, the shift in demand for gasoline from rural to urban areas was unanticipated, and the allocation program was unable to reallocate gasoline supplies quickly enough to offset the shift in demand. In other parts of this analysis, it is demonstrated that the allocation program is limited in its ability to be more efficient in the future, even if the program is substantially amended. This is because information on the change of demand travels too slowly through the regulatory system and cannot be expected to improve substantially. Without such information, the provisions which allow the ERA flexibility in reallocating supplies cannot work well. The additional provisions which allow for statewide flexibility are significantly limited because supply and demand shifts can be regional, multi-state phenomena. The best mechanism for prompt flow of information on demand is the market mechanism through which refiners, wholesalers, and retailers inform each other directly of their needs. During any future shortage, the interaction of these segments of the petroleum industry would provide the quickest and most efficient reallocation of gasoline if a shift in demand occurred.

During periods when no embargo of foreign supplies exists, the market may be the best distribution mechanism even if price controls remain in effect. Only if it could be demonstrated that barriers to entry exist in the marketing segment of the industry, particularly in retailing, would government regulation be more desirable than market distribution. This has not been demonstrated, and to the contrary, most data indicate that barriers to entry are negligible in gasoline marketing.

In the absence of allocation of gasoline, some retailers may exit the market. Under price controls, the quantity of gasoline supplied is less than the quantity that would be supplied in the absence of controls. The allocation of the lesser amount of gasoline supplied will leave some stations with lower supplies and, perhaps, no supply. The reduction in the number of rivals, however, does not mean a reduction in competition. The large number of retailers in the relevant markets and the ability of new retail sales outlets to enter the gasoline retail market, will prevent the deterioration of competition. In addition, a reduction in the number of market participants does not mean a reduction in the quantity of gasoline available to consumers. The distribution of the product, not the quantity of the product, changes. The control of distribution would revert to the industry, with redirection authority and state set-aside programs available for emergency situations.

B. Alternatives to Alleviate Temporary Regional Gasoline Shortages

Introduction and Definition of Problem

In April, 1979, regions of the United States began experiencing gasoline lines. Between April and July the lines increased in number and affected many, but not all, regions of the nation. In response to these lines and to the uncertainty of supply of gasoline, the driving patterns of Americans changed. Whereas Americans traditionally take extended road trips into or through rural areas, they significantly reduced these trips in 1979. This represented a shift in the demand for gasoline resulting in excess supplies in many rural areas and excess demand in many urban areas.⁴¹

The distribution of the supply of gasoline during this period was controlled by the Department of Energy. Two major provisions of the DOE allocation regulations provided flexibility for reallocation of gasoline when shifts in demand caused excess supply. The first is the state set-aside program. Until April, 1979, this provision allowed each state control of three percent of the fuel estimated by prime suppliers for delivery into the state. After April, 1979, the percentage for gasoline was permanently raised to five percent. The program was designed to allow states to meet any hardships or special needs that might arise during a shortage. The states were authorized to distribute the state set-aside to wholesale purchasers-consumers and end-users within the states. During April, the regulations were changed to enable state energy offices also to make assignments for retail sales outlets experiencing hardships or emergency supply conditions. R. Shriver Associates evaluated the state set-aside program and summarized their findings as follows:

In order to summarize the problems, procedures, and distribution of the state set-aside, nine state allocation offices were contacted during this evaluation. The states were selected after inspection of DOE data on gasoline lines, to represent areas moderately and severely affected by distribution difficulties. The state offices called were those of: New York, New Jersey, Pennsylvania, Rhode Island, Massachusetts, Virginia, Texas, and Washington. A visit to the Maryland State Allocation Office provided somewhat more detailed data.

None of the nine states was prepared for the number of applications it received. Initially, most states had only one or two persons assigned to the allocation activity and staff was increased to, at most, about 25 individuals per office. Requests for allocations under the state set-aside program increased dramatically during the shortage.

⁴¹ The appearance of queuing does not necessarily mean that excess demand exists. Lines are not necessarily supply-caused. They can result from price disparities, inventory management practices, and demand psychology. The allocation program is supply-oriented and, as such, is limited to addressing supply-imposed problems.

The increase generally paralleled the intensity of the shortage. Where data were available, it appears that the number of applications more than doubled from April through July. April applications were already considerably above the levels most state offices could efficiently handle.⁴²

A second provision grants the DOE authority to "redirect" gasoline in response to imbalances. The redirection authority provided by Section 211.14 of the allocation regulations was designed to give the DOE additional flexibility when, for example, demand patterns change as they did in 1979. For a number of reasons this authority was used only sparingly during the 1979 shortage.

When the ERA ordered 20 gasoline suppliers to redirect approximately one-half million barrels of gasoline to four agricultural co-operatives in the midwest, the order was challenged in the District Court in New York by one of the suppliers. An injunction resulted, and ERA made no further attempts to redirect product using this rule.

The two mechanisms of the allocation program designed to alleviate excess supply and demand were not responsive to shifts in demand which occurred in the summer of 1979. As a result, the excess supply of gasoline in rural areas was not reallocated to urban areas. This in turn led to excess demand in some urban areas, most dramatically evidenced by long lines of motorists at gasoline stations, which persisted even though gasoline was available. Though available, reallocation mechanisms were not used effectively to reallocate it. The remainder of this section discusses five alternatives which the ERA has considered to improve the responsiveness of the allocation program during any future disruption in the supply of gasoline.

1. Continue Reliance on the State Set-Aside Provision

The state set-aside program faced a major challenge in the spring and summer of 1979 when it was called upon to help bring relief to localized supply disruptions as evidenced by long gasoline lines. The crisis brought forth many of the problems of the set-aside program as it then existed. These problems included:

- States were not prepared for the administrative burden of the program. In many states, the set-aside offices had been dissolved or reduced in staff since the 1974 gasoline crisis. The tremendous volume of applications received was more than many of the staffs could handle.

42 Evaluation of the Gasoline Allocation Program (Draft Report), pp. 43, 46, 48, an analysis of each state's action can be found on pp. 43-48.

- Inadequate staff to review sharply increased applications for relief in a timely manner contributed to processing problems at the state level.
- The rules changed. Prior to April 19, 1979, the volume of gasoline available for amounts under the set-aside was three percent of prime supplier's estimated deliveries in a month. After April 19, the set-aside level for gasoline was permanently set at five percent of prime supplier's estimated deliveries for consumption within the state. An additional rule change permitted gasoline stations to apply for state set-aside gasoline. The increase in set-aside amount caused a corresponding decrease in available allocable supply. This combination brought an increase in eligible recipients and increased the flow of applications, compounding the other problems. When the set-aside was increased to five percent, an additional two percent of gasoline was removed from normal distribution channels.

The major problems all centered around the shortage of resources necessary to effectively manage such a wide ranging program. There were other problems with the system as well, but many of these also are linked to the resource problem. The procedure for awarding set-aside, for example, relied heavily on applications. Leaving aside all other considerations, the ability to apply quickly and convincingly influenced the distribution of gasoline and did not necessarily direct gasoline where lines were the longest. Under an assumption of perfect information to all potential applicants, this would not be a problem. However, at least during the early parts of the gasoline line problem, potential applicants were not entirely aware of how to use the set-aside program. In addition to using the application process, each state had the opportunity to direct supplies to certain areas which suffered extreme hardships such as long gasoline lines. If adequate time existed to evaluate the situation in certain areas of the state, these areas could be helped without regard to whether formal applications were filed. But, although the program allows for distribution of the set-aside through means other than by applications, sufficient resources must be available to help this mechanism alleviate the problems.

As the state energy offices gain experience in responding to acute supply problems the effectiveness of their programs will increase. Each state has the opportunity to use the gasoline to meet its own specialized needs. For example, highly agricultural states with few urban problems might direct supplies to farmers who are experiencing problems while other states might direct a higher percentage to urban areas which have long lines. Some states used regional reports to locate areas most in need of assistance. A few states added a degree of automation to their programs which reduced some of their administrative burden. Most states, at least, increased the efficiency of their programs from the experience gained, if from nothing else.

Further reliance on the state set-aside depends significantly on how much the administration of the program improves in the future. Among the questions that arise in this respect are: Will federal, state, and local officials change the rules during a shortage? Will staffs and resources be adequate in number to process and act on applications for relief? Will these staffs be properly prepared to handle their duties? Will each state program have objectives appropriate to combat the shortage, or will too much emphasis be placed on helping specific classes of users?

The 1979 experience with the state set-aside program probably increased both the federal and state ability to use the program in the future. Additionally, the Department of Energy is currently undertaking several projects to improve the administration of each state's set-aside program. Projects include the preparation of a guidebook to aid in the operation of the program and the development of a computerized management information system (MIS) to facilitate the standardization of procedures for processing applications. The MIS should give each energy office more time to evaluate both the need of each applicant, and the implications of distributing the set-aside in various ways throughout the state. Knowledge gained from last year's experiences has probably been extended by the program's continued use. Not only does staff exist to administer the program but contingency plans have also probably been improved. Efforts are also being made to improve information about the location and distribution of gasoline. On May 16, 1980, the ERA announced its intent to establish a monthly reporting requirement for state energy offices participating in the set-aside program. The new proposed form will solicit monthly data on total volumes available, assigned, and released by state offices under the program. On the other hand, some attrition in staff must have occurred since the peak of interest in the program last summer, and the resources available to each state surely vary in size as well as preparedness. Still the experience gained by personnel remaining, guidance from DOE and implementation of automated systems to reduce the manpower problem offers an optimistic future.

The set-aside program provides a flexible capability to respond to localized hardships and special needs as identified by local officials. The program must still, however, be looked at as one piece of a larger effort to alleviate problems. It cannot, however, always be responsive to supply problems which cross state boundaries. Over time, as population and demand shift among states, net reductions in demand and hence excess supply, may naturally occur. Where these shifts become significant the base period allocation system will tend to distort supply and demand relationships. While the state set-aside provisions available to the state energy offices can play a crucial role in responding to localized disruptions, these authorities probably should be supplemented by a national capability to act to alleviate short-term emergency conditions.

2. Allow additional gasoline for low volume stations

The Department of Energy considered two alternatives that would allow low volume stations access to additional gasoline. In addition, the Department considered a version of each proposal that would apply them only to designated urban areas. These alternatives have been rejected by the Department, but are presented here for information purposes.

In alternative one, a new priority classification is created for retail sales outlets to ensure that the first 20,000 gallons of a retailer's monthly allocation would not be reduced by the allocation fraction.

Alternative two would increase the allocation fraction for retail sales outlets with base period volumes of less than an average 35,000 gallons per month.

a. Purpose of the Revisions

These revisions were considered as a means to alleviate queuing at gasoline stations due to inadequate supplies at some retail stations. There is some evidence that during last summer's experience stations with low base period volumes, often branded independent dealers, significantly reduced operating hours because of insufficient supplies to accommodate apparent increases in demand. The reduced hours of these stations may have contributed to line problems by concentrating purchases during the time low-volume stations were open and by increasing purchases at high-volume stations open in the evenings and on the weekends. This proposal is based upon the proposition that increasing the proportion of gasoline allocated to low-volume stations will reduce gasoline lines.

b. Summary of the Proposed Revisions

The first alternative contemplates a new priority classification. (See Exhibit 16.) The first classification would remain unchanged. A new second priority classification would be created for retail sales outlets for a specified volume, and the current second priority users would become a third priority classification. Under the new classification, the first 20,000 gallons of a retailer's monthly allocation would not be subject to reduction by the supplier's allocation fraction.

If a supplier's stock of gasoline cannot meet this second priority obligation, the available supplies would be distributed to retail outlets based on their relative base period entitlement; a retail outlet entitled to 20,000 gallons, for example, would receive twice the allocation of a station entitled to 10,000 gallons. After satisfying the first two priority classes, suppliers would distribute remaining gasoline to other customers, including the remaining portion of retail outlet allocations, based on an allocation fraction.

The following example compares the current allocation mechanism to the proposed revision. Assume a supplier's monthly allocable supply after meeting its state set-aside obligation is 48,000 gallons, and that the supplier must supply four firms:

Firm One is engaged in agricultural production with a base period use of 6,000 gallons;

Firms Two and Three are retail sales outlets with base period uses of 14,000 gallons and 28,000 gallons respectively; and

Firm Four is a commercial firm with a base period use of 8,000 gallons.

Under the current regulations, the supplier first supplies Firm One, its first priority purchaser, with its entire allocation requirement of 6,000 gallons.

The supplier then computes its allocation fraction by dividing its remaining allocable supply by its supply obligations. That is:

$$\begin{aligned}\text{Allocation Fraction} &= \frac{\text{allocable supply}}{\text{supply obligations}} \\ &= \frac{48,000 \text{ gallons} - 6,000 \text{ gallons}}{14,000 \text{ gallons} + 28,000 \text{ gallons} + 8,000 \text{ gallons}} \\ &= 0.84\end{aligned}$$

The supplier then determines the amount its second priority customers will receive, by multiplying its allocation fraction by the base period use of each of those firms.

Firm Two's allocation requirements = 0.84 (14,000 gallons) = 11,760 gallons

Firm Three's allocation requirements = 0.84 (28,000 gallons) = 23,520 gallons

Firm Four's allocation requirements = 0.84 (8,000 gallons) = 6,720 gallons

Under the proposed change, the supplier would first supply Firm One with 6,000 gallons. Forty-two thousand gallons would remain for second priority users. Under the new second priority, the supplier would be required to supply Firm Two with 14,000 gallons and Firm Three with the first 20,000 gallons of its base period use.

After satisfying its second priority, the supplier's remaining supply would be 8,000 gallons (42,000 gallons less 34,000 gallons). The remaining supply obligations would be to Firms Three and Four with 8,000 gallons each. The supplier would compute an allocation fraction as before:

$$\begin{aligned}\text{Allocation Fraction} &= \frac{\text{allocable supply}}{\text{supply obligations}} \\ &= \frac{8,000 \text{ gallons}}{8,000 \text{ gallons} + 8,000 \text{ gallons}} \\ &= .5\end{aligned}$$

The supplier then allocates to the third priority users by multiplying the allocation fraction by the remaining supply obligation as follows:

Firm Three's allocation requirement = (.5)(8,000 gallons) = 4,000 gallons

Firm Four's allocation requirement = (.5)(8,000 gallons) = 4,000 gallons

An alternative revision considered by ERA would increase the allocation fraction for retail sales outlets with base period volumes of less than an average 35,000 gallons per month. Applying this alternative to the firms in the example above gives the following results when the allocation fraction for the eligible stations is determined as .9.

ALLOCATION LEVELS FOR MOTOR GASOLINE

Current Priority System
(August 1, 1979 - Present)First Priority

Entitlement: 100 percent of base period use

Department of Defense*

Agricultural Production

Emergency services

Energy production

Sanitation services

Telecommunications services

Passenger transportation services

Cargo, freight and mail hauling by truck

Aviation ground support vehicles and equipment

Second Priority

Entitlement: 100 percent of base period use subject to an allocation fraction

Industrial use

Commercial use

Governmental use

Social service agency use

Wholesalers and retail sales outlets

Proposal OneFirst Priority

Entitlement: 100 percent of base period use

Agricultural production

Department of Defense*

Emergency services

Energy production

Sanitation services

Telecommunications services

Passenger transportation services

Cargo, freight and mail hauling by truck

Aviation ground support vehicles and equipment

Second Priority

Entitlement: 100 percent of base period use

Sales at Retail Sales Outlets up to the first 20,000 gallons per month

Entitlement: 100 percent of base period use subject to an allocation fraction

Industrial use

Commercial use

Governmental use

Social service agency use

Wholesalers and retail sales outlets

* The allocation level for this use may be raised during any period to 100 percent of current requirements if the Secretary of Defense certifies that such level is necessary as a result of unusual circumstances.

Firm One continues to receive 6,000 gallons

Firm Two receives .9 (14,000 gallons) = 12,600 gallons

Firm Three receives .9 (28,000 gallons) = 25,200 gallons

Firm Four receives the remainder 4,200 gallons = .525 (8,000 gallons)

Table 1 depicts the outcomes under the current regulations, and alternatives one and two.

Table 1

Example One: The Differential Impact on Gallons of Gasoline of Current Regulations and Alternative Ways of Allocating Gasoline to Low-volume Retail Outlets (All numbers in gallons unless noted)

| Firms | Gasoline Allocation Under Current Regulations | Alternative One: 20,000 gallon guarantee | | | Alternative Two: Adjusted Allocation | | |
|------------|---|--|------------------|-------------------------|--------------------------------------|------------------|-----------------------------|
| | | Gasoline Allocation | Net gain or loss | Percentage Gain or Loss | Gasoline Allocation | Net Gain or Loss | Net Percentage Gain or Loss |
| Firm One | 6,000 | 6,000 | 0 | 0 % | 6,000 | 0 | 0 % |
| Firm Two | 11,760 | 14,000 | +2,240 | +19 | 12,600 | +840 | +7 |
| Firm Three | 23,520 | 24,000 | +480 | +2 | 25,200 | +1,680 | +7 |
| Firm Four | 6,720 | 4,000 | -2,720 | -40 | 4,200 | -2,520 | -38 |
| Totals | 48,000 | 48,000 | 0 | | 48,000 | 0 | |

An alternative revision of one and two would be to grant new second priority status only to stations in defined urban areas. This revision would apply the new second priority only to retail outlets within Standard Metropolitan Statistical Areas (SMSAs) with population greater than one million persons or within urban counties. Other retail outlets outside these areas would be treated as they are under current regulations.

c. Analysis of the Alternatives

The alternatives are designed to reduce queuing by encouraging low volume stations to increase operating hours. The effectiveness of this incentive depends upon the relationship between incremental supplies and the relative costs and benefits of staying open longer. There is doubt whether the additional volumes of gasoline available to a given outlet would be an adequate economic incentive to achieve the desired result. Whether a relatively low-volume station will remain open longer depends on the station's reaction to its increased allocation. In the example above under alternative one, the smallest station, Firm Two, would receive an additional 2,240 gallons per month. Based on a ten gallon per-car fill-up in a 30-day month, this increase represents a 220 car per-month increase in business or, equivalently, a seven car per-day increase. The relatively larger station, Firm Three, would experience a 48 car per-month increase, a one to two car per-day increase. Even based on a 20-day month with stations closed weekends, the smaller stations would experience an 11 car per-day increase and the larger stations a two car per-day increase.

If instead of this method, outlets with base period volumes below 35,000 gallons per month received allocations based on a higher allocation fraction, total gallons to these users would increase and the distributions among the stations would change. These phenomena are demonstrated in columns five and six of Table 1. The most significant change is the relative gain made by larger stations that results from multiplying their larger base period by a fixed fraction. Whereas under the first alternative, Firm Two received an additional 2,240 gallons, it receives 840 gallons under alternative two. Firm Three receives 480 gallons by the former revision, 1,680 gallons by the latter revision.

Whether these stations stay open longer under alternative two depends again on each operator's assessment of the costs and benefits associated with its increased allocations. It is impossible to determine the point at which each station operator will decide that the additional customers to be served (and hence revenues gained) justify the costs of staying open additional hours. Based on a ten gallon per-car fill-up in a 30-day month, Firm Two would be able to service an additional 84 cars per month, approximately three cars per day. Firm Three would be able to fill up 168 more cars per month or about six cars per day. In a 20-day month, they would fill up four and eight cars per day, respectively.

Thus far, no data are available with which to predict station operator response to increases in their allocations during a shortage. One of two major methods would need to be employed to provide an estimate of a dealer's response. In the first method, a sample of dealers would need to be interviewed and queried about their most likely response to incremental increases in their allocation during a shortage. A second method would be to examine the behavior of stations which received additional gasoline during the 1973-1974 and 1979 shortage. Such studies are impractical in the short term and alternatively one must ask questions such as: Is a dealer, like Firm Two above, who receives an additional 2,240 gallons under the proposed regulation going to stay open longer? Will a 220 car per month increase, or equivalently a seven car per day increase, increase his hours? If so, by how much? In addition to the hypothetical nature of this question, the artificiality of the available examples of the number and size distributions of the stations makes any answer to such questions unreliable.

The Table 1 summary of the effects of the two alternatives demonstrates, moreover, that the increased supplies to retail outlets reduces supplies for lower priority users such as commercial, government, social service agencies, and industrial users. It is estimated that one would reduce allocations to commercial users by 40 percent; proposal two would reduce their allocations by 38 percent. Data are not available to demonstrate the actual impact on other users if either of the alternatives is adopted. Further, as more realistic examples below will indicate, the reduction in other commercial users' allocations may be smaller than the example indicates. Nonetheless, some reductions, perhaps large ones, would occur. These reductions would lead to changes in the behavior of these users that with current information cannot be predicted accurately. Some may go out of business or, in the case of government and social service agencies, may reduce services. All would probably attempt to purchase gasoline in the retail market. The resulting shift in demand to retail outlets could make line problems significantly more acute. Whether these or other consequences would occur cannot be accurately determined without further extensive examination.

Consider a second example with a supplier whose initial allocable supply is 169,200 gallons per month. The supplier serves eight firms. Six are retail outlets with a 15,000 gallon-per-month base period use, a total of 90,000 gallons. Three are in rural areas, three in urban areas. The seventh customer is an urban retail outlet with a 90,000 gallons-per-month base period use. The final customer is a commercial user with an 8,000 gallon-per-month base period use. Applying the same methodology used to create Table 1, one can calculate the effects presented in Table 2.

Table 2

Example Two: The Differential Impact on Gallons of Gasoline of Current and Proposed Regulations Allocating Gasoline to Low-Volume Stations
(All numbers in gallons unless noted)

| Firms | Gasoline Allocation Under Current Regulations | Alternative One: 20,000 gallon guarantee | | | Alternative Two: Adjusted Allocation Fraction | | |
|---------------|---|--|------------------|-----------------------------|---|------------------|-----------------------------|
| | | Gasoline Allocation | Net gain or loss | Net Percentage Gain or Loss | Gasoline Allocation | Net Gain or Loss | Net Percentage Gain or Loss |
| Firms One-Six | 13,500 | 15,000 | +1,500 | +11 | 14,250 * | +750 | +5.5 |
| Firm Seven | 81,000 | 73,200 | -7,800 | -10 | 76,860 | -4,140 | -5 |
| Firm Eight | 7,200 | 6,000 | -1,200 | -17 | 6,832 | -368 | -5 |
| Totals | 169,200 | 169,200 | 0 | | 169,192 | 0 | |

*The allocation fraction rises in this example from .9 to .95 for stations with base period allocations equal to or below 35,000 gallons-per-month.

For alternative two,
Firms One-Six receive $(.95)(15,000) = 14,250$
Allocable Supply = $169,200 - (6)(14,250) = 83,700$
Firm Seven receives $(.854)(90,000) = 76,860$
Firm Eight receives $(.854)(8,000) = 6,832$

Note: Totals may not add exactly due to rounding.

Columns five and eight of Table 2 demonstrate the impact of the proposed regulations on the relative percentage share of gasoline to small and large retail outlets and to commercial users. As with example one, commercial users' allocations fall, under proposal one by 17 percent, and under proposal two by five percent. The allocation to the large station falls by ten percent with application of proposal one and five percent with proposal two. In addition to the uncertainty caused by the reduced supply to commercial users, this example raises the possibility that less efficient, smaller stations will be favored over more efficient larger stations. Whether this will occur depends on what size stations are most efficient and the actual distribution of gasoline to these stations under the proposals. At this time, data necessary to evaluate these effects are not available. (Efficiency is determined to be pump availability and dedication to distribution.)

Columns two, three and six of Table 2 can be used to calculate the distribution of gasoline in example two to urban and rural areas. The distribution of retail sales outlets by size and by urban/rural characteristics is not known at this time. These examples are based on size and distribution assumptions. These calculations are presented in Table 3. The table shows that urban area allocations fall from 128,000 gallons per month under the current regulations to 124,200 gallons with alternative one and 126,442 with alternative two. During the line formations of 1979, demand for gasoline shifted from stations located in rural areas to stations located in urban areas. The shifts described in Table 3 indicate the possibility that alternatives one and two would reallocate supply to areas with decreased demand. If this were the case, this would worsen the queuing problem that the alternatives are designed to alleviate. Whether this in fact would occur depends on the size and distribution of small and large retailers and the nature of the shift in demand. None of this information is available for immediate evaluation.

TABLE 3

Example Two: The Differential Impact on Urban and Rural Areas of Current Regulations and Alternatives for Allocating Gasoline to Low-Volume Stations
(All numbers in gallons unless noted)

| Firms | Gasoline Allocation Under Current Regulations | | Gasoline Allocation Under Alternative One | | Gasoline Allocation Under Alternative Two | |
|--|---|--------|--|--------|--|--------|
| | Urban | Rural | Urban | Rural | Urban | Rural |
| Firms One-Six (Three Urban, Three Rural) | 40,500 | 40,500 | 45,000 | 45,000 | 42,750 | 42,750 |
| Firm Seven | 81,000 | | 73,200 | | 76,860 | |
| Firm Eight | 7,200 | | 6,000 | | 6,832 | |
| Totals | 128,700 | 40,500 | 124,200 | 45,000 | 126,442 | 42,750 |

In sum, this analysis suggests that the application of alternatives one and two poses a number of adverse consequences without having a beneficial effect on retail lines. They are that:

- Even if allocations flow to stations as intended, the adjustment levels proposed would probably not provide adequate incentive to increase hours of operation;
- Adjustments would be made at the expense of non-priority users which, during a shortage, may tend to aggravate lines at retail outlets;
- Gasoline may flow from relatively efficient size retailers to relatively inefficient size retailers; and
- Given the assumptions discussed above, gasoline may be reallocated from urban areas to rural areas.

Another alternative could be applied only to certain defined geographic areas. This urban version is designed to remedy the potential problem of providing additional gasoline to rural areas when a shortage exists in urban areas. This would be accomplished by applying the new second priority only to stations within SMSAs of population of one million or greater or, alternatively, within urban counties. This methodology assumes that future shortages will occur in urban areas because of future shifts in demand similar to those experienced in 1979. This outcome, however, is far from certain. Assuming that a shortage occurs during the spring or summer of 1980, drivers, aware of the greater supply of fuel in rural areas during the 1979 shortage, could rationally take rural motor trips. If this happened, the shift in demand experienced in 1979 would not reappear in 1980.

Two significant aspects of the 1979 experience indicate, however, that provisions which direct increased volumes of gasoline to urban areas as a class is unjustified. Those characteristics are, first, that not all urban areas experienced shortages and, second, the ability of the government to predict where the shortages were going to occur is extremely limited. If additional volumes of gasoline are to be provided any stations, the volumes should be made available only after the magnitude of the shortage and the geographic distribution of the shortage can be determined. In advance of a shortage, neither its magnitude nor its distribution can be estimated. Because the estimated supply excesses in rural areas are unknown, a structured system may overcompensate and shift excess product into urban areas, leaving rural areas with excess demand. The margin for error is slim, and the consequences of an error are significant.

Once the shortage can be estimated, however, the government can determine which governmental jurisdiction, including but not limited to SMSAs and urban counties, best fits the actual geographic distribution of the shortage. Data prepared by the Department of Energy demonstrate why any single fixed geographic eligibility region will fail to fit many potential distribution patterns. The Department compiled a list of SMSAs with population greater than one million and urban counties with population over 450,000. The cumulative percentage of U.S. gasoline sales represented by each of these lists was 38 percent, indicating that each list captured the same amount of urban gasoline consumption. The first list did not include Louisville, Kentucky, or Dayton, Ohio. The second list did not include the District of Columbia. Thus, the use of either list in 1979 to allocate gasoline would have omitted shortage areas.

3. Provide Temporary Allocation Adjustments for Areas Experiencing Shortages

a. Summary and Purpose of the Proposed Revision

In connection with this proceeding the ERA has considered a number of alternatives which would provide temporary additional gasoline allocations to urban areas where gasoline shortages could occur. Two methods were evaluated. The first would supply an additional 1,000 gallons per month to each retail outlet in a qualifying area.

The second method would supply each outlet with an additional supply equal to two-percent of its base period volume up to a ceiling of 5,000 gallons. Once in effect the additional supplies could be available for up to three months or longer based on subsequent findings of a continued shortage.

Four ways of determining which urban areas are likely to experience lines are being considered. The four alternatives are:

- SMSAs with a population over one million persons;
- SMSAs accounting for the largest dollar sales of gasoline (cumulative sales accounting for 38 percent of U.S. sales);
- Counties with a population of more than 450,000 persons; and
- Counties accounting for the largest dollar sales of gasoline (cumulative sales accounting for 38 percent of U.S. sales).

b. Analysis of the Proposed Revision

Table 4 indicates the distribution of gasoline required by methods one and two among different sizes of retail outlets. As column three demonstrates, method one would reallocate supplies in a way which is regressive with respect to size. A station with a base period volume of 10,000 gallons per month would receive a ten percent increase, a 100,000 gallon per month station a one percent increase, and a 200,000 gallon per month station a .5 percent increase. Column five shows that method two would reallocate supplies in proportion to size, the smallest and largest stations would each receive two percent of their base period volume. Stations with a base period volume of 50,000 gallons per month would fare the same under both proposals. Other size stations, however, face substantially different impacts. Stations below 50,000 gallons would receive substantially more under method one; a 10,000 gallon station, for example, would get five times the amount of gasoline with method one than method two. With method two, a 100,000 gallon station would get twice what it would receive under method one.

Which method is preferable depends on answers to the following questions. What are the number and size distribution of outlets within the target area? What size station is technically most efficient? What is the likely impact on hours of operation of additional supplies considering both the size of the station and size of reallocation? What would be the combined impact of these proposals with the state set-aside program?

The best way to begin to answer these questions would be to simulate the impact of the two methods on urban areas which in 1979 experienced shortages that would trigger such a mechanism. This would require knowing the number of stations, their base-period volumes and their actual supply. With this information the impact of both methods could easily be estimated. The potentially beneficial results of such a simulation are indicated by the sum of the allocation adjustments of the two methods presented in columns two and four of Table 5. Assuming that an urban area faced the number and size distribution of stations represented in the table, method one would reallocate 16,000 gallons per month and method two would reallocate 31,000 gallons. A priori, which system is superior cannot be judged because such a judgment depends on the amount of the shortage faced by the area. A simulation or a number of simulations would indicate which method would work best or, at least, would have worked best in 1979. Under either method, a reduction in the amount of product available for other non-priority users, i.e., commercial, industrial, etc., would occur.

Table 4
Revised Distribution of Gasoline

| Size of Station by Monthly Base Period (gallons) | Allocation Adjustment of 1000 (gallons) | Percentage of Base Volume (gallons) | Allocation Adjustment | Percentage of Base Volume (gallons) |
|---|--|---|--------------------------|---|
| 10,000 | 1,000 | 10.0 | 200 | 2 % |
| 20,000 | 1,000 | 5.0 | 400 | 2 |
| 30,000 | 1,000 | 3.0 | 600 | 2 |
| 40,000 | 1,000 | 2.5 | 800 | 2 |
| 50,000 | 1,000 | 2.0 | 1,000 | 2 |
| 60,000 | 1,000 | 1.7 | 1,200 | 2 |
| 70,000 | 1,000 | 1.4 | 1,400 | 2 |
| 80,000 | 1,000 | 1.3 | 1,600 | 2 |
| 90,000 | 1,000 | 1.1 | 1,800 | 2 |
| 100,000 | 1,000 | 1.0 | 2,000 | 2 |
| 120,000 | 1,000 | .8 | 2,400 | 2 |
| 140,000 | 1,000 | .7 | 2,800 | 2 |
| 160,000 | 1,000 | .6 | 3,200 | 2 |
| 180,000 | 1,000 | .55 | 3,600 | 2 |
| 200,000 | 1,000 | .5 | 4,000 | 2 |
| 250,000 | 1,000 | .4 | 5,000 | 2 |
| Total Gallons Reallocated | 16,000 | | 31,000 | |

It appears that a number of factors can combine to contribute to localized shortages that result in gasoline lines, and there probably is no single set of common characteristics that are present in each case. It would seem that shortages that occur in the future will affect areas with different numbers of outlets and different size distributions of outlets. The shortages themselves, moreover, will probably vary in magnitude and duration. If this is the case, any fixed reallocation method seems inappropriate and would appear inferior in principle to one which is based on and adapts to the variables that determine the magnitude of the shortage.

Two examples indicate the absence of predictability if either method were chosen with currently available data. Assume that a retail shortage was imminent in an urban area within a state, and that a federal reallocation method was implemented. In this case the ERA Administrator would order additional gasoline supplies into the area. Observing this federal action, state officials would allocate the state set-aside gasoline. It is highly unlikely that the state officials would make the same allocation decision given the federal reallocation than they otherwise would. Knowing that federal reallocations were going to alleviate some or all of the future urban shortage, the tendency would be either to stockpile the set-aside or to allocate it to other parts of the state.

This could occur even if the federal government anticipated the likelihood of this state reaction, and implemented the federal mechanism only after the state set-aside allocation was committed. Knowing this, state officials could maximize their total state allocation by committing some or all of their state set-aside allocations to areas outside those considered urban for federal reallocation. Thus, in time of future, acute, temporary, urban shortages, the federal government mechanism would still have to be used because states diverted their allocation elsewhere.

Second, assume urban shortages of equal magnitude occurred in two areas of the country. In one area there were a relatively large number of smaller stations and in the other there were fewer larger stations. If method one were the method implemented, area one would receive substantially larger reallocations than area two. The opposite would occur if method two were employed. Given multiple shortages, equitable treatment of all areas would occur only if the number and size distribution of stations were the same in all areas. If not, significantly different, unpredictable reallocations would follow.

ERA is considering the following methodology for selecting and using the appropriate definition of line-prone urban areas: first, identify the local urban governmental jurisdictions whose population or gasoline consumption exceeds specified thresholds. Second, estimate which jurisdiction in general captures the most appropriate urban areas. Third, when a shortage begins to develop but before lines appear, supply these jurisdictions with additional gasoline.

Another suggested methodology would not select any jurisdiction as the definition of an eligible urban area in advance of evidence of an impending shortage. The shortage itself, as evidenced by sharply reduced supplies from refiners to wholesale distributors, would define the appropriate geographic area to be targeted for reallocation of gasoline. Once the wholesale shortages are observed, an inspection of the location and distribution of their retailers can be made. Then, given the actual geographic pattern of the shortage, an overlay of governmental jurisdictions can be made to determine the best correlation between the geographic shortage areas and governmental jurisdictions.

The ERA determined which SMSAs fall into alternatives one and two and which counties comprise alternatives three and four. They found that Buffalo, New York, and Hartford, Connecticut, qualify under alternative one but not alternative two. They also found that Louisville, Kentucky, and Dayton, Ohio, qualify under alternative two but not one. Using alternative three, they found that Washington, D.C., was excluded. Thus, for example, if a shortage occurred in Dayton and alternative one were used to determine eligible areas, Dayton would receive no reallocation. No one system will work for all line-prone areas all the time. In addition, supplies shifted to an urban area must necessarily reduce supplies available in another area, from which the product is moved. The allocation program does not increase supplies; it redirects a fixed quantity of gasoline.

Whichever methodology is selected, the proposal imposes an administrative burden on both the ERA and the industry, specifically suppliers. Supplier accounts are not classified by either SMSA or county. Nor are industry allocation-supply systems designed to process different allocation fractions according to base period volumes. If a supplier and a purchaser disagree on the classification of the purchaser, and entitlement volumes are in dispute, ERA will have an additional administrative burden to adjudicate discrepancies.

4. Redirection of Gasoline to Areas Experiencing Significant Gasoline Lines

a. Purpose of the Revision

The lines which developed at gasoline stations during 1979 reflected shifts in demand for gasoline. Typically, in the United States, driving in rural areas increases in the summer months. In the spring of 1979, however, the uncertainty of gasoline supply discouraged such motoring and the expected increase in rural driving did not develop. Thus, relative to traditional patterns, the demand for gasoline in urban areas increased and, as a result, gasoline lines appeared in some urban areas of the country. The gasoline lines persisted, however, because existing reallocation mechanisms could not reallocate rural excess supplies quickly enough. This revision is designed to provide additional gasoline more promptly to areas of the nation which develop gasoline lines due to shifts in demand during any future gasoline shortage.

b. Summary of the Proposed Revision

The ERA is considering a proposal to provide the ERA Administrator with the authority to reallocate gasoline to areas in which, during a shortage, a majority of retail outlets face customer queues. The redirection of gasoline would be considered only after state and local governments demonstrated that they used all available means to alleviate the problem, but failed. The methods available to the states and localities include minimum purchase requirements, alternating-day purchases based on odd-even license plate numbers, requiring stations to be open during specified hours and allocation of state set-aside volumes. The states and localities would also be required to verify that the lines resulted from supply shortages rather than promotional price reductions, and that most retail outlets experienced significant lines during most of their open hours.

c. Analysis of the Proposed Revision

The shift in demand for gasoline from rural to urban areas in 1979 was unanticipated, and once observed, the allocation program was unable to reallocate gasoline supplies quickly enough to offset the shift in demand. The difficulty in reallocating supply arose because data reflecting shifts in demand and supply required lengthy periods of time to collect, and because the available data were unreliable. By the twentieth of each month, suppliers are required to report their projected deliveries for the next month. These projections are often revised after they are initially reported. Data on actual deliveries are not available until the twentieth of the month following deliveries. For example, anticipated June deliveries will be reported on May 20. Actual deliveries for June will be reported on July 20. Thus, if demand were to shift in May, and even if subsequent excess supply in rural areas was anticipated, data upon which to base reallocation would not be available until late

July. In 1979, the actual onset of lines and their disappearance occurred between April and early August--too short a period to determine the size and location of the excess supply and demand and to reallocate the gasoline.

The proposal to use gasoline lines themselves as a measure indicating the location and magnitude of a possible shortage is designed to provide more reliable data more quickly. It seems unlikely, however, that the system would provide the prompt adjustment necessary to cope with an experience of the magnitude of the one in 1979. The lines intensified during the first months of the summer and peaked in July. Within this period, moreover, regional lines arose and abated; lines arose in California, for example, months before they occurred in the District of Columbia and surrounding Virginia and Maryland suburbs. And the lines in California ended while the District, Virginia, and Maryland still faced gasoline lines.

Whether the proposal to reallocate supplies to areas experiencing lines is likely to work would depend, first, on how quickly state and local officials discerned the existence of lines, and how quickly they allocated their state set-aside to alleviate them. Under the alternative, the following would then have to take place quickly: the impact of the allocation of the state set-aside would have to be evaluated. Simultaneously, the officials would have to decide whether to impose minimum purchase plans, to regulate hours of retail operation and to impose odd-even day plans. Following the imposition of these kinds of actions, if they wanted to request federal reallocation, they would be required to certify the severity of the shortage. Once the shortages were verified, the federal government would order reallocation.

If this system had been in place in 1979, given the reaction of state and local officials, it seems highly improbable that it would have worked. This is primarily because the duration of lines was too short--at most five months--and state and local reactions were too slow. This latter comment is not necessarily a criticism of state and local officials, because they were confronted with often unforeseeable events and inadequate data which impeded swift, deft action.

This alternative cannot be significantly supported by the proposition that in the future state and local officials will be able to respond substantially faster. It is unlikely, for example, that future crude shortages, shifts in demand and supply of gasoline, inventories of gasoline and their geographic distribution would be the same as in 1979. If they were not the same, then any anticipated increase in the speed and accuracy of state and local responses would probably be eroded significantly. Even if, ex post, future experiences are identical to the 1979 experience, the ex ante perception will probably not be the same. Thus, gains from improved responsiveness will be reduced.

If a future shortage were more protracted than the 1979 experience, the problems associated with prompt local, state, and federal reallocation responses would still arise in the short-run. In the long-run, additional impediments would arise. The alternative assumes, for example, that during a shortage, shifts in demand will leave some rural areas of the country with excess supply that can be reallocated to urban areas experiencing excess demand. This was true in 1979. But in a protracted situation of a greater magnitude this would not necessarily be the outcome. In such a situation the total excess demand could easily exceed the excess supply. It is highly possible in a long shortage that the sum of reallocation requests for additional urban supplies would exceed the supply temporarily made available from rural areas. In this situation, lines would persist regardless of reallocation until the market cleared at a new, higher equilibrium price.

5. Allow Governors Redirection Authority

a. Summary and Purpose of the Revision

The Department of Energy is seeking comments regarding a change to Section 211.14(b) of the Mandatory Petroleum Allocation Rules. The current regulation, as clarified by Ruling 1979-2, allows refiners and importers to make intrastate product redirections of no more than five percent from one area to another provided that the governor designates the receiving regions as "shortage" areas. There is no limit to the amount of additional supplies a shortage area may receive; the supplying area, however, may not be reduced by more than five percent. It should be remembered that total supplies are not increased under this change; rather, they are shifted between areas.

The state cannot require redirection in excess of that authorized by the state set-aside program. While the state's order would insulate refiners and importers from any countervailing DOE regulation, the states cannot force compliance. The regulatory change contemplated would modify Section 211.14(b) by authorizing the governor to require compliance by refiners and importers if necessary.

In the past, refiners and importers have been reluctant to redirect supplies intrastate, arguing that such redirections would impose undesirable responsibilities upon them and make them subject to intense political pressures. Moreover, it is difficult, they claim, to assess product supply availability from the perspective of a single company. As a result, refiners and importers have generally supplied all their customers within a state with an identical allocation fraction of their base period volume. States having diverse intrastate demand characteristics may experience gas lines in one area and surpluses in other areas. The reluctance of refiners and importers to use this authority renders the regulation ineffective in diminishing consumer hardships. The proposed change would seek to remedy the situation by, in effect, forcing the suppliers to implement multiple allocation fractions within each state. Those areas with shortages would receive higher allocations; those with relative surpluses would have their allocations reduced. The proposed change assumes that supply problems are within a state and do not cross state lines, although this assumption is not always accurate.

The proposed change would enable governors to order refiners and importers to redirect supplies to equalize intrastate product shortages. Refiners and importers would no longer be the object of political pressure from rival areas of the state, although the state would probably bear such pressure.

b. Analysis of the Revision

The wording of the request for comment is ambiguous and incomplete. Additional information on the following questions should be provided before a detailed regulatory analysis can be completed:

1. Section 211.14(b) speaks of refiners and importers redirecting supplies, yet the proposed redirection authority to be granted to the governors speaks of "suppliers", a term which includes wholesalers and jobbers in addition to refiners and importers. Extending the authority would give the state significantly more power and flexibility in responding to crises, but this power may become unwieldy if too many suppliers exist.
2. Ruling 1979-2, which clarifies Section 211.14(b), applies to motor gasoline only. The redirection authority in this proposal applies to all products.
3. The ERA should provide some detail regarding implementation of the change. For example, would refiners and importers be stripped of their discretionary authority to redirect or will the state step in and redirect only after refiners and importers refuse to do so? The redirection authority assumes an adversary role for each party. Under current regulations, refiners and importers may not reduce an area's supplies by more than five percent unless DOE approves in advance. Does the state's involvement in redirection now mean that any reduction necessary to alleviate or equalize intrastate shortages will be acceptable? How will the state insure equitable treatment for all suppliers? For example, a refiner or importer may supply firms in a surplus area, but not have any customers in a shortage area. Will cross branding be permitted?

Aside from these questions, one could ask, in general, whether the objective could be more easily met by providing the governors more authority in the state set-aside program. The objective of this proposal and the set-aside program is identical: to provide flexibility in responding to state shortages by redirecting supplies to needy areas. The state's first method of addressing supply shortages is the state set-aside program. Shortages persisting following the drawdown of set-aside balances would warrant the governor's designation of shortage areas and the activation of the redirection effort. It appears logical that the set-aside office, which monitors state shortages on a day-to-day basis, and which has unfilled applications in hand, would be the best means for allocating the fixed supplies within the state.

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