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TRC Environmental Consultants Inc.

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NATIONAL VEGETABLE OIL PROCESSING PLANT INVENTORY

AP-42 Section 9.11.1
Reference 1
Report Sect. ____
Reference ____

ENVIRONMENTAL CONSULTANTS, INC.

TRC Project No. 1060-A80-02
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DISCLAIMER

This report was furnished to the U.S. Environmental Protection Agency by TRC Environmental Consultants Inc. in fulfillment of Contract No. 68-01-4145. The opinions, findings, and conclusions reported are those of the authors and not necessarily those of the U.S. Environmental Protection Agency.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1.0 INTRODUCTION

The Environmental Protection Agency has retained TRC Environmental Consultants Inc. to conduct an "Overview Survey of Vegetable Oil Processing Plants." This report presents a characterization of the vegetable oil processing industry.

In conducting this preliminary environmental assessment of vegetable oil industries, TRC first reviewed available literature. The primary goal of this review was (1) to develop an accurate inventory of vegetable oil processing plants in the United States and (2) to provide an estimate of the magnitude of air pollutant emissions from a typical plant.

A Control Technique Guideline Document (CTG) was published in June 1978 which specified reasonably available control technology (RACT) for control of volatile organic emissions from vegetable oil plants (cotton-seed, corn, soybean, peanuts). However, further action on regulation development has been deferred pending extensive field tests, scheduled for completion in mid 1980. This report is provided to assist regions and states in future planning by providing an inventory of existing plants, and to provide a summary of present knowledge regarding VOC and TSP emissions from this source category.

The regulatory activity will require that more attention be paid to the industry than is the case with present regulations, since in general the only pollutant regulated for this source category is the TSP associated with elevator operations.

In order to enforce RACT requirements, a current inventory of vegetable oil processing plants located in non-attainment areas is necessary.

This report includes an appended inventory of all vegetable oil processing plants located in the United States which satisfy the criteria of Standard Industrial Classification (SIC) code 2046, 2074, and 2075*. The attainment or non-attainment areas status for photochemical oxidants and particulate matter of each vegetable oil plant is given in the inventory. Section 3.0 is a summary of data contained in the inventory of vegetable oil processing plants.

SIC Major Group 20 : Food and Kindred Products
Group 204 : Grain Mill Products
SIC 2046 : Wet Corn Milling
(includes Sorghum, Milo)
This SIC includes—
Corn oil, crude or refined
Group 207 : Fats and Oils
SIC 2074 : Cotton Seed Oil Mills
SIC 2075 : Soybean Oil Mills

This study should have included These SIC industries also
SIC 2076 : Vegetable Oil Mills (other than those above)
SIC 2079 : Shortening, Table Oils
Fats and Oils not otherwise classified
Refined Vegetable oils not made at seed or grain oil mills

*Standard Industrial Classification Code, U.S. Department of Commerce, Office of Federal Statistical Policy and Standard, 1977.

2.0 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

2.1 Summary

An inventory of active vegetable oil processing plants has been completed. 193 plants were identified, of which 175 are located in EPA Regions IV, V, VI and VII. 59 plants are located in non-attainment areas for oxidant. A brief review of potential air pollutant emissions from a typical soybean plant was completed using available information on emission factors and control technology. The controlled emissions for particulate matter were estimated to range from 265 to 530 tons/year for the assumed 1380 ton/day soybean plant (the average capacity of the 69 soybean plants in the inventory). The controlled VOC emissions were estimated to range from 365 to 545 tons/year for the same plant.

=1.16-2.33 lb/T

Emission estimates PM and VOC

1.60 - 2.39 lb/ton

2.2 Conclusions

a. A significant number (30%) of vegetable oil processing plants are located in nonattainment areas for TSP and oxidant.

b. Vegetable oil processing operations, as typified by the soybean plant example briefly studied, can be emitters of substantial quantities of particulate matter and VOCs, and when controlled with typical RACT systems can still result in a significant number of 100 TPY sources.

2.3 Recommendations

a. Based on the findings determined in the Vegetable Oil Processing Industries Inventory presented herein, and the brief review of the emission potential of a typical plant, TRC recommends that more definite emission information be obtained for the industry before regulatory activity proceeds further.

3.0 LITERATURE SEARCH

3.1 Method of Approach

Eight references were used (see Section 9.0) to compile an accurate, current inventory of vegetable oil processing plants in the United States. The eight references all reported plants in the US, but in many cases there were conflicts in the information. Comparison of the references enabled TRC to trace the operating capacity of individual plants. Telephone calls to vegetable oil processing plants were made to resolve any discrepancies in the information.

The May 23, 1979, OAQPS/CPDD listing "States Attainment Status of National Ambient Air Quality Standards" was used to determine whether a given plant is in an attainment or non-attainment area for photochemical oxidants or particulate matter. The counties in which the plants are located are listed to aid in identifying attainment and non-attainment status. Changes in the status of some areas were permitted in the September 11, September 12, and October 5, 1978 issues of the Federal Register. The changes which affect plants have been incorporated into this report. The approval in January 26, 1979 of a new NAAQS for photochemical oxidants affected the attainment area status of several plants. These recent changes have also been incorporated into the report.

Two additional references were utilized to obtain emission factor and typical emission control information. These are also listed in Section 9.0.

4.0 REGIONAL AND NATIONAL SUMMARIES OF VEGETABLE OIL PROCESSING PLANTS

Table 1 presents a summary of the inventory of active Vegetable Oil Processing Plants which is given in detail in the Appendix. The table gives the number of plants for soybean, cotton seed and corn seed processing, respectively, for each of the ten EPA geographical regions. Where available, capacity information is given also. The location of the plants in attainment or non-attainment areas for TSP and Oxidant is also given under the regional and processing subdivisions.

For soybean processing, 64 of the 69 plants are located in Regions IV, V and VII and these represent 89,900 (94%) of the 95,215 tons/day capacity. About two-thirds of the plants are located in attainment areas for TSP and oxidant.

Cottonseed processing plants are primarily (67 of 77) located in Regions IV and VI. Fiftyone of the sixtyseven reported 61,147 tons/day capacity, or 97% of the total reported. About four-fifths of the plants are located in attainment areas for TSP and Oxidant.

Cornseed Plants (wet corn mills) total 47 for the ten regions, with 29 (62%) located in Regions V and VII. Capacity information was not obtained, being considered confidential by all plants. About six-tenths of the plants are located in attainment areas for TSP and Oxidant. Of the total of 193 plants, 175 (91%) are located in Regions IV, V, VI and VII, as follows:

Region IV	58	(30%)
Region V	40	(21%)
Region VI	41	(21%)
Region VII	36	(19%)

Of the 193, 134 are located in attainment areas for TSP, and 133 in attainment areas for oxidant. Conversely 59 are in non-attainment areas for TSP, and 60 for oxidant.

Table 1. Summary of Vegetable Oil Processing Plants

Region	Soybean						Cotton Seed						Corn Seed						Total Vegetable Oil Plants
	No. of Plants	Capacity (TPD)	Attainment TSP	Attainment OX	Nonattainment TSP	Nonattainment OX	No. of Plants	Capacity (TPD)	Attainment TSP	Attainment OX	Nonattainment TSP	Nonattainment OX	No. of Plants	Capacity (TPD)	Attainment TSP	Attainment OX	Nonattainment TSP	Nonattainment OX	
I	0	0	0	0	0	0	0	0	0	0	0	0	2	Confidential	2	2	0	0	2
II	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
III	1	165	1	1	0	0	0	0	0	0	0	0	2	Confidential	2	1	0	1	3
IV	20	21750	14	14	6	6	34	8290[A]	30	29	4	5	4	Confidential	2	2	2	2	58
V	24	41950	16	13	8	11	0	0	0	0	0	0	16	Confidential	9	8	7	8	40
VI	4	5150	4	3	0	1	33	52857[B]	27	26	6	7	4	Confidential	3	1	1	3	41
VII	20	26200	9	14	11	6	3	250[C]	2	2	1	1	13	Confidential	7	10	6	3	36
VIII	0	0	0	0	0	0	0	0	0	0	0	0	1	Confidential	1	1	0	0	1
IX	0	0	0	0	0	0	7	1825[D]	2	2	5	5	3	Confidential	2	2	1	1	10
X	0	0	0	0	0	0	0	0	0	0	0	0	2	Confidential	1	2	1	0	2
TOTALS	69	95215	44	45	25	24	77	63222[E]	61	59	16	18	47	---	29	29	18	18	193

A. Based on 25 plants; 9 considered capacity confidential
B. Based on 26 plants; 7 considered capacity confidential
C. Based on 1 plant; 2 considered capacity confidential
D. Based on 4 plants; 3 considered capacity confidential
E. Based on 56 plants; 21 considered capacity confidential

5.0 SOYBEAN OIL PROCESS

5.1 Front End Processing of Soybean

Figure 1 presents a general process flow diagram for vegetable oil plants. Figure 2 presents a continuous flow chart for solvent extraction of soybeans indicating material balance and solvent loss through the process. A Glossary of terms is given in Section 10.0. The first step in processing seed is to screen out foreign material such as metal, sticks, stones, and dirt. The metal is removed by permanent magnets or electromagnets mounted above the seed conveyor system. The seed is generally cleaned and dried to 10% moisture content before being stored.

The weighed and cleaned seeds are first cracked between corrugated rolls, then conditioned in a stacked cooker and finally rolled into thin flakes (about 0.010 in. thick). Front-end dehulling is accomplished by screening the cracked seed and removing the hull fraction by aspiration. Small meat particles are then separated from the hull stream on specific gravity separators.

5.2 Manufacturing Soybean Oil By Solvent Extraction

Solvent extraction can recover up to 98% of the oil compared with about 80-90% from hydraulic or screw pressing. The soybean, whose physical structure is particularly suited to solvent extraction, has been responsible for this development. Because of efficiency of oil yields (hydraulic press, 8.67 lb/bu; screw presses 9.16 lb/bu; solvent extraction 10.94 lb/bu), virtually all new soybean installations today are solvent extractors. When solvent is extracted, soybean flakes produce meal with a

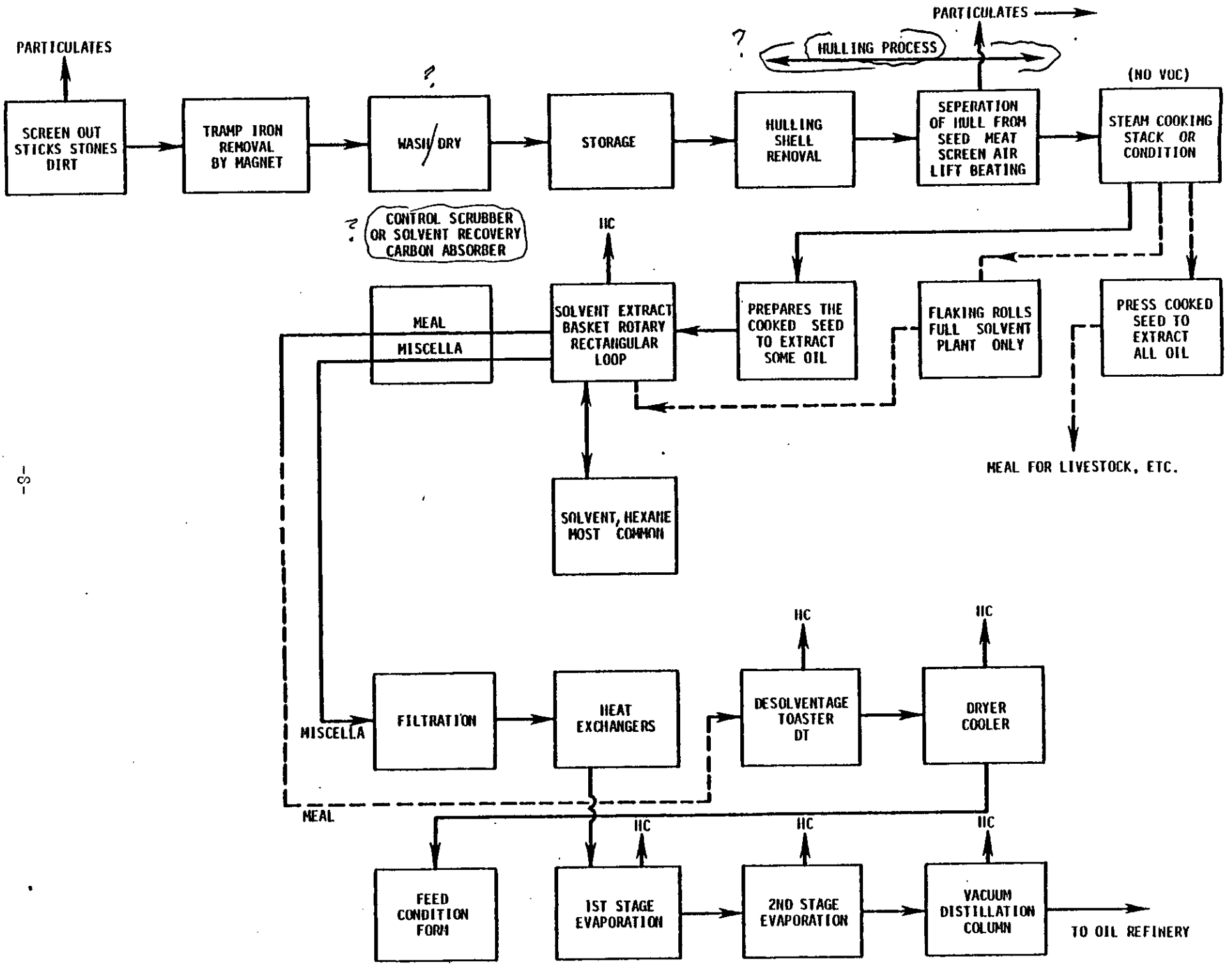
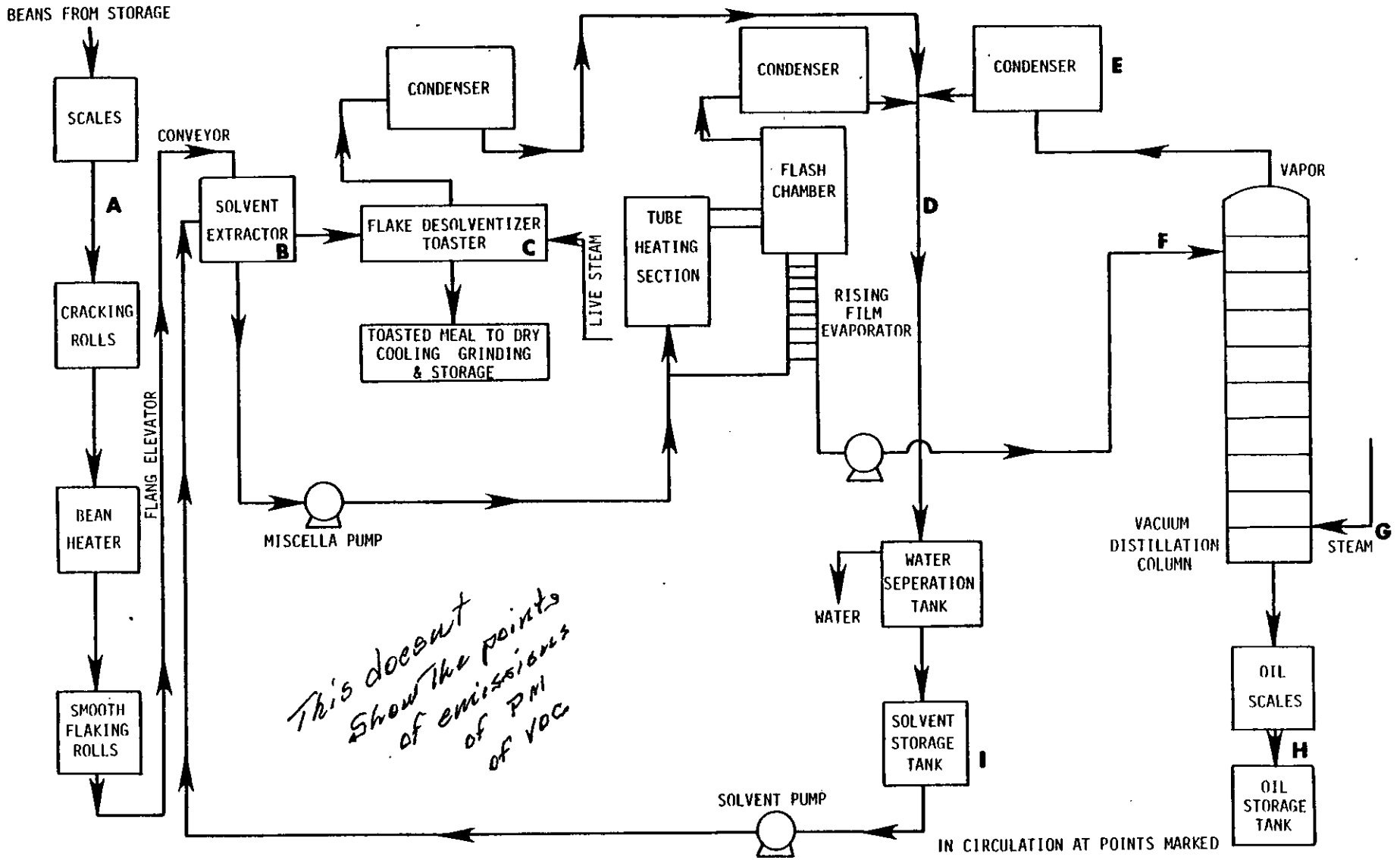


FIGURE 1: PROCESS FLOW DIAGRAM OF VEGETABLE-OIL PROCESSING PLANTS



MATERIAL BALANCE:

UTILITIES PER HOUR
STEAM 4100 LBS.
POWER 1200 KW.
WATER COOLING 100,000 GAL.
LABOR : 3 MAN HOURS
SOLVENT LOSS: 200 LBS

IN CIRCULATION AT POINTS MARKED

- **A** 83,000 BEANS, 12% MOISTURE
- **B** 66,000 EXTRACTED FLAKES 40,000 LBS PER HOUR
- **C** 10,000 STEAM
- **D** 15,000 LBS PER HOUR OIL 43,000 HEXANE
- **E** 1,500 HEXANE AT 4 INCH Hg
- **F** 15,000 LBS PER HOUR OIL 15,000 LBS PER HOUR HEXANE
- **G** 600 LBS PER HOUR STEAM
- **H** 15,000 LBS PER HOUR OIL
- **I** 83,000 LBS PER HOUR HEXANE

FIGURE 2: CONTINUOUS FLOW CHART FOR SOLVENT EXTRACTIONS OF SOYBEANS

1060-001

protein content of 44-46% which can be increased by removing the soybean hulls. Solvent extraction is carried out in a continuous counter-current manner through a series of extraction stages. The extractors most commonly used in most vegetable oil plants circulate solvent over the flakes, which are carried (usually in baskets) through several extraction stages in a circular, vertical, or horizontal direction. Hexane is used as solvent in this process. Milling releases some oil, which is immediately dissolved in the solvent. The greater portion of oil is removed by diffusion of solvent through the cell walls until equilibrium is reached. By replacing the equilibrium solution with a solvent of lower oil content, the diffusion process is again resumed. The economical limit of this procedure is about 0.5% oil remaining in the seed mass.

The rate of diffusion is directly proportional to the surface area of particle and in an (inverse) power function of thickness with free circulation of solvent.

5.3 Separation of Oil from Solvent

After extraction, the meal is conveyed to a Desolventage Toaster (DT) for removal of excess organic solvent and then a Dryer Cooler where excess hexane is removed and conveyed to a seed condition foam. The meal is sold as an animal feed.

Miscella, a mixture of oil and solvent, is pumped into a filtration tank and then to a heat exchanger for preheating the miscella for first stage evaportion where solvent is evaporated and miscella concentrates to oil. The mixture then proceeds to a vacuum distillation column where a

physical separation process takes place. The final step in vegetable oil processing plants is to separate the solvent and oil, and since hexane is volatile, the solvent is easily removed from the mixture and pumped into a solvent storage tank. The crude oil proceeds further to refining processes.

6.0 COTTONSEED OIL PROCESS

6.1 Front End Processing of Cottonseed

Cottonseed processing differs slightly from the illustration of Figure 1. Cottonseeds are cleaned by screening and aspiration. The lint is removed by passing the seeds through a series of linters. Each series of linters removes lint of different length, which is designated first cut and second cut lint. The lint cuts are aspirated and air conveyed to separate lint beaters or cleaners which remove dirt and hull fragments from the lint.

The delinted seeds (black seed) are cut or split in a bar-type huller, freeing meat particles from hulls, which are separated from the meats by screening and aspiration. The hulls thus removed are cleaned of attached meat particles in a beater and sent to storage for eventual consumption as roughage in animal feeds.

The meat is rolled into thin flakes (about 0.010 to 0.014 inch thick) to make them easily permeable to steam in the cooking operation and are conditioned in horizontal cookers at 230°F for twenty minutes to coagulate proteins. In direct solvent extraction, meats are conditioned before flaking.

The horizontal cookers are generally integrated with the expellers. In prepress plants they are supplemented with a stacked cooker for additional heating capacity.

Most of the oil from conditioned cottonseed is prepressed in mechanical screw presses with single or double worm shafts revolving inside a heavy perforated barrel and capable of exerting a pressure of up to 1,700

to 2,000 psi. The oil removed by these presses is screened, cooled, filtered, and stored for refining. About 74% of all cottonseed is so pressed; an additional 18% is processed by repressing with solvent extraction and 8% by direct solvent extraction.

7.0 CORNSEED OIL

7.1 Introduction

The corn oil is more properly called corn germ oil. Although corn contains only about 4.5% oil, 85% of this oil is present in the germ. The germ fraction separated by dry milling contains about 25% oil. That separated by the wet milling process contains about 50% oil. The high oil content of wet milled germ is due to removal of solubles during the steeping process.

7.2 Production

The production of corn oil differs from that of some of the other oils in certain respects. After cleaning, the corn is placed in large tanks and steeped in warm water containing SO_2, thus loosening the hulls from the kernels. The steeped corn is run through attrition mills, which break the germ away from the piece of kernel. The separation of the germ and kernel is accomplished by running the mixture into a tank of water where germ floats, because of the oil content. The germ is washed and thoroughly dried for grinding operation. The crude oil from the expellers is given usual purification treatment such as that described for cottonseed oil. The oil content of corn kernel, exclusive of the hull, is about 4.5%.

7.3 Process and Composition

The oil can be recovered from three processes which can be described as continuous screw pressing or expelling, continuous screw pressing plus

solvent extraction and direct solvent extraction. The expelling is well adapted in a plant where relatively small quantities of germ are available. Most large wet millers use a combination of expelling and solvent extraction for effluent oil recovery. In this case, the oil content of germ is reduced from about 50% to about 25% by pressing; then the residue is solvent extracted. Direct solvent extraction is applied only to dry millers germ. Regardless of the process used for recovery, the composition of corn oil is about the same as other crude vegetable oils.

8.0 AIR POLLUTANTS IN VEGETABLE OIL PROCESSING INDUSTRIES

This section provides a brief review of the potential air pollutant emissions from vegetable oil processing, based on a typical soybean plant whose capacity is 1380 tons/day (This is the average capacity determined from the inventory). The emissions are calculated using emission factor information for particulate emissions found in "Compilation of Air Pollutant Emission Factors (AP-42) and for VOC's in "Control of Volatile Organic Emissions from Manufacture of Vegetable Oils" (EPA-450/2-78-035). The results of these calculations are shown on Tables 2 & 3, and are discussed in the following sections.

8.1 Particulate Matter Emissions

The major particulate matter emissions occur at the front end processing operations of receiving, handling, cleaning, cracking, and dehulling. The potential uncontrolled particualte emissions total 16.1 tons/day, of which 66% is contributed by the front end components. Based on an assumed 330 days/year of operation, the total potential particulate emissions of this typical plant would be approximately 5300 tons/year. AP-42 does not provide an estimate of control efficienty for soybean particulate emissions, but some discussion of the subject is available in "Emission Control in the Grain and Feed Industry - Volume I, Engineering and Cost Study" (EPA 450/3-73- 003a, December, 1973, Midwest Research Institute.)

Medium to high energy cyclones and fabric filters are used on cracking operations, and on dehulling; flaking and toasting. Fabric Filters are

TABLE 2. PARTICULATE EMISSIONS FOR A TYPICAL SOYBEAN PLANT (BASIS: 1380 TONS PER DAY)

Process	Pounds per ton*	Uncontrolled Particulate Emissions	
		Pounds per day	Tons per day
Receiving	1.60	2208	1.10
Handling	5.00	6900	3.45
Cleaning	7.20	9936	4.97
Cracking and Dehulling	3.30	4554	2.28
Hull grinding	2.00	2760	1.38
Bean conditioning	0.10	138	0.07
Flaking	0.57	787	0.39
Meal dryer	1.50	2070	1.04
Meal cooler	1.80	2484	1.24
Bulk loading	0.27	373	0.19
TOTAL Uncontrolled Particulates	23.34	32210	16.11

*Source: Compilation of Air Pollutant Emission Factors (AP-42) Third Edition page - 6.4-4

limited to sources where the moisture content is not excessive. Meal dryers utilize product recovery systems controlled by high energy cyclones or wet scrubbers, since in this case the effluent gas stream has a high moisture content. Meal and hull grinding generate fine particulate (~1 micrometer) requiring the use of fabric filters. The 1973 study does not give sufficiently specific control efficiency information to compute step-by-step controlled emission values, but an assumed overall collection efficiency of 90-95% seems reasonable and would result in controlled emissions of .80 to 1.6 tons/day, or 265 to 530 tons/year.

The latter range would place this type of plant in the major source category and shows that a vegetable oil processing plant could potentially have a serious impact on local TSP air quality.

8.2 Volatile Organic Compound (VOC) Emissions

The major sources of VOC emission in the typical soybean plant under consideration are the main vent, the meal drying and cooling operations and product, and fugitive emissions or leaks. The main vent represents the most significant emission, accounting for 74% of the total. Solvent losses from the main vent are controllable by Mineral Oil Scrubbers which can be expected to provide collection efficiencies of up to 95%. Controls have not been widely applied to the other emission sources. Application of incineration and carbon adsorption control technology could reduce the VOC emissions other than leaks to very low values, but questions have been raised regarding the fire safety of these devices on soybean processing

TABLE 3. VOLATILE ORGANIC COMPOUND EMISSIONS FOR A TYPICAL SOYBEAN PLANT
(BASIS: 1380 Tons per day)

Process	Uncontrolled VOC Emissions		
	Pounds per ton*	Pounds per day	Tons per day
Main Vent	11.80	16285	8.14
Meal Drying, Cooling, Product	2.20	3040	1.52
Fugitive (Leaks)	.66	910	.45
Others	1.32	1820	.91
TOTAL Uncontrolled VOC	16.0	22055	11.02

*Source: "Control of Volatile Organic Emissions from Manufacture of Vegetable Oils" EPA-450/2-78-035; June 1978.

operations. Fugitive emissions from leaks and spills are best controlled by improved maintenance and housekeeping.

The controlled VOC emissions factor found in "Control of Volatile Organic Emissions from Manufacutre of Vegetable Oils" is 5.3 lb/ton representing an overall control efficiency of 85 to 90%. The controlled VOC emissions from the typical plant would then be 1.10 to 1.65 tons/day, or 365 to 545 tons/year (based on 330 days per year operation).

9.0 References

1. National Soybean Processors Assocation, 1800 M. Street, N.W., Washington, D.C. 20036.

2. Corn Refiners Association, Inc., 1001 Connecticut Avenue, N.W., Washington, D.C. 20036.

3. National Cottonseed Products Association, Inc., P.O. Box No. 12023, Memphis, Tennessee 38112.

4. National Peanut Council, Suite 506, 1000 Sixteenth Street, N.W., Washington, D.C. 20036.

5. International Green Book, 1979 Edition, Volume 61, Published by Anderson Dayton Oil Seed Processing Division, Headquarters, Phoenix, Arizona.

6. "Quick Look Report," Compliance Data System (CDS), Listing of Vegetable Oil Plants prepared by U.S. Environmental Protection Agency, Washington, D.C., December 22, 1977.

7. Predicasts Terminal System Users Manual, June 1978, 200 University Circle Research Center, 11001 Cedar Avenue, Cleveland, Ohio 44106.

8. U.S. Department of Agriculture, Economic, Statistics, and Cooperative Service, Washington, D.C. 20250.

9. Compilation of Air Pollutant Emission Factors, AP-42 Third Edition, Including Supplements 1-7, August, 1977.

10. Control of Volatile Organic Emissions from Manufacture of Vegetable Oils, EPA/450/2-78-035, June, 1978.

10.0 GLOSSARY

1. "Desolventizer Toaster" means a process unit in which steam is used to strip occluded solvent out of the extractor meal.

2. "Extraction" means leaching of vegetable oil from the seed or bean; typically using a hexane solvent in a counter-current contact system.

3. "Full Solvent Plant" means a vegetable oil plant exclusively utilizing solvent extraction to produce vegetable oil.

4. "Meal" means leached seed or bean flakes remaining after extraction.

5. "Meal Preparation" means drying, cooling, and conveying of meal coming from the desolventizer toaster.

6. "Mineral Oil Scrubber (MOS)" means a packed tower using mineral oil as absorbent for solvent laden vapors.

7. "Miscella" means the mixture of solvent and extracted oil.

8. "Prepress Plant" means a vegetable oil plant which mechanically removes a portion of the oil prior to solvent extraction.

9. "Solvent/Oil Separation" means the operation which occurs after extraction that separates miscella into oil and solvent.

10. "Material Handling" means conveying, elevating, pumping, packaging, and shipping.

11. "Separating" means centrifuging, draining, evaluating, filtering, percolating, fitting, pressing, skimming, sorting and trimming. (Drying, screening, sifting and washing fall into this category.)

12. "Heat Exchanging" means chilling, freezing and refrigerating, heating, cooling, broiling, roasting, baking and smoking.

13. "Mixing" means agitating, beating, blending, diffusing, dispersing, emulsifying, homogenizing, stirring, whipping and working.

14. "Peeling and Size Reduction" means peeling, breaking, chipping, chopping, crushing, cutting, grinding, milling, maturating, pulverizing, refining (as by punching and rolling) shedding, slicing and spraying.

15. "Forming" means casting, extruding, flaking, molding, pulverizing, rolling, shaping, stamping and die casting.

16. "Controlling" means controlling air humidity, temperature, pressure, and velocity; inspecting, measuring, tempering and weighing.

APPENDIX

NATIONAL VEGETABLE OIL PROCESSING PLANT INVENTORY

Region 1

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton seed				Corn seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Connecticut	0	0	0	0	0	0	0	0	0	0	0	0
Maine	0	0	0	0	0	0	0	0	2	2	0	0
Massachusetts	0	0	0	0	0	0	0	0	0	0	0	0
New Hampshire	0	0	0	0	0	0	0	0	0	0	0	0
Rhode Island	0	0	0	0	0	0	0	0	0	0	0	0
Vermont	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	2	2	0	0

REGION I
MAINE

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Stein Hall & Co. Burleigh Street Island Falls, Maine	Aroostook	Confidential			X	X
A.E. Staley Mfg. Co. Inc. P.O. Box 786 Houlton, Maine	Aroostook	Confidential			X	X
TOTAL 2			0	0	2	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION II

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
New Jersey	0	0	0	0	0	0	0	0	0	0	0	0
New York	0	0	0	0	0	0	0	0	0	0	0	0
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0
Virgin Island	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	0	0

REGION III

SUMMARY OF VEGETABLE OIL BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Delaware	0	0	0	0	0	0	0	0	0	0	0	0
Maryland	0	0	0	0	0	0	0	0	0	0	0	0
Pennsylvania	0	0	0	0	0	0	0	0	1	0	0	1
Virginia	1	1	0	0	0	0	0	0	1	1	0	0
West Virginia	0	0	0	0	0	0	0	0	0	0	0	0
Washington D.C.	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	1	0	0	0	0	0	0	2	1	0	1

REGION III
VIRGINIA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill Norfolk, Virginia	Independent City	1650			X	X
TOTAL. 1		1650	0	0	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION III
PENNSYLVANIA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
A.E. Staley Mfg. Co. Inc. Morrisville, Pennsylvania	Bucks	Confidential	X			X
TOTAL 1			1	0	0	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION III
VIRGINIA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Ashland Roller Mills Ashland, Virginia	Hanover	Confidential			X	X
TOTAL 1			0	0	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Alabama	1	1	1	1	4	3	1	2	0	0	2	2
Florida	0	0	0	0	0	0	0	0	0	0	0	0
Georgia	2	2	0	0	6	6	0	0	0	0	0	0
Kentucky	0	0	1	1	0	0	0	0	0	0	0	0
Mississippi	4	4	0	0	13	13	0	0	0	0	0	0
N. Carolina	3	3	0	0	3	3	0	0	2	2	0	0
S. Carolina	3	3	0	0	4	4	0	0	0	0	0	0
Tenessee	1	1	4	4	0	0	3	3	0	0	0	0
TOTAL	14	14	6	6	30	29	4	5	2	2	2	2

REGION IV
ALABAMA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Continental Grain East Lake Road, P.O. Box 608 Guntersville, Alabama	Marshall	2000			X	X
Goldkist, Inc. P.O. Box 1965 Decatur, Alabama	Morgan	2500	X	X		
TOTAL 2		4500	1	1	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
GEORGIA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill 949 Ridge Road Gainesbille, Georgia	Hall	1800			X	X
Goldkist, Inc. Valdosta, Georgia	Lownes	1500			X	X
TOTAL 2		3300	0	0	2	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
KENTUCKY

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Ralston Purina 2441 Floyd Street Louisville, Kentucky	Jefferson	800	X	X		
TOTAL 1		800	1	1	0	0

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
MISSISSIPPI

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Goldkist, Inc. Marks, Mississippi	Quitman	1500			X	X
Anderson-Clayton 1000 North Mill Street Jackson, Mississippi	Hinds	300			X	X
Anderson-Clayton P.O. Box 1378 Vicksburg, Mississippi	Warren	1200			X	X
Planters Oil Mills Lyon Boulevard, Box 10 Clarksdale, Mississippi	Coahoma	400			X	X
TOTAL 4		3400	0	0	4	4

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
N. CAROLINA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Ralston Purina 1400 S. Blount Street Raleigh, N. Carolina	Wake	800			X	X
Planters Oil Mills 1004 Cokey Road Rocky Mount, N. Carolina	Edge Combe	180			X	X
Cargill Fayetteville, N. Carolina	Cumberland	1900			X	X
TOTAL 3		2880	0	0	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
S. CAROLINA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Hartsville Oil Mills 201 S. 5th St., Box 490 Hartsville, S. Carolina	Darlington	600			X	X
Southbean Soya P.O. Box 277 Estill, S. Carolina	Hampton	325			X	X
Continental Grain P.O. Box 395 Cameron, S. Carolina	Calhoun	2000			X	X
TOTAL 3		2925	0	0	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
TENNESSEE

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
W. Tennessee Soya Mills U.S. Highway 78 Tiptonville, Tennessee	Lake	185			X	X
Ralston Purina 2895 Jackson Avenue Memphis, Tennessee	Shelby	800	X	X		
Cargill 1877 Channel Avenue Memphis, Tennessee	Shelby	1200	X	X		
Cargill 1877 Channel Avenue Memphis, Tennessee	Shelby	1560	X	X		
Central Soya Chattanooga, Tennessee	Hamilton	200	X	X		
TOTAL 5		3945	4	4	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
ALABAMA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Selma Oil Mill Inc. 1100 Plan Street, Box 632 Selma, Alabama	Dallas	Confidential			X	X
Farmers & Ginners Cotton Oil Co. 730 16th Ave., Box 10551 Birmingham, Alabama	Jefferson	Confidential	X	X		
Buckeye Cellulose Corporation 1720 Bell St., Box 95 Montgomery, Alabama	Montgomery	Confidential			X	X
Southern Cotton Oil Co. Inc. 424 Church Street Huntsville, Alabama	Maddison	Confidential	X			X
Dothan Oil Mill Co. Inc. Box 458 Dothan, Alabama	Houston	Confidential			X	X
TOTAL 5			2	1	3	4

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
GEORGIA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Southern Cotton Oil Co. Inc. P.O. Box 4865 Macon, Georgia	Bibb	160			X	X
Central Cotton Oil 245 14th Street, Box 4985 Macon, Georgia	Bibb	150			X	X
Camilla Cotton Oil Co. Inc. 115 Timitty Street, Box 271 Camilla, Georgia	Mitchelle	Confidential			X	X
Buckeye Cellulose Corp. Molly Pond Road, Box 729 Augusta, Georgia	Richmond	Confidential			X	X
Albany Oil Mill Inc. P.O. Box 548 Albany, Georgia	Dougherty	140			X	X
Louisville Fertilizer & Gin Co. P.O. Box 192 Louisville, Georgia	Jefferson	25			X	X
TOTAL 6			0	0	6	6

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
MISSISSIPPI

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Port Gibson Oil Works 601 Anthony Street Port Gibson, Mississippi	Claiborn	150			X	X
Mississippi Cotton Seed Products Co. 177 North Gallatin, Box 2569 Jackson, Mississippi	Hinds	75-80			X	X
Minter City Oil Mill Inc. Box 67 Mintercity, Mississippi	Le Florg	200			X	X
Mississippi Cotton Seed Products Co. 133 Northling St., Box 370 Grenada, Mississippi	Grenada	75			X	X
Southern Cotton Oil Co. 815 Nelson St., Box 1018 Greenville, Mississippi	Washington	310			X	X
Mississippi Cottonseed Product Co. 300 Mill Street, Drawer 68 Hollandale, Mississippi	Washington	180			X	X
Mississippi Cottonseed Products Co. Moor Street Greenwood, Mississippi	Le Flore	150			X	X
Delta Oil Mill Inc. Main Street, Box 138 Jonestown, Mississippi	Coahoma	200			X	X
SUBTOTAL 8			0	0	8	8

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
MISSISSIPPI (Cont'd)

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Yazoo Valley Oil Mill Co. 2015 West River Road, Box 1320 Greenwood, Mississippi	Le Flore	500-600			X	X
Delta Cotton Oil & Fertilizer Co. Box 899 Jackson, Mississippi	Hinds	165-170			X	X
Planters Manufacturing Co. Box 10 Clarksdale, Mississippi	Coahoma	Confidential			X	X
International Vegetable Oil Mill 738 West Union Street Greenville, Mississippi	Washington	310			X	X
Amory Cotton Oil Co. Drawer 30 Amory, Mississippi	Monroe	140			X	X
SUBTOTAL 5			0	0	5	5
TOTAL 13			0	0	13	13

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
N. CAROLINA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Southern of Rocky Mount Inc. 600 Wilkinson, Box 109 Rocky Mount, N. Carolina	Nash	100			X	X
Maxton Oil & Fertilizer Co. Box 218 Maxton, N. Carolina	Robeson	85			X	X
Planters Industries Inc. Box 927 Rocky Mount, N. Carolina	Edgecombe	Confidential			X	X
TOTAL 3			0	0	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
S. CAROLINA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Southern of Darlington Co. Box 70 Darlington, S. Carolina	Darlington	150-175			X	X
Lancaster Cotton Oil Co. 602 S. Main St., Box 271 Lancaster, S. Carolina	Lancaster	80-100			X	X
Palmetto Oil Co. Inc. Box 426 Bishopville, S. Carolina	Lee	100			X	X
Ninety-Six Manufacturing Co. East Main St., Box 128 Ninety-Six, S. Carolina	Greenwood	60-70			X	X
TOTAL 4			0	0	4	4

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
TENNESSEE

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Nashville Oil Mill Corp. 410 Chestnut St., Box 730 Nashville, Tennessee	Davidson	250	X	X		
Southern Cotton Oil Co. Inc. 962 Mansfield, Box 100 Memphis, Tennessee	Shelby	300	X	X		
Buckeye Cellulose Corp. 1355 Lynnfield Rd., Box 8326 Memphis, Tennessee	Shelby	125	X	X		
TOTAL 3			3	3	0	0

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
ALABAMA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Amalgamaize Co. Inc. Rt. 1, Alabama State Decatur, Alabama	Morgan	Confidential	X	X		
Cremel Co. Inc. 1504 Forestdale Boulevard Birmingham, Alabama	Jefferson	Confidential	X	X		
TOTAL 2			2	2	0	0

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION IV
N. CAROLINA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Blue Magic of N.C. Inc. 509 South Lodge Road Wilson, N. Carolina	Wilson	Confidental			X	X
X-Way Milling Co. Rt. 1, Box 89 Laurinburg, N. Carolina	Scotland	Confidental			X	X
TOTAL 2			0	0	2	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Illinois	6	5	4	5	0	0	0	0	5	5	3	3
Indiana	4	4	1	1	0	0	0	0	3	3	2	2
Michigan	0	0	0	0	0	0	0	0	1	0	1	2
Minnesota	4	4	0	0	0	0	0	0	0	0	0	0
Ohio	2	0	3	5	0	0	0	0	0	0	1	1
Wisconsin	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	16	13	8	11	0	0	0	0	9	8	7	8

REGION V
ILLINOIS

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill 122 Torrence Avenue Chicago, Illinois	Cook	800	X	X		
Burge Caivo, Illinois	Alexander	2400			X	X
Burge Danville, Illinois	Vermilton	1800			X	X
Ralston Purina Bloomington, Illinois	McLean	800			X	X
A.E. Staley Champaign, Illinois	Champaign	2000	X			X
A.E. Staley Decatur, Illinois	Macon	2000	X	X		
Continental Grain Taylorville, Illinois	Christian	2000			X	X
Central Soya 1825 N. Laramie Gibson City, Illinois	Ford	2000			X	X
Archer-Daniels-Midland 4666 Faries Parkway Decatur, Illinois	Macon	2000	X	X		
Archer-Daniels-Midland 3601 Cargill Road Granite City, Illinois	Madison	2000	X	X		
TOTAL 10		17,800	5	4	5	6

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
INDIANA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Bunge Logansport, Indiana	Cass	1500			X	X
Ralston Purina 1503 Wabash Ave., Box 119 Lafayette, Indiana	Tippecanoe	800			X	X
A.E. Staley Blin Road Frankfort, Indiana	Clinton	2000			X	X
Central Soya 1160 West 18th Indianapolis, Indiana	Marion	2000			X	X
Central Soya Decatur, Indiana	Adams	2000	X	X		
TOTAL 5		8300	1	1	4	4

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
MINNESOTA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Dawson Mills Diagonal & 8th Dawson, Minnesota	Lac Qui Parle	1350			X	X
Farmers Union 720 Minneopa Road Mankato, Minnesota	Blue Earth	2400			X	X
Cargill Port Cargill, Minnesota	—	600			X	X
Archer-Daniels-Midland Harper 43rd, Box 551 Mankato, Minnesota	Blue Earth	2000			X	X
TOTAL 4		6350	0	0	4	4

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
OHIO

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill Sidney, Ohio	Shelby	1500	X	X		
A.E. Staley Fostoria, Ohio	Seneca	2000	X	X		
Central Soya Goodrich Road Bellevue, Ohio	Huron	2000	X			X
Central Soya 234 S. Jefferson Avenue Delphos, Ohio	Allen	2000	X	X		
Central Soya Marion, Ohio	Marion	2000	X			X
TOTAL 5		9500	5	3	0	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
ILLINOIS

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
CPC International 648 Archer Road Argo, Illinois	Cook	Confidential			X	X
A.E. Staley Mfg. Co. Inc. 2200 Eldorado Decatur, Illinois	Macon	Confidential			X	X
CPC International 1300 S 2nd St., Box 31 Pekin, Illinois	Tazenell	Confidential	X			X
Coeval Inc. St. Joseph, Illinois	Campaign	Confidential	X			X
Moews Seed Co. P.O. Box 214 Gironville, Illinois	Putnam	Confidential		X	X	
Monahan Co. 202 N. Oak Street Arcola, Illinois	Douglas	Confidential			X	X
Corn Sweeteners 900 19th Street Granite City, Illinois	Madison	Confidental	X	X		
Rudy Patrick Div., W.R. Grace P.O. Box 404 Princeton, Illinois	Byreau	Confidential		X	X	
TOTAL 8			3	3	5	5

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
INDIANA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Anheauser Bush Inc. P.O. Box 1398 Lafayette, Indiana	Tippecamoe	Confidential			X	X
National Starch & Chemical 1515 Drover St., Box 1084 Indianapolis, Indiana	Marion	Confidential	X	X		
American Maize Products 113th and Indianpolis Hommond, Indiana	Lang	Confidential	X	X		
A.E. Staley Mfg. Co. 3300 U.S. 52 South Lafayette, Indiana	Tippecamoe	Confidential			X	X
Dekalb AG Research Inc. 1101 Darlington Avenue Crawfordville, Indiana	Monto Cromera	Confidential			X	X
TOTAL 5			2	2	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
MICHIGAN

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
A.E. Staley Mfg. Co. 25 W. Walton Blvd. Southfield, Michigan	Oakland	Confidental	X	X		
Hercules Inc. 79 State Street Harber Beach, Michigan	Huron	Confidential	X			X
TOTAL 2			2	1	0	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION V
OHIO

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill Inc. Milling Division 3201 Neednord Road Dayton, Ohio	Montgomery	Confidential	X	X		
TOTAL 1			1	1	0	0

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Arkansas	3	3	0	0	7	6	0	1	0	0	0	0
Louisiana	1	0	0	1	2	1	0	1	2	0	0	2
New Mexico	0	0	0	0	1	1	0	0	0	0	0	0
Oklahoma	0	0	0	0	3	3	1	1	0	0	0	0
Texas	0	0	0	0	14	15	5	4	1	1	1	1
TOTAL	4	3	0	1	27	26	6	7	3	1	1	3

REGION VI
ARKANSAS

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Farmland Industries Kibler Road, P.O. Box 389 Van Buren, Arkansas	Crawford	600			X	X
Cargill Osceola, Arkansas	Mississippi	1200			X	X
Riceland Goods P.O. Box 449 Helena, Arkansas	Phillips	2000			X	X
TOTAL 3		3800	0	0	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
LOUISIANA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Bunge Corporation P.O. Box 156 Destrehen, Louisiana	St. Charles	1350	X			X
TOTAL 1		1350	1	0	0	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
ARKANSAS

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Southern Cotton Oil Co., Inc. East 9th & Bond, Box 30 Little Rock, Arkansas	Pulaski	400	X			X
Forrest City Cotton Oil Mill Inc. Box 270 Forrest City, Arkansas	St. Francis	35,000- 38,000			X	X
Osceola Products Co. Highway 6, Box 217 Osceola, Arkansas	Mississippi	250			X	X
Buckeye Cellulose Corp. 324 North Buckeye North Littleroll, Arkansas	Pulaski	Confidential			X	X
Planters of Pine Bluff Cotton Mill Inc. P.O. Box 7427 Pine Bluff, Arkansas	Jefferson	260			X	X
Perkins Oil Co. 901 North Missouri Avenue West Memphis, Arkansas	Crittenden	Confidential			X	X
Helena Cotton Oil Co. Inc. Box 569 Helena, Arkansas	Phillips	280-285			X	X
TOTAL 7			1	0	6	7

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
LOUISIANA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Southern Cotton Oil Co. Box 247 Natchitoches, Louisiana	Natchitoches	120	X			X
Southern Cotton Oil Co. Box 460 New Roads, Louisiana	Pointe Coupeg	Confidential			X	X
TOTAL 2			1	0	1	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
NEW MEXICO

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Luna Cotton Co-Operative Oil Mill Inc. P.O. Box 429 Deming, New Mexico	Luna	35			X	X
TOTAL 1			0	0	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
OKLAHOMA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Producers Co-Operative Oil Mill 5 SE 6th Street Oklahoma City, Oklahoma	Oklahoma	10,000	X	X		
Hollis Cotton Oil Mill Box 313 Hollis, Oklahoma	Harmon	100			X	X
Clinton Cotton Oil Mill Box 539 Clinton, Oklahoma	Custer	200			X	X
Altus Cotton Oil Mill 800 South Iniuard St. Altus, Oklahoma	Jackson	100			X	X
TOTAL 4			1	1	3	3

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
TEXAS

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Raymond Cotton Oil Co. Box 511 Forth Worth, Texas	Tarrant	Confidential	X	X		
Valley Co-Op Oil Mill Box 1310 Harlingen, Texas	Cameron	250-275		X	X	
Levelland Vegetable Oil Inc. Lubbock Hwy, Box N Levelland, Texas	Hockley	250			X	X
Sherman Oil Mill 700 South East St., Box 698 Sherman, Texas	Grayson	400			X	X
NE Tex Co-Operative Oil Mill Box 139 Wolfe City, Texas	Hunt	200			X	X
Plains Co-Operative Oil 2901 Ave. A., Box 1889 Lubbock, Texas	Lubbock	1200			X	X
Lubbock Cotton Oil Co. Inc. Ave. A & 17th, Box 2788 Lubbock, Texas	lubbock	300			X	X
Southwestern Irrigation Cotton Mill Oil 3500 Doniphan Dr., Box 1709 El Paso, Texas	El Paso	187	X	X		
SUBTOTAL 8			2	3	6	5

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October 1979

REGION VI
TEXAS (Cont'd)

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Colliger Indus Armour Co. Box 1537 Forth Worth, Texas	Tarrant	Confidential	X	X		
Elgin Cotton Oil Co. Box 506 Elgin, Texas	Bastrop	Confidential			X	X
West Texas Co-Operative Oil Mill Balmorhea Hwy, Box 809 Pecos, Texas	Reeves	220			X	X
Lemesa Cotton Oil Mill McCarthy Road, Box 421 Lemesa, Texas	Dawson	150			X	X
Rio Grand Oil Mill Wilson Road, Box 351 Harlingen, Texas	Cameron	200			X	X
Moulton Oil & Gin Co. Box 356 Moulton, Texas	Layaca	25			X	X
Ranchers Cotton Oil Highway 99 & Laroo Backersfield, Texas	Kern	500			X	X
Sweet Water Cotton Oil Co. Box 480 Sweetwater, Texas	Nolan	300			X	X
SUBTOTAL 8			1	1	7	7

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
TEXAS (Cont'd)

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Stamford Cotton Oil Co. Box 1178 Stamford, Texas	Jones	150			X	X
Traders Oil Mill 3501 South Jennings Ave., Box 1337 Forth Worth, Texas	Tarrant	Confidential	X	X		
Quanah Cotton Oil Mill Box 180 Quanah, Texas	Hardeman	265			X	X
SUBTOTAL 3			1	1	2	2
TOTAL 19			4	5	15	14

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October 1979

REGION VI
TEXAS (Cont'd)

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Colliger Indus Armour Co. Box 1537 Forth Worth, Texas	Tarrant	Confidential	X	X		
Elgin Cotton Oil Co. Box 506 Elgin, Texas	Bastrop	Confidential			X	X
West Texas Co-Operative Oil Mill Balmorhea Hwy, Box 809 Pecos, Texas	Reeves	220			X	X
Lemesa Cotton Oil Mill McCarthy Road, Box 421 Lemesa, Texas	Dawson	150			X	X
Rio Grand Oil Mill Wilson Road, Box 351 Harlingen, Texas	Cameron	200			X	X
Moulton Oil & Gin Co. Box 356 Moulton, Texas	Layaca	25			X	X
Ranchers Cotton Oil Highway 99 & Laroo Backersfield, Texas	Kern	500			X	X
Sweet Water Cotton Oil Co. Box 480 Sweetwater, Texas	Nolan	300			X	X
SUBTOTAL 8			1	1	7	7

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October 1979

REGION VI
LOUISIANA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
A.E. Staley Mfg. Co. Highway 308, Box 118 Lockport, Louisiana	La Fourche	Confidential	X			X
Anheuser Busch Inc. 700 Edwards Avenue New Orleans, Louisiana	Orleans	Confidential	X			X
TOTAL 2			2	0	0	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VI
TEXAS

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
CPC International Inc. Upriver and Corn Product Corpus Christi, Texas	Nueces	Confidential	X	X		
Speckles Sugar Div. Amstar E. Jones & 7th Dinnitz, Texas	Cartro	Confidential			X	X
TOTAL 2			1	1	1	1

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October 1979

REGION VII

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Iowa	5	9	8	4	0	0	0	0	3	6	5	2
Kansas	3	2	0	1	0	0	0	0	2	2	0	0
Missouri	0	2	3	1	2	2	1	1	1	1	1	1
Nebraska	1	1	0	0	0	0	0	0	1	1	0	0
TOTAL	9	14	11	6	2	2	1	1	7	10	6	3

REGION VII
IOWA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Farmland Industries P.O. Box 200 Sergeant Bluff, Iowa	Woodbury	2000		X	X	
Land-O-Lakes 804 2nd Avenue Sheldon, Iowa	O'Brien	1000			X	X
Land-O-Lakes 5 Central Avenue Fort Dodge, Iowa	Webster	600		X	X	
Farmers Grain Dealers 1605 19th Street Mason City, Iowa	Cerro Gordo	1000		X	X	
Ralston Purina Highway 65, P.O. Box 1020 Iowa Falls, Iowa	Hardin	800			X	X
Cargill 3030 SE Granger Des Moines, Iowa	Polk	1320	X	X		
Gargill N. 15th & E. 3rd Street Washington, Iowa	Washington	330			X	X
Cargill 11th & Clark Street Sioux City, Iowa	Woodbury	1230		X	X	
SUBTOTAL 8		8280	1	5	7	3

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October 1979

REGION VII
IOWA (Cont'd)

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Cargill 1010 10th Avenue SW Cedar Rapids, Iowa	Linn	1800	X	X		
Cargill 411 6th Street NE Cedar Rapids, Iowa	Linn	720	X	X		
A.E. Staley 1935 E. Euclid Avenue Des Moines, Iowa	Polk	2000	X	X		
Central Soya Highway 69 Belmond, Iowa	Wright	2000			X	X
Boone Valley Coop Process N. Commercial, Box 85 Eagle Grove, Iowa	Wright	2000			X	X
SUBTOTAL 5		5520	3	3	2	2
TOTAL 13		16,800	4	8	9	5

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October 1979

REGION VII
KANSAS

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Bunge Box 518 Emporia, Kansas	Lyon	1000			X	X
Cargill 1501 N. Mosley Wichita, Kansas	Sedgwick	1200	X			X
Archer-Daniels-Midland Box 558 Fredonia, Kansas	Wilson	2000			X	X
TOTAL 3		4200	1	0	2	3

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REGION VII
MISSOURI

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Farmland Industries St. Joseph, Missouri	Buchanan	900		X	X	
MFA Soybeans 400 E. Holt, Box 39 Mexico, Missouri	Audrain	1500		X	X	
Ralston Purina 2334 Rochester Avenue Kansas City, Missouri	Jackson	800	X	X		
TOTAL 3		3200	1	3	2	0

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VII
NEBRASKA

ACTIVE SOYBEAN MILLS: (SOLVENT EXTRACTION)

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Archer-Daniels-Midland Thayer & 78th Lincoln, Nebraska	Lancaster	2000			X	X
TOTAL 1		2000	0	0	1	1

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VII
MISSOURI

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Kennett Oil Mill Highway 25 N, Box 41 Kennett, Missouri	Dunkin	250			X	X
Sikeston Cotton Oil Mill Inc. Box 430 Sikeston, Missouri	Scott	Confidential			X	X
Vita Foods Division British America 4900 Manchester St. Louis, Missouri	St. Louis	Confidential	X	X		
TOTAL 3			1	1	2	2

Prepared by TRC Environmental Consultants, Inc.
October 1979

REGION VII
IOWA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Clinton Corn Processing 1251 Beaver Channel Clinton, Iowa	Clinton	Confidential		X	X	
Pacific Rsins & Chemical 9201 Pkwy 1st Street Cedar Rapids, Iowa	Linn	Confidential	X	X		
Hubinger Company 1005 55th Street Keokuk, Iowa	Lee	Confidential		X	X	
Adm. Corn Sweeteners 1350 Waconia Ave. SW Cedar Rapids, Iowa	Linn	Confidential	X	X		
Glen Mills Chemical/Henkel 410 Johnson Street Keokuk, Iowa	Lee	Confidential		X	X	
W.O. McCurdy & Sons Freemont, Iowa	Mahaska	Confidential			X	X
Cargill Inc. 411 N. Cheery Mt. Pleasant, Iowa	Henry	Confidential			X	X
Cargill Inc. Rte 3 Girinnek, Iowa	Poweshieu	Confidential			X	X
TOTAL 8			2	5	6	3

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October 1979

REGION VII
KANSAS

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Midwest Solvents Co. Inc. 1300 Main Street Atchison, Kansas	Atchison	Confidential			X	X
Lincoln Grain So. Box 436 Atchison, Kansas	Atchison	Confidential			X	X
TOTAL 2			0	0	2	2

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October 1979

REGION VII
MISSOURI

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
CPC International 1001 Bedford N. Kansas City, Missouri	Clay	Confidential	X	X		
DeKalb Agr. Research Inc. P.O. Box 847 Siketon, Missouri	Scott	Confidential			X	X
TOTAL 2			1	1	1	1

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REGION VII
NEBRASKA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
American Maize Products 1602 16th St. Central City, Nebraska	Merrick	Confidential			X	X
TOTAL 1			0	0	1	1

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October 1979

REGION VIII

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Colorado	0	0	0	0	0	0	0	0	1	1	0	0
Montana	0	0	0	0	0	0	0	0	0	0	0	0
North Dakota	0	0	0	0	0	0	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0	0	0	0	0	0	0
Utah	0	0	0	0	0	0	0	0	0	0	0	0
Wyoming	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	1	1	0	0

REGION VII

COLORADO

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
A.E. Staley Mfg. Co. N. Washington Monte Vista, Colorado	Rio Gronde	Confidential			X	X
TOTAL 1			0	0	1	1

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REGION IX

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton Seed				Corn Seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Arizona	0	0	0	0	1	2	1	0	0	0	0	0
California	0	0	0	0	1	0	4	5	2	2	1	1
Hawaii	0	0	0	0	0	0	0	0	0	0	0	0
Nevada	0	0	0	0	0	0	0	0	0	0	0	0
American Samoa	0	0	0	0	0	0	0	0	0	0	0	0
Guam	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	2	2	5	5	2	2	1	1

REGION IX
ARIZONA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Case Grande Cotton Oil Mill Box 959 Case Grande, Arizona	Pinal	400		X	X	
Anderson, Clayton & Co. Box 2988 Phoenix, Arizona	Maricopa	Confidential			X	X
TOTAL 2			0	1	2	1

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REGION IX
CALIFORNIA

ACTIVE COTTONSEED OIL PLANTS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Producers Cotton Oil San Joaruin Division Box 1832 Fresno, California	Fresno	500	X	X		
Ranchers Cotton Oil Box 2596 Fresno, California	Fresno	600	X	X		
Kings Burg Cotton Oil Co. of Cal. 1825 Marion St., Box 277 kings Burg, California	Fresno	Confidential	X	X		
J.G. Boswell Co. Box 457 Corcoran, California	Kings	300-350	X	X		
Producers Cotton Oil Mill Imperial Division Box 6 Calipatria, California	Imperial	Confidential	X			X
TOTAL 5			5	4	0	1

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REGION IX
CALIFORNIA

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
National Starch & Chem 735 Battery San Francisco, California	San Francisco	Confidential			X	X
National Starch & Chem 2117 Saybrook Avenue Los Angeles, California	Los Angeles	Confidential	X	X		
Weston Starch Division P.O. Box 488 Tyle Lake, California	Siskiyou	Confidential			X	X
TOTAL 3			1	1	2	2

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Region X

SUMMARY OF VEGETABLE OIL PLANTS BY REGION

	Soybean				Cotton seed				Corn seed			
	Attainment		Non Attainment		Attainment		Non Attainment		Attainment		Non Attainment	
STATE	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX	TSP	OX
Alaska	0	0	0	0	0	0	0	0	0	0	0	0
Idaho	0	0	0	0	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0	1	2	1	0
TOTAL	0	0	0	0	0	0	0	0	1	2	1	0

REGION X
WASHINGTON

ACTIVE WET CORN MILLS

NAME AND ADDRESS OF PLANT	COUNTY	CAPACITY (TONS/DAY)	NONATTAINMENT FOR PHOTOCHEMICAL	NONATTAINMENT FOR TSP	ATTAINMENT FOR OXIDANT	ATTAINMENT FOR TSP
Olympic Corn Products 605 Fancher, Box 3627 Spokane, Washington	Spokane	Confidential		X	X	
Menan Starch P.O. Box Drawer N Moses Lake, Washington	Grant	Confidential			X	X
TOTAL 2			0	1	2	1

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