777 12th Street, Third Floor

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Sacramento, CA 95814

AUTHORITY TO CONSTRUCT EVALUATION

APPLICATION NO.: A/C 21601 & 21602

DATE: February 2, 2008

ISSUING ENGINEER: Ady R. Santos

A. FACILITY NAME: THE PROCTER & GAMBLE MANUFACTURING CO.

B. LOCATION: 8201 FRUITRIDGE RD., SACRAMENTO, CA 95826

C. PROPOSAL: MODIFY THE PERMIT CONDITIONS IN A/C 20164 & 20166 (APC THERMAL OXIDIZERS) BY INCORPORATING THE STANDARDS AND OTHER REQUIREMENTS IN 40 CFR 63, SUBPART FFFF (MON) FOR THE AFFECTED CHEMICAL MANUFACTURING PROCESS UNITS

D. INTRODUCTION:

Procter & Gamble Manufacturing Co. (P&G) installed two thermal oxidizers permitted under A/C Nos. 20164 & 20166 in October 24, 2007. The permit limit on the device control efficiency was not in accordance with the 40 CFR 63 Subpart FFFF (MON) standards as proposed in P&G's permit application. The MON rule was to take effect on May 10, 2008, however P&G requested and was granted by the District an extension of compliance to May 9, 2009. Hence, this permit action will modify A/C Nos. 20164 & 20166 by including all the applicable requirements in the MON rule, which will include emission limits, work practice standards, monitoring, recordkeeping and reporting.

This permit action will result in a net emissions decrease in the fatty alcohol manufacturing process (P/O 20165) due to the abatement of process vent stream in the thermal oxidizer and the split of the South Vent Seal Tank (A/C 21765) as a separate permit unit. The same is true for the Fire Pit Stack (P/O 16564), which will vent to the thermal oxidizer. The affected permit units will be modified administratively to reflect these changes.

E. PROCESS DESCRIPTION:

The Procter & Gamble Manufacturing plant is an integrated industrial facility that is comprised of four primary process areas. The processes include: (1) physically refined vegetable oil process (PROP); (2) fatty acid process; (3) methyl ester and glycerine process; and (4) fatty alcohol process. The facility converts natural oils, such as coconut and palm kernel oil, to produce various products. The overall synthetic organic chemical manufacturing operations is grouped into four permit process units, which include storage and process tanks, process vessels, distillation and stripping equipment, reactors, condensers, evaporators, filters, centrifuges, dryers, and a host of other miscellaneous process equipment. In addition, control devices, such as scrubbers, baghouses, and thermal oxidizers, and process heaters have been permitted individually.

Storage Tank Farm
This is storage for raw materials, intermediates and finished products, including coconut oil, esters, fatty alcohols and fatty acids. The tank farm includes rail car and tank truck loading and unloading capability.

Physically Refined Oil Process
Also known as 'PROP, this process removes contaminants from vegetable oils, preparing them for further processing into esters and glycerine. PROP employs filtration aids, filtration, steam stripping and vacuum to remove particles, free fatty acids and odor bodies from the oil, resulting in an intermediate known as refined, bleached and deodorized oil.

Methyl Ester &Glycerine Manufacturing Process
Vegetable oils, predominantly coconut and palm kernel, are reacted with methyl alcohol in the presence of sodium methylate. The glycerides which make up the oils react to form methyl esters and crude glycerine. The mixture of glycerine and esters are gravity separated, washed and dried prior to entering interim storage. The esters are fractionated into short chain (C6-C10) and long chain (C12-C18) blends for further processing into finished product. The glycerine is shipped to a P&G facility for final processing.

Fatty Alcohol Manufacturing Process
Long chain methyl esters (C12-C18) are heated and pressurized prior to mixing with hydrogen and catalyst. The mixture reacts in a four-stage plug flow reactor, hydrogenating the ester to a fatty alcohol and liberating methanol. The methanol and excess hydrogen are recovered for reuse. The mixture of fatty alcohol and catalyst are separated by means of centrifuges and filters. The fatty alcohol mixture is fractionated into C12-C14 blend used for surfactant making and pure forms of cetyl and stearyl alcohol which find many uses in the chemical and cosmetic industries.

Fatty Acids Manufacturing Process
Short chain methyl esters (C6-C10) are reacted with sodium hydroxide, liberating methanol and producing a soapy material. The soap is reacted with sulfuric acid to produce a fatty acid, water and sodium sulfate salt. Following washing and gravity separation, the fatty acid is vacuum dried and distilled to finished product. The methanol is dried and returned to the ester making process.

F. PROCESS FLOW DIAGRAM:

Refer to the process flow charts in the permit file.

G. EQUIPMENT DESCRIPTION:

A/C 21601

APC Thermal Oxidizer (aka South Thermal Oxidizer)
Equipment No. 44-M-1518
Baker Furnace, Inc.
Model SX 2500 SCFM
Heat Input Rating – 6 MMBtu/hr
Combustion Blower - 7½ HP

Knockout Drum
Equipment No. 44-C-1510
Capacity – 1,250 Gallons
Dimension – 5' Dia x 8.5'
Design Temperature - 500°F
Design Pressure – 60 PSIG
Product – Methanol/Water

Seal Pot
Equipment No. 44-G-1520
Capacity – 140 Gallons

Inlet: Process vent streams from 6 storage tanks, preheater, and 2 receivers in the Fatty Alcohol process.

A/C 21602

APC Thermal Oxidizer (aka North Thermal Oxidizer)
Equipment No. 70-M-1508
Baker Furnace, Inc.
Model SX 2500 SCFM
Heat Input Rating – 6 MMBtu/hr
Combustion Blower - 7½ HP

Knockout Drum (Existing)
Equipment No. 70-C-2188

Seal Pot (Existing)
Equipment No. 70-D-2192

Inlet Process stream from the Fire Pit Stack vented from storage tanks, continuous process vent, batch process vent, condensers, receivers, strippers and reactors.

H. PROCESS RATE/FUEL USAGE:

The installation and/or modification of these thermal oxidizers will not change the process throughputs in any of the miscellaneous organic chemical processing units.

I. OPERATING SCHEDULE:

The Procter &Gamble facility operates 24 hours/day, 7 days/week.

J. CONTROL EQUIPMENT EVALUATION:

The Baker Furnace thermal oxidizer has a design flow rate of 2,500 SCFM. The unit is equipped with a 30 ppm low-NOx burner. The operating temperature inside the combustion chamber is expected to be within 1450°F, which is well within the typical temperature range for thermal oxidizers. In April 2008, a preliminary spike test was performed on both APC thermal oxidizers. The results indicated a destruction efficiency of 99%.

K. EMISSIONS CALCULATIONS:

1) HISTORIC POTENTIAL TO EMIT:

The thermal oxidizers are new emissions units, therefore, historic potential to emit for all pollutants as products of combustion are zero.

The process modifications being undertaken by P&G are designed to comply with the MON rule requirements. The South Thermal Oxidizer (A/C 21601 - STO) will service the North and South HFA mats (Fatty alcohol manufacturing process), venting several storage tanks, heater and receivers. The North Thermal Oxidizer (A/C 21602 – NTO) will vent the process stream from the Fire Pit Stack (Methyl ester and fatty acids manufacturing processes). The process emissions associated with these vent streams identified earlier will then be abated in either control device, which will be considered the historic potential to emit for the thermal oxidizer.

Historic Potential to Emit (From Process Vent Streams)			
Permit No./ Equipment	Source of Process Vent Emissions		
	Permit No./ Process	Emissions Unit Equipment ID No.	Max. Allowable Emissions
A/C 21601 APC Thermal Oxidizer (STO)	P/O 20165 / Fatty Alcohol Mfg Process	Tank 646 50-D-7652	679
A/C 21602 APC Thermal Oxidizer (NTO)	P/O 16564 / Fire Pit Stack	Fire Pit with APC Water Spray	3,036

2) PROPOSED POTENTIAL TO EMIT:

Permit No./ Equipment	Proposed Potential to Emit (From Process Vent Stream) lb/quarter	
	Uncontrolled (A)	Controlled (A)
A/C 21601 (STO) APC Thermal Oxidizer	679	34
A/C 21602 (NTO) APC Thermal Oxidizer	3,036	61

(A) Historic potential to emit as shown in Section J 1).
(B) The emission limit standard for the STO Group 1 storage tanks is ≥95% by weight reduction in total HAP emissions as specified in Table 4 in 40 CFR 63 Subpart FFFF, whereas the standard for the NTO continuous process vent is ≥98% by weight reduction of total organic HAP emissions per Table 1in 40 CFR 63 Subpart FFFF.

A/C 21601 or A/C 21602 – Combustion emissions from each APC Thermal Oxidizer

Pollutant	Emission Factor (A) lb/mmcf	Proposed Potential to Emit	
		lb/day	lb/quarter
ROC	5.5	0.8	73
NOx	36.4	5.2	482
SOx	0.6	0.1	8
PM10	7.6	1.1	101
CO	84	12.1	1,113

(A) Emissions factors are from AP-42, Tables 1.4-1 ~ 1.4-2, *Emissions from Natural Gas Combustion*, pg 1.4-5 ~ 1.4-6 (7/98), except for NOx which is based on 30 ppmvd @ 3% O_2.
(B) Emissions are based on a maximum fuel usage of 6,000 cf/hour, 24 hours/day, 92 days/quarter.

3) CALCULATION OF BACT TRIGGER:

NEI (BACT) = Net Emissions Increase
= Proposed Potential to Emit - Historic Potential to Emit
MPE = Maximum Potential Emissions on a 24-Hour Day Operation

A/C 21601 – APC Thermal Oxidizer (STO)

Pollutant	NEI (BACT) lb/quarter	Is NEI (BACT) >0?	MPE lb/day	BACT Trigger Level lb/day	Is BACT Required?
ROC	107 (A)	Yes	1.2	≥10	No
NOx	482	Yes	5.2	≥10	No
SOx	8	Yes	0.1	≥10	No
PM10	101	Yes	1.1	≥10	No
CO	1,113	Yes	12.1	≥550	No

(A) Combined process and combustion emissions.

A/C 21602 – APC Thermal Oxidizer (NTO)

Pollutant	NEI (BACT) lb/quarter	Is NEI (BACT) >0?	MPE lb/day	BACT Trigger Level lb/day	Is BACT Required?
ROC	134 (A)	Yes	1.5	≥10	No
NOx	482	Yes	5.2	≥10	No
SOx	8	Yes	0.1	≥10	No
PM10	101	Yes	1.1	≥10	No
CO	1,113	Yes	12.1	≥550	No

(A) Combined process and combustion emissions.

4) CALCULATION OF OFFSET TRIGGER FOR ROC AND NOx:

Permit No.	Emissions Unit	Stationary Source Potential to Emit lb/quarter	
		ROC	NOx
P/O 11664	APC Methanol Adsorber	3,092	0
P/O 12609	APC Methanol Scrubber	18	0
P/O 13589	Heater	40	295
P/O 13590	APC Baghouse	0	0
P/O 13852	IC Engine Standby	92	1,290
P/O 16252	APC Rotoclone	0	0
P/O 16534	APC Methanol Adsorber	0	0
P/O 16564	Fire Pit Stack	0 (A)	0
P/O 16567	North Vent Seal Tank	920	0
P/O 17487	Wastewater Treatment System	2,038	0
P/O 17566	Heater (Dowtherm)	389	770
P/O 18397	Physically Refined Oil Process	658	0
P/O 18457	Heater (Dowtherm)	120	398
P/O 18614	Heater (Hydrogen)	59	390
P/O 20123	APC Scrubber	0	0
P/O 20162	Methyl Ester/Glycerine Mfg Proc	4,645	0
P/O 20165	Fatty Alcohol Mfg Process	30,037 (B)	0
P/O 20505	Fatty Acids Mfg Process	138	0
P/O 20733	Storage Tank Farm	533	0
P/O 20993	APC Scrubber	2	0
A/C 20164	APC Thermal Oxidizer	Modified by A/C 21601	
A/C 20166	APC Thermal Oxidizer	Modified by A/C 21602	
A/C 21601	APC Thermal Oxidizer	107	482
A/C 21602	APC Thermal Oxidizer	134	482
A/C 21765	South Vent Seal Tank	3,036 (B)	0
Total		46,058	4,107
Offset Trigger Level		≥5,000	≥5,000

(A) Process stream will vent to APC Thermal Oxidizer (A/C 21602 aka North Thermal Oxidizer)1
(B) Process stream from selected storage tanks/surge control vessels will vent to the APC Thermal Oxidizer (A/C 21601 aka South Thermal Oxidizer). The South Vent Seal Tank (Equip ID 45-C-7687 will be administratively separated from the Fatty Alcohol process permit as a new permit emissions unit (A/C 21765). Total ROC emissions from this process unit are as follows: 2,413 lb/quarter process vent emissions and 27,624 lb/quarter fugitive emissions after the modification.

5) CALCULATION OF OFFSET TRIGGER FOR SOx, PM10 AND CO:

Permit No.	Emissions Unit	Stationary Source Cumulative Emission Increase Since 01-01-77 lb/quarter		
		SOx	PM10	CO
P/O 11664	APC Methanol Adsorber	0	0	0
P/O 12609	APC Methanol Scrubber	0	0	0
P/O 13589	Heater	5	97	599
P/O 13590	APC Baghouse	0	148	0
P/O 13852	IC Engine Standby	15	92	279
P/O 16252	APC Rotoclone	0	130	0
P/O 16534	APC Methanol Adsorber	0	0	0
P/O 16564	Fire Pit Stack	0	0	0
P/O 16567	North Vent Seal Tank	0	0	0
P/O 17487	Wastewater Treatment System	0	0	0
P/O 17566	Heater (Dowtherm)	42	537	2,607
P/O 18397	Physically Refined Oil Process	0	365	0
P/O 18457	Heater (Dowtherm)	13	166	809
P/O 18614	Heater (Hydrogen)	6	81	792
P/O 20123	APC Scrubber	0	0	0
P/O 20162	Methyl Ester/Glycerine Mfg Proc	0	0	0
P/O 20165	Fatty Alcohol Mfg Process	0	0	0
P/O 20505	Fatty Acids Mfg Process	0	0	0
P/O 20733	Storage Tank Farm	0	0	0
P/O 20993	APC Scrubber	0	0	0
A/C 20164	APC Thermal Oxidizer	Modified by A/C 21601		
A/C 20166	APC Thermal Oxidizer	Modified by A/C 21602		
A/C 21601	APC Thermal Oxidizer	8	101	1,113
A/C 21602	APC Thermal Oxidizer	8	101	1,113
A/C 21679	South Vent Seal Tank	0	0	0
Total		97	1,818	7,312
Offset Trigger Level		≥13,650	≥7,500	≥49,500

6) CALCULATION OF EMISSION OFFSETS FOR ROC AND NOx:

P&G has exceeded the emission offset trigger level for ROC in past permitting actions. They have provided emission reduction credits to full offset any net emission increase, which include A/C Nos. 20164 & 20166. Therefore, emission offset is not triggered for ROC.

Emission offset is not triggered for NOx.

7) CALCULATION OF EMISSION OFFSETS FOR SOx, PM10 AND CO:

Emission offsets are not triggered for SOx, PM10 and CO.

L. COMPLIANCE WITH RULES AND REGULATIONS:

1) H&S Code § 42301.6 (AB 3205) COMPLIANCE:

The Procter & Gamble facility is not located within 1,000 feet from the nearest school. Therefore, this permit action is not subject to the public notification requirements of H&S Code § 42301.6.

2) NSR COMPLIANCE:

Rule 202 - New Source Review
Section 112 - Exemption - Notification Requirements The potential to emit from each emissions unit does not meet or exceed the following levels requiring public noticing pursuant to the requirements of Sections 405, 406, 407 and 409.2:

Pollutant	lb/qtr
ROC	5,000
NOx	5,000
SOx	13,650
PM10	7,500
CO	49,500

Section 301 - Best Available Control Technology The proposed potential to emit from each emissions unit does not meet or exceed the BACT threshold for the affected pollutants as specified in Section 301.1 and below. Therefore, BACT will not be required.

Pollutant	lb/day
ROC	10
NOx	10
SOx	10
PM10	10
CO	550

Section 302 - Offset The cumulative emission increase for this stationary source has exceeded the ROC offset trigger level in past permitting actions and have provided

emission reduction credits to full offset any net emission increase. The net emission increases for ROC (from combustion emissions only) have been satisfied by P&G by providing emission reduction credits in A/C 20164 & 20166 (ERC Certificate Nos. 07-01035 & 07-01036). Therefore, emission offsets will not be required for this permit action.

Section 307 – Denial, Failure to Meet CEQA
The SMAQMD utilizes *Guide to Air Quality Assessment in Sacramento County, SMAQMD, July 2004* as guide during the initial study phase of a proposed project to determine the level of review necessary under CEQA.

a) ROC and NOx – The average daily emissions are 1.5 lb/day of ROC and 5.2 lb/day of NOx. These emissions are below the trigger levels of 65 lb/day.
b) Other pollutants – The project does not result in operational emissions that could lead to violations of any applicable state Ambient Air Quality Standards.
c) Toxic Air Contaminants – The project does not trigger T-BACT requirements.
d) Cumulative TACs – The project is not located near any sources identified in the AB2588 program which result in a cumulative risk greater than 10 in one million.

As the project does not exceed any of the criteria above, the project does not require further CEQA review.

Section 404 – Enhanced New Source Review
P&G requested that these permit applications be reviewed in accordance with the enhanced NSR process. Accordingly, the procedures specified in Sections 401 – 408 in Rule 407 (Title V Federal Operating Permit Program) and 40 CFR 70, Section 70.6(a) – 70.6(g), 70.7(a), and 70.7(b) shall be followed.

Sections 405, 406, 407 and 409.2 - Preliminary Decision, Public Comment & Final Action
The District's preliminary decision to approve this Authority to Construct shall be transmitted to the U.S. EPA and CARB, and published in a newspaper of general circulation, providing for a 30-day public comment period. At the end of the review and comment period, the District shall provide a written notice of the final action to the applicant, the U.S. EPA and CARB and publish such notice in a newspaper of general circulation.

3) RULE 207 – TITLE V - FEDERAL OPERATING PERMIT PROGRAM

Sections 401 through 408 These sections are administrative procedural requirements for all Title V permit processing and review. It includes application completeness determination, preliminary decision, public noticing and 30-day comment period for the preliminary decision, transmittal of preliminary decision to the U.S. EPA for a 45-day review, public objection, and notification and publication of final action on the permit application. This permit action for enhanced NSR will comply with these requirements.

4) PSD COMPLIANCE:

Not applicable.

5) PROHIBITORY RULES COMPLIANCE:

Rule 401 – Ringelmann Chart
The synthetic organic chemical manufacturing operations at Procter & Gamble is expected to comply with the Ringelmann No. 1 or 20% opacity requirement of this rule.

Rule 406 – Specific Contaminants
Each thermal oxidizer is expected to comply with the emissions limit of 0.2% by volume sulfur compound as SO_2 and 0.1 gr/dscf of other combustion gases calculated to 12% CO_2.

Rule 420 – Sulfur Content of Fuels
Each thermal oxidizer will be fired with natural gas, hence, should meet the 50 gr/100 cu. ft. sulfur content of gaseous fuel requirement of this rule

Rule 443 – Leaks from Synthetic Organic Chemical and Polymer Manufacturing
Procter & Gamble is subject to the fugitive emission testing requirements of this rule. The facility has been complying with the inspection and repair standards specified in this rule.

Rule 464 – Organic Chemical Manufacturing Operations
This permit action involves the installation of an air pollution control device that is intended to abate ROC emissions from several organic chemical manufacturing process units and comply with the 40 CFR 63 Subpart FFFF requirements.

6) NSPS COMPLIANCE:

40 CFR 60 Subpart VV – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
Procter & Gamble is considered a SOCMI source because of its production of methanol as a byproduct and mixed alcohols (typically C6 and higher). Methanol and various alcohols in this range appear on the list in Section 489. The affected facility consists of all the equipment listed in Section 481 within their respective process units. The process units are the methyl ester/glycerine and the fatty alcohol manufacturing processes. These process units, and the affected facilities, qualify for the exemption in Section 480 (d)(3) because the facility produces heavy liquid chemicals from heavy liquid feed. Therefore, the affected facility is exempt from the requirements of Section 482, but is required to maintain records as required by Section 486(i).

40 CFR 60 Subpart NNN – Standards of Performance for Volatile Organic Compound Emissions (VOC) from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
This subpart applies to new or modified distillation units that produce any of the chemicals listed in Section 667. The affected facilities in the methyl ester/glycerine process are the four distillation units that process glycerine and methanol. Whereas, the four fatty alcohol stills and sodium methylate column are the affected facilities in the fatty alcohol manufacturing process. The affected facilities and their vent streams are summarized in the following table:

Emission Source ID	Equipment ID	Emission Unit Name	Contents/ Products	Vent
1378	35-C-823	Glycerine Column	Glycerine	To Fire Pit
1020	25-E-8820	Glycerine Evaporative Condenser	Glycerine	2" Drain
1440	50-C-323	Methanol Stripper Column	Methanol	To North Vent Seal Tank
1435	70-C-8700	Methanol Dryer	Methanol	To Fire Pit
1409	60-C-8751	Sodium Methylate Column	Sodium Methylate	To Fire Pit
1033	50-E-7344	Scavenger Still Ejector Condenser	Fatty Alcohol	2½" Vent, Drain
1035	50-C-7347	Scavenger Still Ejector Condensate Tank	Fatty Alcohol	4" Vent
1354	50-E-5777	Stearyl Still Ejector after Condenser	Fatty Alcohol	2" Vent
1039	50-D-7774	Alcohol Ejector Condensate Tank	Fatty Alcohol	3" Overflow

In accordance with the reporting requirements under the MON NESHAP, P&G submitted a Notification of Compliance Status (NOCS) Report on October 3, 2008. Included in this report were the Total Resource Effectiveness (TRE) Index values for the affected continuous process vents. The calculated TRE index values demonstrated compliance with the TRE index limit.

No control equipment is proposed for the above vent streams. Therefore, the facility will prove that each vent stream meets one of the compliance options stated in this subpart.

40 CFR 60 Subpart RRR – Standards of Performance for Volatile Organic Compound Emissions (VOC) from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes

This subpart applies to affected facilities, which are part of process units that produce one or more of the chemicals listed in Section 707. The affected facilities in the methyl ester/glycerine manufacturing and fatty alcohol manufacturing processes are the reactors and recovery systems are shown in the table below:

Emission Source ID	Equipment ID	Emission Unit Name	Contents/ Products	Vent
1020	25-E-8820	Alcohol Reactor	Fatty Alcohol	No vent

Emission Source ID	Equipment ID	Emission Unit Name	Contents/ Products	Vent
1438	30-C-7534	Ester Reactor	Ester/Glycerine/ Methanol	No vent
1440	50-C-323	Glycerine Acidulation Reactor	Glycerine	North vent seal tank

In accordance with the reporting requirements under the MON NESHAP, P&G submitted a Notification of Compliance Status (NOCS) Report on October 3, 2008. Included in this report were the Total Resource Effectiveness (TRE) Index values for the affected continuous process vents. The calculated TRE index values demonstrated compliance with the TRE index limit.

The above sources will be required to demonstrate compliance with the same options specified in Subpart NNN.

7) NESHAP COMPLIANCE:

40 CFR 63 Subpart F – National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry
This subpart, called HON, applies to facilities that meet all of the following criteria:

a) Facilities that manufacture as a primary product one or more of the chemicals listed in Table 1, Section 106.
b) Facilities that use as a reactant or manufacture as a by-product, co-product, or intermediate one or more of the chemicals listed in Table 2, Section 106.
c) Facilities that are not located at a plant that is a major source as defined in Section 112(a).

Procter & Gamble does not produce any of the products listed in Table 1. Therefore, this subpart is not applicable.

40 CFR 63 Subpart Q – National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers
This subpart applies to industrial process cooling towers that use chromium containing water treatment chemicals. This regulation prohibits the use of such chemicals. P & G operates a cooling tower in their Physically Refined Oil process. Therefore, this facility is prohibited from using chromium-containing chemicals in their cooling tower.

40 CFR 63 Subpart FFFF – National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing
P&G is subject to this amended regulation. The following are the new compliance deadlines for existing MON sources (those operational as of Nov. 10, 2003):

- Nov. 10, 2007 Pre-Compliance Report due
- May 10, 2008 Final compliance date
- Oct. 7, 2008 Notification of Compliance Status Report due

A summary of the MON MACT compliance standards for existing and new or reconstructed facilities are shown in the table below:

Miscellaneous Organic Chemical Manufacturing Subpart FFFF MON MACT Compliance Requirements		
Processing Unit	Existing Facilities	New and Reconstructed Facilities
1. Process Vents - Continuous	Either reduce organic HAP by ≥98%, closed-vent system to a flare, ≤20 ppmv outlet, or minimum TRE >1.90.	Either reduce organic HAP by ≥98%, closed-vent system to a flare, ≤20 ppmv outlet, or minimum TRE >1.9.
2. Process Vents - Batch	For total batch vent emissions ≥10,000 lb/year, reduce organic HAP by ≥98%, or ≤20 ppmv outlet; Alternatively, reduce organic HAP by ≥95% using recovery devices.	For total batch vent emissions ≥3,000 lb/year, reduce organic HAP by ≥98%, or ≤20 ppmv outlet; Alternatively, reduce organic HAP by ≥95% using recovery devices.
3. Process Vents - Hydrogen Halida (HF/HCl) and Halogen (Cl_2) HAPs	For total process uncontrolled halogen halide and halogen HAP emissions ≥1,000 lb/year, reduce by ≥99% or ≤20 ppmv outlet for combustion and non-combustion streams.	For total batch vent emissions ≥1,000 lb/year of Hydrogen Halide and Halogen HAP, reduce HAP by ≥99% or ≤20 ppmv outlet for combustion and non-combustion streams.
4. Process Vents - Particulate Matter HAPs	No control required.	For total batch vent emissions ≥400 lb/year Particulate Matter, reduce PM HAP by ≥97% by weight.
5. Storage Tanks	Reduce organic HAP emissions ≥95% or to ≤20 ppmv of TOC or organic HAP or IFR/EFR (≥10,000 gallons and ≥1.0 psia).	Reduce organic HAP emissions ≥95% or to ≤20 ppmv of TOC or organic HAP or IFR/EFR (≥10,000 gallons and ≥1.0 psia).
6. Transfer Racks	Reduce organic HAP emissions ≥98% or to ≤20 ppmv for facilities that transfer >0.17 million gallons per year and ≥1.5 psia.	Reduce organic HAP emissions ≥98% or to ≤20 ppmv for facilities that transfer >0.17 million gallons per year and ≥1.5 psia.

Miscellaneous Organic Chemical Manufacturing Subpart FFFF MON MACT Compliance Requirements		
Processing Unit	Existing Facilities	New and Reconstructed Facilities
7. Leak Detection Program	Full leak detection program with monitoring for all MCPU associated systems. Batch processes must comply with Subpart TT or Subpart UU. Continuous processes must comply with either Subpart H (CAR) or Subpart UU. An MCPU with at least one continuous process vent (even if the process is otherwise batch) must comply with Subpart UU.	Full leak detection program with monitoring for all MCPU associated systems. All processes must comply with Subpart H (CAR) or Subpart UU.
8. Wastewater Treatment	Control if ≥50 ppmv Table 8 and ≥10,000ppmv Tables 8 and 9, or ≥1,000 ppmv Tables 8 and 9 and flowrate of ≥1 lpm, or ≥30,000 ppmv Table 9 and >1 TPY. Develop and implement Maintenance WW plan, cleaning fluids are considered process fluids. Vapor suppression and route to closed-vent system with ≥95% removal.	Control of very volatile organic HAP if ≥10 ppmv and ≥50 ppmv Table 8 and ≥10,000 ppmv Tables 8 and 9, or ≥1,000 ppmv Tables 9 and flowrate of ≥1 lpm, or ≥4,500 ppmv Table 9 and ≥1 TPY. Vapor suppression and route to closed-vent system with ≥95% removal.

In accordance with the reporting requirements under the MON NESHAP, P&G submitted a Notification of Compliance Status (NOCS) Report on October 3, 2008. Included in this report were the Total Resource Effectiveness (TRE) Index values for the affected continuous process vents. The calculated TRE index values demonstrated compliance with the TRE index limit.

On February 28, 2008, P&G requested for a 12-month extension of compliance with the MON standards. The District considered and approved the request on May 1, 2008, extending the compliance date to **May 9, 2009**.

M. RECOMMENDATIONS:

Administratively rewrite P/O 16564 (Fire Pit Stack) and P/O 20165 (Fatty Alcohol Mfg Process) to account for the emissions reductions and incorporate all applicable requirements in 40 CFR 63 Subpart FFFF (MON). At the same time, these applicable MON requirements will likewise

be incorporated in other affected process permits.

This equipment should comply with all applicable District rules and regulations. An authority to modify the permit conditions for the two APC Thermal Oxidizers should be issued to The Procter & Gamble Manufacturing Co. with the following conditions.

N. CONDITIONS:

Refer to conditions in Authority to Construct Nos. 21601 & 21602.

PREPARED BY: Ady R. Santos **DATE:** February 2, 2009

REVIEWED BY: _____ **DATE:** 2-25-09