

STATE OF MISSOURI



PERMIT BOOK

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 092012-006 Project Number: 2012-01-009

Installation Number: 031-0053

Parent Company: The Procter & Gamble Company

Parent Company Address: 1 Procter & Gamble Plaza, Cincinnati, OH 45201

Installation Name: The Procter & Gamble Paper Products Company

Installation Address: 14484 State Highway 177, Jackson, MO 63755

Location Information: Cape Girardeau County, S4&5, T32N, R14E

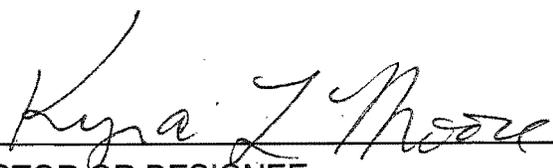
Application for Authority to Construct was made for:  
New paper and allied products process including Operation 8 and Operation 9. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060. *Construction Permits Required.*

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

SEP 19 2012

EFFECTIVE DATE

  
\_\_\_\_\_  
DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

## STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department's Air Pollution Control Program of the anticipated date of startup of these air contaminant sources. The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual startup of these air contaminant sources.

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

*The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."*

The Procter & Gamble Paper Products Company  
Cape Girardeau County, S4&5, T32N, R14E

1. Particulate Matter Less Than 10 Microns in Diameter (PM<sub>10</sub>) Emission Limitation
  - A. The Procter & Gamble Paper Products Company shall emit less than 15.0 tons of PM<sub>10</sub> in any consecutive 12-month period from the project emission units as defined in Table 5.
  - B. The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 1.A. The compliance method shall be submitted to the Air Pollution Control Program for approval within 15 days after the startup of Operation 8 or Operation 9 for commercial operation. Respective emission factors and control efficiencies developed in Special Condition 14 shall be used for compliance and emissions inventory. The Best Available Control Technology (BACT) limit of 0.007 pounds of PM<sub>10</sub> per million British thermal units (MMBtu) heat input from permit 032003-041B Special Condition 8 shall be used for Boilers 3, 4, and 5 PM<sub>10</sub> emission factor.
2. Particulate Matter Less Than 2.5 Microns in Diameter (PM<sub>2.5</sub>) Emission Limitation
  - A. The Procter & Gamble Paper Products Company shall emit less than 10.0 tons of PM<sub>2.5</sub> in any consecutive 12-month period from the project emission units as defined in Table 5.
  - B. The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 2.A. The compliance method shall be submitted to the Air Pollution Control Program for approval within 15 days after the startup of Operation 8 or Operation 9 for commercial operation. Respective emission factors and control efficiencies developed in Special Condition 14 shall be used for compliance and emissions inventory. The Best Available Control Technology (BACT) limit of 0.007 pounds of PM<sub>10</sub> per MMBtu heat input from permit 032003-041B Special Condition 8 shall be used for Boilers 3, 4, and 5 PM<sub>2.5</sub> emission factor.

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

3. Nitrogen Oxides (NO<sub>x</sub>) Emission Limitation
  - A. The Procter & Gamble Paper Products Company shall emit less than 40.0 tons of NO<sub>x</sub> in any consecutive 12-month period from the project emission units as defined in Table 5.
  - B. The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 3.A. The compliance method shall be submitted to the Air Pollution Control Program for approval within 15 days after the startup of Operation 8 or Operation 9 for commercial operation. Respective emission factors and control efficiencies developed in Special Condition 14 shall be used for compliance and emissions inventory. The BACT limit of 0.055 pounds of NO<sub>x</sub> per MMBtu heat input from permit 032003-041B Special Condition 9 shall be used for Boilers 3, 4, and 5 NO<sub>x</sub> emission factor.
4. Carbon Monoxide (CO) Emission Limitation
  - A. The Procter & Gamble Paper Products Company shall emit less than 100.0 tons of CO in any consecutive 12-month period from the project emission units as defined in Table 5.
  - B. The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 4.A. The compliance method shall be submitted to the Air Pollution Control Program for approval within 15 days after the startup of Operation 8 or Operation 9 for commercial operation. Respective emission factors and control efficiencies developed in Special Condition 14 shall be used for compliance and emissions inventory. The BACT limit of 0.15 pounds of CO per MMBtu heat input from permit 032003-041B Special Condition 11 shall be used for Boilers 3, 4, and 5 CO emission factor.
5. Hazardous Air Pollutant (HAP) Emission Limitation
  - A. The Procter & Gamble Paper Products Company shall emit less than 10.0 tons individually and 25.0 tons combined of HAPs in any consecutive 12-month period from the entire installation as defined in Table 4.
  - B. The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 5.A. The compliance method shall be submitted to the Air Pollution Control Program for approval within 15 days of the startup of Operation 8 or

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

Operation 9 for commercial operation. Respective emission factors and control efficiencies developed in Special Condition 14 shall be used for compliance and emissions inventory.

**6. Control Device Requirement-Filters**

A. The Procter & Gamble Paper Products Company shall control emissions from the emission units in Table 1 using filters as specified in the permit application.

**Table 1: Emission Units Controlled by Filters**

Emission Unit	Description
4GMHS	Operation 8 Raw Material Receiving and Storage
5GMHS	Operation 9 Raw Material Receiving and Storage
4GMHR	Operation 8 Process Vent
5GMHR	Operation 9 Process Vent

B. The filters shall be operated and maintained in accordance with the manufacturer's specifications, which shall be kept on site, and within the respective parameters developed in Special Condition 14. Each filter system shall be equipped with a gauge or meter, which indicates the pressure drop and flowrate across the control device. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them.

C. The Procter & Gamble Paper Products Company shall monitor and record the operating pressure drop and flowrate across the filters at least once every day of operation. Days of no operation shall be indicated. The operating pressure drop and flowrate shall be maintained within the design conditions specified by the manufacturer's performance warranty, which shall be kept on site, and within the ranges established in Special Condition 14.

D. Replacement filters shall be kept on hand at all times. The filters shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).

E. The Procter & Gamble Paper Products Company shall maintain an operating and maintenance log for the filters which shall include the following:

- 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and

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The permittee is authorized to construct and operate subject to the following special conditions:

- 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.
  - 3) Dates of all above schedules, incidents, activities, and actions.
7. Control Device Requirement-Regenerative Thermal Oxidizer (RTO)
- A. The Procter & Gamble Paper Products Company shall control emissions from Operation 8 and Operation 9 (emission unit 4GPMP and 5GPMP, respectively) at all times, each with an individual RTO (PMCD8 and PMCD9, respectively) as specified in the permit application.
  - B. Each RTO shall be operated and maintained in accordance with the manufacturer's specifications, which shall be kept on site, and
    - 1) The operating temperature of the thermal oxidizer shall be maintained on a rolling 3-hour average, excluding startup/shutdown, at no more than 50 degrees Fahrenheit (°F) below the average temperature of the oxidizer recorded during the performance test specified in Special Condition 14.
    - 2) The exhaust flowrate of the thermal oxidizer shall be maintained within the range established in Special Condition 14 or within an alternative limit established by the Air Pollution Control Program and The Procter & Gamble Paper Products Company.
  - C. The operating temperature and exhaust flowrate of each RTO shall be continuously monitored and recorded during operation. The monitoring equipment shall be located such that the Department of Natural Resources' employees may easily observe them. The acceptable temperature range may be re-established by performing a new set of performance tests.
  - D. Each RTO shall be at its operating temperature as established in Special Condition 7.B.1) not less than the minimum time before and after the respective paper and allied products process startup/shutdown, as obtained from Special Condition 14. The actual operation time periods from RTO startup to paper and allied products process startup and from paper and allied products process shutdown to RTO shutdown shall be recorded for each paper and allied products process startup/shutdown period.
  - E. The Procter & Gamble Paper Products Company shall maintain an operating and maintenance log for each RTO which shall include the

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### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

following:

- 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions;
- 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.; and
- 3) Dates of all above schedules, incidents, activities, and actions.

#### 8. Operational Requirement – Natural Gas

- A. Except during an emergency, natural gas shall be the sole fuel combusted on site to provide start-up/shutdown heat, normal operation heat, steam, emission destruction by RTO, and any other process heat for Operations 8 and 9.
- B. The Procter & Gamble Paper Products Company shall obtain the site specific natural gas higher heating value (British thermal unit per dry standard cubic feet (Btu/DSCF)) from the supplier at least once per calendar year. The same higher heating value shall be used for all compliance and emissions inventory purposes for this permit. A new higher heating value shall be used for the current compliance and emissions inventory purposes if it varies by more than 1.0 percent (+/-) compared to the existing higher heating value.
- C. Natural gas input to operation 8 and 9 main burner systems (emission units 4GCD1 and 5GCD1, respectively) shall not exceed ■ Btu per hour (MMBtu/hr) each, on a 1-hour basis.
  - 1) The Procter & Gamble Paper Products Company shall install a gauge or meter on the supply line to each main burner system which indicates the respective natural gas flowrate, actual cubic feet per minute (ACFM). The gauge or meter shall be located such that the Department of Natural Resources' employees may easily observe it.
  - 2) The Procter & Gamble Paper Products Company shall continuously monitor and record the natural gas flowrate at least once every hour of operation.
  - 3) The Procter & Gamble Paper Products Company shall convert natural gas ACFM to DSCFM, and then MMBtu/hr shall be determined and recorded hourly using the site specific higher heating value.

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The permittee is authorized to construct and operate subject to the following special conditions:

- D. Natural gas input to operation 8 and 9 process burner systems (emission units 4GCD2 and 5GCD2, respectively) shall not exceed █ British thermal units per hour (MMBtu/hr) each, on a 1-hour basis.
- 1) The Procter & Gamble Paper Products Company shall install a gauge or meter on the supply line to each process burner system which indicates the respective natural gas flowrate, ACFM. The gauge or meter shall be located such that the Department of Natural Resources' employees may easily observe it.
  - 2) The Procter & Gamble Paper Products Company shall continuously monitor and record the natural gas flowrate at least once every hour of operation.
  - 3) The Procter & Gamble Paper Products Company shall convert natural gas ACFM to DSCFM. MMBtu/hr shall be determined and recorded hourly using the site specific higher heating value.
- E. Natural gas input to boiler 3 (BOHO3), boiler 4 (BOHO4), and boiler 5 (BOHO5) combined, providing heat to operation 8 and 9 shall not exceed █ in any consecutive 12-month period.
- 1) The Procter & Gamble Paper Products Company shall keep monthly records to demonstrate compliance with Special Condition 8.E.
  - 2) Total daily heat input shall be calculated and recorded once daily using the sum of the individual hourly parameters and Equation 1 (Eq-1),

$$Eq - 1: Heat\ input\ rate = \left( \frac{H_s - H_w}{e} * 100 \right) * M_s$$

Where,

H<sub>s</sub> = saturated steam enthalpy at worst case high value of █ Btu per pound (Btu/lb) at █ pounds per square inch gauge (psig)

H<sub>w</sub> = saturated feedwater enthalpy at worst case low value of █ Btu/lb at █ psig

M<sub>s</sub> = measured steam flow, pounds per hour (lbs/hr)

e = measured boiler efficiency, %

- 3) The Procter & Gamble Paper Products Company shall install gauges or meters, which indicate the following parameters for boilers 3, 4, and 5 providing heat to operation 8 and operation 9. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. These

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The permittee is authorized to construct and operate subject to the following special conditions:

parameters shall be continuously monitored and, except for time, recorded at least once every hour of operation.

- a. Ms, steam flow, lbs/hr
- b. t, hours of boiler operation to tenths decimal

- 4) Boiler efficiency, e, shall be obtained at least once per consecutive 12-month period from Equation 2 (Eq-2) or another method preapproved by the Air Pollution Control Program,

$$Eq - 2: e = \frac{\text{Steam Output (Btu)} - \text{Feedwater Input (Btu)}}{\text{Fuel Input (Btu)}}$$

The three single lowest efficiencies (one per boiler) determined over each boiler's respective full load range (i.e. 25 to 100 %) shall be averaged to determine the boiler efficiency, e. Equation 2 calculations and boiler efficiency, e, shall be kept on site.

- 5) Hours of operation for each boiler shall be recorded daily.

**9. Operational Requirement – Cooling Towers**

- A. The Operation 8 cooling tower (4GCT) and Operation 9 cooling tower (5GCT) shall be operated and maintained in accordance with the manufacturer's specifications, which shall be kept on site.
- B. The cooling water circulation rate of each tower shall not exceed █ gallons per hour. Each tower shall be equipped with a gauge or meter, which indicates the flowrate. These gauges or meters shall be located such that the Department of Natural Resources' employees may easily observe them. The Procter & Gamble Paper Products Company shall keep records on site of the monthly and 12-month rolling averages of the amount of cooling water circulated.
- C. The drift loss from each tower shall not exceed █ percent of the water circulation rate. Verification of drift loss shall be by manufacturer's guaranteed drift loss, which shall be kept on site.
- D. The total dissolved solids (TDS) concentration in each tower's circulated cooling water shall not exceed █ milligrams per liter (█ parts per million weight) per sampling event as provided in Special Condition 14.
- E. The Procter & Gamble Paper Products Company shall maintain an operating and maintenance log for each cooling tower which shall include

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The permittee is authorized to construct and operate subject to the following special conditions:

the following:

- 1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions;
- 2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.; and
- 3) Dates of all above schedules, incidents, activities, and actions.

10. Operational Requirement – Startup/Shutdown Operation

The Procter & Gamble Paper Products Company shall submit a report to the Air Pollution Control Program with the initial performance testing results in Special Condition 14.G. that details the emission unit(s), parameter(s), and their value(s) which determine when Operation 8 and Operation 9 change from startup/shutdown to normal operation.

11. Operational Requirement - Containers

The Procter & Gamble Paper Products Company shall keep all volatile organic compound (VOC) or HAP solutions and chemicals in closed containers whenever the materials are not in use. The Procter & Gamble Paper Products Company shall provide and maintain suitable, easily read, permanent markings on all of the above containers used with this equipment.

12. Operational Requirement – Paved Haul Roads

A. The Procter & Gamble Paper Products Company shall pave all of the paper and allied products haul roads associated with this project with materials such as asphalt, concrete, or other material(s) that have been preapproved by the Air Pollution Control Program.

B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the installation is receiving or shipping materials or product.

13. Record Keeping and Reporting Requirements

A. The Procter & Gamble Paper Products Company shall maintain all records required by this permit for not less than five years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. These records shall include Material Safety Data Sheets (MSDS) for all materials used.

B. The Procter & Gamble Paper Products Company shall report to the Air

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#### SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

Pollution Control Program's Compliance/Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of the month during which any record required by this permit shows an exceedance of a limitation imposed by this permit.

#### 14. Performance Testing

- A. The Procter & Gamble Paper Products Company shall conduct initial performance testing on one set (either 4GMHS and 4GMHR or 5GMHS and 5GMHR) of the emission units in Table 1. The following conditions shall be measured and recorded,
- 1) The filters' filterable PM<sub>2.5</sub>, PM<sub>10</sub>, and particulate matter (PM) emission factor in grains per standard cubic feet per minute (gr/SCFM) using EPA Method 201, 201A, 17, 5D, or other Air Pollution Control Program preapproved method
  - 2) The filters' respective flowrate in DSCFM using EPA Method 2 or other preapproved method
  - 3) The filters' respective pressure drop in inches of water column
  - 4) The filters' respective emission rate, lbs/hr
  - 5) Process material throughput, tons per hour (tph)
- B. The Procter & Gamble Paper Products Company shall conduct initial performance testing on Operation 8 RTO (PMCD8) and subsequent performance testing once every 5 years alternating between Operation 8 RTO (PMCD8) and Operation 9 RTO (PMCD9). Inlet test sampling shall be conducted at a single location immediately upstream of the RTO. Outlet test sampling shall be conducted at a single location in the RTO exhaust downstream of where the other natural gas combustion devices (4GCD1, 4GCD2, 5GCD1, and 5GCD2) exhaust is introduced to the RTO exhaust. The following conditions shall be measured and recorded,
- 1) RTO emission unit.
  - 2) Natural gas input flowrate respective to each combustion device, ACFM.
  - 3) RTO chamber temperature, °F
  - 4) Time in seconds from RTO startup to paper and allied products process startup, and time in seconds from paper and allied products process shutdown to RTO shutdown.
  - 5) RTO pressure drop in inches of water column.
  - 6) RTO exhaust flowrate range, with upper and lower limits, in DSCFM using EPA Method 2 or other Air Pollution Control Program preapproved method.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

- 7) The following inlet and outlet concentrations (parts per million volume) and emission rates (lbs/hr).
  - a. VOC. Inlet VOC rate shall be tested using EPA Method 25A, 25B and 2A. VOC outlet emission rate shall be tested using EPA Method 25A, 25B and 10.
  - b. Other Air Pollution Control Program preapproved methods may be substituted for any of the above EPA test methods.
- 8) The following outlet emission rates (lbs/hr)
  - a. Filterable PM, filterable PM<sub>10</sub>, filterable and condensable PM<sub>2.5</sub>. Filterable particulate matter shall be tested using EPA Method 201A. Condensable PM<sub>2.5</sub> shall be tested using EPA Method 202.
  - b. Sulfur oxides (SO<sub>x</sub>). SO<sub>x</sub> emission rate shall be tested using EPA Method 6.
  - c. NO<sub>x</sub>. NO<sub>x</sub> emission rate shall be tested using EPA Method 7.
  - d. CO. CO emission rate shall be tested using EPA Method 10B.
  - e. Carbon dioxide (CO<sub>2</sub>). CO<sub>2</sub> shall be tested using EPA Method 6A.
  - f. Methanol. Methanol rate shall be tested using EPA Method 308.
  - g. Glycol ethers. Glycol ethers rate shall be tested using EPA Method 320.
  - h. Hydrogen chloride. Hydrogen chloride shall be tested using EPA Method 26.
  - i. Other Air Pollution Control Program preapproved methods may be substituted for any of the above EPA test methods.
- 9) Total (Operation 8 and 9 combined) and individual (Operation 8 and 9 each) individual raw material usage rates (tph)
  - C. The Procter & Gamble Paper Products Company shall conduct performance testing on Operation 8 Cooling Tower (4GCT) and Operation 9 Cooling Tower (5GCT) to determine respective TDS concentration in milligrams per liter. Complete testing reports shall be kept on site.
    - 1) Testing shall be conducted using an Air Pollution Control Program preapproved method.
    - 2) Testing shall be conducted according to the following schedule,
      - a. Weekly testing, alternating weekly between towers for a minimum of eight consecutive weeks after startup. Should the testing yield no exceedance of the limit during this period then,
      - b. The permittee may test monthly, alternating monthly between

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The permittee is authorized to construct and operate subject to the following special conditions:

- towers for a minimum of six consecutive months. Should the testing yield no exceedance of the limit during this period then,
      - c. The permittee may test once per every six consecutive months, alternating between towers.
      - d. If at any time an exceedance is shown, testing shall revert to the initial weekly frequency and progress in a manner identical to the initial weekly frequency.
    - 3) A TDS concentration above the limit will be considered an exceedance and corrective actions shall be implemented within 48 hours. An exceedance does not necessarily indicate a violation of the limit.
    - 4) When the number of exceedances exceeds three percent of the total number of tests in a six month period and corrective actions fail to return the emission units to level below the limit, then the permittee shall submit a complete Application for Authority to Construct to the Air Pollution Control Program within 90 days of the last exceedance.
- D. The tests in Special Condition 14.A. shall be performed within 60 days after achieving the maximum combined production rate of Operation 8 and Operation 9, but not later than 180 days after initial startup of Operation 8 or Operation 9 for commercial operation. These tests shall be conducted at the respective MHDR in Table 5 or within 10 percent of the MHDR and in accordance with the procedures outlined in Special Condition 14.A. If the tests are conducted below 90 percent of the MHDR, then the tested production rate is the new MHDR.
- E. The tests in Special Condition 14.B. shall be performed within 60 days after achieving the maximum production rate of either Operation 8 or Operation 9, but not later than 180 days after initial startup of Operation 8 or Operation 9 for commercial operation. These tests shall be conducted at the MHDR in Table 5 or within 10 percent of the MHDR and in accordance with the procedures outlined in Special Condition 14.B. If the tests are conducted below 90 percent of the MHDR, then the tested production rate is the new MHDR.
- F. Completed Proposed Test Plan Forms (enclosed) must be submitted to the Air Pollution Control Program 30 days prior to the proposed test date(s) so that the Air Pollution Control Program may arrange a pretest meeting, if necessary, and assure that the test date is acceptable for an

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

observer to be present. The Proposed Test Plans may serve the purpose of notification and must be approved by the Director prior to conducting the required emission testing.

- G. Two copies of a written report of the performance test results shall be submitted to the Director within 30 days of completion of any required testing. The report must include legible copies of the raw data sheets, analytical instrument laboratory data, complete sample calculations from the required EPA Method or Air Pollution Control Program preapproved method for at least one sample run, and establish corresponding ranges/limits for operating parameters to be used in Special Conditions 6 through 10. Emission factors developed from testing shall be used for all respective compliance and emissions inventory purposes.
- H. The test report is to fully account for all operational and emission parameters addressed both in the permit conditions as well as in any other applicable state or federal rules or regulations.
- I. If the results of the performance testing show that the tested emission rates are greater than the stack emission rates (Table 2), then The Procter & Gamble Paper Products Company shall evaluate what effects these higher emission rates would have had on the permit applicability, modeling applicability, and emission factors for compliance and emission inventory. The Procter & Gamble Paper Products Company shall submit to the Air Pollution Control Program the results of any such evaluation in a completed Application for Authority to Construct within 30 days of submitting the Performance Test Results report required in Special Condition 14.G. of this permit.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

**Table 2: Permitted Emission Rates**

Emission Unit	Description	Pollutant	Stack Emission Rate (lbs/hr)	Emission Factor for Compliance and Emission Inventory	Emission Factor Units
4GMHS or 5GMHS	Operation 8 Raw Material Receiving and Storage or Operation 9 Raw Material Receiving and Storage	Filterable PM	confidential		lbs per ton of all product raw materials
		Filterable PM <sub>10</sub>			
		Filterable PM <sub>2.5</sub>			
4GMHR or 5GMHR	Operation 8 Process Vent or Operation 9 Process Vent	Filterable PM			
		Filterable PM <sub>10</sub>			
		Filterable PM <sub>2.5</sub>			
4GCT or 5GCT	Operation 8 Cooling Tower or Operation 9 Cooling Tower	Filterable PM			
		Filterable PM <sub>10</sub>			
		Filterable PM <sub>2.5</sub>			
PMCD8, 4GCD1, and 4GCD2 or PMCD9, 5GCD1 and 5GCD2	Operation 8 RTO or Operation 9 RTO, single sampling location respectively	Total PM			
		Total PM <sub>10</sub>			
		Total PM <sub>2.5</sub>			
		SO <sub>x</sub>			
		NO <sub>x</sub>			
		VOC			
		CO			
		Methanol			
		HCl			
CO <sub>2</sub>					
					lbs per MMCF natural gas input to Operation 8 or Operation 9 main burner system

N/D = Not Determined

15. Use of Alternative Raw Materials in Operation 8 and Operation 9
  - A. When considering using an alternative raw material in Operation 8 or Operation 9 that is different than a material listed in the Application for Authority to Construct, The Procter & Gamble Paper Products Company shall calculate the potential HAP emissions from the alternative raw material.
  - B. The Procter & Gamble Paper Products Company shall seek approval from the Air Pollution Control Program before use of the alternative raw material if the potential HAP emissions from the alternative material are equal to or greater than the screening model action level (SMAL) for any chemical or chemical group listed in Appendix A.
  - C. Attachment A or equivalent forms, such as electronic forms, preapproved by the Air Pollution Control Program shall be used to show compliance with Special Condition 15.A.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

16. Operational Requirement – Heat Supplied to Operations 8 and 9
  - A. The Procter & Gamble Paper Products Company shall evaluate the permit applicability of any change or modification to the main or process burner systems which may increase the heat supplied to Operation 8 or Operation 9.
  - B. The results of the permit applicability evaluation shall be submitted to and approved by the Air Pollution Control Program's Permit Section prior to commencing construction of the change or modification.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2012-01-009  
Installation ID Number: 031-0053  
Permit Number:

The Procter & Gamble Paper Products Company      Complete: January 6, 2012  
14484 State Highway 177  
Jackson, MO 63755

Parent Company:  
The Procter & Gamble Company  
1 Procter & Gamble Plaza  
Cincinnati, OH 45201

Cape Girardeau County, S4&5, T32N, R14E

REVIEW SUMMARY

- The Procter & Gamble Paper Products Company has applied for authority to construct a new paper and allied products process including Operation 8 and Operation 9.
- HAP emissions including methanol are expected from the paper and allied products process and natural gas combustion, but in amounts below the major source threshold level and respective screening model action level.
- 40 CFR 60 Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, applies to boilers 3, 4, and 5. This project is not an NSPS modification to the existing boilers. For this project the boilers can only combust natural gas, and the NSPS Subpart Db SO<sub>x</sub> and PM emission standards do not apply. NO<sub>x</sub> emission standards have been addressed in a previous BACT review and operating permit which remain in effect.
- 40 CFR 60 Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, does not apply to the Operation 8 and Operation 9 main burner system and process burner system since they provide direct heat.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) under 40 CFR 61 apply to the project.
- None of the currently promulgated Maximum Achievable Control Technology (MACT) regulations under 40 CFR 63 apply to the project. 40 CFR 63 Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*, does not apply as the installation is an area HAP source. 40 CFR 63 Subpart JJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, does not apply. Boiler usage for this project

meets the definition of gas-fired per §63.11237, and the boilers are exempt.

- Filters will be used to control the particulate matter emissions from the raw material receiving, storage, and process vents. RTOs will be used to control the VOC, HAP, and PM emissions from the paper and allied products process.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO are conditioned below the respective de minimis level. Potential emissions of other pollutants are below respective de minimis levels and SMALs.
- This installation is located in Cape Girardeau County, an attainment area for all criteria pollutants.
- This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2 21. *Fossil-fuel boilers (or combination thereof) totaling more than 250 million British thermal units per hour heat input*. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.
- Ambient air quality modeling was not performed since conditioned potential emissions of the application are below de minimis levels.
- Emissions testing are required for the equipment.
- An application to amend the Part 70 Operating Permit is required for this installation within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

The Procter & Gamble Paper Products Company operates a diaper and sanitary paper manufacturing installation near Cape Girardeau. It is a major source for New Source Review and operating permits. The following new source review permits have been issued to The Procter & Gamble Paper Products Company from the Air Pollution Control Program.

Table 3: Permit History

Permit Number	Description
0881-002A	Diaper production equipment
0585-003	Processes D and E, converting process
0785-003	Process F
0487-010	Modification of Processes C and E
1292-017	Delivery system for raw materials
0695-021	Increase in capacity of Process B
0198-037	PSD papermaking process
1198-023	Temporary boiler
0999-020	Diaper production lines
032002-009	Diesel generators and pumps
042002-003	Diaper lines

102002-019	Bleach usage
032003-041	A Section (8) modification of Permit Number 0198-037 and installation of two new air handling units, an emergency generator, and four natural gas-fired space heaters
112004-010	Addition of four new diaper lines and one absorbent delivery system
052006-004	Construction of three new diaper lines
052007-011	Modification of paper machines 5G, 6G, and 7G
032003-041B	Removal of RATA and PEMS for CO for boilers 3, 4, and 5
032008-008	Construction of one new diaper line
072008-012	Modification of eight diaper lines
052007-011A	Scrubber special conditions
032003-041C	Alternate operating scenarios

The installation, including this project, consists of the following emission units.

Table 4: Installation Emission Units

Emission Unit	Description
02A	A Module Dust Control
03A	B Module OLBH
08A	North Plant Dust Receiver (NPDR)
11A	B Module Dust Control
15A	D Module Central Vac
18A	A, B, & C Module Central Vac
22A	Lines 62 - 69 Final Filter
24A	South Plant Dust Receiver (SPDR)
25A	D Module CSX1 Dust Control
26A	FSC DF1
27A	FSC DF2
28A	FSC DF3
29A	FSC DF4
30A	FSC DF5
31A	FSC DF6
32A	FSC DF7
33A	FSC DF8
34A	D Module CSX2 Dust Control
35A	AGM FR1 - FR4
36A	AGM FR5 - FR8
37A	AGM FR15 - FR18
38A	AGM FR11 - FR14
43A	Building 11 Central Dust Receiver
1GDE	5G Dry End
2GDE	6G Dry End
3GDE	7G Dry End
1GFR	5G Papermachine Former Equipment
2GFR	6G Papermachine Former Equipment
3GFR	7G Papermachine Former Equipment
1GME	5G Papermachine YPDES
2GME	6G Papermachine YPDES
1GPR	5G Papermachine Process Equipment
2GPR	6G Papermachine Process Equipment
3GPR	7G Papermachine Process Equipment
BOHO3	Natural Gas or Fuel Oil No.2 Fired Boiler 3
BOHO4	Natural Gas Fired Boiler 4
BOHO5	Natural Gas Fired Boiler 5

F13	Emergency Diesel Fire Pump (Pond) - 475 kW
F14	Emergency Diesel Fire Pump (South) - 215 kW
F15	Emergency Diesel Fire Pump (East) - 305 kW
F16	Emergency Diesel Fire Pump (AD Warehouse) - 225 kW
T08A	Emergency Diesel Generator (Bldg. 10) - 800 kW
T09A	Emergency Diesel Generator (Bldg. 75 N) - 350 kW
T10A	Emergency Diesel Generator (Bldg. 75 S) - 800 kW
T11A	Emergency Diesel Generator (Bldg. 47) - 350 kW
T12A	Emergency Diesel Generator (Tank Farm) - 150 kW
VOCFUG	Fugitive VOCs from Papermaking Machine Additives
SH	Space Heaters – two 8.5 MMBtu/hr, Natural Gas
39A	Pulper
40A	Dump Chest
AHU1	Air Handling Unit #1
AHU2	Air Handling Unit #2
AHU3	Air Handling Unit #3
AHU4	Air Handling Unit #4
AHU5	Air Handling Unit #5
AHU6	Air Handling Unit #6
AHU7	Air Handling Unit #7
T01	Fixed Roof Tank - #2 Diesel; F13 Fire Pump
T02	Fixed Roof Tank - #2 Diesel; F14 Fire Pump
T03	Fixed Roof Tank - #2 Diesel; F15 Fire Pump
T08	Fixed Roof Tank - #2 Diesel; B10 Generator
T09	Fixed Roof Tank - #2 Diesel; B75N Generator
T10	Fixed Roof Tank - #2 Diesel; B75S Generator
T11	Fixed Roof Tank - #2 Diesel; B47 Generator
T12	Fixed Roof Tank - #2 Diesel; TF Generator
T13	Fixed Roof Tank - #2 Diesel; F16 Fire Pump
PDP1	Portable Diesel Pump
PDP2	Portable Diesel Pump
N/D	1,100 Gallon Gasoline Storage Tank
N/D	500 Gallon Diesel Storage Tank
N/D	550 Gallon Diesel Storage Tank
N/D	9,000 Gallon Diesel Storage Tank
N/D	10 Cooling Towers
4GMHS	Operation 8 Raw Material Receiving and Storage
5GMHS	Operation 9 Raw Material Receiving and Storage
4GMHR	Operation 8 Raw Material Process Vent
5GMHR	Operation 9 Raw Material Process Vent
4GPMP	Operation 8 Paper and Allied Products Process
5GPMP	Operation 9 Paper and Allied Products Process
4GMHVOC	Operation 8 Fugitive Emissions
5GMHVOC	Operation 9 Fugitive Emissions
4GCT	Operation 8 Cooling Tower
5GCT	Operation 9 Cooling Tower
4GCD1	Operation 8 MMBtu Natural Gas Main Burner System
5GCD1	Operation 9 MMBtu Natural Gas Main Burner System
4GCD2	Operation 8 MMBtu Natural Gas Process Burner System
5GCD2	Operation 9 MMBtu Natural Gas Process Burner System
4GCD3	Operation 8 MMBtu Natural Gas RTO
5GCD3	Operation 9 MMBtu Natural Gas RTO
N/D	Haul Roads

N/D = Not Determined

## PROJECT DESCRIPTION

The Procter & Gamble Paper Products Company has requested confidentiality for emission unit maximum hourly design rate and ingredient names and compositions. This is the public permit. A confidential copy is available under project number 2012-01-012. Ingredient names, full compositions, and MSDS were not provided in the confidential or public application, but were verified in person. Emissions from the processes will be verified through performance testing.

All raw materials will be purchased from off-site. Dry raw materials will be received in batches and stored in various containers including two main vessels. As needed, raw materials will be directed to two manufacturing lines with the same design basis, Operation 8 and Operation 9. Operation 8 is scheduled to begin operation first. Raw materials will be combined in paper and allied products processes with heat applied. Existing boilers 3, 4, and 5 and new burners will provide process heat and heat for other ancillary purposes. Boilers 3, 4, and 5 combined will provide █ MMBtu/hr on an annual basis towards Operation 8 and Operation 9 each, and are limited on an annual basis of █ MMBtu for the project. The main and process burner systems supply heat to the operations. Each operation has one dedicated main burner system and one dedicated process burner system. The maximum heat input rate of each main burner system and each process burner system is █ and █ MMBtu/hr, respectively. According to the applicant, the bottleneck of the project is the █. Burner system heat input is limited by special condition. Any changes (such as increased efficiency) which may increase heat supplied to the operations shall be evaluated for permit applicability. Each burner system consists of several burners. Emissions from the paper and allied products process will be controlled by █ RTOs. Cooling water for the processes will be provided by two separate cooling towers, each dedicated to an operation. Finished product will be packaged and shipped by truck.

During startup of new natural gas combustion devices, except RTOs, new combustion exhaust will be routed to dedicated startup stacks, NGCDSU8 and NGCDSU9. During normal operation of new natural gas combustion devices all new combustion exhaust, including RTOs, will be routed to the RTOs' stacks (PMCD8 and PMCD9). Exhaust from boilers 3, 4, and 5 will continue to be routed to existing stacks. Emissions from the paper and allied products process (4GPMP and 5GPMP) will always be routed to the RTOs, except start-up exhaust from the main and process burner systems. The RTOs must be at operational temperature as determined during testing before the raw materials are introduced into Operations 8 and 9.

Table 5: Project Emission Units

Emission Unit	Description	Project Maximum Hourly Design Rate (MHDR)
4GMHS	Operation 8 Raw Material Receiving and Storage	confidential
5GMHS	Operation 9 Raw Material Receiving and Storage	
4GMHR	Operation 8 Raw Material Process Vent	
5GMHR	Operation 9 Raw Material Process Vent	
4GPMP	Operation 8 Paper and Allied Products Process	
5GPMP	Operation 9 Paper and Allied Products Process	
4GMHVOC	Operation 8 Fugitive Emissions	
5GMHVOC	Operation 9 Fugitive Emissions	
4GCT	Operation 8 Cooling Tower	
5GCT	Operation 9 Cooling Tower	
BOHO3	Natural Gas Fired Boiler 3	
BOHO4	Natural Gas Fired Boiler 4	
BOHO5	Natural Gas Fired Boiler 5	
4GCD1	Operation 8 Natural Gas Main Burner System	
5GCD1	Operation 9 Natural Gas Main Burner System	
4GCD2	Operation 8 Natural Gas Process Burner System	
5GCD2	Operation 9 Natural Gas Process Burner System	
4GCD3	Operation 8 Natural Gas RTO	
5GCD3	Operation 9 Natural Gas RTO	
N/D	Haul Roads	

### EMISSIONS/CONTROLS EVALUATION

The raw material receiving, process vent, paper and allied products process vessel, cooling tower, new burner NO<sub>x</sub> and CO, and criteria pollutant RTO emission factors were supplied by the applicant and will be verified through performance testing.

The raw material receiving and process vent filterable particulate matter controlled emission factors for each PM, PM<sub>10</sub>, and PM<sub>2.5</sub> are ■ and ■ grains per standard cubic foot, respective to the emission unit. These emission rates will be verified by performance testing.

Other than NO<sub>x</sub> and CO, new burner potential emissions were calculated using the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.4 *Natural Gas Combustion*, July 1998 for small, low NO<sub>x</sub> boilers. Potential emissions from the increased utilization of boilers 3, 4, and 5, (■ MMBtu/hr heat input combined) were calculated using the best available control technology (BACT) emission rates from permit 0198-037 and 032003-041. The increased utilization is limited in this permit. The boilers were capable of utilizing the increased throughput before this project.

The RTOs may cause an increase in NO<sub>x</sub>, acid gas, or greenhouse gas emissions from oxidizing a raw material ingredient or manufacturing byproduct. This will be verified through performance testing.

Greenhouse gas mass emissions (GHG (mass)) were calculated using emission factors in AP-42 instead of *Mandatory Reporting of Greenhouse Gases*, 40 CFR 98. The documents contain different GHG emission factors. According to the EPA document, *PSD and Title V Permitting for Greenhouse Gases*, March 2011, “AP-42 remains relevant for GHG emissions calculations and serves as the fundamental approach to estimating emissions for permitting applications, while the GHG reporting rule is focused on estimating and reporting actual emissions.” The AP-42 emission factors yield a more conservative emissions estimate and the purpose of this permit is to evaluate potential, not actual emissions.

Cooling tower particulate matter potential emissions were calculated using the applicant supplied circulation rate and total dissolved solids. All particulate matter was conservatively assumed to be PM<sub>2.5</sub>. Cooling tower VOC emissions are expected from water treatment materials added to the cooling water. VOC emissions were calculated using VOC content and mass balance assuming all available VOC being emitted.

Haul road potential emissions were calculated using AP-42 Section 13.2.1 *Paved Roads* January 2011.

Table 2 contains stack emission rates and emission factors for compliance. The stack emission rates were developed using the emission factors and methods discussed previously, but excluding fugitive emissions. The stack emission rates will be verified by testing. The emission factors for compliance sum fugitive and point source emissions, divided by the heat input of the main burner (■ MMBtu/hr) and natural gas higher heating value of 1,020 Btu/dscf.

Existing potential emissions are cited from operating permit OP2011-013. Actual emissions were cited from the 2011 Emissions Inventory Questionnaire (EIQ). Conditioned potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8,760 hours per year), with voluntary PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO limits to avoid Prevention of Significant Deterioration (PSD) review. Per the applicant’s request, potential emissions of pollutants that aren’t directly limited conservatively remain at their higher, unconditioned rates. The following table provides an emissions summary for this project.

Table 6: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis, PSD</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2011 EIQ)	Conditioned Potential Emissions of the Application	New Installation Conditioned Potential
PM	25.0	N/D	N/D	23.96	N/A
PM <sub>10</sub>	15.0	449.20	49.72	< 15.0	N/A
PM <sub>2.5</sub>	10.0	73.45	0.51	< 10.0	N/A
SO <sub>x</sub>	40.0	92.51	1.01	0.41	N/A
NO <sub>x</sub>	40.0	406.88	101.53	< 40.0	N/A
VOC	40.0	733.49	248.84	30.17	N/A
CO	100.0	719.00	185.84	< 100.0	N/A
HAPs	10.0 / 25.0	< 10.0 / 25.0	7.22	2.34	< 10.0 / 25.0
Methanol	<sup>1</sup> 10.0	< 10.0	N/D	1.18	< 10.0
Glycol ethers	<sup>1</sup> 5.0	< 10.0	N/D	0.00	< 10.0
CO <sub>2</sub>	N/A	N/D	N/D	74,202.35	N/A
CH <sub>4</sub>	N/A	N/D	N/D	1.42	N/A
N <sub>2</sub> O	N/A	N/D	N/D	0.53	N/A
GHG (mass)	0 / 100 / 250	N/D	N/D	74,204.30	N/A
GHG (CO <sub>2</sub> e)	75,000 / 100,000	527,893.69	N/D	74,396.43	N/A

N/A = Not Applicable; N/D = Not Determined

<sup>1</sup> SMAL

### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO are conditioned below the respective de minimis level. Potential emissions of other pollutants are below respective de minimis levels and SMALs.

### APPLICABLE REQUIREMENTS

The Procter & Gamble Paper Products Company shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
- *Operating Permits*, 10 CSR 10-6.065

- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-6.165

#### SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *New Source Performance Regulations*, 10 CSR 10-6.070 – *New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units*, 40 CFR Part 60, Subpart Db
- *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-6.405 applies to the project equipment, however they are deemed in compliance as they are subject to an NSPS and combust exclusively natural gas.

#### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

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David Little  
Environmental Engineer

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Date

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated December 13, 2011, received January 5, 2012, designating The Procter & Gamble Company as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.

## Appendix A: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
ACETALDEHYDE	75-07-0	9		Y	N	CARBARYL	63-25-2	10	V	Y	Y	DICHLOROPROPANE, [1,2-]	78-87-5	1		Y	N
ACETAMIDE	60-35-5	1		Y	N	CARBON DISULFIDE	75-15-0	1		Y	N	DICHLOROPROPENE, [1,3-]	542-75-6	1		Y	N
ACETONITRILE	75-05-8	4		Y	N	CARBON TETRACHLORIDE	56-23-5	1		Y	N	DICHLORVOS	62-73-7	0.2		Y	N
ACETOPHENONE	98-86-2	1		Y	N	CARBONYL SULFIDE	463-58-1	5		Y	N	DIETHANOLAMINE	111-42-2	5		Y	N
ACETYLAMINOFLUORINE, [2-]	53-96-3	0.005	V	Y	Y	CATECHOL	120-80-9	5		Y	N	DIETHYL SULFATE	64-67-5	1		Y	N
ACROLEIN	107-02-8	0.04		Y	N	CHLORAMBEN	133-90-4	1		Y	Y	DIETHYLENE GLYCOL MONOBUTYL ETHER	112-34-5	5	P	Y	N
ACRYLAMIDE	79-06-1	0.02		Y	N	CHLORDANE	57-74-9	0.01		Y	Y	DIMETHOXYBENZIDINE, [3,3-]	119-90-4	0.1	V	Y	Y
ACRYLIC ACID	79-10-7	0.6		Y	N	CHLORINE	7782-50-5	0.1		N	N	DIMETHYL BENZIDINE, [3,3-]	119-93-7	0.008	V	Y	Y
ACRYLONITRILE	107-13-1	0.3		Y	N	CHLOROACETIC ACID	79-11-8	0.1		Y	N	DIMETHYL CARBAMOYL CHLORIDE	79-44-7	0.02		Y	N
ALLYL CHLORIDE	107-05-1	1		Y	N	CHLOROACETOPHENONE, [2-]	532-27-4	0.06		Y	N	DIMETHYL FORMAMIDE	68-12-2	1		Y	N
AMINOBIIPHENYL, [4-]	92-67-1	1	V	Y	N	CHLOROBENZENE	108-90-7	10		Y	N	DIMETHYL HYDRAZINE, [1,1-]	57-14-7	0.008		Y	N
ANILINE	62-53-3	1		Y	N	CHLOROBENZILATE	510-15-6	0.4	V	Y	Y	DIMETHYL PHTHALATE	131-11-3	10		Y	N
ANISIDINE, [ORTHO-]	90-04-0	1		Y	N	CHLOROFORM	67-66-3	0.9		Y	N	DIMETHYL SULFATE	77-78-1	0.1		Y	N
ANTHRACENE	120-12-7	0.01	V	Y	N	CHLOROMETHYL METHYL ETHER	107-30-2	0.1		Y	N	DIMETHYLAMINOAZOBENZENE, [4-]	60-11-7	1		Y	N
ANTIMONY COMPOUNDS		5	H	N	Y	CHLOROPRENE	126-99-8	1		Y	N	DIMETHYLANILINE, [N-N]	121-69-7	1		Y	N
ANTIMONY PENTAFLUORIDE	7783-70-2	0.1	H	N	Y	CHROMIUM (VI) COMPOUNDS		0.002	L	N	Y	DINITRO-O-CRESOL, [4,6-] (Note 6)	534-52-1	0.1	E	Y	Y
ANTIMONY POTASSIUM TARTRATE	28300-74-5	1	H	N	Y	CHROMIUM COMPOUNDS		5	L	N	Y	DINITROPHENOL, [2,4-]	51-28-5	1		Y	N
ANTIMONY TRIOXIDE	1309-64-4	1	H	N	Y	CHRYSENE	218-01-9	0.01	V	Y	N	DINITROTOLUENE, [2,4-]	121-14-2	0.02		Y	N
ANTIMONY TRISULFIDE	1345-04-6	0.1	H	N	Y	COBALT COMPOUNDS		0.1	M	N	Y	DIOXANE, [1,4-]	123-91-1	0.6		Y	N
ARSENIC COMPOUNDS		0.005	I	N	Y	COKE OVEN EMISSIONS	8007-45-2	0.03	N	Y	N	DIPHENYLHYDRAZINE, [1,2-]	122-66-7	0.09	V	Y	Y
ASBESTOS	1332-21-4	0	A	N	Y	CRESOL, [META-]	108-39-4	1	B	Y	N	DIPHENYLMETHANE DIISOCYANATE, [4,4-]	101-68-8	0.1	V	Y	N
BENZ(A)ANTHRACENE	56-55-3	0.01	V	Y	N	CRESOL, [ORTHO-]	95-48-7	1	B	Y	N	EPICHLOROHYDRIN	106-89-8	2		Y	N
BENZENE	71-43-2	2		Y	N	CRESOL, [PARA-]	106-44-5	1	B	Y	N	ETHOXYETHANOL, [2-]	110-80-5	10	P	Y	N
BENZIDINE	92-87-5	0.0003	V	Y	N	CRESOLS (MIXED ISOMERS)	1319-77-3	1	B	Y	N	ETHOXYETHYL ACETATE, [2-]	111-15-9	5	P	Y	N
BENZO(A)PYRENE	50-32-8	0.01	V	Y	N	CUMENE	98-82-8	10		Y	N	ETHYL ACRYLATE	140-88-5	1		Y	N
BENZO(B)FLUORANTHENE	205-99-2	0.01	V	Y	N	CYANIDE COMPOUNDS		0.1	O	Y	N	ETHYL BENZENE	100-41-4	10		Y	N
BENZO(K)FLUORANTHENE	207-08-9	0.01	V	Y	N	DDE	72-55-9	0.01	V	Y	Y	ETHYL CHLORIDE	75-00-3	10		Y	N
BENZOTRICHLORIDE	98-07-7	0.006		Y	N	DI(2-ETHYLHEXYL) PHTHALATE, (DEHP)	117-81-7	5		Y	N	ETHYLENE GLYCOL	107-21-1	10		Y	N
BENZYL CHLORIDE	100-44-7	0.1		Y	N	DIAMINOTOLUENE, [2,4-]	95-80-7	0.02		Y	N	ETHYLENE GLYCOL MONOBUTYL ETHER (Delisted)	111-76-2				
BERYLLIUM COMPOUNDS		0.008	J	N	Y	DIAZOMETHANE	334-88-3	1		Y	N	ETHYLENE GLYCOL MONOHEXYL ETHER	112-25-4	5	P	Y	N
BERYLLIUM SALTS		2E-05	J	N	Y	DIBENZ(A,H)ANTHRACENE	53-70-3	0.01	V	Y	N	ETHYLENE IMINE [AZIRIDINE]	151-56-4	0.003		Y	N
BIPHENYL, [1,1-]	92-52-4	10	V	Y	N	DIOXINS/FURANS		6E-07	D,V	Y	N	ETHYLENE OXIDE	75-21-8	0.1		Y	N
BIS(CHLOROETHYL)ETHER	111-44-4	0.06		Y	N	DIBENZOFURAN	132-64-9	5	V	Y	N	ETHYLENE THIOUREA	96-45-7	0.6		Y	Y
BIS(CHLOROMETHYL)ETHER	542-88-1	0.0003		Y	N	DIBROMO-3-CHLOROPROPANE, [1,2-]	96-12-8	0.01		Y	N	FORMALDEHYDE	50-00-0	2		Y	N
BROMOFORM	75-25-2	10		Y	N	DIBROMOETHANE, [1,2-]	106-93-4	0.1		Y	N	GLYCOL ETHER (ETHYLENE GLYCOL ETHERS)		5	P	Y	N
BROMOMETHANE	74-83-9	10		Y	N	DIBUTYL PHTHALATE	84-74-2	10		Y	Y	GLYCOL ETHER (DIETHYLENE GLYCOL ETHERS)		5	P	Y	N
BUTADIENE, [1,3-]	106-99-0	0.07		Y	N	DICHLOROBENZENE, [1,4-]	106-46-7	3		Y	N	HEPTACHLOR	76-44-8	0.02		Y	N
BUTOXYETHANOL ACETATE, [2-]	112-07-2	5	P	Y	N	DICHLOROBENZIDENE, [3,3-]	91-94-1	0.2	V	Y	Y	HEXACHLOROBENZENE	118-74-1	0.01		Y	N
BUTYLENE OXIDE, [1,2-]	106-88-7	1		Y	N	DICHLOROETHANE, [1,1-]	75-34-3	1		Y	N	HEXACHLOROBUTADIENE	87-68-3	0.9		Y	N
CADMIUM COMPOUNDS		0.01	K	N	Y	DICHLOROETHANE, [1,2-]	107-06-2	0.8		Y	N	HEXACHLOROCYCLOHEXANE, [ALPHA-]	319-84-6	0.01	F	Y	N
CALCIUM CYANAMIDE	156-62-7	10		Y	Y	DICHLOROETHYLENE, [1,1-]	75-35-4	0.4		Y	N	HEXACHLOROCYCLOHEXANE, [BETA-]	319-85-7	0.01	F	Y	N
CAPROLACTAM (Delisted)	105-60-2					DICHLOROMETHANE	75-09-2	10		N	N	HEXACHLOROCYCLOHEXANE, [DELTA-]	319-86-8	0.01	F	Y	N
CAPTAN	133-06-2	10		Y	Y	DICHLOROPHENOXY ACETIC ACID, [2,4-]	94-75-7	10	C	Y	Y	HEXACHLOROCYCLOHEXANE, [TECHNICAL]	608-73-1	0.01	F	Y	N

## Appendix A: Table of Hazardous Air Pollutants and Screening Model Action Levels (May 3, 2012 Revision 10)

Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM	Chemical	CAS #	SMAL (tons/yr)	Group ID	VOC	PM
HEXACHLOROCYCLOPENTADIENE	77-47-4	0.1		Y	N	NITROSODIMETHYLAMINE, [N-]	62-75-9	0.001		Y	N	TRIMETHYLPENTANE, [2,2,4-]	540-84-1	5		Y	N
HEXACHLOROETHANE	67-72-1	5		Y	N	NITROSOMORPHOLINE, [N-]	59-89-2	1		Y	N	URETHANE [ETHYL CARBAMATE]	51-79-6	0.8		Y	N
HEXAMETHYLENE,-1,6-DIISOCYANATE	822-06-0	0.02		Y	N	NITROSO-N-METHYLUREA, [N-]	684-93-5	0.0002		Y	N	VINYL ACETATE	108-05-4	1		Y	N
HEXAMETHYLPHOSPHORAMIDE	680-31-9	0.01		Y	N	OCTACHLORONAPHTHALENE	2234-13-1	0.01	V	Y	N	VINYL BROMIDE	593-60-2	0.6		Y	N
HEXANE, [N-]	110-54-3	10		Y	N	PARATHION	56-38-2	0.1		Y	Y	VINYL CHLORIDE	75-01-4	0.2		Y	N
HYDRAZINE	302-01-2	0.004		N	N	PCB [POLYCHLORINATED BIPHENYLS]	1336-36-3	0.009	X	Y	Y	XYLENE, [META-]	108-38-3	10	G	Y	N
HYDROGEN CHLORIDE	7647-01-0	10		N	N	PENTACHLORONITROBENZENE	82-68-8	0.3		Y	N	XYLENE, [ORTHO-]	95-47-6	10	G	Y	N
HYDROGEN FLUORIDE	7664-39-3	0.1		N	N	PENTACHLOROPHENOL	87-86-5	0.7		Y	N	XYLENE, [PARA-]	106-42-3	10	G	Y	N
HYDROQUINONE	123-31-9	1		Y	N	PHENOL	108-95-2	0.1		Y	N	XYLENES (MIXED ISOMERS)	1330-20-7	10	G	Y	N
INDENO(1,2,3CD)PYRENE	193-39-5	0.01	V	Y	N	PHENYLENEDIAMINE, [PARA-]	106-50-3	10		Y	N						
ISOPHORONE	78-59-1	10		Y	N	PHOSGENE	75-44-5	0.1		Y	N						
LEAD COMPOUNDS		0.01	Q	N	Y	PHOSPHINE	7803-51-2	5		N	N						
LINDANE [GAMMA-HEXACHLOROCYCLOHEXANE]	58-89-9	0.01	F	Y	N	PHOSPHOROUS (YELLOW OR WHITE)	7723-14-0	0.1		N	N	Legend					
MALEIC ANHYDRIDE	108-31-6	1		Y	N	PHTHALIC ANHYDRIDE	85-44-9	5		Y	N	Group ID	Aggregate Group Name				
MANGANESE COMPOUNDS		0.8	R	N	Y	POLYCYLIC ORGANIC MATTER		0.01	V	Y	N	A	Asbestos				
MERCURY COMPOUNDS		0.01	S	N	N	PROPANE SULTONE, [1,3-]	1120-71-4	0.03		Y	Y	B	Cresols/Cresylic Acid (isomers and mixtures)				
METHANOL	67-56-1	10		Y	N	PROPIOLACTONE, [BETA-]	57-57-8	0.1		Y	N	C	2,4 - D, Salts and Esters				
METHOXYCHLOR	72-43-5	10	V	Y	Y	PROPIONALDEHYDE	123-38-6	5		Y	N	D	Dibenzofurans, Dibenzodioxins				
METHOXYETHANOL, [2-]	109-86-4	10	P	Y	N	PROPOXUR [BAYGON]	114-26-1	10		Y	Y	E	4, 6 Dinitro-o-cresol, and Salts				
METHYL CHLORIDE	74-87-3	10		Y	N	PROPYLENE OXIDE	75-56-9	5		Y	N	F	Lindane (all isomers)				
METHYL ETHYL KETONE (Delisted)	78-93-3					PROPYLENEIMINE, [1,2-]	75-55-8	0.003		Y	N	G	Xylenes (all isomers and mixtures)				
METHYL HYDRAZINE	60-34-4	0.06		Y	N	QUINOLINE	91-22-5	0.006		Y	N	H	Antimony Compounds				
METHYL IODIDE	74-88-4	1		Y	N	QUINONE	106-51-4	5		Y	N	I	Arsenic Compounds				
METHYL ISOBUTYL KETONE	108-10-1	10		Y	N	RADIONUCLIDES		Note 1	Y	N	Y	J	Beryllium Compounds				
METHYL ISOCYANATE	624-83-9	0.1		Y	N	SELENIUM COMPOUNDS		0.1	W	N	Y	K	Cadmium Compounds				
METHYL METHACRYLATE	80-62-6	10		Y	N	STYRENE	100-42-5	1		Y	N	L	Chromium Compounds				
METHYL TERT-BUTYL ETHER	1634-04-4	10		Y	N	STYRENE OXIDE	96-09-3	1		Y	N	M	Cobalt Compounds				
METHYLCYCLOPENTADIENYL MANGANESE	12108-13-3	0.1	R	N	Y	TETRACHLORODIBENZO-P-DIOXIN,[2,3,7,8]	1746-01-6	6E-07	D,V	Y	Y	N	Coke Oven Emissions				
METHYLENE BIS(2-CHLOROANILINE), [4,4-]	101-14-4	0.2	V	Y	Y	TETRACHLOROETHANE, [1,1,2,2-]	79-34-5	0.3		Y	N	O	Cyanide Compounds				
METHYLENEDIANILINE, [4,4-]	101-77-9	1	V	Y	N	TETRACHLOROETHYLENE	127-18-4	10		N	N	P	Glycol Ethers				
METHYLNAPHTHALENE, [2-]	91-57-6	0.01	V	Y	N	TITANIUM TETRACHLORIDE	7550-45-0	0.1		N	N	Q	Lead Compounds (except elemental Lead)				
MINERAL FIBERS		0	T	N	Y	TOLUENE	108-88-3	10		Y	N	R	Manganese Compounds				
NAPHTHALENE	91-20-3	10	V	Y	N	TOLUENE DIISOCYANATE, [2,4-]	584-84-9	0.1		Y	N	S	Mercury Compounds				
NAPHTHYLAMINE, [ALPHA-]	134-32-7	0.01	V	Y	N	TOLUIDINE, [ORTHO-]	95-53-4	4		Y	N	T	Fine Mineral Fibers				
NAPHTHYLAMINE, [BETA-]	91-59-8	0.01	V	Y	N	TOXAPHENE	8001-35-2	0.01		Y	N	U	Nickel Compounds				
NICKEL CARBONYL	13463-39-3	0.1	U	N	Y	TRICHLOROBENZENE, [1,2,4-]	120-82-1	10		Y	N	V	Polycyclic Organic Matter				
NICKEL COMPOUNDS		1	U	N	Y	TRICHLOROETHANE, [1,1,1-]	71-55-6	10		N	N	W	Selenium Compounds				
NICKEL REFINERY DUST		0.08	U	N	Y	TRICHLOROETHANE, [1,1,2-]	79-00-5	1		Y	N	X	Polychlorinated Biphenyls (Aroclors)				
NICKEL SUBSULFIDE	12035-72-2	0.04	U	N	Y	TRICHLOROETHYLENE	79-01-6	10		Y	N	Y	Radionuclides				
NITROBENZENE	98-95-3	1		Y	N	TRICHLOROPHENOL, [2,4,5-]	95-95-4	1		Y	N						
NITROBIPHENYL, [4-]	92-93-3	1	V	Y	N	TRICHLOROPHENOL, [2,4,6-]	88-06-2	6		Y	N						
NITROPHENOL, [4-]	100-02-7	5		Y	N	TRIETHYLAMINE	121-44-8	10		Y	N	Note 1	The SMAL for radionuclides is defined as the effective dose equivalent to 0.3 millirems per year for 7 years exposure associated with a cancer risk of 1 in 1 million				
NITROPROPANE, [2-]	79-46-9	1		Y	N	TRIFLURALIN	1582-09-8	9		Y	Y						

## Attachment A – Operation 8 and Operation 9 Alternative Raw Material HAP Potential to Emit Compliance Worksheet

The Procter & Gamble Paper Products Company  
 Cape Girardeau County, S4&5, T32N, R14E  
 Project Number: 2012-01-009  
 Installation ID Number: 031-0052  
 Permit Number: \_\_\_\_\_

This sheet covers the month of \_\_\_\_\_. (Copy this sheet as needed.)  
 (month, year)

(1)	(2)				(3)	(4)	(5)	(6)
Material Name	Material Form (solid or liquid)	Individual HAP Name and CAS No.	HAP is also Particulate Matter (yes / no)	Individual HAP Content (weight %)	Material Density (liquid lb/gal)	Maximum Hourly Design Rate (MHDR) (solid tph or liquid gph)	Individual HAP PTE (tons per year)	Individual HAP SMAL (tons per year)
<i>(example) Material XYZ</i>	<i>liquid</i>	<i>Benzene 71-43-2</i>	<i>no</i>	<i>20.0 %</i>	<i>10.0</i>	<i>1.32</i>	<i>0.23</i>	<i>2.0</i>
<i>(example) Material XYZ</i>	<i>liquid</i>	<i>Methoxychlor 72-43-5</i>	<i>yes</i>	<i>0.2 %</i>	<i>10.0</i>	<i>1.32</i>	<i>0.012</i>	<i>10.0</i>

- 1) Record the names of all alternative materials planned to be used in Operation 8 or Operation 9.
- 2) This information is reported on the respective material's MSDS or from the manufacturer. Compare each component on the MSDS against the chemical names and groups listed in Appendix A for verification as a HAP and particulate matter, and material as solid or liquid.
- 3) Record the material density from the MSDS or manufacturer.
- 4) Record the MHDR (tons per hour) of the alternative material.
- 5) Individual HAP PTE calculated by,
  - i. If material is liquid and HAP is not PM:  $(5) = (2) \times (3) \times (4) \times [\% \times (1 - \% ) + (1 - \% )] \times 4.38$
  - ii. If material is liquid and HAP is PM:  $(5) = (2) \times (3) \times (4) \times [\% \times (1 - \% ) + (1 - \% )] \times 4.38$
  - iii. If material is solid and HAP is not PM:  $(5) = (2) \times (4) \times [\% \times (1 - \% ) + (1 - \% )] \times 8,760$
  - iv. If material is solid and HAP is PM:  $(5) = (2) \times (4) \times [\% \times (1 - \% ) + (1 - \% )] \times 8,760$
- 6) Record the Individual HAP SMAL as reported in Appendix A. If the Individual HAP PTE is equal to or greater than the Individual HAP SMAL, or if the HAP is not volatile, seek approval from the Air Pollution Control Program before using this material.

Ms. Elia Lopez  
Plant Manager  
The Procter & Gamble Paper Products Company  
14484 State Highway 177  
Jackson, MO 63755

RE: New Source Review Permit - Project Number: 2012-01-009

Dear Ms. Lopez:

Enclosed with this letter is your public version permit to construct. Please study it carefully. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact David Little, at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Susan Heckenkamp  
New Source Review Unit Chief

SH:dll

Enclosures

c: Southeast Regional Office  
PAMS File: 2012-01-009

Permit Number: