

# Fact Sheet



## For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on July 10, 2012.

Permit Number: **R30-10700001-2012**  
Application Received: **August 4, 2011**  
Plant Identification Number: **03-54-10700001**  
Permittee: **E. I. duPont de Nemours and Company**  
Facility Name: **Washington Works**  
Business Unit: **Acetal Resin Production (Part 3 of 14)**  
Mailing Address: **P.O. Box 1217, Washington, WV 26181-1217**  
Permit Action Number: MM01 Revised: January 23, 2013

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Physical Location: Washington, Wood County, West Virginia  
UTM Coordinates: 442.3767 km Easting • 4,346.8331 km Northing • Zone 17  
Directions: Route 68 west from Parkersburg to intersection of Route 892.  
Continue west on Route 892 with the plant being on the north side  
about one mile from the intersection of Routes 68 and 892.

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### Facility Description

The Acetal Resin Business Unit permit is divided into three sections: Formaldehyde, Polymerization, and Finishing. In the Formaldehyde section, liquid methanol is vaporized and mixed with process gas (a mixture of recycle gas from the absorber and fresh air) to create formaldehyde gas. The formaldehyde gas is then fed to an absorber train where the formaldehyde is condensed and absorbed in water to produce an aqueous formaldehyde solution. The formaldehyde solution is then stored for internal consumption.

The polymerization of acetal resin homopolymer starts with the purification of the formaldehyde monomer stream. This feedstock is fed to a polymerizer. The product of the polymerizer is a homopolymer and solvent slurry mixture. The mixture produced in the polymerizer is fed to a separation device that isolates the solids and drops them into a conveyor/dryer system.

The solids are then placed into a set of intermediate storage bins. The final product from the polymerization process is called fluff. This fluff material is transferred to bins for the Finishing Area. The Finishing Area converts the fluff into pelletized polymer that is delivered to customers.

In the Finishing Area the pelletized polymer is produced on five extrusion lines. These extrusion lines provide various product enhancements through the use of additives, heat, and pressure. The fluff and additives are fed directly to extruders to make blends for the production of a final product. The pelletized polymer is shipped to customers.

### Emissions Summary

As a result of these modifications, the facility will have the following change in emissions:

VOC	+18.56 lbs/hr	+ 0.42 TPY
Formaldehyde	+1.23 lbs/hr	+ 0.02 TPY
Hexane	+1.50 lbs/hr	+ 0.02 TPY
Toluene	+0.60 lbs/hr	No change
Total HAPs	+3.35 lbs/hr	+ 0.07 TPY

### Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of an individual HAP, and over 25 tons per year aggregate HAPs. Therefore, DuPont Washington Works is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

### Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Permits for construction, modification, relocation, etc.
	45CSR30	Operating permit requirement.
State Only:	N/A	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

### Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (if any)
R13-1849J	February 7, 2012	
R13-1849K	November 16, 2012	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B," which may be downloaded from DAQ's website.

### Determinations and Justifications

1. 45CSR13 – *Permits for Construction, Modification, Relocation, etc.*

R13-1849J

The facility will reroute the discharge of maintenance preparation activities associated with the polymer capping units in the Acetal Resin Manufacturing facilities at Washington Works. In the equipment table, there are now two Maintenance Jets for #1 Capper and #2 Capper. These have been designated GZZ1 and GZZ2. The wet scrubber formerly known as Emission Unit GZZC has been changed to DEM-OH. The scrubber now routes to Emission Point DEME. This is shown in Condition 5.1.1. As a result, there is an increase in lbs/hr emissions as described above. Condition 5.1.14 has been added to limit the number of capper jet maintenance events vented through emission point DEME. This will reduce the increase of TPY emissions as described above. Condition 5.4.29 requires the facility to maintain records of the number of capper maintenance events that are vented through emission point DEME on a 12 month rolling average.

R13-1849K

Emission point DEME in Condition 5.1.1 had incorrect emission limits in R13-1849J. These have been revised in R13-1849K.

### Non-Applicability Determinations

N/A

### Request for Variances or Alternatives

None

### Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

### Comment Period

Beginning Date: N/A

Ending Date: N/A

All written comments should be addressed to the following individual and office:

Mike Egnor  
Title V Permit Writer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Point of Contact**

Mike Egnor  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
Phone: 304/926-0499 ext. 1208 • Fax: 304/926-0478

### **Response to Comments (Statement of Basis)**

Not applicable.