



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

July 16, 2008

Barbara Cenalмор
Permit Engineer
Pinal County Air Quality Control District
31 N. Pinal St., Building F
Florence, AZ 85232

Re: Proposed Title V Permit for Republic Plastics, San Manuel Foam Plant

Dear Mrs. Cenalмор:

Thank you for the opportunity to review the proposed Title V permit for Republic Plastics, San Manuel Foam Plant, which was received by EPA via electronic mail on June 2, 2008. In accordance with 40 CFR § 70.8(c), we have reviewed the proposed permit during our 45-day review period, which expires today. We have enclosed several comments regarding the technical support document and permit requirements. We request that you address our concerns raised in this letter prior to issuing the final permit.

Please remember that any person may petition EPA within 60 days after the end of EPA's 45-day review period to object to the permit. Since these petitions are generally based on comments raised during the public comment period, it is important to maintain a record of the commenters and issues raised during this process. These records must be made available to the public.

The terms contained in the above referenced permit are specific to this facility and do not create conditions for the use, operation, or reliance of any other party. Please note that if the permit is later found to require corrective steps (including, but not limited to, reopening the permit for cause), the expiration of both EPA's review period and the public petition period without EPA objection does not compromise the Agency's authority to take such measures.

If you have any questions concerning our comments, please contact Leslie Ramirez of my staff at (415) 972-3978 or ramirez.leslie@epa.gov.

Sincerely,

original signed by Gerardo Rios

Gerardo C. Rios
Chief, Permits Office
Air Division

Enclosure

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Permit Conditions

1. Permit condition 1 (page 3): Please correct the facility address to 27095 **S. Republic Road**.
2. Permit condition 5.A (page 5): We are concerned about the VOCs emission cap of 250 tpy because it is the PSD major source threshold (MST) and there are absent conditions (e.g., monitoring, work practices, recordkeeping, etc.) limiting the applicant's plant-wide potential to emit of 248.5 tpy VOCs (see comment #6 below).

In the Technical Support Document (TSD), Pinal County has determined that because Republic Plastics does not exceed the MST for VOCs, it is not a major source of VOCs and therefore not subject to PSD review. Although it is unclear if the 248.5 tpy is the emission limit, the permit should state that if, at any time, this limit is relaxed, the facility will be subject to the requirements of 40 CFR 52.21(r)(4). Furthermore, if the 248.5 tpy limit is exceeded, the facility may trigger PSD and may be treated as a source that should have obtained a PSD permit for VOCs. However, please note that in comment 2.C below and based on how the permit is currently written, we believe the proposed expansion at the facility is not a synthetic minor for VOCs and therefore may be subject to PSD.

It is unclear what assumptions were used in the PTE calculation methodology for determining actual VOC emissions. The following outlines inconsistencies that we discovered with respect to the information in the application, TSD, and permit conditions.

A. Extruder Capacity - The application indicates a maximum capacity of 1800 lbs/hr for each extruder whereas the permit (conditions 4.B.1 and 11.A) rates the capacity at 1600 lbs/hr. Please indicate which capacity was used in the PTE calculations.

B. Isobutane Emissions Factor – No information is provided as to how the isobutane retention factor (IBF) from the Texas plant is derived and how it is more “conservative” than Republic Plastics’ IBF of 0.022 lb of isobutane retained/lb of final product (see TSD, Section 3.1, VOCs). Please clarify how the applicant estimated its VOC emissions and how they will comply with the emissions cap of 250 tpy. Please verify how the applicant determined the IBF.

Furthermore, please confirm that the IBF takes into account the percentage of CO₂ when substituting for isobutane. Section 3.1 of the TSD mentions that the permittee replaces a percentage of the isobutane with CO₂, however, in the application the permittee assumes a 0% substitution with CO₂.

C. Emissions from Final Product Storage - We are concerned that the applicant did not consider accounting for emissions resulting from the storage of the final product in the PTE calculations of VOCs. Isobutane is retained in the final product and isobutane retained in the final product de-gasses while sitting in storage. There is no mention of how the final product is stored, and there is no indication of how long

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the final products remain in storage in the TSD, permit, or application. In practice, Republic Plastics may have erroneously excluded final product storage VOC emissions when determining its plant-wide potential to emit of 248.5 tpy.

Please verify how the final products are stored and the duration of storage that occurs at the facility. From this information, please present a summary of the PTE of VOC emissions from the storage of the final product. In fact, the application states that a “significant amount” of the isobutane is retained in the finished product “...due to the direct recycling of fluff material...” If there is a “significant amount” found in the finished product, it is also assumed that a significant amount can be found in the stored final product. The permittee should be required to perform testing of the final products to determine the amount of isobutane retained in the final product.

Given the uncertainty associated with Republic Plastics’ VOC emission factor and compliance demonstration, the plant-wide PTE of 248.5 tpy is not practicably enforceable. Pinal County must determine a new VOC limit that is practicably enforceable according to John Seitz’s 1989 “Guidance on Limiting Potential to Emit in New Source Permitting.”

We believe as the permit is currently written and considering the items outlined above, the proposed expansion of adding two processing lines constitutes a modification that is major in and of itself. Therefore, the proposed permit fails to assure compliance with the requirements of New Source Review, leaving Republic Plastics vulnerable to enforcement action if they proceed with the modification.

3. Permit condition 7.A, Regular Emissions Monitoring (page 7): Because it is important to have limitations on throughput and production to demonstrate compliance with emission limits, it is equally important to monitor the amount of the isobutane in the blowing agent that is entering the extruder, consistent with the IBF of 0.022 lb of isobutane retained/pound of final product. Pinal County should require that the permittee employ equipment such as a flow meter to measure isobutane levels and should be monitored daily as part of the permit requirements.
4. Permit condition 7.B, Recordkeeping (page 8): The permit should also require records of raw materials used under this section. Since compliance is based on the amount of isobutane blowing agent, please include a condition requiring these records.
5. Permit condition 11.A, Facility Specific Data (page 14): The equipment list should include more detailed information and we recommend using a tabular format. Typical additional details include rated capacity, model number and/or serial number, manufacturer, date of installation, date of modification (if any). The equipment list in a permit should include adequate detail so that an inspector can determine if equipment was replaced or modified.

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Technical Support Document

6. Section 3, Emissions (page 3): We are concerned about the plant-wide VOCs potential to emit of 248.5 tpy because it is within 0.60% of the PSD major source threshold (MST) of 250 tpy. In general, we encourage a 5-10% buffer between the permitted emissions limits and the major source thresholds. The TSD should indicate whether the 248.5 tpy is intended to be an actual emission limit.

The source should consider a lower VOC limit to ensure that an exceedance of the limit will not trigger PSD. Alternatively, the source may choose to be permitted as a significant source of VOC, subject to PSD review and requirements (see comment #2 above).

7. Paragraph 4.2.3.1 (page 5) refers to the non-applicability of 40 CFR Part 60, Subpart Kb Volatile Organic Liquid (VOL) Storage Vessels. The statements regarding non-applicability is unclear and requires clarification. Storage tanks can be subject to a wide range of regulations, depending on a number of different factors such as facility type, size, capacity, physical properties of materials stored, and date of construction.

We suggest a way to modify the language: “This subpart affects storage tanks used to store volatile organic liquids with a design capacity larger than 19,800 gallons and a maximum true vapor pressure less than 204.9 kPa. The isobutane storage tank at this facility has a design capacity of 30,000 gallons and will operate in excess of 204.9 kPa. Therefore, the requirements of NSPS Subpart Kb are not applicable to this facility.”

8. Similarly, paragraph 4.2.3.2 (page 5) refers to the non-applicability of 40 CFR Part 60, Subpart DDD Polymer Manufacturing, stating: “[t]his subpart affects manufacture of polyethylene, but this facility will receive polyethylene which [h]as already been produced.” It is difficult to tell from this statement why Subpart DDD does not apply.

We suggest a way to modify the language: “This subpart affects facilities that manufacture the following polymers: polypropylene, polyethylene, polystyrene or poly (ethylene terephthalate). The permittee primarily extrudes foam from polystyrene pellets that are received from a third party source and is not in the business of manufacturing the aforementioned polymers. Therefore, the requirements of NSPS Subpart DDD are not applicable to this facility.”

9. Section 4.2.4, Chemical Accident Prevention Provisions (page 5): Please include a brief description of the applicability of the Risk Management Plan (RMP) requirements. At a minimum, the description should include the regulatory threshold, the on-site quantity of isobutane, and the specific regulatory citation. To the extent that there may other RMP-listed substances on-site that were determined to be below the thresholds, such substances also should be noted.
10. Section 6, list of abbreviations (page 6): Please add the abbreviation for kPa – kilopascals.