



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 7  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

Kendall Hale  
Construction Permits Section Chief  
Missouri Department of Natural Resources  
Air Pollution Control Program  
PO Box 176  
Jefferson City, MO 65102

RE: Plantwide Applicability Limitation permit for Volatile Organic Compounds with pre-approved changes for Archimica, Inc; Project Number: 2009-04-033; Installation ID: 077-00017

Dear Mr. Hale:

EPA Region 7 received the draft Plantwide Applicability Limitation (PAL) permit for Volatile Organic Compounds (VOC) with pre-approved changes for Archimica, Inc on August 1, 2011. MDNR is allowing public comment on the permit through September 8, 2011. Region 7 is providing the following comments regarding the permit.

### Comment 1 - Superseding Permit

The permit should clarify that the PAL permit issued to Archimica, Inc by Springfield-Greene County Health Department Air Quality Control (Springfield AQC) is void. Springfield AQC does not have authority under the EPA approved State Implementation Plan to issue PALs.

Page 3, Special Conditions 1, Superseding Condition states this PAL supersedes all previously issued permits. PALs are meant to regulate one pollutant, and specifically, this PAL only establishes a limit for VOCs. Because the source emits a wide range of pollutants beyond VOCs, this PAL cannot void all previous permits issued to the facility. To the extent previous permits established limits for pollutants other than VOCs, then those permits cannot be superseded by this PAL.

### Comment 2 - 18 Months to Construct

Page 2, Standard Conditions states the PAL may be revoked if the facility fails to begin construction within 18 months of receiving this permit. Understandably, permits written under the Prevention of Significant Deterioration (PSD) portion of Missouri's 10 CSR 10-6.060 usually have a requirement to construct within 18 months. The reason for limiting the time to begin actual construction is to ensure the control technology review stays current. See 40 CFR §52.21(j). The PAL for Archimica does not include a control technology review, so the requirement to construct within 18 months may not apply. In addition, the effective period for a PAL is 10 years, meaning the source will be allowed to make physical changes or changes in operation beyond 18 months of issuance. See 40 CFR §52.21(aa)(2)(vii) and Special Condition 14 in the permit.

### Comment 3 - Annual Limitation

Page 3, Special Condition 2, Annual Emission Limitation - PAL should note that Archimica has the obligation of showing emissions from each unit in the PAL are kept below 116.8 tons of VOC collectively for the first 11 months following issuance of the PAL. This demonstration should be recorded monthly. See 40 CFR §52.21(i)(a).



#### Comment 4 - 10 Year Actuals PAL Level

Page 3, Special Condition 2, Annual Emission Limitation - PAL establishes a limit of 116.8 tons of VOC per 12 month rolling period. The limit was developed based on actual emissions from 1997 through 1998 plus 39.9 tons per year (tpy), the applicable significance level of VOC. Baseline actual emissions need to be established following 40 CFR §52.21(b)(48) which requires a baseline to be set using, "...the pollutant during any consecutive 24-month period selected by the owner or operator within the 10-year period immediately preceding either the date the owner or operator begins actual construction of the project, or the date a *complete permit application is received by the Administrator* (emphasis added). "In this case, MDNR is the Administrator for PSD permitting, not Springfield AQC. The 10 year look back period to establish a baseline should be based on when MDNR received a complete permit application. This will likely exclude the 1997 and 1998 timeframes. In addition, the permit application had to be revised beyond 2006, so 1997 data could not be evaluated for a correct baseline period in any event.

In addition, if construction or decommissioning of emission units took place after the baseline period chosen, then those emissions need to be included or excluded from the established PAL level. For an example, see 67 FR 80214.

Moreover, when setting a PAL, the applicable limit should take into account regulatory requirements, like National Emission Standards for Hazardous Air Pollutants (NESHAPS) that came into effect during the baseline or will come into effect during the effective period of the PAL. In 2002, Archimica, Inc became subject to NESHAP GGG for Pharmaceutical Production. Therefore, if any actual emissions were used prior to 2002 to establish a baseline, then those emissions would need to be evaluated in comparison to NESHAP GGG. For instance, if a process unit is required to meet 50% destruction efficiency and that process unit had 0% destruction efficiency prior to 2002, then the emissions that would not have been emitted if the standard were in place need to be reduced from the baseline actual emissions. Page 21, Project Description states that Archimica, Inc "contends" that emissions were unchanged in light of the 2002 NESHAP. MDNR shouldn't accept Archimica's contention but rather MDNR has the obligation to confirm that each emission unit was meeting the emission standards in NESHAP GGG prior to 2002 (if a pre-2002 baseline is used).

Evaluating post 2002 emissions as provided, it looks like the highest emitting 24-month period would be around 2004. Using this timeframe would establish a PAL around 75 tpy (yearly average of 36 tpy plus 39 tpy significance level), at which point, Archimica, Inc would no longer be a major source for VOC emissions. EPA Region 7 questions whether any source is eligible for a PAL to limit their emissions below PSD major source thresholds and if MDNR has approved authority to use PALs to limit sources out of PSD. To avoid the necessity of addressing this issue, EPA recommends that a Federally Enforceable State Operating Permit would be best to reduce source's potential to emit below major source levels. For instance, Archimica could seek an Intermediate Operating Permit from MDNR to establish limit for VOC below the major source level.

#### Comment 5 - Emission Factors

Page 3, Special Conditions 2, Annual Emission Limitation - PAL lists emission factors that Archimica, Inc is required to use and document to meet their annual emission limitation. MDNR should rank the emission factors in order of most preferred to least preferred. For example, most accurate emission factors usually would be ranked as follows: (1) most recent stack tests results, (2) mass balance, (3) alternatively approved MDNR method, (4) most recent AP-42 compilation.

When using emission factors to certify a PAL is being met, provisions in 40 CFR §52.21(aa)(12)(vi) apply. Specifically, emission factors need to be adjusted according to the level of uncertainty to ensure limits are being met. It's unclear in this permit if Archimica, Inc is required to properly adjust their emission factors/limitations based on known uncertainties. In addition, when emission factors are used to set limits in a PAL they need to be

validated to ensure that emission factor is correct for the specific site. This permit did not include Archimica's obligation to validate emission factors used to meet the PAL.

52.21(aa)(12)(vi)	(vi) <i>Emission factors.</i> An owner or operator using emission factors to monitor PAL pollutant emissions shall meet the following requirements:
52.21(aa)(12)(vi)(a)	(a) All emission factors shall be adjusted, if appropriate, to account for the degree of uncertainty or limitations in the factors' development;
52.21(aa)(12)(vi)(b)	(b) The emissions unit shall operate within the designated range of use for the emission factor, if applicable; and
52.21(aa)(12)(vi)(c)	(c) if technically practicable, the owner or operator of a significant emissions unit that relies on an emission factor to calculate PAL pollutant emissions shall conduct validation testing to determine a site-specific emission factor within 6 months of PAL permit issuance, unless the Administrator determines that testing is not required.

Comment 6 - PM

Page 16, Special Conditions 22, Emission Limitation for Non-VOC pollutants lists tpy limitations for all criteria pollutants from all equipment at the facility. In error, MDNR forgot to include a 25.0 tpy limit for total particulate matter (PM) as listed in 10 CSR 10-6.020(3)(A) Table 1-*De Minimis* Emission Levels.

If you have any questions, please contact Eric Sturm by phone at 913.551.7377 or email at [sturm.eric@epa.gov](mailto:sturm.eric@epa.gov). Thank you again.

Sincerely,



Mark A. Smith  
Air Permitting and Compliance Branch Chief  
EPA Region 7

