Part II
Supplemental Construction Permit Application
Emission Unit Consolidation and Classification of Unregulated Emission Units

Solutia, Inc. is proposing to clarify permitting language, consolidate conditions and re-classify existing emission units at the Pensacola Plant for the purpose of streamlining the Title V Operating Permit. The requested changes focus on emission units that may be regulated by specific numerical emission limits, but due to their characteristics have emissions that classify the emission unit as insignificant. While many of these emission units received previous construction permits, the requested conditions reflect the insignificant nature of the units. In addition, Solutia desires to consolidate several conditions for "like-kind" emission units to allow operational flexibility and ease of compliance.

The information contained in Section III. Emissions Unit Information of DEP Form No. 62-210.900(1) has been previously submitted as part of previous construction and operation permit applications as well as the Title V application. The descriptions that follow provide the rationale for the proposed consolidation and regulatory classification.

Emission Units 014 (Boiler 4), 015 (Boiler 5) and 016 (Boiler 6) – These emission units are being included in a supplemental air construction permit to consolidate the capacity of these existing emission units. A combined capacity of 723mmBtu/hr is requested, with no individual heat input limit on any boiler. A combined capacity of 864 mmBtu/hr heat input only during outages of the cogeneration facility is requested to be continued. Records would be kept for usage during outages of the cogeneration facility. The use of Area 480 residue is requested to be included as a supplemental fuel, along with other supplemental fuels, for boilers 4 and/or 5. Information on the composition of Area 480 residue was provided to the Department in a letter dated May 1, 2000. The information demonstrates that its fuel quality is superior in the quality to that of No. 6 fuel oil. In addition, the boilers are capable of burning this fuel.

Emission Units 001, 030, 031, 053, 054, 059, 067, 012 and 069 (Pyrolysis Cleaning Ovens)- Emission Units 001, 030, 031, 053, 054, 067, 012 and 069 are being included in this supplemental air construction permit to classify these units as insignificant emission units due to their size. While these units received previous air construction permits, there are no specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The previous air construction permits issued are: AC17-184414 (EU-001), AC17-207576 (EUs-030 and 031), AC17-136188 (EU-059), AC17-104180 (EU-067) and AC17-142980 (EUs-012 and 069). These units have automatic controls that insure proper operation including regulation of the afterburners. Emission estimates using emission factors developed for a similar unit burning wire were developed and are presented in the attached table. The wire burner has an afterburner and similar controls. The emission estimates are conservative since the wire burner would process material with a greater potential for emissions than the material processed by Solutia. (i.e., wire insulation versus residues from nylon manufacturing). It was also assumed in the calculations that the units operate 8,760 hours per year, which is conservative. The Department's rules regarding circumvention of pollution control equipment and proper operation (Rule 62-210.650 F.A.C.) would be applicable.

Emission Units 060, 061, 062, 063, 064 and 079 (Adipic Dryers) – For all the Emission Units, an alternate capacity is being proposed for each dryer, as a basis for the compliance test. The proposed dryer capacities are the airflow rate determined by motor horsepower and blower

capacity. A grain loading will be proposed for Emission Units 061, 062, 063 and 064. Emission Units 060 and 079 have grain loading emission limits. The following table is proposed to be included as a permit limit.

Dryer	EU-061 405A	EU-062 405B	EU-063 465A	EU-064 465B	EU-060 Bepex	EU-079 Niro
Exhaust air blower horsepower,(HP)	50	50	75	75	50	100
Exhaust air blower, design maximum flowrate, (SCFM, hourly average basis, as determined by EPA method 2 stack test)	8000	8000	10500	10500	10,200	10,500
Dryer exhaust scrubber, water minimum circulation flowrate (GPM, hourly average basis)	3000	3000	3000	3000	5500	NA
Exhaust air, bag filter capacity	NA	NA	NA	NA	NA	2600+ Sq. Ft. filter area
Discharge air, design basis particulate concentration (grains/SCF)	0.10	0.10	0.10	0.10	0.015	0.015

NA = not applicable

Emission Unit 073 (Abrasive Blast Facility) – This emission unit is being included in this supplemental air construction permit to classify the unit as unregulated emission unit. The potential emission from this emission unit is controlled by a baghouse. While this unit received a previous air construction permit (AC17-148294), there are no specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The Department's rules regarding circumvention of pollution control equipment and proper operation (Rule 62-210.650 F.A.C.) would be applicable.

Emission Unit 051 (Adipic Acid Bulk Loading 372); and Emission Unit 080 (Adipic Acid 373 Dust Collector) [Note that the name Adipic Acid Loading System, Building 465 was misnamed, EU 080 is associated with 373]. These emission units are being included in this supplemental air construction permit to classify the units as insignificant emission units. The potential emission from these emission units is less than 5 tons/year each. They are controlled by a bag filters and have potential emissions less than 5 tons/year of particulate matter. While Emission Unit 051 received a previous air construction permit (AC17-7899) and Emission Unit 080 received a previous air construction permit (AC17-262484), there are no specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The Department's rules regarding circumvention of pollution control equipment and proper operation (Rule 62-210.650 F.A.C.) would be applicable.

Emission Unit 047 (Nylon Vydne Resin Process-mixing operation) – This emission unit is being included in this supplemental air construction permit to classify the unit as an insignificant emission unit. The current potential emissions are based on the process weight table. A maximum grain loading and flow rate is requested that would classify this emission unit as an

insignificant emission unit. A grains loading of 0.03 grains/scf and a flow rate of 4,300 acfm are requested as limits. The potential emission from these maximum design limits is 1.1 lb/hr and 4.8 tons/year and is controlled by a baghouse. Note that the last particulate test conducted in June 1997 found emissions of 0.0034 grains/scf. With this limit there are no specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The Department's rules regarding circumvention of pollution control equipment and proper operation (Rule 62-210.650 F.A.C.) would be applicable.

Emission Units 005 (Vaporizer No. 1), 007 (Vaporizer No. 2), 008 (Vaporizer No. 3), Units 009 (Vaporizer No. 4), 010 (Vaporizer No. 5), 011 (Vaporizer No. 6), 013 (Vaporizer No. 7), and 075 (Vaporizer No. 8) – These emission units are being included in a supplemental air construction permit to request a combined capacity of 136 mmBtu/hr heat input total for all vaporizers, with no individual limit for any vaporizer. Natural gas is the primary fuel used in these vaporizers with 0.5% sulfur No. 2 distillate oil authorized for emergency backup. These emissions units do not have specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The record-keeping requirements of the NSPS Subpart Dc are applicable to EU 075 (Vaporizer No. 8). However, there are no Subpart Dc emission limiting standards applicable to the unit.

Emission Unit 020 (Cyclohexane Oxidation Process) – This emission unit is being included in this supplemental air construction permit to remove the capacity limitations except for determining potential to emit and capacities during testing. While this emission unit has a maximum capacity limitation in the air construction permit of 82,000 lb/hr (AC17-247476), there is not a limitation of the liquid feed rate of KA. Since the applicable NSPS Subpart NNN requirements are not based on capacity, the capacity should be used in determining potential to emit and compliance with Subpart NNN during testing. This is consistent with the requirements of the NSPS for performance tests (40 CFR Section 60.664).

Emission Unit 002 (Adipic Acid Process) - The following permitting note is being requested to be included in the supplemental construction permit as related to Condition A.1.a and A.1.b of permit 0330040-11-AC. {Permitting note: The capacity limitations have been placed in the permit to identify the capacity of each unit for the purpose of confirming that emissions testing is conducted within 90 to 100 of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability. Regular record keeping is not required for capacity limitations. Instead, the owner or operator is expected to determine production rates whenever emission testing is required, in order to demonstrate what percentage of the rated capacity that the unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emissions tests. Such capacity determinations may be based on measurements of process inputs, flow measurements and/or other data to calculate average hourly capacity.}

Emission Unit 032 (Cogeneration Plant) - A change of the construction permit is requested to include the Subpart Db and Subpart GG testing requirements as identified in the May 1, 2000 letter. The compliance test method for NOx is requested to be EPA Method 7e rather than EPA Method 20. EPA Method 20 is only required for emission units where the NOx limit in 40 CFR Part 60 Subpart GG is applicable. The NSPS NOx emission limits are not applicable to the cogeneration facility since no more than one-third of the electric output is sold to an electric system.

Emission Unit 055 (Butane Barge Unloading) – This emission unit is being included in this supplemental air construction permit to classify the unit as an insignificant emission unit. The potential emission from this emission unit is less than 5 tons/year. The potential emission are 4.7 tons/year emitted from the unloading arm, based on 60 lb per barge and the maximum number of barges per year. While this unit received a previous air construction permit (AC17-85169), there are no specific emission limiting standards that are applicable in the Department's Rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.].

Emission Unit 068 (Cryogenic Ammonia Handling) – This emission unit is being included in this supplemental air construction permit to classify the unit as an insignificant emission unit. The potential emission from this emission unit is less than 5 tons/year during normal operations. A flare is only used during emergency venting to control emissions of ammonia with potential emission of 1.2 ton ammonia/year. While this unit received a previous air construction permit (AC17-127871), ammonia is not a regulated pollutant under the Department's rules. There are also no specific emission limiting standards that are applicable in the Department's rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The Department's rules regarding circumvention of pollution control equipment and proper operation (Rule 62-210.650 F.A.C.) would be applicable.

Emission Unit 077 (Dimethyl Ester Production) – This emission unit is being included in this supplemental air construction permit to replace the specific emission limitations during periods of shutdown periods of the hydrogen reformer. In the event the hydrogen reformer is shutdown the DME would discharge through an activated carbon bed. This practice will mitigate VOC emissions from the DME unit even during these upset periods of the hydrogen plant. Potential emissions are less than 5 ton/year. In addition, previous sampling from the unit demonstrated non-detectable quantities of NOx and hydrogen cyanide.

Emission Units 040 (Hexamethylene Diamine Synthesis) and 041 (B and C Hexamethylene Diamine Stripper Distillation Column)– This emission unit is being included in this supplemental air construction permit to remove the capacity limitations except for determining potential to emit and capacities during testing. While this emission unit has a maximum capacity limitation in the air construction permit of 25,000 lb/hr (0330040-040-004-AC). Since the applicable NSPS Subpart NNN requirements are not based on capacity, the capacity should be used in determining potential to emit and compliance with Subpart NNN during testing. This is consistent with the requirements of the NSPS for performance tests (40 CFR Section 60.664).

Emission Unit 076 (Maleic Anhydride Plant)– This emission unit is being included in this supplemental air construction permit to remove the capacity limitations except for determining potential to emit. The annual capacity of 260 million pounds of maleic anhydride is requested to be deleted and replaced the maximum amount of process off-gas to the boilers. The only emission from the emission unit occurs during periods of startup, shutdown and malfunction. There are also no specific emission limiting standards that are applicable in the Department's rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.].

Emission Unit 081 (Continuous Nylon Polymerization Lines) and 082 Batch Nylon Polymerization) – These emission units are being included in this supplemental air construction permit to remove the capacity limitations, which is currently expressed as a company confidential document. There are no specific emission limiting standards that are applicable in the Department's rules, other than the general visible emission standard [Rule 62-296.320(b) F.A.C.]. The emission limitation for this unit is currently expressed as a rolling annual average.

It is requested that compliance with this limit be based on submission of annual emission rates with the Annual Operating Reports. With the emission limit and periodic monitoring, capacity rates are not relevant to the Department's determination of compliance.

Emission Unit 042 (Nitric Acid Plant)– This emission unit is being included in this supplemental air construction permit to remove the capacity limitations except for determining potential to emit during compliance tests. The specific maximum emission limit of 2.72 lb NOx per ton of HNO_3 is requested to be replaced with the NSPS emission limit of 3 lb per ton of HNO_3. The annual emission limit of 360 tons of NOx is generally more restrictive than either the previous limit of the NSPS.