



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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APR 07 2011

Mr. Richard DeFelice
Newport Materials LLC
164 Burke Street
Nashua, NH 03060

RE: **WESTFORD** – Metropolitan Boston/
Northeast Region
310 CMR 7.02 – Air Quality Non-Major
Comprehensive Plan Application
Transmittal No. X227251
Application No. MBR-09-IND-005
**MODIFIED CONDITIONAL
APPROVAL**

Dear Mr. DeFelice:

On September 18, 2009, the Metropolitan Boston/Northeast Regional Office of the Department of Environmental Protection, Bureau of Waste Prevention, ("MassDEP"), completed its review of your Non-Major Comprehensive Plan Application ("Application") listed above. This Application concerned the proposed installation and operation of a new hot mix asphalt drum mix plant, a hot oil heater and associated equipment located at 20 Commerce Way, in Westford, Massachusetts. The submitted Application was prepared by ETG, Inc. and bears the seal and signature of Paul J. Hanbury, Massachusetts P.E. No. 38757.

As a result of that review, MassDEP determined that your Application was administratively and technically complete and that the Application, specifications, and Standard Operating and Maintenance Procedures for the proposed equipment were in conformance with the then current air pollution control engineering practice. MassDEP also determined that you demonstrated through air quality modeling that the projected emissions from the proposed facility including fugitive emissions from the rock crushing operation and the roadways would not cause or contribute to a violation of the National Ambient Air Quality Standards (NAAQSs) then in effect. This modeling document also documented compliance with MassDEP Air Toxics Guidelines, called the Threshold Exposure Limits (TELs) or Allowable Ambient Air Limits (AALs), for all MassDEP TELs and AALs including formaldehyde. Accordingly, MassDEP granted Conditional Approval to you for the Application. That Conditional Approval was subsequently appealed.

¹ This modeling predicted the emission of the filterable fraction of PM, PM10 and PM2.5 from the proposed facility. It did not predict the condensable fraction of these contaminants, because the EPA had not yet developed guidance on how to perform such modeling.

While the appeal was pending, you made certain changes to the hot oil heater for the proposed facility. You reduced the size of the hot oil heater, increased the height of its associated exhaust stack, and agreed to reduce the hours of operation of your proposed facility. You also agreed to pave all the roadways at the proposed facility, including the aggregate handling and rock crushing areas.

To address the issues raised in the appeal, you performed additional modeling. Unlike the earlier modeling, this additional modeling included accounting for the emissions from a nearby quarry, wood chipping operation and concrete plant. Applying recently issued guidance developed by EPA, this additional modeling predicted that the proposed emissions of both the filterable and condensable fractions of PM, PM10 and PM2.5 from the hot mix asphalt plant demonstrated compliance with applicable NAAQS.

MassDEP has modified the Conditional Approval (the Modified Approval) to reflect the modifications to the hot oil heater, the operational modifications, and the additional modeling. The Modified Approval establishes new emission limits that will ensure that the emissions from the facility do not cause or contribute to a violation of any applicable NAAQS, since your modeling has also demonstrated compliance with the recently promulgated one hour NAAQS for NO₂ and SO₂. Emissions will also comply with all MassDEP TELs and AALs.

Based on the additional modeling, the limits for total PM, PM10 and PM2.5 in the Modified Approval are higher than in the original Conditional Approval. MassDEP has increased these limits not because the proposed facility will emit more contaminants into the air, but because these limits include both condensable as well filterable PM, PM10, and PM2.5. These increased limits reflect a more accurate representation of the particulate matter emissions from the proposed facility.

Please review the entire Modified Approval carefully, as it stipulates the particular conditions with which the facility owner/operator must comply in order for the facility to be operated in compliance with the Regulations. Failure to comply with this Modified Approval will constitute a violation of the Regulations and can result in the revocation of the Modified Approval.

1. BACKGROUND AND DESCRIPTION OF FACILITY

Newport Materials will produce bituminous concrete at the proposed facility. The facility will include a hot mix asphalt (HMA) drum mix plant, a hot oil heater, oil and asphalt storage tanks and a rock crushing plant. The proposed equipment will be constructed on property that was part of a rock quarry operation but that did not previously include similar equipment or processes in the same location.

The proposed new drum plant (Emission Unit One (EU-1)) is a Gencor Model 400 TPH Stationary Ultraplant and will be capable of producing 400 tons of bituminous concrete per hour (this hourly rate may vary slightly depending on the moisture content of the raw materials). Sand and stone will be transported to the plant by truck and/or front end loader from the rock crushing plant or stockpiles, and deposited in cold feed bins. The cold feed bins will be new units

designed to feed the new drum plant. Recycled asphalt product (RAP) will be similarly transported from its respective storage areas to the appropriate feed bins. Material will be metered from the bins onto new belt conveyor systems and transferred to the dryer drum. Aggregate will be dried and heated by direct contact with products of combustion and heated air in the counter-flow technology dryer drum.

After passing through the dryer drum, the hot aggregate will enter the mixing drum unit where liquid asphalt, particulate fines from the dust collectors, and RAP will be added. Up to 40% by weight of the product may be RAP. RAP material will be heated by contact with heated virgin aggregates in the mixing drum. The mixture (bituminous concrete) will discharge from the drum through a chute through an enclosed drag slat conveyor which will transfer the product to initially one (1) of four, 200 ton storage silos. Bituminous concrete will then be discharged directly from one of the silos into trucks for transport.

The dryer drum will be equipped with a new dual-fuel Hauck EcoStar II Low NO_x Burner with Flue Gas Recirculation, or a Gencor Equinox Series Burner, or an equivalent, with a heat input rating not to exceed 135,000,000 British thermal units (Btu) per hour (135 MMBtu/hour). Its primary fuel will be natural gas; ultra-low sulfur No. 2 fuel oil (ULSD), containing 0.0015 weight percent sulfur will be the secondary or back up fuel. Based on using higher heating values of 1,000 Btu per standard cubic foot for natural gas and 140,000 Btu/gallon for ULSD, the maximum fuel firing rates will be 135,000 cubic feet per hour of natural gas and 964 gallons per hour (GPH) of ULSD. The burner has a turndown ratio of 10 to 1.

Exhaust gases from the dryer drum will be vented through a new Gencor dust control system. The system consists of a primary collector (knockout box) integrated with a secondary collector (fabric filter baghouse). The knockout box will operate with a pressure drop of approximately 2 inches of water gauge while the baghouse will operate with a pressure drop of 2 to 6 inches of water gauge. The baghouse is a Gencor Ultraflo Stationary Model No. CFS-151. It will have one compartment containing a total of 872 Nomox felt filter elements. The total filter area will be 15,059 square feet while the nominal air to cloth ratio will be 4.95 to 1. The baghouse cleaning system is a reverse air type utilizing up to 6,000 cubic feet per minute (CFM) of ambient air to clean filter elements. The collected material from the primary collector and the fabric filter baghouse will be removed continuously and recycled back to the process.

The air handling system for the baghouse will be a Twin City Fan Model 490 BCS exhaust fan rated at 74,092 actual CFM at 292 °F. The exhaust flow will be controlled by use of an electronic variable speed drive system with the fan's electric motors. The exhaust fan will discharge to a vertical stack with an exit diameter of 54 inches and discharge at a height of 68 feet above ground. The exhaust gas velocity will range from 43.0 to 77.6 feet per second (fps).

Exhaust gases displaced from the storage silos during filling will be controlled by a Gencor Top of Silo Emissions Capture System. When a volume of product is dropped into a silo, an equal volume of gases contained inside the silo are displaced and are controlled by the Top of Silo Emission Capture System. The displaced gases are induced down the drag conveyor casing by a variable speed centrifugal fan (10,000 SCFM rated) mounted upon the lower end of the conveyor. A slight negative pressure between the sealed silo system and the ambient atmosphere

is maintained by either a manual or automatic modulation of the centrifugal fan's speed. The gases induced from the drag conveyor are directed to a port on the drum burner breaching, thence to the combustion zone where the organic portion of the fumes is oxidized. The centrifugal fan is interlocked to only allow operation when the asphalt cement metering pump control is in the run position, limiting operation to periods when the plant is in operation and the filling of the silos can occur. By design, only one silo can be filled at any one time, therefore this system is suitable to control silo filling emissions independent of the number of silos installed.

A variable speed vapor evacuation fan powered by a ten (10) horsepower electric motor will pull gases, vapors, odors, steam, and organic hydrocarbons from the drum mixing zone that may result from the RAP mixing operation. The vapors are pulled through the breaching and are returned to the combustion zone under controlled conditions, oxidizing any of the organic fumes in the gases. Evacuation takes place in a controlled manner by the modulation of the fan speed using a variable frequency drive (VFD). The fan is interlocked to only allow operation while the asphalt cement metering pump is in the run position, preventing dust buildup on internal surfaces. Automatic and manual controls, including photohelic, are provided for the operator in order to maintain a constant negative pressure in the mixing zone with respect to the combustion zone.

Emissions associated with the truck load out area will be captured and controlled by a Gencor bottom of silo dry filter system. The system consists of an enclosure, which completely covers the area under the silos, excluding the truck entrance and exit openings, and two 25,000 SCFM baghouse style dust collectors. The structure is continuously evacuated through the baghouses and the air is continuously recirculated through the silo containment area during the load out period. The system operates separate from the drum system so the emissions can be controlled even when the plant is not being operated but load out is continuing. Effectiveness of the baghouse system is aided by the addition of an oil absorbent powder which remains on the filtration surface during operation of the baghouses. As the gases flow through this media, particulate and condensable hydrocarbons are captured. Because of the extremely low particulate loading, the filters can operate all day without cleaning and require only a short cleaning period to restore the filter for the subsequent day's operation. Over time, the powder will become impregnated with contaminants, and once spent the powder can be removed and easily replaced in the unit. Spent material, as a powder aggregate, will be utilized back in the hot mix product.

The proposed new hot oil heater (EU2) is a Gencor Model HYCGO-100 helical coil thermal fluid heater equipped with a Powerflame Model C1-GO-12 fully automatic, forced draft burner possessing a maximum energy input rating of 1,000,000 Btu per hour. This unit can combust either natural gas at a maximum firing rate of 1,000 SCFH or ULSD at a maximum firing rate of 7.1 GPH. The heater will exhaust through a 10 X 14 inch rectangular steel stack approximately 20 feet above ground.

The hot oil heater will be used to maintain appropriate temperatures in two new 30,000 gallon capacity, insulated, vertical, liquid asphalt storage tanks. Each of the tanks will be fitted with Gencor vapor condensers to reduce emissions from the tanks. Vapors from the liquid asphalt rise into the condensers, flow through a series of finned tubes that allow the vapors to

cool, where they condense to a liquid and return back to the tanks. This process reduces the amount of volatile organic compounds (VOC) and other emissions from the tanks.

The crushing plant will be powered using line power and will incorporate a jaw crusher (primary) and a cone crusher (secondary), a screen, and several belt conveyors. The crushing plant will produce crushed stone, gravel, and sand of various sizes for use in the HMA drum mix plant. The plant components have been organized in a configuration suitable for the reduction of material size and progressive removal of various sized products.

Rock will be transferred by heavy equipment to the vibrating grizzly feeder. From the vibrating grizzly feeder, material will enter the primary (jaw) crusher. The closed sized settings (CSS) for the primary crusher can be set at a maximum of six inches, which will produce a maximum of 265 tons per hour (TPH) of material; however, the unit will be operated at a lower setting, limiting the production rate to 165 tons per hour. From the primary crusher, the material will be fed by an under crusher conveyor onto an overhead feed conveyor and to a triple deck screen. The troughs will then discharge onto an under screen conveyor, then onto a product conveyor for stockpiling. Material from the top deck and middle deck of the screen will be fed to the secondary (cone) crusher. Cone crusher troughs will then discharge onto an under crusher conveyor that in turn will feed the material to a product conveyor for stockpiling.

The crushing plant will incorporate a medium pressure wet dust suppression system, including fog nozzles located at crusher discharges and various belt conveyor transfer points to control particulate matter emissions therefrom. The material stockpiling areas will also utilize wet dust suppression systems to reduce fugitive particulate emissions. Additionally, the material stockpiling area will be enclosed on three sides by a solid, 16 foot earthen berm topped with trees to further reduce fugitive particulate emissions.

Potential noise emissions from the facility will be minimized through the use of several mitigation measures. These measures will include, but are not limited to: a sealed-in burner design for the asphalt plant burner; a variable fan speed for the main exhaust fan; sound attenuators (silencers) installed on the combustion burner inlet air fan and the baghouse exhaust fan; and dump truck unloading locations shielded behind stock piles and within the bermed stock pile area. In addition, Newport Materials will construct a 12 foot high earthen berm or wall along portions of the eastern and southeastern property perimeter. Upon completion of construction and commencement of continuous operation of the proposed facility, actual noise levels will be evaluated and if necessary further noise mitigation measures will be implemented (See Special Condition 4. b)).

Although mobile source emissions are not within the purview of 310 CMR 7.02, MassDEP has learned that the heavy equipment, i.e. loaders etc., that will be operated by Newport Materials at the proposed facility have been retrofitted with new muffler systems that control particulate and/or other pollutants, as mandated by Mass Highway contract requirements. Further, Newport Materials has indicated that six heavy duty diesel powered trucks owned and operated by Newport Materials were purchased since 2007 and therefore meet the stringent emission standards for such trucks, as mandated by USEPA.

2. EMISSION UNITS AND POLLUTION CONTROL DEVICES IDENTIFICATION

The following emission units and pollution control devices contained in Table 1 below are subject to and regulated by this Approval:

Table 1+			
EMISSION UNIT	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE
EU-1	Asphalt Drum Mix Plant: Gencor Model, 400TPH Stationary Ultraplant; Primary Fuel - NG, Secondary Fuel - ULSID Includes four 200 ton Asphalt Product Storage Silos, two 30,000 gallon vertical liquid asphalt storage tanks, and one 10,000 gallon ULSID storage tank	<ul style="list-style-type: none"> • 400 Tons Asphalt per hour at 5 % moisture content • Stack Height: 68 feet above ground • Stack Inside Exit Diameter: 54 inches 	PCD-1: Low NOx Burner w/FGR
	PCD-1: Hanzl Eco Star II low NOx burner with Flue Gas Recirculation, or a Gencor Equinox Series Burner, or an equivalent	<ul style="list-style-type: none"> • Max. Burner Heat Input: 135.0 MMBtu/hr • Max. Firing Rate on NG: 135,000 SCFH • Max. Firing Rate on ULSID: 954 GPH 	PCD-2: Gencor Dust Control System
	PCD-2: Gencor Model CFS-151 Dust Control System - Primary Collector > Knockout Chamber, Secondary Collector > Fabric Filter Baghouse	<ul style="list-style-type: none"> • Exhaust Fan Maximum: 75,000 SCFM • Single chamber baghouse with 872 Nomex filter bags • Air to Cloth Ratio: 4.95 to 1 	
EU-2	Hot Oil Heater: Gencor, Model HYCGO-100 helical coil thermal fluid heater with Power Flame, Model C2-GO-12 fully automatic forced draft burner Primary Fuel - NG; Secondary - ULSID	<ul style="list-style-type: none"> • Max. Burner Heat Input: 1.0MMBtu/hr • Max. Firing Rate on NG: 1,000 SCFH • Max. Firing Rate on ULSID: 7.1 GPH 	Vapor condensers on asphalt storage tanks
EU-3	Rock Crushing Plant: Cedar Rapids <ul style="list-style-type: none"> • Vibrating Grizzly Feeder • Primary crusher- JP2236 Jaw Crusher • Under crusher conveyor, 36" x 28'6" • Overhead feed conveyor, 30" x 26' • 3-Layer triple deck screen, 5' x 14' • Under screen conveyor, 41" x 27' 	<ul style="list-style-type: none"> • Max. Raw Material Production rate: 165 TPH 	Wet Dust Suppression System
EU-4	Fugitive Emissions		
	Gencor Bottom of Silo Capture System: Two Pulsejet Dust Collectors (Baghouses) and tunnel enclosure for load out area	<ul style="list-style-type: none"> • Exhaust fan Maximum: 25,000 SCFM each unit • Each unit contains 92 filter bags • Tunnel covers area under silos and truck scales 	PCD-3: Gencor Bottom of Silo Blue Smoke System
	Top of Silo Filling Emissions	<ul style="list-style-type: none"> • 10,000 SCFM centrifugal fan, 90% of exhaust gases displaced from filling process is ducted back to combustion zone of drum mixer 	Top of silos enclosed
	Aggregate Stockpiles	<ul style="list-style-type: none"> • Constrained by space and volume of finished product produced 	BMP, earth berm on three sides
	Paved Roadways	<ul style="list-style-type: none"> • All roadways, the rock crushing area, and aggregate storage areas shall be paved. 	BMP

Table 1 Key:

≤ = less than or equal to

% = percent

BMP = Best Management Practices, (May include watering, sweeping, washing of equipment, limiting vehicle speed on roadways, etc.)

FGR = Flue Gas Recirculation

GPH = Gallons per Hour

MMBtu/hr = million British thermal units per hour

Max. = Maximum

NG = Natural Gas

NOx = Nitrogen Oxides

S = sulfur

SCFH = Standard Cubic Feet per Hour

SCFM = Standard Cubic Feet per Minute

TPH = Tons per Hour

ULSID = Ultra Low Sulfur Diesel fuel containing no more than 0.0015 percent sulfur by weight

w/ = with

Wt = weight

" = inches

' = feet

3. APPLICABLE REQUIREMENTS

A. EMISSION LIMITS AND RESTRICTIONS

The facility shall comply with the emission limits/restrictions as contained in Table 2 below:

Table 2 +						
EU	RESTRICTIONS/ OPERATING PARAMETERS	POLLUTANT	EMISSION LIMIT/STANDARD			APPLICABLE REGULATION AND/OR APPROVAL NUMBER
			Emission Rate	Tons per month	Tons per 12 month rolling period	
EU-1	<ul style="list-style-type: none"> Burn Only NG and ULSD 60,000 tons of product per month 300,000 tons of product per 12 month rolling period Fuel usage and type shall be limited such that emissions (which are based upon exclusive use of NG) do not exceed the limits specified in this table. Emissions shall be calculated using applicable emissions factors specified herein. 	NO _x - NG	0.044 lbs/MMBtu	0.45	2.23	MBR-09-IND-005
		NO _x - ULSD	0.113 lbs/MMBtu			
		SO ₂ - NG	0.006 lbs/MMBtu	0.01	0.04	
		SO ₂ - ULSD	0.00173 lbs/MMBtu			
		CO - NG	0.30 lbs/MMBtu	3.04	15.2	
		CO - ULSD	0.39 lbs/MMBtu			
		CO ₂	33 lbs/ton	990	4950	
		VOC	0.032 lbs/Ton	0.96	4.8	
		PM (Filterable)	0.01 grains/dscf	0.22	1.08	
		PM (condensable)	0.0194 lbs/ton	0.58	2.91	
		PM ₁₀ (Filterable)	0.01 grains/dscf	0.22	1.08	
		PM ₁₀ (condensable)	0.0194 lbs/ton	0.58	2.91	
		PM _{2.5} (Filterable)	0.007 grains/dscf	0.156	0.757	
		PM _{2.5} (condensable)	0.0194 lbs/ton	0.58	2.91	
Formaldehyde	Not to exceed MassDPH TEL or AAL (currently 0.33 ug/m ³ and 0.08 ug/m ³ respectively).					
Total HAPs	Emission Factors as specified in Application	0.21	0.76			
Visible Emissions	Opacity <5%, except <20% for <2 minutes during any one hour, never to exceed 20%					
EU-2	<ul style="list-style-type: none"> Burn Only NG and ULSD 	NO _x	EPA-AP-42 Emission Factors	0.04	0.18	MBR-09-IND-005
		SO ₂		0.001	0.002	
		CO		0.01	0.06	
		VOC		0.001	0.004	
		PM (Filterable)		0.005	0.022	
		PM (condensable)		0.003	0.014	
		PM ₁₀ (Filterable)		0.003	0.011	
		PM ₁₀ (condensable)		0.003	0.014	
PM _{2.5} (Filterable)	0.001	0.003				
PM _{2.5} (condensable)	0.003	0.014				
Total HAPs		0.003	0.006			
EU-3	<ul style="list-style-type: none"> Maximum raw material production rate: 165 tons per hour Mineral processing not to exceed 60,000 tons per month Mineral processing not to exceed 300,000 tons per rolling 12 month period Operate using line power only Operate crushers in accordance with all other applicable regulations or requirements Employ wet dust suppression system as necessary, in accordance with Best Management Practices 	PM	EPA-AP-42 Emission Factors	0.167	0.837	MBR-09-IND-005
		PM ₁₀		0.064	0.321	
		PM _{2.5}		0.010	0.051	
		Visible Emissions (Opacity from fugitive particulate emissions)		<ul style="list-style-type: none"> Screening and Conveyor/transfer: Opacity < 7% Crushing: Opacity < 12% 		

Table 2+

EU	RESTRICTIONS/ OPERATING PARAMETERS	POLLUTANT	EMISSION LIMIT/STANDARD			APPLICABLE REGULATION AND/OR APPROVAL NUMBER
			Emission Rate	Tons per month	Tons per 12 month rolling period	
EU-1	<ul style="list-style-type: none"> PCD-3 Bottom of Silo Capture System to be operated and maintained in accordance with Manufacturer specifications, must operating during all load out activities Top of Silo systems to be operated under negative pressure, with all openings in closed position during silo filline operations Aggregate stockpiles and Roadways - Employ Best Management Practices to control fugitive emissions, including but not limited to watering, sweeping, spillage removal, and a vehicle speed limit of 10 miles per hour. All facility roadways, aggregate handling areas and the rock crushing area shall be paved. 	PM (Filterable)	BPA-AP-42 Emission Factors and as specified in Application	0.195	0.974	MBR-09-IND-005
		PM ₁₀ (Filterable)		0.051	0.254	
		PM _{2.5} (Filterable)		0.016	0.081	
				Tons per Month	Tons per 12 month rolling period	
Facility wide	<ul style="list-style-type: none"> As required above, and in other Regulations, if applicable Facility wide VOC and HAP emission limits include fugitive emissions from plant load out, silo filling, and asphalt storage tanks 	NO _x	0.49	2.41	MBR-09-IND-005	
		SO ₂	0.01	0.04		
		CO	3.05	15.3		
		VOC	1.03	5.68		
		PM(Filterable)	0.59	2.91		
		PM (condensable)	0.58	2.924		
		PM ₁₀ (Filterable)	0.34	1.67		
		PM (condensable)	0.58	2.92		
		PM _{2.5} (Filterable)	0.18	0.89		
PM (condensable)	0.58	2.92				
	Total HAPs	0.21	0.78			

Table 2 Key:
 EU# = Emission Unit Number
 % = percent
 S = sulfur
 wt = weight
 # = number
 NO_x = nitrogen oxides
 SO₂ = sulfur dioxide
 CO = carbon monoxide
 CO₂ = carbon dioxide
 VOC = volatile organic compounds
 PM = particulate Matter, total of all size particulates
 PM₁₀ = particulate matter no larger than 10 microns in diameter
 PM_{2.5} = particulate matter no larger than 2.5 microns in diameter
 HAP = hazardous air pollutant

ug/m³ = microgram per cubic meter
 NG = natural gas
 ULSD = Ultra Low Sulfur Diesel fuel containing no more than 0.0015 % sulfur by weight
 < = less than
 ≤ = less than or equal to
 lbs = pounds
 / = per
 MMBtu = million British thermal units
 MMCF = million cubic feet
 dscf = dry standard cubic feet
 TEL = Threshold Exposure Limit
 AAI = Allowable Ambient Air Level

3. COMPLIANCE DEMONSTRATION

The facility shall comply with the monitoring/testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5 below:

EU#	<p style="text-align: center;">Table 3 MONITORING/TESTING REQUIREMENTS</p>
EU-1	<p>Newport Materials shall take the following actions at the facility during all raw material handling including stone, sand, and recycled asphalt pavement (RAP) unloading, transfer, loading operations, and when the drum mix plant is in operation at the facility:</p>
	<p>a) Install, operate and maintain an outlet gas temperature and pressure differential monitoring system for PCD-2 which includes an instantaneous reading of the temperature and differential pressure in the plant operator's control station. Additionally, audible and visual alarms shall be present to signal the need for corrective action in the event the temperature or pressure are outside the limits of normal operation established by the manufacturer or through compliance testing; and,</p>
	<p>b) All corrective actions to be undertaken by Newport Materials under alarm conditions shall be explicitly stated in the facility's Standard Operating and Maintenance Procedure (SOMP).</p>
	<p>Facility personnel shall, at a minimum, conduct a daily inspection of all air pollution control equipment and related operations and activities (i.e., PCD-2: Dust Control System and PCD-3 Bottom of Silo Load Out System). In addition, the plant operator shall routinely observe the discharge stacks during operation of the subject equipment.</p>
	<p>Newport Materials shall conduct initial emissions compliance testing on EU-1, PCD-2 to demonstrate compliance with the short term emission and opacity limits contained in Table 2. The ability of the facility to achieve and maintain emissions and opacity at or below the limits stated in this Conditional Approval shall be demonstrated to MassDEP within one hundred twenty (120) days of the commencement of continuous operation of EU-1. Formaldehyde emissions shall also be tested in order to demonstrate compliance with the applicable Massachusetts Threshold Effects Exposure Limits (TELEs) and Massachusetts Allowable Ambient Limits (AALs). Additionally, testing shall include measurement of actual sound levels that emanate from the facility when it is operating. All testing shall be conducted in accordance with requirements and procedures set forth by appropriate US-EPA Reference Test Methods, 40 CFR 60 Appendix A, Massachusetts Air Pollution Control Regulations, 310 CMR 7.00, Section 7.13 and this Conditional Approval. This compliance testing shall be witnessed by MassDEP personnel at a mutually agreeable time and date.</p>
	<p>A written pretest protocol must be submitted to this Office for MassDEP approval at least 30 days prior to any required compliance test. The pre-test protocol shall include, but not be limited to, a description of: the emission compliance testing program proposed, applicable emission limits for which testing and demonstration of compliance is required, sampling point locations, sampling equipment, analytical procedures, proposed test methods, the proposed operating conditions for the required testing and identity of the independent third party testing company.</p>
	<p>A final emission compliance test results report shall be submitted to this Office within 30 days after the completion of each required compliance test. The final emission compliance test report shall include, but not be limited to, a description of: the emission compliance testing program conducted, applicable emission limits for which testing was required and a summary of test results demonstrating compliance and/or noncompliance with applicable limits, sampling point locations, sampling equipment, analytical procedures, actual test methods used, and the actual operating conditions for which the testing was conducted.</p>
	<p>Newport Materials shall demonstrate the continued ability of the subject equipment to maintain emission rates at or below the short term emission limits as stated in Table 2 above via an emission compliance retesting program, on a triennial basis. Any deviation from this schedule shall be approved by MassDEP.</p>
	<p>Newport Materials shall conduct a "visolite" leak detection test on PCD-2 prior to the start of the operation season. Additional tests shall be performed as needed to locate leaks, bag failures or other problems with normal operation of the control device.</p>

Table 3	
MONITORING/TESTING REQUIREMENTS	
EU-1, EU-2	In accordance with Regulation 310 CMR 7.04(4)(a), the subject combustion units shall be inspected and maintained in accordance with the manufacturer's recommendations and tested for efficient operation at least once in each calendar year. Monitor process operations, the type of fuel burned, the sulfur content of fuel oil used, and actual fuel usage in order to demonstrate compliance with the applicable requirements in Table 2 above.
EU3	Monitor process operations as required to demonstrate compliance with the limits in Table 2 above.
EU4	Monitor and operate the Bottom of Silo Load Out Emission Control System (PCD-3) in accordance with manufacturer's specifications. Monitor Aggregate stockpiles and all roadways for fugitive emissions and take action in accordance with Best Management Practices (BMP). Maintain speed limit signs on roadways and take appropriate action in accordance with BMP when vehicles appear to be operating above 10 mile per hour limit.
Facility-Wide (Those emission units listed in Table 1 above)	Monitor facility operations such that compliance with the restrictions and emission limitations/standards contained in Table 2 of this Approval can be determined. Monitor operations such that information may be compiled for the preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12. Perform Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, and 40 CFR Part 60, Appendix A or any other testing if and when requested by MassDEP or EPA.

Table 4	
RECORD KEEPING REQUIREMENTS	
EU-1	Newport Materials shall establish and use a maintenance, inspection and testing log to record and document maintenance, inspection and testing activities on the subject equipment and associated air pollution control equipment. These records shall include, at a minimum, including all visual testing performed, replacement of leaking filter cartridges or bags, daily equipment inspections, stack test results, etc. Newport Materials shall maintain records for process operations, the type of fuel burned, the sulfur content of fuel oil used, and actual fuel usage, the hours of operation, raw material usage, and the amount of product produced in the subject unit. Further, the equations utilized to calculate emissions from the subject equipment, as well as the resultant emissions, shall be included in these records. Newport Materials shall maintain records of all malfunctions of EU-1 and associated air pollution control equipment, including, at a minimum, the date and time the malfunction occurred, a description of the malfunction and the corrective action taken, the date and time corrective actions were initiated, and the date and time corrective actions were completed. Newport Materials shall maintain on site and accessible at or near the subject equipment, at all times, a copy of this Approval letter and the most current SOMP for all air-emissions-related equipment at the facility. Newport Materials shall maintain all records or reports required by this Approval on-site for five (5) years.
EU-1, EU-2	The results of inspection, maintenance, and testing performed in accordance with Regulation 310 CMR 7.04(4)(a) shall be recorded and posted conspicuously on or near the approved equipment. Said results shall include the date upon which it was performed.
EU-2	Newport Materials shall maintain records which include the type of fuel burned, the sulfur content of fuel oil used, the actual fuel usage, as well as the resultant emissions therefrom.
EU-3	Newport Materials shall maintain adequate records on site to document compliance with the limits specified in Table 2 above, and any other applicable regulation.
EU-4	Newport Materials shall maintain adequate records on site to document compliance with the limits specified in Table 2 above, and any other applicable regulation. Newport Materials shall maintain adequate records on site to document any changes and improvements to the BMP employed to reduce emissions from the subject equipment.

Table 4 RECORD KEEPING REQUIREMENTS	
Facility Wide	Newport Materials shall maintain adequate records on-site to demonstrate compliance with the emission limits and operational requirements as stated in Table 2 or in the Special Conditions of this Approval. With respect to emissions, at a minimum, the information shall include the calculated emission unit and facility emissions of NO _x , CO, SO ₂ , VOC, PM, PM ₁₀ , PM _{2.5} , and HAP for the month, as well as the prior 11 months. An example of a format that is acceptable to MassDEP is the On-Site Record Keeping Form, which can be downloaded at http://www.mass.gov/den/air/approvals/reshome.htm .

Table 5 REPORTING REQUIREMENTS	
EU#	
Facility Wide	Newport Materials shall submit, in writing, an Exceedance Report to MassDEP should the facility exceed any limitation/restriction established in Table 2 of this Approval. Said Exceedance Report shall be submitted within seven (7) days of determination of the exceedance of the limitation/restriction. The Exceedance Report shall include identification, duration, and reason for the exceedance, and the remedial action plan to prevent future exceedances.
	Newport Materials shall accurately report to MassDEP in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The facility shall note any minor changes, which did not require Plan Approval (under 310 CMR 7.02, 7.03, etc.) therein.
	Newport Materials shall maintain all records or reports required by this Approval on-site for five (5) years. All records shall be made available to representatives of MassDEP or EPA upon request.

4. SPECIAL CONDITIONS

The facility is subject to, and shall comply with, the following special conditions:

- a) Newport Materials shall operate the subject exhaust stacks in a manner that is consistent with good air pollution control engineering practice and that discharge so as to not cause or contribute to a condition of air pollution. Exhaust stacks shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices, "shanty caps" and "egg beaters". Any emission impacts of exhaust stacks upon sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices.
- b) Newport Materials shall conduct a noise survey (during daytime), which is in accordance with Department guidelines, to demonstrate that the noise impacts from the operation of the subject equipment are in compliance with Regulation 310 CMR 7.10 and the Bureau of Waste Prevention's Noise Policy No. 90-001. This survey shall be conducted within 120 days of the commencement of continuous operation of the subject equipment. The results shall be submitted to this Office, in writing, attention Permit Chief, Bureau of Waste Prevention, within 30 days of completion of the testing.
- c) Newport Materials shall keep all facility roads paved, swept, and/or wetted as applicable, shall keep all raw materials storage piles watered as required, and shall keep sand, RAP, and drum mix aggregate feed conveyors enclosed at all times to minimize fugitive particulate

emissions. Newport Materials shall employ best management practices to minimize fugitive particulate emissions from the facility.

d) Newport Materials shall utilize non-volatile release agents for the trucks, require that all trucks cover their loads with tarps as quickly as possible after loading and limit on-site truck speeds to no more than 10 miles per hour.

e) Newport Materials shall have readily accessible on-site as spares, at all times, the minimum number of filter elements, cartridges, or bags for PCD-2 and PCD-3, as recommended by manufacturer specifications.

f) Within one hundred eighty (180) days of the date of completion of installation and commencement of continuous operation of the new drum mix plant and associated pollution control equipment, Newport Materials shall submit to MassDEP, for approval, the updated SOMP for the facility, which includes but is not limited to, the operating parameters established by the manufacturer, the facility, and as a result of testing, start-up and maintenance procedures of pollution control equipment, emergency measures to be taken should either the subject equipment malfunction and all required record keeping procedures. Newport Materials shall operate the facility in accordance with its SOMP. Future updates to the SOMP shall be submitted to MassDEP within thirty (30) days of said revisions. The updated SOMP shall supersede prior versions of the SOMP and shall include all equipment approved herein.

g) Newport Materials shall ensure that the subject facility complies with all applicable requirements contained in 40 CFR 60, Subpart I, "Standards of Performance for Hot Asphalt Facilities."

h) Newport Materials has indicated that the facility's crushing equipment approved herein may be subject to 40 CFR Part 60, Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants," and all applicable requirements contained therein. MassDEP has not accepted delegation of authority for 40 CFR Part 60, Subpart OOO. You are advised to consult with USEPA regarding applicability to Subpart OOO including any notification, record keeping, reporting, monitoring, and testing requirements for which you may be subject.

i) Newport Materials shall comply with 310 CMR 7.09 (1) at all times. This Regulation states that no person having control of any dust or odor generating operations shall permit emissions there from which cause or contribute to a condition of air pollution. This Air Pollution Control Regulation is also enforceable by any police department, fire department, board of health officials, or building inspector or their designee acting within their jurisdictional area via 310 CMR 7.52.

j) Newport Materials shall comply with 310 CMR 7.01 (1) at all times. 310 CMR 7.01 (1) states that no person owning leasing or controlling the operation of any air contaminant source shall willfully, negligently, or through failure to provide necessary equipment or to take necessary precautions, permit any air emissions from said air contamination source of such quantities of air contaminants which will cause, by themselves or in conjunction with other air contaminants, a condition of air pollution.

k) Newport Materials shall limit the hours of operation of their asphalt plant and associated equipment to 6 a.m. to 7 p.m., Monday through Saturday. Newport shall not operate between December 15th and March 15th.

l) Newport Materials shall pave all roadways, aggregate handling areas, and the rock crushing area at the Newport facility. In addition, Newport Materials shall pave all roadways at Granite State Concrete, the rock quarry, and the wood chipping operation.

5. GENERAL CONDITIONS

The facility is subject to, and shall comply with, the following general conditions:

a) Should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the facility, then the facility shall immediately take appropriate steps to abate said nuisance condition(s).

b) The facility shall allow MassDEP personnel access to the site, buildings, and all pertinent records at all reasonable times for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.

c) This Approval consists of the Application materials and this Approval letter. If conflicting information is found between these two documents, then the requirements of the Approval letter shall take precedence over the documentation in the Application materials.

d) This Approval does not negate the responsibility of the facility to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Approval imply compliance with this or any other applicable federal, state, or local regulations now or in the future.

e) This Approval may be suspended, modified, or revoked by MassDEP if, at any time, MassDEP determines that the facility is violating any condition or part of this Approval.

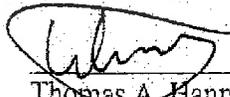
f) Failure to comply with any of the above stated conditions will constitute a violation of the "Regulations", and can result in the revocation of the Approval granted herein and/or other appropriate enforcement action as provided by law. MassDEP may also revoke this Approval if the construction work is not begun within two years from the date of issuance of this Approval, or if the construction work is suspended for one year or more.

g) MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy and Environmental Affairs, for air quality purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act and Regulation 301 CMR 11.00, Section 11.04, provide certain "Fail-Safe Provisions" which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report at a later time.

Newport Materials - Westford
Modified Conditional Approval
Transmittal No. X227251
Application No. MBR-09-IND-005

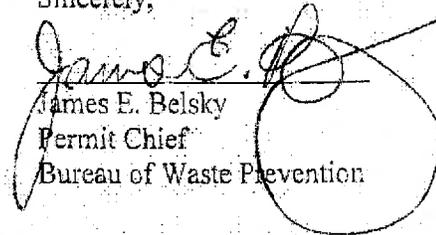
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Should you have any questions concerning this Approval, please contact Thomas A. Hannah by telephone at (978) 694-3287, or in writing at the letterhead.



Thomas A. Hannah
Environmental Engineer

Sincerely,



James E. Belsky
Permit Chief
Bureau of Waste Prevention

cc: Sandy Collins, Director of Health Care Services, Board of Health, 55 Main Street, Westford, MA 01886
Daren R. MacCaughy, Director of Environmental Services, Board of Health, 55 Main Street, Westford MA 01886
Westford Fire Dept Headquarters, 51 Main Street, P.O. Box 296, Westford, MA 01886
Lynne Santos, P.E., Air Quality Associates, 29 Seven Oaks Road, North Billerica, MA 01862
Christine Gibbons, ETG, 71 South Street, Hopkinton, MA 01748
MassDEP/Boston - Yi. Tian (E-Copy)
MassDEP/NERO - Marc Altobelli (E-Copy & Hard Copy), Mary Persky



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

One Winter Street Boston, MA 02108 • 617-292-5500

DEVAL L. PATRICK
Governor

TIMOTHY P. MURRAY
Lieutenant Governor

RICHARD K. BULLIVAN JR.
Secretary

KENNETH L. KIMMELL
Commissioner

April 7, 2011

In the Matter of
Newport Materials

Docket No. 2009-062

Westford

FINAL DECISION

I have reviewed the attached Settlement Agreement signed by the applicant's representative Richard DeFelice, on March 25, 2011, by the petitioners' representative Lawrence Sweeney on March 28, 2011, and by Richard Chalpin, Regional Director for the Department on March 28, 2011. The Department issues this Final Decision incorporating the Settlement Agreement and Final Modified Conditional Plan Approval, which I have also reviewed.

Under the terms of 310 CMR 1.01(8)(c), these proceedings are dismissed with the parties waiving whatever rights they may have to further administrative review before the Department as well as appeal to court.

Kenneth Kimmell
Commissioner

SERVICE LIST

In The Matter Of:

Newport Materials Asphalt

Docket No. 2009-062

Chelmsford

Representative

Party

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APPLICANT

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PETITIONER
Representative

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Madelyn.morris@state.ma.us

DEPARTMENT

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INTERVENORS

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Chelmsford, MA
rday@townofchelmsford.us

TOWN
Chelmsford

James E. Belsky
Permit Chief
Bureau of Waste Prevention
DEP-Northeast
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Wilmington MA 01887
James.belsky@state.ma.us

DEPARTMENT

Date: April 7, 2011

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY AND ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of

OADR Docket No. 2009-062

Newport Materials

Westford Mass

Settlement Agreement

Parties

1. The Department of Environmental Protection (the Department or MassDEP) is a duly constituted agency of the Commonwealth of Massachusetts established pursuant to M.G.L. c. 21A, § 7 with a principal office located at One Winter Street, Boston, Massachusetts and a regional office at 205 Lowell Street in Wilmington, Massachusetts. The Department implements the Air Pollution Control Permitting Program which is governed by 310 CMR 7.00.
2. Newport Materials LLC (Newport) is a New Hampshire Limited Liability Corporation with a mailing address at 164 Burke Street in Nashua, N.H. The Massachusetts agent for service of process is Joseph Rossi whose mailing address is 2120 Commonwealth Avenue, Auburndale, MA. On May 4, 2009, Newport submitted an application for a non-major comprehensive plan approval to construct a hot mix asphalt drum plant on property located at 20 Commerce Way in Westford. On September 18, 2009, the Department of Environmental Protection (the Department) conditionally approved that application.
3. The Petitioners are 47 residents of Chelmsford who sought to initiate or intervene in this appeal of the conditional plan approval on the ground that the proposed hot mix asphalt plant would cause damage to the environment. A list of their names is attached to this Settlement Agreement as Exhibit A.¹
4. The Department, Newport, and the Petitioners are hereinafter referred to as the Parties.

Statement of Facts

¹ At the time of the filing of this Settlement Agreement, a motion to dismiss the Town of Chelmsford is pending before the Presiding Officer and as stated in the Joint Stipulation filed on March 21, 2011, the Parties have agreed to the allowance of this motion.

5. On March 21, 2011, the Parties filed a Joint Stipulation with the Office of Appeals and Dispute Resolution. In the Joint Stipulation, the Parties agreed that except for Best Available Control Technology (BACT) for NOx, the modified conditional approval attached to the prefiled testimony of James Belsky as Exhibit H (the Modified Conditional Approval) requires BACT. The Parties further agreed that Newport had demonstrated that the proposed hot mix asphalt plant would comply with the National Ambient Air Quality Standard for PM2.5 and NO2 and the Threshold Exposure Limit and Allowable Ambient Air Limit for formaldehyde.
6. Subsequent to filing the Joint Stipulation, the Department determined that BACT for NOx was 0.044 lbs/mmBTU combusting natural gas and 0.113lbs/mmBTU for Ultra Low Sulfur Distillate (ULSD), as suggested by Lynne Santos in her rebuttal testimony. Thereafter the Department further modified the Modified Conditional Approval. A copy of this second modified conditional approval (the Final Modified Conditional Approval) is attached to this Settlement Agreement as Exhibit B.

Terms and Conditions of the Settlement Agreement

7. Pursuant to M.G.L. c. 30A and 310 CMR 1.01(8)(c), the Department, Newport, and the Petitioners agree to the issuance of a Final Decision approving this Settlement Agreement and providing for the issuance of a Final Modified Conditional Plan Approval (Ex. B) authorizing the hot mix asphalt plant. The Parties submit this Agreement for approval as required by 310 CMR 1.01(8)(c) in order to finally resolve all claims and disputes of the Parties arising out of the Modified Conditional Approval under the Air Pollution Regulations, 310 CMR 7.00. Upon the issuance of the Final Decision by the Commissioner of MassDEP, the Parties hereby agree that all rights to additional administrative review before the Department and all rights to further appeal to any Court shall be and hereby are waived.
8. The Parties acknowledge that any violation by Newport of the Final Modified Conditional Approval incorporated into the Final Decision may lead to a future enforcement action by the Department pursuant to M.G.L. c. 111, 142 A-J and 310 CMR 7.00
9. No provision of this Settlement Agreement shall be construed as or operate to bar or in any way affect any legal or equitable right of the Petitioners to initiate a claim, action, suit, cause of action or demand against Newport or any other person, corporation, or other entity under M.G.L. Ch. 214, Sec. 7A, including any purported violation of environmental regulations and/or any alleged creation of a nuisance arising out of the truck traffic generated by the proposed asphalt plant. Further, no provision of this

Settlement Agreement shall be construed as an admission by the Petitioners that the exclusion of the noise, dust, or tailpipe emissions from truck traffic associated with the facility's operation from the review and issuance of the Final Modified Conditional Approval to Newport was, as a matter of law, proper, but it does bar them from any additional administrative review before the Department of the Final Decision or to further appeal of the Final Decision to any Court as set forth in par. 7 above.

10. This Settlement Agreement constitutes the entire understanding and agreement between the Parties with respect to the subject matter of this Agreement.
11. The provisions of this Settlement Agreement and any amendments hereto shall be binding upon the Parties and their respective successors and assigns.
12. This Settlement Agreement shall be construed and interpreted in accordance with the laws of the Commonwealth of Massachusetts. This Settlement agreement shall be enforceable at law or in equity in Superior Court of the Commonwealth of Massachusetts for Middlesex County.
13. This Settlement Agreement may be executed in counterparts, each of which when executed and delivered to the Department shall be an original. All counterparts shall constitute one and the same instrument.
14. The Parties voluntarily enter into this Settlement Agreement, because each has mutually agreed that settlement of this matter without costly and protracted litigation is in the best interests of the citizens of the Commonwealth and of the Parties and that execution of this Settlement Agreement without such litigation is the most appropriate means of resolving this matter.
15. Newport shall allow the Department and its authorized representatives to enter and inspect the proposed asphalt plant at reasonable times for the purpose of investigating, sampling or inspecting any records, condition, equipment, practice or property relating to the activities that are the subject of this Settlement Agreement in accordance with existing laws, statutes and regulations.

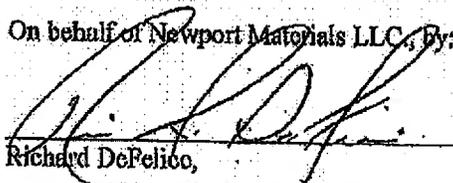
16. All signatories to this Settlement Agreement certify by the signature(s) below that she/he is duly authorized to execute this Settlement Agreement and legally bind their respective parties.

17. The Parties understand that any Final Decision approving this Settlement Agreement and Final Modified Conditional Plan Approval shall not be subject to 310 CMR 1.01(14)(b).

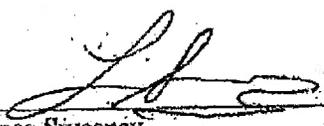
18. This Settlement Agreement shall take effect upon the date that the Commissioner or his designee issue a Final Decision approving this Settlement Agreement.

IN WITNESS WHEREOF, the Parties have duly executed this Settlement Agreement.

On behalf of Newport Materials LLC, By:


Richard DePelico, 3-25-2011
Date

On behalf of the Petitioners by:



Laurence Sweeney

3.28.11

Date

On behalf of the Department of Environmental Protection by:

Richard Chalpin 3/28/11
Richard Chalpin Date

EXHIBIT A

1. Marie M. Burnham
2. Joanne Burnham
3. George H. Burnham
4. Mike Donnelly
5. Gordon Gauntlett
6. Paul Cloutier
7. John L. Pecora
8. Eleanor J. Ferreira
9. Nance J. Gillies
10. David Sturgeon
11. John C. Dearden
12. Deborah F. Williams
13. Andrea Gauntlett,
14. Scott E. Leedberg
15. David S. Gillies
16. Mark L. Morin
17. Richard Joseph Saucier
18. Jeffrey H. Gillies
19. Mark R. Timmins
20. Roy Bennett
21. Shawn M. Limerick
22. Cindi E. Limerick
23. Laurence E. Sweeney
24. Sheila A. Anderson-Sweeney
25. Bridget Mello
26. Richard Commins
27. Anthony Maletta
28. Timothy Coit
29. Rowan Kosmin
30. Mark Lemley
31. Karthik Ramamoorthy
32. Burli Sandeep
33. Srinivasulu Chereddy
34. Dinesh Hegde
35. Jill Brennan
36. Mary Dustin
37. Merle Adelman
38. Uzi Barzilai
39. Gagik Manukian
40. Judith Consentino
41. Brian MacPhee
42. R. Pauletti
43. Charles Lemelin
44. Leonard W. Acker
45. Hal Matzkin
46. Nancy J. Smilgis
47. Eileen Keegan

