

Title: HMA Plant – Best Practices Checklist	Pennsylvania Asphalt Improvement Network	Document No.: QPM007-06	Effective Date: 20-Dec-06 Rev: 00	Page: 1 of 6
Owner/Approver:	Reviewed By:	Reviewed By:	Reviewed By:	Reviewed By:

**1.0 PURPOSE:**

This procedure describes the describes the Best Practices a Hot Mix Asphalt (HMA) plant should review and apply as a supplement to a HMA construction contract to ensure final products meet contract requirements.

**2.0 SCOPE:**

This procedure applies to the HMA operations at batch and continuous flow plants.

**3.0 RESPONSIBILITY:**

HMA plant management and operating personnel.

**4.0 EQUIPMENT NEEDED:**

Based on type of HMA plant and contract requirements.

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## 5.0 PROCEDURE:

### HMA Plant QC Best Practices (Steps to be taken by Contractor Plant QC Manager)

Red Indicates a "Key Control Point"

#### 1. Aggregate Handling and Storage

			Comments
	a.	Aggregates meet specifications.	
	b.	<b>Proper sizes being produced.</b>	
	c.	Aggregate storage satisfactory.	
	d.	<b>Stockpiles separated properly.</b>	
	e.	Stockpiles constructed properly.	
	f.	Stockpiled aggregate handled correctly.	
	g.	Segregation being controlled.	
	h.	Mineral filler or hydrated lime kept dry.	

#### 2. Cold Feed Operation

			Comments
	a.	Cold feed set-up in compliance with specifications.	
	b.	<b>Cold feed bins contain proper size aggregates.</b>	
	c.	Cold feed bins properly charged.	
	d.	Cold aggregate feeders perform satisfactorily.	
	e.	<b>Cold aggregate feeders calibrated.</b>	
	f.	<b>Cold aggregate feeder gates set correctly.</b>	
	g.	Cold aggregate feeding continuously.	

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**3. Asphalt Heating, Circulating and Temperature of Mixture**

**Comments**

	a.	<b>Asphalt uniformly heated to the specified temperature.</b>	
	b.	All lines have been checked for leaks.	
	c.	<b>Maintain specified temperature of the mixture and its components.</b>	

**7. Drum Mix Plant**

**Comments**

	a.	<b>Calibrate aggregate feeds.</b>	
	b.	<b>Calibrate asphalt feed.</b>	
	c.	<b>Aggregate and asphalt feeds properly interlocked.</b>	
	d.	Proper blend of materials to meet approved job-mix formula.	
	e.	Plant parts in good condition and adjusted.	
	f.	<b>Asphalt at the proper temperature when introduced into the drum.</b>	

**5. Batch Plant**

**Comments**

	a.	Scales comply with specifications.	
	b.	<b>Calibrated scales.</b>	
	c.	Check scales for tolerance.	
	d.	<b>Properly tare asphalt bucket.</b>	
	e.	Weigh box hangs free.	
	f.	Mixer parts in good condition and adjustment.	
	g.	<b>Proper size batch being mixed.</b>	
	h.	Bin withdrawal in proper sequence.	
	i.	Asphalt distribution uniform along the pug mill.	
	j.	<b>Aggregates and asphalt at proper temperatures when introduced into the weighing receptacles.</b>	

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	k.	Valves or gates do not leak.	
	l.	Adequate mixing time.	
	m.	<b>Weight point set properly for batch weights.</b>	
	n.	Mixer shafts revolving at proper speed.	
	o.	Proper blend of materials to meet approved job-mix formula.	
	p.	Screen capacities sufficient to handle the maximum feed from the dryer.	
	q.	Clean screens.	
	r.	Screens not worn or broken.	
	s.	Carry-over not irregular or excessive.	
	t.	Hot bin partitions sound.	
	u.	Free-flowing overflow chutes.	
	v.	Maintain bin balance.	

#### 6. Dryer and Dust Collector

#### Comments

	a.	Dryer and dust collector comply with specifications.	
	b.	Aggregate properly dried.	
	c.	<b>Aggregates at proper temperature.</b>	
	d.	Dryer components in balance.	
	e.	Dryer in balance with the other plant components.	
	f.	Heat-indicating device installed correctly.	
	g.	<b>Heat-indicating device checked for accuracy.</b>	
	h.	Dust collector in balance with dryer.	
	i.	Collected fines from the dust collector wasted, or fed back uniformly in the desired amount.	

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**7. Storage Silos**

**Comments**

	a.	<b>Silo contains a batcher.</b>	
	b.	Baffles or other devices to prevent segregation working properly.	
	c.	<b>Silo discharge opening properly configured to prevent segregation.</b>	
	d.	Discharge gate open and close efficiently.	

**8. Sampling and Testing**

**Comments**

	a.	Sufficient samples being taken to comply with the sampling plan.	
	b.	Samples representative of the material.	
	c.	All tests conducted properly.	
	d.	Test results available soon enough to be effective for quality control activities.	

**9. Plant Records**

**Comments**

	a.	Complete and up-to-date records.	
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**10. Miscellaneous Responsibilities**

**Comments**

	a.	Inspected truck beds.	
	b.	Truck beds drained after spraying.	
	c.	Trucks meet specification requirements.	
	d.	<b>Trucks equipped with tarpaulins or covers.</b>	
	e.	Mix of uniform appearance.	
	f.	<b>Temperature of the mix uniform and satisfactory.</b>	
	g.	Mix satisfies the placing requirements.	
	h.	Personnel being properly instructed.	
	i.	Safety measures being observed.	

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	j.	A daily summary report of plant activities also should be kept. There should be a summary of the results of all tests performed during the day and tabulation of the amounts of material received and used.	
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## 6.0 Revision Log

<u>Revision</u>	<u>Date</u>	<u>Description</u>	<u>Requested By</u>	<u>Completed By</u>
00	20-Oct-06	Initial Release	<u>PASIN Core Team</u>	<u>MDL / FJC</u>

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