

| HMA Verification Responsibilities | | | |
|---|--|--|------------------------------------|
| Duty | Task | Performed By / REQ'D. CERT. | Minimum Frequency |
| 1. Verify Aggregate Gradation. | <ul style="list-style-type: none"> Direct and witness contractor sampling and splitting of cold feed combined aggregate. Secure and identify split sample for delivery to District Lab or take possession of split sample. | Construction HMA SAMPLER & AGG. I | 1/Day |
| | <ul style="list-style-type: none"> Test combined aggregate sample for gradation. Compare results to contractor test results per IM 216. Report validation results. | District Materials or Construction AGG. II | 1 st Day + 20% |
| | <ul style="list-style-type: none"> Investigate validation issues. | District Materials | As Needed |
| 2. Verify Aggregate Quality. | <ul style="list-style-type: none"> Obtain independent sample. Send sample to Office of Materials with documentation. | District Materials AGG. I | 1/20,000 Tons |
| 3. Verify Asphalt Binder Quality. | <ul style="list-style-type: none"> Direct and witness contractor sampling of asphalt binder. Secure and identify sample for delivery to District Lab. | Construction HMA SAMPLER | 1/Day |
| | <ul style="list-style-type: none"> Test asphalt binder samples on DSR. Report binder test results. | District Materials | 1 st 3 Days then 1/Week |
| | <ul style="list-style-type: none"> Obtain binder sample from the pumping line with assistance from the contractor. Send sample to Office of Materials with documentation. | District Materials HMA SAMPLER | 1/20,000 Tons |
| 4. Verify Uncompacted Mixture Properties. | <ul style="list-style-type: none"> Select random sample locations. Direct and witness contractor paired sampling of uncompacted mix as per IM 322 and IM 511. Secure and identify one of each paired sample for delivery to District Lab. | Construction HMA SAMPLER | 1/Sublot |
| | <ul style="list-style-type: none"> Randomly select paired sample for testing. Test selected sample for required mix properties. Compare results to contractor test results per IM 216. Report validation results. | District Materials HMA I | 1/Day |
| | <ul style="list-style-type: none"> Investigate validation issues. | District Materials | As Needed |

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| 5. Verify Compacted Pavement Properties. | <ul style="list-style-type: none"> Select random sample locations. Direct and witness contractor coring. Inspect cores for damage and thickness and direct replacement coring of damaged or unusable cores. Take possession of cores and transport to the contractors lab or secure core samples if contractor is transporting the cores. Measure cores for thickness. Test cores for density and record weights. Provide copy of thickness and weights to contractor for reporting. | Construction HMA SAMPLER | 7 Cores/Lot |
| | <ul style="list-style-type: none"> Select random sections for smoothness testing. Perform independent smoothness testing. Compare results to contractor test results per IM 216. Report validation results. | District Materials PROFILOMETER | 10% of Project |
| | <ul style="list-style-type: none"> Investigate validation issues. | District Materials | As Needed |

HMA Independent Assurance Responsibilities

| Duty | Task | Performed By / REQ'D. CERT. | Minimum Frequency |
|---|--|-----------------------------------|-------------------|
| 1. Aggregate Gradation Independent Assurance. | <ul style="list-style-type: none"> • Systematically distribute aggregate proficiency samples to contractor technicians who perform QC gradation testing for acceptance and construction technicians who perform verification gradation testing per IM 205. <ul style="list-style-type: none"> ○ Contractor and Construction certified technicians who perform gradation testing must pick up, test and report results of samples to the Central Lab approximately every three months. • Record sample ID numbers and receiver for each sample distributed. | District Materials | Monthly |
| 2. HMA Independent Assurance. | <ul style="list-style-type: none"> • Systematically distribute HMA proficiency samples to contractor technicians performing QMA testing of HMA per IM 205. <ul style="list-style-type: none"> ○ Contractor certified technicians who perform HMA testing must pick up, test and report results of samples to the Central Lab approximately every three months. • Record sample ID numbers and receiver for each sample distributed. | District Materials | Monthly |
| 3. Core Density Independent Assurance. | <ul style="list-style-type: none"> • Retest one set of cores for density and thickness. • Compare results to construction technician test results. • Report comparison of test results. | District Materials HMA SAMPLER | 1/Project |

01/31/08

Appendix 3-4.3

Other Required HMA Acceptance Responsibilities

| Duty | Task | Performed By / REQ'D. CERT. | Minimum Frequency |
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| 1. Qualify Laboratory. | <ul style="list-style-type: none"> • Check condition of test equipment. • Check equipment calibration records. • Check for current test methods. | District Materials HMA I | Every Two Years |
| 2. Observe Plant Calibration. | <ul style="list-style-type: none"> • Check for proper procedures per IM 508. • Check for approved JMF. • Check stockpile certifications. • Check plant settings. | District Materials HMA I | As Per DME |
| 3. Materials Certifications. | <ul style="list-style-type: none"> • Check for approved aggregate sources. • Check certified aggregate truck tickets. • Check for approved asphalt binder source. • Check certified asphalt binder truck tickets. • Check for approved release agents per IM 491.15. | District Materials HMA I | Check at Time of Calibration and When Material Changes |
| | <ul style="list-style-type: none"> • Review entries in Plant Book for certified quantities of materials. | Construction HMA I | Weekly |
| 4. Documentation. | <ul style="list-style-type: none"> • Review plant calibration. • Review job mix formulas. | District Materials HMA II | At Startup of Each Mix |
| | <ul style="list-style-type: none"> • Review entries in the Daily Plant Report. • Review entries in the Plant Book. • Review entries in Plant Program for pay quantities. | Construction HMA I | First Day and Weekly Thereafter |
| | <ul style="list-style-type: none"> • Review quality control charts. | District Materials HMA I | Weekly |
| | <ul style="list-style-type: none"> • Obtain files of project documentation: <ul style="list-style-type: none"> ○ Daily Plant Reports ○ Correlation Summary Sheets ○ Quality Control Charts ○ Delivery Tickets ○ Submitted Forms | Construction | At End of Project |
| 5. Inspect Stockpiles. | <ul style="list-style-type: none"> • Observe stockpiling procedures per IM 508. • Check for segregation. • Check for contamination. • Check for intermingling of stockpiles. | District Materials HMA I | First Day and Weekly Thereafter |

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| 6. Aggregate Proportioning. | <ul style="list-style-type: none"> • Inspect method of securing cold-feed bin gate settings. • Monitor actual cold-feed gate and belt speed settings. • Monitor aggregate proportions. • Monitor interlocks. | District Materials HMA I | At Startup and When Problems Arise |
| 7. Plant Operations. | <ul style="list-style-type: none"> • Observe coating of aggregates. • Observe mixing time (batch plant). • Prevent segregation: <ul style="list-style-type: none"> ○ Observe truck loading. ○ Observe level of mix in the silo. ○ Observe operation of hopper/silo gates. | District Materials or Construction HMA I | At Startup and When Problems Arise |
| | <ul style="list-style-type: none"> • Monitor trucks for improper use of cleaning fluids per specification 2001.01. | District Materials or Construction HMA I | At Startup and Weekly Thereafter |
| 8. Plant Adjustments. | <ul style="list-style-type: none"> • Participate in discussion of mix design adjustments. • Document proportion changes. | District Materials HMA II | Each Occurrence |
| 9. Inspect Plant Facility. | <ul style="list-style-type: none"> • Check if lab qualification is current. • Check for all required test equipment. • Check for computer, fax, copier, and phone. | District Materials HMA I | At Startup |
| 10. Check Weighing Equipment. | <ul style="list-style-type: none"> • Monitor check weighing. • Monitor verification weighing. • Monitor sensitivity check. | Construction HMA I | First Day and Once Per Week Thereafter |
| | <ul style="list-style-type: none"> • Witness truck tare weighing at random. | Construction HMA I | Once Per Project |
| 11. Asphalt Binder Quantity Determination. | <ul style="list-style-type: none"> • Monitor tank sticking procedures. • Witness the 4-hour meter calibration if In-Line Flow Meter is being used for asphalt binder quantity. | Construction HMA I | First Day and Weekly Thereafter |