

WACA/WSDOT Meeting Minutes for Thursday, March 4, 2010

Attendees:

Dave Burg, Ashgrove	Tamson Omps, CalPortland	Neil Guptill, CalPortland
Bob Raynes, Cemex	Tom Weist, Oldcastle Precast	Kent Balcom, Headwaters
Eric Clark, Corliss Resources	Rob Shogren, Lafarge	Craig Matteson, Central Pre-Mix
Kurt Williams, WSDOT	Richard Boss - Cadman	Mike Polodna, WSDOT
Rob Molohon, WSDOT	Maha Ablson, WSDOT	Mohammad Sheikhezadeh, WSDOT

Location: WSDOT HQ Materials Lab, Tumwater, WA

Next WACA Meeting Date:

Tuesday, June 22, 2010 at WACA's Office in Des Moines, 9:30 AM to 12:00 Noon

Future WACA Meetings Dates:

Wednesday, September 22, 2010, at WSDOT HQ Mats Lab, Main Conf Room, 9:30 AM – 12:00 Noon

Wednesday, December 8, 2009, at WACA's Office in Des Moines, 9:30 AM – 12:00 Noon

Meeting Minutes are available at: <http://www.wsdot.wa.gov/biz/mats/>

Issue: Performance Specifications for Concrete Mix Designs - Mo Sheikhezadeh

Develop performance specification parameters for concrete that can be developed into specifications. 3/4/10 – Mo reported that a WSDOT team is reviewing performance specification issues. Mo also reported on creep testing that was being conducted on SCC concrete from Cadman on an I-90 seismic retrofit project. Mo reported on modulus of elasticity (MOE) testing that WSDOT is conducting on SCC cores and cylinders for concrete proposed for use on the Wandermere bridge in Spokane. Dick Boss reported that a 1950s Corp of Engineers study gave good insight into the differences between testing cores and cylinders. There are many variables that will affect the concrete core properties including the location of the core, the size of the core, and how the core was taken.

Mo asked for feedback on the sample size for pre-qualifying SCC mixes. It was stated that the State of Virginia is leaning towards 5 cubic yards.

Kurt reported that WSDOT will start gathering data on what MOE its current concrete mixes are achieving.

Action Plan: Further discussion at June 2010 WACA meeting– Mo Sheikhezadeh

Issue: Degradation for concrete Aggregate/Base Course – Kurt Williams

A research study is on-going to test the effect of using aggregate with low degradation values in concrete mixes.

3/4/10 – Mike Polodna reported that aggregate from C-52 has been delivered to WSU for the second round of testing. The aggregate has a source approval degradation value of 68. Since a source with a low deg value is not currently available, a source with a high deg value was used. Craig offered that his Toppenish Pit may be down to some low deg material by fall 2010. If so, this could be used for a future round of testing.

Action Plan: Continue to give updates to WACA at Monthly Meetings – Kurt

Issue: Proposed Specification Change to Section 6-02.3(2) Proportioning Materials – Mo Sheikhezadeh

WSDOT 4000D mix still requires a minimum of 660 pounds of portland cement plus 75 pounds of fly ash and addition fly ash can be added to Alkali Silica Reactivity mitigation which can raise the total cementitious above 800 pounds.

3/4/10 – Kurt is proposing requiring a minimum of 660 pounds of “cementitious” rather than 660 pounds of Portland cement. An internal WSDOT group is reviewing.

Action Plan: Update group at next WACA meeting.

Issue: Recycled Material used in Aggregates - Jim Burnett

Jim Burnett with Iron Mountain Quarry has asked about forming a group to look at updating Section 9-03.21 Recycled Materials in the WSDOT Std Specs. Jim gave a presentation on the subject. He is looking for guidance on how to proceed with getting the material approved for use on transportation projects. Kurt noted that his is proposing a subcommittee to review the recycled material specification and wanted to know if there are members in WACA that would be interested in being on the subcommittee. Craig Matteson and Dick Boss volunteered to be on a committee to review the matter. Kurt said he would send out an email with the meeting notes requesting volunteers from WACA for this subcommittee and asked that people interested respond to that email.

3/4/10 – An initial meeting of the subcommittee will be held on March 25, 2010. There are 6 members of the subcommittee.

Action Plan: Remove from WACA agenda until the sub-committee has something to report.

Issue: Standard Specification 9-03.1(4)C – Louie Bayless

Louie questioned how they can meet the spec if a small portion is larger than the top size allowed. The spec allows a maximum of 4% over the limit provided that the average of 3 tests is within the limit. Strictly enforced, one rock over the maximum size would be cause for rejection of the aggregate. Kurt stated that Statistical Acceptance of Material (SAM) allows a small percentage over the limit. He asked Louie to email him specific information and he will investigate.

3/4/10 – Louie is not in attendance today.

Action Plan: Discuss further at next WACA meeting.

Issue: Standard Specification 9-03.4(2) Grading and Quality – Louie Bayless

Louie stated that the can only make crushed screenings effectively in 3/8 - #10. Other sizes are

difficult to make. Kurt will refer the matter to Jeff Uhlmeyer who is on the BST Committee and will let Louie know when the next committee meeting is.

(Note: The gradations for the BST specification were updated in the 2010 Standard Specifications and Kurt sent an email to Louie Bayless on 12/22/09 requesting he review the updated specification to see if that addresses the issue or creates other problems.)

3/4/10 – this issue will be addressed at the BST Committee.

Action Plan: Issue Complete moved to BST committee.

Discussion Item: Blending Aggregate from Different Pits – Dick Boss

Dick stated that concrete mixes are being rejected because they are blending aggregate from different pits. Kurt asked Dick to send the mix designs to Mike so that he can investigate.

3/4/10 – Dick noted that this issue was resolved.

Action Plan: Issue Complete

Discussion Item: ASR Ovens – Kurt Williams

Kurt reported that the ASR ovens have been ordered and that testing of coarse aggregate will begin soon.

Action Plan: Issue Complete

Discussion Item: Type 1D Curing Compound – Kurt Williams

Kurt reported that WSDOT will eliminate the requirement for a dye in Type 1 curing compounds, thereby eliminating the Type 1D from the standard specifications. There were no objections.

Action Plan: Issue Complete

Discussion Item: Pit Approval – Kurt Williams

Kurt reported WSDOT project engineers have the option to pay for pit approval for sources to be used on their contracts. Most PEs are not paying because of budget and this cost will be borne by the pit owners.

Action Plan: Issue Complete

New Item: Proposed Change to Standard Specification 9-01.2(4) Blended Hydraulic Cement – Rob Shogren

Rob reported that ASTM C-595 now allows ternary blends which can include portland cement, fly ash and slag. Rob proposed to add ASTM C-595 Type IT(X) as long as each individual SCM is listed on the QPL. Rob also reported that ASTM C-1697 now allows pre-blended SCMs. Rob would like to add ASTM C-1697 as a way to pre-blend SCMs at the cement/SCM suppliers' plants as long as each individual SCM is listed on the QPL.

Action Plan: Review new ASTM Standard: Kurt and Mike.

Discussion Item: Water for Concrete - Bob Raynes

Bob reported that WSDOT Standard Specification 9-25.1 Water for Concrete requires that in order to use recycled water the lab that tests their water must meet R-18. The consensus was that no one is currently using recycled water because of the R-18 requirement. Bob inquired if they could use ASTM C1602 with in-house testing instead of the R-18 requirement.

Action Plan: Review Current specifications for concrete water: Kurt and Mike.

Discussion Item: Re-use of Plastic Concrete - Bob Raynes

Bob proposed re-using returned plastic concrete by treating with Delvo and remixing in fresh concrete. Kurt questioned if there was any research to prove this was not detrimental and asked Bob if he could provide research on the reuse of concrete. Kurt noted WSDOT specifications do not allow the re-use of concrete and that would not change unless he gets research and would require the agreement of the FHWA.

Action Plan: Issue complete unless there is new data or research on top.

Discussion Item: Fineness Modulus – Craig Matteson

Craig reported that there is no fineness modulus requirement for combined gradations in WSDOT Standard Specification 9-03.1(5)B because the grading takes care of this.

Action Plan: Issue Complete

New Item: J-ring for SCC – Craig Matteson

Craig asked if the J-ring test is a prequalification test only, or if it is an acceptance test.

Action Plan: Mo will investigate and report back to WACA.

Discussion Item: Cost Escalation – Mo Sheikhzadeh

Mo asked the group if they had a forecast for cost escalation for this year. There were no definitive answers.

Action Plan: Issue Complete

Discussion Item: Fly Ash Supply – Kent Balcom

Kent reported that the fly ash supply is OK. Headwaters is separating Class C from Class F. Their certs will show 76% total oxides for Class F and 60% for Class C. The Centralia plant is producing 35% Class C and 65% Class F. Kent anticipates high use of the coal plant because of low snow pack in the mountains this year. This means that it is expected that there will be plenty of fly ash. It was also noted that slag is also available and used by most concrete producers.

Action Plan: Issue Complete

Discussion Item: ASR Testing for High Alkali Fly Ash

A question was raised by the group regarding WSDOT's enforcement of their spec requiring all fly ash used in concrete to meet the alkali limits in AASHTO M295. The group discussed and Kurt noted that he is concerned with the potential for high alkali fly ash to cause ASR in concrete. He noted that he has discussed this with the group before and currently no test data has been provided by industry proving that high alkali fly ash will not cause ASR. Kurt explained that he is looking for test results from various sources showing that the high alkali fly ash does not cause ASR.

Action Plan: Issue Complete