RUSSTECHNICAL NOTES

SUPERPLASTICIZER GUIDELINES

- I. Discharge Sequence
 - Super plasticizers can be discharged with initial mixing water, but after air entrainment has discharged
 - Superplasticizers can be discharged after the cement is in and damp. This method usually gives better water reduction or slump gain, but may take longer to thoroughly mix
- II. Mixing Time
 - Super plasticized concrete should be mixed for a *minimum* of 6 minutes
- III. Mix Design Adjustments
 - Super plasticized concrete (high slump) usually is a little rockier, so often coarse aggregate is lowered by 50-75 lbs. /yard and fine aggregate increased congruently.
 - When incorporating Superflo 443, air entrainment dosage requirement usually will *increase* approximately by .20 ozs./cwt.
 - When incorporating Superflo 2000RM, air entrainment dosage requirement usually will *decrease* approximately by .75 ozs. /cwt.
- IV. Dosage Recommendations When Combining With Retarders/Accelerators
 - When combining retarders with superplasticizers, *reduce* dosage of retarder by approximately one third to get normal retardation
 - When combining accelerators with superplasticizers, *increase* dosage of accelerator by approximately one half percent to get normal acceleration
- V. Fogging With EVRT
 - In super plasticized mixes (particularly low water/cementitious ratio mixes) incorporated in slabs, bleed water can be considerably less than a normal mix. Fogging the surface with EVRT is highly recommended to reduce the possibility of plastic shrinkage cracks on the surface.

