

**ACI COMMITTEE 307**  
**Reinforced Concrete Chimneys**  
**2020 Virtual Interim Meeting #3**  
**Monday, April 27, 2020**  
**10:00 AM – 12:00 PM EDT**  
**Unapproved Minutes – 5/9/20**

1. Call to order at 10:05
2. Attendance, determination of quorum  
Radecki, Bird, Fang, Mattes, Peters, Scott, Wiley  
7 of 11 voting members attending; quorum achieved
3. Approval of minutes of 13-Apr-2020 meeting  
M – Bird, 2<sup>nd</sup> – Mattes, approved w/o objection
4. Review of 2020 code – validation documents  
Discussion of comparison of loads (continued from 13-Apr-2020 meeting)  
Discussion of across-wind combination vs. along-wind over wind speed range  
Radecki presented plots of across-wind combination vs. wind speed for 25 sample chimneys (AcrossComb\_v\_Alone.pdf). For flexible chimneys (low sample numbers), the second mode base moment exceeds the first mode base moment, but does not exceed the along-wind base moment. However, a plot of the full height response for Sample 1 (S1 – Wind Loads Compare.pdf) shows that at upper elevations, the bending moments due to the second mode across-wind combination load exceeds those due to the along-wind load. The largest increase in across-wind response for ACI 307-20 over ACI 307-08 occurred for Sample 22 for which the ratio was 1.125. Bird suggested that this could have a large impact on the foundation. The maximum damping ratio used for the ACI 307-20 results was 0.025, the low end of the range mentioned in the Commentary to ASCE 7-16 (“2.5% to 3% is commonly assumed”). After discussion, Radecki agreed to prepare results for a damping ratio of 0.03 for the next meeting. Also, Galsworthy will be contacted for his comments regarding 3% damping.  
Discussion of Appendix A and Appendix B equations  
Radecki presented Mathcad results for both methods. It was noted that the Appendix A equations were an approximation of the Appendix B equations. The nominal moment capacity from each method agree.
5. Review of 2020 code – comment review (time permitting)
6. Plan agenda for next meeting  
Compare 2.5% maximum damping to 3% maximum damping for across-wind load.  
Continue with review of 2020 code comments from February ballot.
7. Next meeting  
Monday, May 11, 10:00 AM (US-Eastern)
8. Adjourn M – Fang, 2<sup>nd</sup> – Bird, w/o objection