



DSA BULLETIN 09-01

Issued: January 26, 2009

Effective: March 1, 2009

**To: DSA Staff and
Interested Parties**

**From: Division of the State Architect
Department of General Services
State of California**

SUBJECT: Use of the Next Generation Attenuation (NGA) Relations

Purpose: This Bulletin clarifies DSA rules, effective March 1, 2009, for using the latest attenuation relations, commonly referred to as the Next Generation Attenuation (NGA) relations. The intent of this bulletin is to allow structural engineers to finish their designs if they have already done a substantial amount of work based on the NGA relations in the geohazards report without applying the additional rules noted below. If the structural design has not started or substantial rework is not required, DSA recommends that these additional rules be followed for projects for which geohazard reports were submitted prior to March 1, 2009.

Policy: The requirements of the Office of Statewide Health Planning and Development (OSHPD) Code Application Notice (CAN) 2-1802A.6.2 document shall be applied to NGA relations on projects where the geohazard report is submitted to DSA after February 28, 2009. These requirements are necessary in order to maintain a consistent level of design safety that will be compatible with the 2007 California Building Code (CBC) map values, current OSHPD policy, and future building codes where these requirements are almost certain to be adopted.

The OSHPD CAN is available at:

<http://www.oshpd.ca.gov/FDD/Regulations/CANs/2007/2-1802A.6.2.pdf>

Background: The NGA attenuation relations are permitted to be used to determine ground motion parameters for the design of buildings under DSA jurisdiction. However, the NGA relations sometimes can produce lower ground motions in California than the current 2007 CBC map values. Several rules have been developed in order to properly use these new relations. The rules are currently (as of 26 November, 2008) being balloted by the Building Seismic Safety Council (BSSC) and are expected to be included in the ASCE 7-10, a CBC reference standard. OSHPD has developed a CAN that addresses their use, and is consistent with the BSSC ballot. The main provisions of the BSSC ballot and OSHPD CAN are briefly summarized below:

- Site-specific probabilistic analysis that incorporates the NGA relations shall use the maximum rotated component of the ground motion.
- Site-specific deterministic analysis that incorporates the NGA relations shall use the 84th percentile of the maximum rotated component of ground motion in lieu of using 150% of the median value.