

  StEER STRUCTURAL EXTREME EVENTS RECONNAISSANCE		JUSTIFICATION FOR LEVEL OF ACTIVATION	
Release Date: 27 September 2022		Event:	22 September 2022, Mexico, Mw 6.8 Earthquake

Summary: StEER was asked to evaluate possible responses to this event, based on the criteria in Tables 1-2. Since a majority of the Level 1 and 2 criteria were satisfied, StEER will not activate for this event, but will provide editorial review and feedback to EERI LFE on its report.

Table 1: Level 1 Activation Criteria for major hazard event with the potential to generate new knowledge		
Hazard	Exposure	Feasibility
☒ <i>Major intensity event</i> Earthquake-M 5.5	☒ <i>Population</i> Sufficiently populated areas to create measurable impact (PAGER Yellow alert)	☒ <i>Resource</i> Availability/interest of members
☐ <i>Long duration event</i> Earthquake - Subduction zone EQ	☒ <i>Community</i> Repeated exposure to earthquake events	☒ <i>Media</i> Sufficient media/social media coverage of the event, including the potential to automate the mining of information
☒ <i>Succession of events</i> Earthquake - Sequence of earthquakes/ aftershocks	☐ <i>Code validation</i> Noteworthy code or construction practices	☐ <i>Bandwidth of StEER support team</i> Multiple concurrent responses
☐ <i>Joint/compounding hazards</i> Earthquake-landslide, liquefaction, fire, flooding (from dam break)	☐ <i>Infrastructure of interest</i> - Critical infrastructure - Under-documented structure classes	
	☐ <i>Existence of models or measurements</i> - Instrumented structures - Digital twins - Testbeds	
6/12 (50%) of Level 1 Criteria Satisfied		

Table 2: Level 2 activation criteria for major hazard event with evidence of the ability to generate new knowledge

Hazard	Exposure	Feasibility
☒ <i>Design-Level Event</i> Hazard intensity meets or exceeds code-mandated or PBE-adopted levels	☒ <i>Infrastructure of interest</i> Unreinforced masonry and non-ductile concrete single family residential buildings	☐ <i>Resources</i> - Availability/interest of members in the impacted region - Availability of sufficient support from regional nodes - Availability of imaging hardware
☐ <i>Unique Hazard characteristics</i> Unusual ground motion characteristics	☐ <i>Community Impacts</i> - Significant fatalities - Potential for prolonged downtime and recovery	☐ <i>Access and safety</i> - Driving access to affected areas - Safety (security, public health - e.g., COVID)
	☐ <i>Relevance to US Practice</i> For international events	☒ <i>Collaboration Potential</i> GEER plans deployment
3/8 (37.5%) of Level 2 Criteria Satisfied		

