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TAMU3: High-field superconducting dipole development for future hadron colliders EDDIE F. HOLIK III, TAMU — High-field superconducting dipole magnets suitable for future hadron colliders are being developed at Texas A&M University. Technology advancements are being pursued to enable the use of advanced superconductors Nb_3Sn and Bi-2212. These techniques include stress management, flux-plate control of persistent-current multipoles, fine-filament superconducting mixed-strand cable, block-coil geometry for ease of construction and potential suppression of snap-back, and metal-filled bladders to provide uniform surface compliance and coil pre-load. The latest such magnet, TAMU3, is presently under construction. Its design and fabrication will be described.

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