1011-20-285 **Michael L Mihalik*** (mihalik@math.vanderbilt.edu), Department of Mathematics, Vanderbilt University, Nashville, TN 37240, and **Steve Tschantz**. *Minimal Splittings of Coxeter Groups.*

If C and D are subgroups of a group, C is "smaller" than D if $C \cap D$ has finite index in C and infinite index in D. Define C to be a "minimal splitting" subgroup if the group splits non-trivially over C and does not split over a smaller subgroup. Any finite splitting subgroup is minimal. For 1-ended groups any 2-ended splitting subgroup is minimal.

If (W, S) is a Coxeter system and $A \subset S$ then $\langle A \rangle$ is called "special" and is Coxeter.

Theorem. Suppose (W, S) is a finitely generated Coxeter system and W splits non-trivially as $A *_C B$. Then

(1) W splits non-trivially over a minimal splitting subgroup D, such that a conjugate of D is special and $D \cap C$ has finite index in D. (So any splitting refines to a minimal one.)

(2) If C is minimal then a conjugate of a subgroup of finite index in C is special and A (B) has a graph of groups decomposition compatible with $A *_C B$, such that each vertex group has a subgroup of finite index conjugate to a special subgroup.

While standard examples show Coxeter groups are not accessible over general splittings, part (2) implies that finitely generated Coxeter groups are "strongly" accessible over minimal splittings. (Received August 29, 2005)