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- (71) Applicant (for all designated States except US): **EXXON-MOBIL UPSTREAM RESEARCH COMPANY** [US/US]; CORP-URC-SW359, P.O. Box 2189, Houston, TX 77252-2189 (US).
- (72) Inventors; and
- (71) Applicants (for US only): **VALENCIA, Jaime, A.** [US/US]; 5503 Peace Court, Houston, TX 77041 (US). **CULLINANE, J., Tim** [US/US]; 1155 Spring Road, Easton, PA 18040 (US). **GRAVE, Edward, J.** [US/US]; 18830 Mountain Shade Drive, Spring, TX 77388 (US). **DENTON, Robert, D.**; 4314 Phil Street, Bellaire, TX 77401 (US).
- (74) Agents: **LOBATO, Ryan, L.** et al.; Exxonmobil Upstream Research Company, CORP-URC-SW359, P. O. Box 2189, Houston, TX 77252-2189 (US).
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(54) Title: METHOD AND DEVICE FOR SEPARATING A FEED STREAM USING RADIATION DETECTORS

(57) Abstract: The present disclosure provides a method for separating a feed stream in a distillation tower. The method may include forming solids in a controlled freeze zone section of the distillation tower; emitting radiation from a first radiation source in the controlled freeze zone section while the controlled freeze zone section forms no solids; detecting radiation emitted by the first radiation source as a first radiation level; detecting radiation emitted by the first radiation source as a second radiation level after detecting the first radiation level; and determining whether the solids adhered to at least one of on and around a first mechanical component included in the controlled freeze zone section based on the first radiation level and the second radiation level.



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