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(21) International Application Number: PCT/US00/06035 (22) International Filing Date: 8 March 2000 (08.03.00) (30) Priority Data: 09/265,286 9 March 1999 (09.03.99) US (63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Application US 09/265,286 (CON) Filed on 9 March 1999 (09.03.99) (71) Applicant (for all designated States except US): PHILLIPS PETROLEUM COMPANY [US/US]; 4th and Keeler, Bartlesville, OK 74004 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): HOTTOVY, John, D. [US/US]; 345 Robin Road, Bartlesville, OK 74006 (US). BURNS, David, H. [US/US]; 3374 Maroneal, Houston, TX 77025 (US). KUFELD, Scott, E. [US/US]; 1331 Prospect, Houston, TX 77004 (US). ROETMAN, Timothy [US/US]; 150 Dominion Park Drive #626, Houston, TX 77090 (US). VAIDYANATHAN, Ragavan [IN/US]; 7575 Cambridge Drive #1804, Houston, TX 77054 (US).		(74) Agents: RICHARDS, John; Ladas & Parry, 26 West 61st Street, New York, NY 10023 (US) et al. (81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i>
(54) Title: DILUENT SLIP STREAM TO GIVE CATALYST WETTING AGENT (57) Abstract A process and apparatus for passing a polymerization effluent, comprising solid polymer, unreacted monomer, diluent and minor amounts of contaminants, to a high pressure flash where most of the fluid components are flashed and wherein a slip stream comprising diluent and minor amounts of monomer is separated from the bulk of the flashed fluid components. The slip stream is subjected to olefin removal to give an essentially olefin-free stream for recycle to a catalyst mud preparation area. The bulk of the flashed fluid components are recycled directly back to the polymerization zone without expensive olefin removal, although treatment to remove other contaminants can optionally be performed. The polymer and entrained fluid is passed to a low pressure flash zone where the fluids are flashed off, compressed and joined with the flash from the high pressure flash tank. Because the bulk of the fluids are removed in the high pressure flash, compression and cooling of product fluids prior to recycle is kept to a minimum.		