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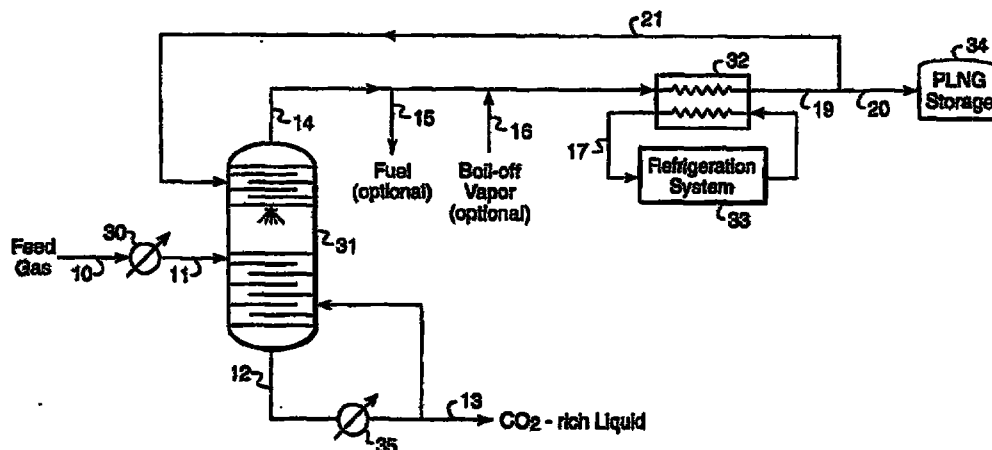
WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : F25J 3/02	A1	(11) International Publication Number: WO 99/01706 (43) International Publication Date: 14 January 1999 (14.01.99)
(21) International Application Number: PCT/US98/13233 (22) International Filing Date: 26 June 1998 (26.06.98) (30) Priority Data: 60/051,460 1 July 1997 (01.07.97) US 60/087,677 2 June 1998 (02.06.98) US (71) Applicant: EXXON PRODUCTION RESEARCH COMPANY [US/US]; 3120 Buffalo Speedway, P.O. Box 2189, Houston, TX 77252-2189 (US). (72) Inventors: COLE, Eric, T.; 3607 Whispering Brk. Drive, Kingwood, TX 77345 (US). THOMAS, Eugene, R.; 6429 Rutgers, Houston, TX 77005-3848 (US). BOWEN, Ronald, R.; 37602 Pinwood Court, Magnolia, TX 77355 (US). (74) Agents: CASAMASSIMA, Salvatore, J. et al.; Exxon Pro- duction Research Company, P.O. Box 2189, Houston, TX 77252-2189 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, 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, ML, MR, NE, SN, TD, TG). Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: PROCESS FOR LIQUEFYING A NATURAL GAS STREAM CONTAINING AT LEAST ONE FREEZABLE COMPONENT



(57) Abstract

This invention is a process for producing pressurized liquid (19) rich in methane from a multi-component feed stream (10) containing methane and a freezable component having a relative volatility less than that of methane. The multi-component feed stream (10) is introduced into a separation system (31) having a freezing section operating at a pressure above about 1,380 kPa (200 psia) and under solids forming conditions for the freezable component and a distillation section positioned below the freezing section. The separation system (31) produces a vapor stream (14) rich in methane and a liquid stream (12) rich in the freezable component. At least a portion of the vapor stream is cooled to produce a liquefied stream rich in methane having a temperature above about -112 °C (-170 °F) and a pressure sufficient for the liquid to be at or below its bubble point to produce a product (20) and a stream (21) to provide refrigeration to the separation system.