

Title (en)  
NATURAL GAS LIQUEFACTION PROCESS FOR LNG

Title (de)  
ERDGASVERFLÜSSIGUNGSPROZESS FÜR FLÜSSIGERDAS

Title (fr)  
PROCEDE DE LIQUEFACTION DE GAZ NATUREL DESTINE A PRODUIRE UN GNL

Publication  
**EP 1929227 B1 20190703 (EN)**

Application  
**EP 06760347 A 20060524**

Priority  
• US 2006020121 W 20060524  
• US 70679805 P 20050809  
• US 79510106 P 20060426

Abstract (en)  
[origin: WO2007021351A1] Embodiments of this invention relate to a process for liquefaction of natural gas and other methane-rich gas streams, and more particularly to a process for producing liquefied natural gas (LNG). In a first step of the process, a first fraction of the feed gas is withdrawn, compressed to a pressure greater than or equal to 1500 psia, cooled and expanded to a lower pressure to cool the withdrawn first fraction. The remaining fraction of the feed stream is cooled by indirect heat exchange with the expanded first fraction in a first heat exchange process. In a second step a separate stream comprising flash vapor is compressed, cooled and expanded to a lower pressure providing another cold stream. This cold stream is used to cool the remaining feed gas stream in a second indirect heat exchange process. The expanded stream exiting from the second heat exchange process is used for supplemental cooling in the first indirect heat exchange step. The remaining feed gas is subsequently expanded to a lower pressure, thereby partially liquefying this feed gas stream. The liquefied fraction of this stream is withdrawn from the process as LNG having a temperature corresponding to the bubble point pressure.

IPC 8 full level  
**F25J 1/00** (2006.01); **F25J 1/02** (2006.01)

CPC (source: EP US)  
**F25J 1/0022** (2013.01 - EP US); **F25J 1/0035** (2013.01 - EP US); **F25J 1/0037** (2013.01 - EP US); **F25J 1/004** (2013.01 - EP US); **F25J 1/0042** (2013.01 - EP US); **F25J 1/0045** (2013.01 - EP US); **F25J 1/005** (2013.01 - EP US); **F25J 1/0072** (2013.01 - EP US); **F25J 1/0082** (2013.01 - EP US); **F25J 1/0092** (2013.01 - EP US); **F25J 1/0214** (2013.01 - EP US); **F25J 1/0215** (2013.01 - EP US); **F25J 1/0219** (2013.01 - EP US); **F25J 1/025** (2013.01 - EP US); **F25J 1/0254** (2013.01 - EP US); **F25J 1/0288** (2013.01 - EP US); **F25J 1/0294** (2013.01 - EP US); **F25J 3/0209** (2013.01 - EP US); **F25J 3/0233** (2013.01 - EP US); **F25J 3/0257** (2013.01 - EP US); **F25J 2200/70** (2013.01 - EP US); **F25J 2205/04** (2013.01 - EP US); **F25J 2210/06** (2013.01 - EP US); **F25J 2220/62** (2013.01 - EP US); **F25J 2230/08** (2013.01 - EP US); **F25J 2230/30** (2013.01 - EP US); **F25J 2270/06** (2013.01 - EP US)

Cited by  
US10480851B2; US10663221B2; US11408676B2; US9441877B2; US10502483B2

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2007021351 A1 20070222**; AU 2006280426 A1 20070222; AU 2006280426 B2 20100902; CA 2618576 A1 20070222; CA 2618576 C 20140527; EP 1929227 A1 20080611; EP 1929227 A4 20170517; EP 1929227 B1 20190703; JP 2009504838 A 20090205; JP 5139292 B2 20130206; NO 20081190 L 20080507; RU 2008108998 A 20090920; RU 2406949 C2 20101220; US 2009217701 A1 20090903

DOCDB simple family (application)  
**US 2006020121 W 20060524**; AU 2006280426 A 20060524; CA 2618576 A 20060524; EP 06760347 A 20060524; JP 2008525991 A 20060524; NO 20081190 A 20080307; RU 2008108998 A 20060524; US 92262306 A 20060524