

EUROPEAN COMMISSION



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2010/0240 (NLE)

#### Supplement to proposal COM (2010)459 for a

# COUNCIL REGULATION (EU) No .../2010

## on restrictive measures against Iran and repealing Regulation (EC) No 423/2007

(presented jointly by the Commission and the High Representative of the EU for Foreign Affairs and Security Policy)

# EXPLANATORY MEMORANDUM

- (1) On 31st August 2010, the Commission and the High Representative of the EU for Foreign Affairs and Security Policy made a joint proposal COM(2010)459 for a Council Regulation on restrictive measures against Iran, which should give effect to several measures provided by Decision 2010/413/CFSP of 26 July 2010 and replace Council Regulation (EC) No 423/2007.
- (2) The explanatory memorandum to the proposal indicated that a supplementary proposal would be made under separate cover as regards the list of key goods and technology for the oil and natural gas industry referred to in Article 8 of the proposed Regulation, which would be set out in Annex VI to the Regulation.
- (3) The list of key goods and technology for the oil and natural gas industry referred to in Article 8 should comprise equipment, materials, software and technology that are crucial and indispensable for exploration, production, refining and liquefaction in the oil and natural gas industry in Iran. The list should identify technical parameters to clarify the scope of control and avoid duplication with the lists in Annex I, II and IV.
- (4) The Commission and the High Representative of the EU for Foreign Affairs and Security Policy propose to include the equipment and technology set out in this proposal in Annex VI of the prospective Regulation.

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#### on restrictive measures against Iran and repealing Regulation (EC) No 423/2007

## ANNEX VI

#### List of key equipment and technology referred to in Article 8

#### **General Notes**

- 1. The object of the prohibitions contained in this Annex should not be defeated by the export of any non-prohibited goods (including plant) containing one or more prohibited components when the prohibited component or components are the principal element of the goods and can feasibly be removed or used for other purposes.
  - N.B.: In judging whether the prohibited component or components are to be considered the principal element, it is necessary to weigh the factors of quantity, value and technological know-how involved and other special circumstances which might establish the prohibited component or components as the principal element of the goods being procured.
- 2. Goods specified in this Annex include both new and used goods.

#### General Technology Note (GTN)

- 1. The 'technology' 'required' for the 'development', 'production' or 'use' of prohibited goods remains under prohibition even when applicable to non-prohibited goods.
- 3. Prohibitions do not apply to that 'technology' which is the minimum necessary for the installation, operation, maintenance (checking) and repair of those goods which are not prohibited or the export of which has been authorised in accordance with Regulation (EC) No 423/2007 or this Regulation.
- 4. Prohibitions on 'technology' transfer do not apply to information 'in the public domain', to 'basic scientific research' or to the minimum necessary information for patent applications.

#### 1. EXPLORATION AND PRODUCTION OF CRUDE OIL AND NATURAL GAS

#### 1.A Equipment

1. Geophysical survey equipment, vehicles, vessels and aircraft specially adapted to acquire data for oil and gas exploration together with the specially designed components therefor.

2. Sensors specially designed for downhole well operations in oil and gas wells, including sensors used for measurement whilst drilling and the associated equipment specially designed to acquire and store data from such sensors.

3. Drilling equipment designed to drill rock formations for the purpose of exploring for, or producing oil, gas and other naturally occurring, hydrocarbon materials.

4. Drill bits, drill pipe, drill collars, centralisers, casing used for drilling and other equipment specially designed for use in and with oil and gas well drilling equipment.

5. Drilling wellheads, blowout preventers and Christmas or production trees and the specially designed components thereof, meeting the API and ISO specifications for use with oil and gas wells.

Technical notes:

a. A blowout preventer is a device typically used at ground level (or if drilling underwater, at the seabed) during drilling to prevent the uncontrolled escape of oil and/or gas from the well.

b. A Christmas tree or production tree is a device typically used to control flow of fluids from the well when it is complete and oil and/or gas production has started.

c. 'API and ISO specification' refers to the American Petroleum Institute specification 6A, 16A, 17D and 11IW and/or the International Standards Organisation specification 10423 and 13533 for blowout preventers, wellhead and christmas trees for use on oil and/or gas wells.

6. Drilling and production platforms for crude oil and natural gas

7. Vessels and barges incorporating drilling and/or petroleum processing equipment used for producing oil, gas and other naturally occurring flammable materials.

8. Subsurface safety valve equipment meeting API and ISO specifications specially designed for use in oil and gas wells.

Technical Note:

'API and ISO specifications' refers to the American Petroleum Institute specification 14A and/or the International Standards Organisation specification 10432 for subsurface safety valve equipment for use in oil and/or gas wells.

9. Liquid/gas separators meeting API specification 12J, specially designed to process the production from an oil or gas well, to separate the petroleum liquids from any water and any gas from the liquids.

10. Pipeline valves meeting API and ISO specifications for use in petroleum and natural gas industry pipeline transportation systems.

Technical note:

'API and ISO specification' refers to the American Petroleum Institute specification 6D and 6DSS and/or the International Standards Organisation specification 14313 and 14723 for pipeline valves

11. Pumps and gas compressors specially designed for use in the initial processing and transportation of crude oil and natural gas, and specially designed components therefor.

### 1.B Test and inspection equipment

1. Equipment specially designed for sampling, testing and analysing the properties of drilling mud, oil well cements and other materials specially designed and/or formulated for use in oil and gas wells.

2. Equipment specially designed for sampling, testing and analysing the properties of rock samples, liquid and gaseous samples and other materials taken from an oil and/or gas well either during or after drilling, or from the initial processing facilities attached thereto.

3. Equipment specially designed for collecting and interpreting information about the physical and mechanical condition of an oil and/or gas well, and for determining the *in situ* properties of the rock and reservoir formation.

## 1.C Materials

1. Drilling muds, drilling mud additives and the components thereof specially formulated to stabilise oil and gas wells during drilling, to recover drill cuttings to the surface and to lubricate and cool the drilling equipment in the well.

2. Cements and other materials meeting the API and ISO specifications for use in oil and gas wells.

#### Technical Note:

'API specification' refers to the American Petroleum Institute specification 10A or the International Standards Organisation specification 10426 for oilwell cements and other materials specially formulated for use in the cementing of oil and gas wells.

3. Corrosion inhibiting, emulsion treatment, defoaming agents, and other chemicals specially formulated to be used in the drilling for and the initial processing of petroleum produced from an oil and/or gas well.

#### 1.D. Software

1. Software specially designed to collect and interpret data acquired from seismic, electromagnetic, magnetic or gravity surveys for the purpose of establishing oil or gas prospectivity.

2. Software specially designed for storing, analysing and interpreting information acquired during drilling and production to assess the physical characteristics and behaviour of oil or gas reservoirs.

3. Software specially designed for the use of petroleum production and processing facilities or specific sub-units of such facilities.

### 1.E. Technology

1. Key technology required for the exploration for and the testing, production, initial processing and transportation of naturally occurring oil and gas.

## 2. **REFINING AND LIQUEFACTION**

#### 2.A Equipment

1. Heat exchangers as follows and specially designed components therefor:

- a. Plate-fin heat exchangers with a surface/volume ratio greater than 500 m<sup>2</sup>/m<sup>3</sup>, specially designed for pre-cooling of natural gas
- b. Coil-wound heat exchangers specially designed for liquefaction or sub-cooling of natural gas

2. Cryogenic pumps for the transport of media at a temperature below -120 °C having a transport capacity of more than 500 m<sup>3</sup>/h and specially designed components therefor

3. "Coldbox" and "coldbox" equipment not specified by 2.A1

Technical note:

"coldbox" equipment' refers to a specially designed construction, which is specific for LNG plants and incorporates the process stage of liquefaction. The "coldbox" comprises heat exchangers, piping, other instrumentation and thermal insulators. The temperature inside the "coldbox" is around -120 °C (conditions for condensation of natural gas). The function of the "coldbox" is the thermal insulation of the above described equipment.

4. Equipment for shipping terminals of liquefied gases having a temperature below -120 °C and specially designed components therefor

5. Flexible and non-flexible transfer line having a diameter greater than 50 mm for the transport of media below -120 °C

6. Maritime vessels specially designed for the transport of LNG

7. Cokers and refinery units for C5-C6 cuts isomerisation, and refinery units for alkylation of light olefins, to improve the octane index of the hydrocarbon cuts

8. Electrostatic desalters specially designed to remove contaminants such as salts, solids and water from crude oil and specially designed components therefor

9. All crackers, including hydrocrackers, specially designed for conversion of vacuum gas oils, and specially designed components therefor

10. Hydrotreaters specially designed for desulphurisation of gasoline and kerosene and specially designed components therefor

11. Catalytic reformers specially designed for conversion of desulphurised gasoline into highoctane gasoline, and specially designed components therefore

Technical note:

Catalytic reforming comprises not only platforming but also isomerisation.

12. Pumps specially designed for the transport of crude oil and secondary products, having a capacity of 50 m<sup>3</sup>/h or more and specially designed components therefor

13. Tubes with an outer diameter of 0.2 mm or more and made from any of the following materials:

a. Stainless steels with 23% chromium or more by weight;

b. Stainless steels with a minimum "elastic limit" of 210 N/mm<sup>2</sup> or more;

c. Stainless steels and nickel bases alloys with a "Pitting resistance equivalent" number higher than 33.

Technical notes:

1) "Elastic limit" is a mechanical stress at which a material begins to deform plastically

2) "Pitting resistance equivalent" (PRE) number characterises the corrosion resistance of stainless steels and nickel alloys to pitting or crevice corrosion. The pitting resistance of stainless steels and nickel alloys is primarily determined by their compositions, primarily: chromium, molybdenum, and nitrogen. The formula to calculate the PRE number is: PRE = Cr + 3.3% Mo + 30% N

14. "Pigs" and specially designed components therefore

Technical note:

*Pig is a device typically used for cleaning or inspection of a pipeline from inside (corrosion state or crack formation) and is propelled by the pressure of the product in the pipeline.* 

15. Pig launchers and pig catchers for the integration or removing of pigs

16. Tanks for the storage of crude oil and secondary products with a volume greater than  $1000 \text{ m}^3$  (1 000 000 litres) as follows, and specially designed components therefor:

- a. fixed roof tanks
- b. floating roof tanks

17. Subsea flexible pipes specially designed for the transportation of hydrocarbons and injection fluids, water or gas, having a diameter greater than 50 mm

18. Flexible pipe used for high pressure for topside and subsea application

19. Isomeration equipment specially designed for production of high-octane gasoline based on light hydrocarbons as feed.

## 2.B Materials

1. Monoethylenglycol (CAS No: 107-21-1)

2. N-Methylpyrrolidon (CAS No 872-50-4)

3. Zeolites, of natural or synthetic origin, specially designed for fluid catalytic cracking

4. Catalysts for the cracking and conversion of hydrocarbons as follows:

- a. Single metal (platinum group) on alumina type or on zeolite, specially designed for catalytic reforming process;
- b. Mixed metal species (platinum in combination with other noble metals) on alumina type or on zeolite, specially designed for catalytic reforming process;
- c. Cobalt and nickel catalysts doped with molybdenum on alumina type or on zeolite, specially designed for catalytic desulphurisation process;
- d. Palladium, nickel, chromium and tungsten catalysts on alumina type or on zeolite, specially designed for catalytic hydrocracking process.

5. Gasoline additives specially formulated for increasing the octane number of gasoline.

Note:

This entry includes Ethyl tertiary butyl ether(ETBE) and Methyl tertiary butyl ether (MTBE)

# 2.C Tests and inspection equipment

1. Equipment specially designed for testing and analysing of quality (properties) of crude oil and secondary products.

2. Interface control systems specially designed for controlling and optimising of the desalting process.

# 2.D Software

1. Software specially designed for the use of LNG plants or specific sub-units of such plants

2. Software specially designed for the development, production or use of plants (including their sub-units) for oil refining

# 2.E Technology

1. Technology for the purification of raw natural gas

2. Technology for the liquefaction of natural gas, including technology required for the development, production or use of an LNG plant

3. Technology for the shipment of liquefied natural gas

4. Technology required for the development, production or use of maritime vessels specially designed for the transport of liquefied natural gas

5. Technology required for the development, production or use of a refinery plant

- 6. Technology for storage of crude oil and secondary products
- 7. Technology for conversion of light olefin to gasoline
- 8. Platforming and isomerisation technology
- 9. Thermal cracking technology
- 10. Claus technology for gas desulphurisation

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