

MEMORANDUM

January 6, 2014

To: Senate Committee on Energy and Natural Resources Committee
Attention: Tristan Abbey

From: Adam Vann, Legislative Attorney

Subject: **Applicability of Federal Export Requirements to Natural Gas Liquids and Condensate**

You have asked us which federal laws and regulations governing fossil fuel exports would apply to the export of Natural Gas Liquids (NGLs) and petroleum condensate, and whether and how these laws and regulations differ from the laws and regulations applicable to crude oil exports. This memorandum provides basic background information on federal laws and regulations applicable to natural gas and fossil fuels and considers whether the laws and regulations applicable to those exports, or any other laws and regulations, apply to fossil fuel exports. Based on a review of the relevant laws and regulations, it appears that for the most part, NGLs are not classified as “crude oil” but rather come under a broader designation as “petroleum products” and are thus exportable without specific federal authorization. However, condensate is classified as “crude oil” and therefore cannot be exported unless the export qualifies for an exemption to the general crude oil export prohibition and is authorized by the federal government.

Background

NGLs comprise a number of hydrocarbon products that are often produced in conjunction with methane (“dry” natural gas) or as a byproduct of crude oil refining.¹ NGLs include ethane, propane, butane, isobutane, and natural gasoline.² NGLs are separated from dry gas at natural gas processing facilities or are produced as a byproduct of the crude oil refining process.³ For the most part, NGLs are used in the production of petrochemicals, for space heating or other localized fuel uses, or blended into motor gasoline.⁴ Similarly, condensates are a low-density hydrocarbon phase that generally occurs in association with production of natural gas,⁵ and are used for the same purposes as NGLs.

¹ Charles K. Ebinger and Govinda Avasarala, *Natural Gas Briefing Document #1: Natural Gas Liquids*, Brookings Institute, March 2013, available at <http://www.brookings.edu/~media/research/files/reports/2013/04/01%20natural%20gas%20ebinger%20avasara/natural%20gas%20briefing%201%20pdf>.

² *Id.*

³ *Id.*

⁴ *Id.*

⁵ Schlumberger Oilfield Glossary, available at <http://www.glossary.oilfield.slb.com/en/Terms/c/condensate.aspx>.

Two possible federal statutory and regulatory schemes that could conceivably apply to NGL/condensate export are those applicable to natural gas exports pursuant to Section 3 of the Natural Gas Act (NGA)⁶ and those applicable to crude oil exports authorized by the Energy Policy and Conservation Act.⁷ Each of these options is explored in this memorandum.⁸

DOE Permitting under Section 3 of the Natural Gas Act

Section 3 of the NGA provides that “no person shall export any natural gas from the United States to a foreign country or import any natural gas from a foreign country without having first secured an order of the Commission authorizing it to do so.”⁹ This authorization is to be issued “unless, after opportunity for hearing, [the Commission] finds that the proposed exportation or importation will not be consistent with the public interest.”¹⁰ At the time of the NGA's enactment in 1938, the “Commission” referred to the Federal Power Commission. However, in 1977 the Federal Power Commission was dissolved and its responsibilities were transferred to the Department of Energy (DOE) as well as the Federal Energy Regulatory Commission (FERC), an independent agency operating within DOE, pursuant to the Department of Energy Organization Act.¹¹ DOE is tasked with reviewing requests for authorization to export natural gas, while FERC permits export facilities like liquefied natural gas terminals.

The permitting requirements found in Section 3 of the NGA restrict the export of “natural gas” without a permit, so the applicability of this requirement depends on whether the phrase “natural gas” as it is used in the NGA includes NGLs. Unfortunately, the text of the NGA itself is not helpful. The act defines natural gas as simply “either natural gas unmixed, or any mixture of natural or artificial gas.”¹² There is also no mention of NGLs or condensates in the DOE regulations governing the permitting of natural gas exports at 10 C.F.R. Part 590. This suggests that there is no DOE permitting requirement for the export of NGLs or condensates pursuant to the NGA.

Department of Commerce Permitting under the Energy Policy and Conservation Act and Other Statutes

The Energy Policy and Conservation Act of 1975 (EPCA) authorized the president to “restrict exports of ... coal, petroleum products, natural gas, or petrochemical feedstocks.”¹³ The act imposed much greater limitations with respect to crude oil and natural gas exports, directing the president to “promulgate a rule prohibiting the export of crude oil and natural gas produced in the United States, except that the President may ... exempt from such prohibition such crude oil or natural gas exports which he determines to be

⁶ 15 U.S.C. §717b(a).

⁷ P.L. 94-163.

⁸ For a more detailed discussion of the laws and regulations applicable to crude oil and natural gas exports, see CRS Report R43231, *Federal Permitting and Oversight of Export of Fossil Fuels*, by Adam Vann, Daniel T. Shedd, and Brandon J. Murrill.

⁹ 5 U.S.C. §717b(a).

¹⁰ *Id.*

¹¹ P.L. 95-91.

¹² 5 U.S.C. §717a(5).

¹³ 42 U.S.C. §6212(a)(1).

consistent with the national interest and the purposes of this chapter.”¹⁴ The act provided that exemptions to the prohibition would be allowed, and that they should be “based on the purpose for export, class of seller or purchaser, country of destination, or any other reasonable classification or basis as the President determines to be appropriate and consistent with the national interest and the purposes of this chapter.”¹⁵ Thus “crude oil” exports are prohibited except as exempted by regulation,¹⁶ while “coal, petroleum products, natural gas and petrochemical feedstocks” are subject to “restriction” at the discretion of the executive branch, but need not be prohibited under the terms of EPCA.

The statute provides definitions for only one of these words/phrases, defining “petroleum product” as “crude oil, residual fuel oil, or any refined petroleum product (including any natural gas liquid and any natural gas liquid product).”¹⁷ There is no further indication in the statutory language as to how exports of condensates should be regulated.

The prohibitions and exemptions mandated by EPCA are administered by the Bureau of Industry and Security (BIS), an agency within the Department of Commerce tasked with overseeing U.S. exports. BIS administers the “short supply controls” regulations found at 15 C.F.R. Part 742. 15 C.F.R. §754.2 applies to “crude oil,” which is defined in the regulations as:

...a mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities and which has not been processed through a crude oil distillation tower. Included are reconstituted crude petroleum, and lease condensate and liquid hydrocarbons produced from tar sands, gilsonite, and old shale. Drip gases are also included, but topped crude oil, residual oil, and other finished or unfinished oils are excluded.

Based on this language, it is safe to assume that condensates (as the term is usually used in the industry) would be considered “crude oil” by BIS, and therefore would be prohibited unless they fall under one of the stated exemptions to the prohibition.¹⁸

There is less clarity when it comes to the characterization of NGLs under these regulations. Supplement No. 1 to Part 745 of the BIS regulations characterizes some commodities as “crude oil” and others as “petroleum products.” The list of “petroleum products” includes NGLs such as ethane (with a minimum purity of 95 liquid volume percent), propane (with a minimum purity of 90 liquid volume percent) and butane (with a minimum purity of 90 liquid volume percent).¹⁹ This characterization, taken together with the “crude oil” definition found in the regulations, seems to suggest that most NGLs are characterized as

¹⁴ 42 U.S.C. §6212(b)(1).

¹⁵ *Id.* at §6212(b)(2).

¹⁶ The mandate that the executive branch promulgate a similar prohibition on the export of natural gas was presumably supplanted by the NGA and the accompanying regulations which prohibit natural gas export without a permit, as described in this memorandum.

¹⁷ 42 U.S.C. §6202(3).

¹⁸ The exemptions include: (i) exports from Alaska's Cook Inlet; (ii) exports to Canada for consumption or use therein; (iii) exports in connection with refining or exchange of strategic petroleum reserve oil; (iv) exports of heavy California crude oil up to an average volume not to exceed 25,000 barrels per day; (v) exports that are consistent with certain international agreements; (vi) exports that are consistent with findings made by the President under certain statutes; and (vii) exports of foreign origin crude oil where, based on satisfactory written documentation, the exporter can demonstrate that the oil is not of U.S. origin and has not been commingled with oil of U.S. origin. 15 C.F.R. §754.2(b)(1). There is also a provision for “case by case” review of export applications that do not come under one of the listed exemptions; such exports may still be permitted if they are determined to be “consistent with the national interest and the purposes of the Energy Policy and Conservation Act.” 15 C.F.R. §754.2(b)(2).

¹⁹ 15 C.F.R. Part 754, Supp. 1.

“petroleum products” and not crude oil by BIS, and therefore would not be subject to the prohibitions on export placed on crude oil.²⁰

However, it should be noted that some hydrocarbon molecules that have the same chemical makeup are produced by different methods of processing and consequently referred to by a variety of names. These differences contribute to why the same molecule may be characterized differently under the various laws. If a law references a process or a name of a product from a process, then there may be a different name given when the molecule is produced from a different process. Because of this, the laws and regulations governing export of a particular commodity are best handled on a case by case basis.

²⁰ As with any export, NGLs would still be subject to any other generic trade restrictions, including any limitations found in international agreements to which the United States is a party and trade embargoes. Such restrictions are beyond the scope of this memorandum.
