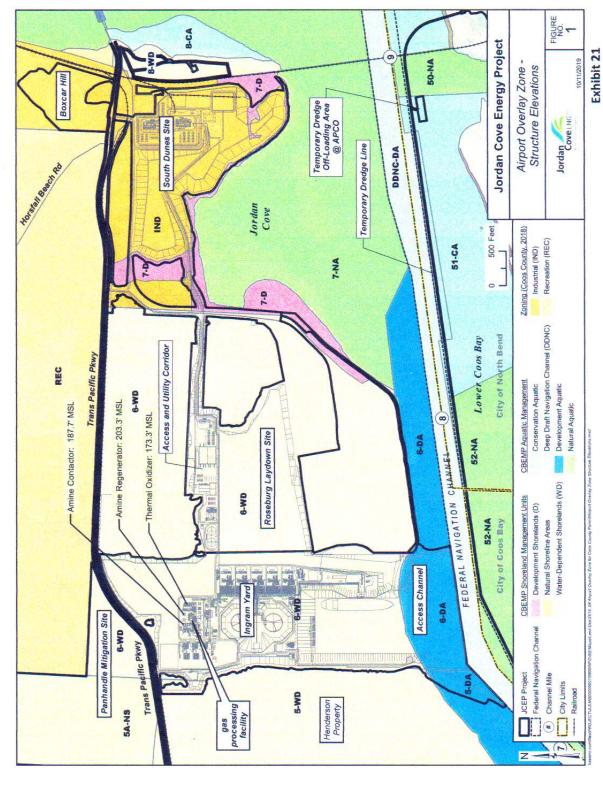
re: rebuttal to Jordan Coves 10/14/19 submittal under Coos County file #HBCU-19-003

Enclosed is Jordan Coves exhibit 21 from page 4282 showing structure elevations. This is incomplete because it is missing the vent stack as referenced on page 33 of Jordan Cove's Certificate Exemption Application to the Department of Energy dated June 14, 2018 (exhibit 1). The Vent stack is also missing from the FAA aeronautical study dated September 3, 2019 (exhibit 2)¹. Hard copy of this submission with follow.

John Clarke 1102 Twin Oaks Lane Winston, OR 97496

Clarence Adams 2039 Ireland Rd. Winston, OR 97496

 $^{\rm 1}$ Please Note grade is 42 ft. above mean sea level making the total height of 172 feet.



Page 1 of 1

Exhibit 1

Valve sizing will take into consideration the maximum relieving pressure and permissible accumulation, as well as the superimposed and built-up back pressure as stated on the data sheet.

Inlet and outlet connection sizes indicated on the technical data sheet are those suitable for installation in the associated piping system and are the minimum acceptable sizes. If the specified capacity can be achieved with a smaller body size, specified body size will be furnished with a smaller orifice size. If the valve with the indicated inlet and outlet connection size cannot pass the required flow at the specified conditions, a larger valve will be furnished.

3.4.3 Vent Stack Philosophy

The LNG Terminal will be provided with one vent stack. The vent stack will run parallel to the thermal oxidizer for use when the thermal oxidizer trips or is down for maintenance. The vent stack outlet will be located 130 feet above grade in the gas conditioning section and will have no impact to personnel or off-site.

3.4.3.1 Vent Sources

Please Note grade is 42 ft. above mean sea level

After sulfur scavenging, the sweetened stream is sent to the thermal oxidizer, which combines fuel and air in the system in order to oxidize the remaining sulfur species and combust the other hydrocarbons, potentially including BTEX, to minimize volatile organic compound ("VOC") and other hazardous emissions. This sweetened stream is vented in case of a trip or planned maintenance of the thermal oxidizer.

3.4.4 Flare Philosophy

The facility will have three separate flare systems: one for warm (wet) reliefs; one for cold, cryogenic (dry) reliefs; and one for low-pressure cryogenic reliefs. The "warm" relief loads are separated to ensure that wet fluids cannot freeze in the header in the event of a cryogenic relieving event; the "cold" and "marine" relief loads are separated to ensure that the relief of near-atmospheric pressure vapors is not affected by back pressure in the header in the event that an unrelated release is occurring.

All flare systems are ground flares. For the warm (wet) and cold (dry) flares, multi-point ground flares combined into a shared field have been selected, and for the marine flare, a totally enclosed ground flare has been selected. This approach eliminates flame visibility from grade and allows a much shorter stack, since heat radiation at grade is negligible.

3.4.4.1 Flare Sources

The feed gas from the PCGP contains some water and gets saturated by the amine system upstream of dehydration. These wet reliefs from the inlet facilities will be collected in the low-temperature carbon steel warm flare system. This system includes a header, KO drum, pump to remove accumulated liquids, and the warm flare.

All cold and/or dry reliefs from the liquefaction, refrigerant make-up, and BOG systems are collected in a SS cryogenic flare system. This system includes a header, KO drum, and the cold flare. Defrost gas will be provided through a sparger to vaporize any liquids that might accumulate in the cold flare knockout drum. A blowcase will also be provided to remove any nonvolatile liquid heel to the slop drum.

The marine flare is designed to protect the LNG storage tanks and LNG carrier from overpressure if a BOG Compressor trips, or to dispose of warm or off-spec vapor during cargo cooldown operations and/or if an LNG carrier arrives inerted. The vapor return from the LNG carrier can be sent to the marine flare isolated from the main vapor header. The main BOG header can be vented to the marine flare header automatically on high pressure to prevent the LNG storage

June 2018 Page 33

Exhibit 2

Additional information for ASN 2017-ANM-5386-OE

Aeronautical Study Numbers 2017-ANM-5386, 5387,5388-OE and 2019-ANM-5196,5197-OE

Abbreviations

AGL - above ground level AMSL - above mean sea level RWY - runway
VFR - visual flight rules IFR - instrument flight rules NM - nautical mile

ASN- Aeronautical Study Number

Part 77 - Title 14 Code of Federal Regulations (CFR) Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace

In order to facilitate the public comment process, the following proposed structures are being circularized under Aeronautical Study Number (ASN) 2017-ANM-5386-OE. Comments received on ANY of the proposed structures below must be provided under ASN 2017-ANM-5386-OE. All comments received from this circularization will be considered in completing the separate determinations for each study. For the sake of efficiency, this narrative includes all of the studies with similar impacts.

1. LOCATION OF PROPOSED CONSTRUCTION

Proposed are five structures (name descriptions below) that are part of the proposed Jordan Cove Liquid Natural Gas (LNG) Plant located near Southwest Oregon Regional Airport (OTH), North Bend, OR. A total of 33 permanent structure studies were reviewed by the FAA of which five were found to exceed Part 77 standards. Of the five structures being circularized for public comment, the closest proposed structure, ASN 2017-ANM-5386-OE, would be approximately 5898 feet (.97 NM) north, northwest of the RWY 04 threshold at OTH. All five structures described below are north, northwest of OTH. The OTH airport elevation is 17 feet AMSL.

The five proposed structure studies are assigned the following ASNs and are described as follows:

ASN	Structure Name	AGL/AMSL	Latitude/Longitude
2017-ANM-5386-OE	LNG Tank South	181/204	43-25-48.88N/124-16-00.87W
2017-ANM-5387-OE	LNG Tank North	181/204	43-25-53.61N/124-16-01.16W
2017-ANM-5388-OE	Oxidizer	131/173	43-25-59.24N/124-16-00.87W
2019-ANM-5196-OE	Amine Contactor	146/188	43-26-00.98N/124-16-03.50W
2019-ANM-5197-OE	Amine Regenerator	161/204	43-26-01.43N/124-16-03.53W

2. OBSTRUCTION STANDARDS EXCEEDED

The proposed structures are identified as obstructions under the following Part 77 standards:

Section 77.19(a): Horizontal Surface-a height exceeding a horizontal plane 150 feet above the established airport elevation. The proposed structures would exceed the OTH Part 77 Horizontal Surface by the following:

ASN Exceeds OTH Part 77 Horizontal Surface by (feet)

2017-ANM-5386-OE 37 2017-ANM-5387-OE 37