

Draft Final Fact Sheet

2642 17 Cove Point LNG Factsheet.docx

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Fact Sheet – Cove Point LNG, LP

Application Number: 17-DP-2642

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MARYLAND DEPARTMENT OF THE ENVIRONMENT
WATER MANAGEMENT ADMINISTRATION
INDUSTRIAL AND GENERAL PERMITS DIVISION

SUMMARY REPORT AND FACT SHEET

The Region III EPA Permit Checklist has been used as a guide to the permit review process. The results of the review and supporting rationale for the draft permit are summarized below. Supporting documents are attached including the application status memo, draft permit, application, and copies of the previous fact sheet and previous permit's cover page and special conditions.

| | | | |
|-----------------------------------|---|---------------------------|-------------------------------------|
| Permit Type: | Minor | Project Type: | Industrial/Surface/Renewal |
| State Application No.: | 17-DP-2642 | EPA No.: | MD0063975 |
| Application Received: | 11/28/2016 | Permit Expiration: | 12/31/2017 |
| Basin Code: | 02131005 | Basin Name: | Other West Chesapeake Bay Drainages |
| Legal Name of Applicant: | Cove Point LNG, LP | | |
| Mailing Address: | 80 Anchorage Lane Lusby, MD 20657 | | |
| Facility Name: | Cove Point LNG | | |
| Location: | 2100 Cove Point Road Lusby, Maryland 20657 | | |
| County: | Calvert | | |
| Contact (Name, Title): | Matt Ballantine, Supervisor, Environmental | | |
| Contact Address: | 80 Anchorage Lane Lusby, MD 20657 | | |
| Contact Phone: | 410-286-5698 | FAX: | N/A |
| Contact Email: | matthew.ballantine@bhegts.com | | |
| SIC Code: | 4922 natural gas transmission | | |
| Applicant discharges from: | a liquefied natural gas (LNG) bidirectional (being capable of importation and exportation) terminal with LNG production and regasification capabilities | | |
| Via Outfall: | 001 | | |

RECEIVING WATER INFORMATION

| Name of Receiving Water Body (& any Comments): | Designated USE Class | Salinity | Tidal | Discharge to Tier II Waters |
|--|-------------------------------------|------------------------|------------------|-----------------------------|
| Unnamed Tributary to Grays Creek | I | Fresh | Non-Tidal | No |
| MD Coordinates of Facility: | East: | 1481.4 | North: | 263.5 |
| Subject to EPA review: | No | | Assigned: | 12/7/2017 |
| Project Mgr.: | Paul Hlavinka (assigned March 2022) | | Phone: | 410-537-3323 |
| Site Visit Date: | 01/25/2012, 5/4/2017 | | | |
| Date Completed: | 3/16/2022 | Revision Dates: | 4/8/2022 | 4/12/2022 |
| Reviewed by: | J.Rice | (Initial) JWR | Date: | 3/16/2022 |
| Accepted by: | P.Hlavinka | (Initial) PSH | Date: | 3/31/2022 |

I. Summary of Changes from the Previous Permit

| # | Type of Change (New, Update, etc.) | Type of Change (Limitation, Monitoring, Special Condition) | Brief Description of the Change | Section of the Permit | Section of the Fact Sheet |
|---|---------------------------------------|--|--|--------------------------|------------------------------|
| 1 | Update | Monitoring | Removed Outfall 002 | | II |
| 2 | Update | Monitoring | Increased the frequency of temperature monitoring to weekly, consistent with pH. | I.A.1 | XIII |
| 3 | New | Special Condition | Included Sufficiently Sensitive Test Method Special Condition. | I.O | XIV.O |
| 4 | New | Special Condition | Included a special condition prohibiting discharges from the new zero discharge LNG plant. | I.P | II, XIV.P |
| 5 | Update | Special Condition | The stormwater requirements have been updated. | I.S | XIV.S |

The rationale in the Response to Comments supersedes any conflicting rationale in this fact sheet.

II. Description of Facility and Activities Generating Discharge

The Cove Point LNG facility receives natural gas via pipeline and converts it to liquefied natural gas (LNG) for ocean transport and export. The facility can also receive imported LNG from ocean-going ships for eventual distribution in the U.S. to points in Maryland, northern Virginia and Pennsylvania through buried pipelines. Whether LNG is imported or exported is based on global energy trends and markets. The facility generates its own electricity using gas turbines. It also operates air separation units to produce nitrogen gas to maintain consistent quality of the natural gas.

The export of LNG is achieved with processes that do not discharge. Therefore, no discharges regulated by this permit are associated with exporting. When the facility plans to import LNG, there are ten submerged combustion vaporizers (SCVs) used to vaporize the LNG. A water bath heats the LNG as it flows through metal tubes submerged within. The SCVs are used intermittently when the demand exists for natural gas, usually during periods of very high or very low ambient temperatures. The vaporization equipment installed in 2009 uses an ethylene glycol and water mixture in a closed system. There is no wastewater discharge from the heaters.

Outfall 001: The process wastewater discharged from Outfall 001 is generated from the overflow of the SCV baths. This wastewater has had contact with natural gas combustion byproducts in the SCVs and is treated in the vaporizers using a sodium hydroxide solution to neutralize the pH. It then flows to an aeration tank. The water in the aeration tank is sparged with air to drive off entrained gases and then treated with hydrochloric acid or sodium hydroxide to neutralize the pH of the wastewater, as necessary, to maintain compliance with discharge pH limits. The flow rate may be as high as 45,000 gpd based on typical operation when preparing for import of LNG.

During normal site operations and particularly when the SCV system is active, discharges flow through a concrete channel filled with rip-rap to aid in further aeration before entering stormwater Basin 3. The outlet of the concrete channel filled with rip-rap has been designated as Outfall 001. The wastewater is sampled for individual parameter effluent and monitoring requirements as it exits the pH neutralization system discharge pipe.

Since the previous permit was issued, the operator has upgraded wastewater treatment process for Outfall 001 with improved mechanisms to control treatment processes like chemical addition. The changes allow for increased monitoring of pH and temperature and even include an interlock system to ensure pH and temperature are within acceptable ranges prior to discharge.

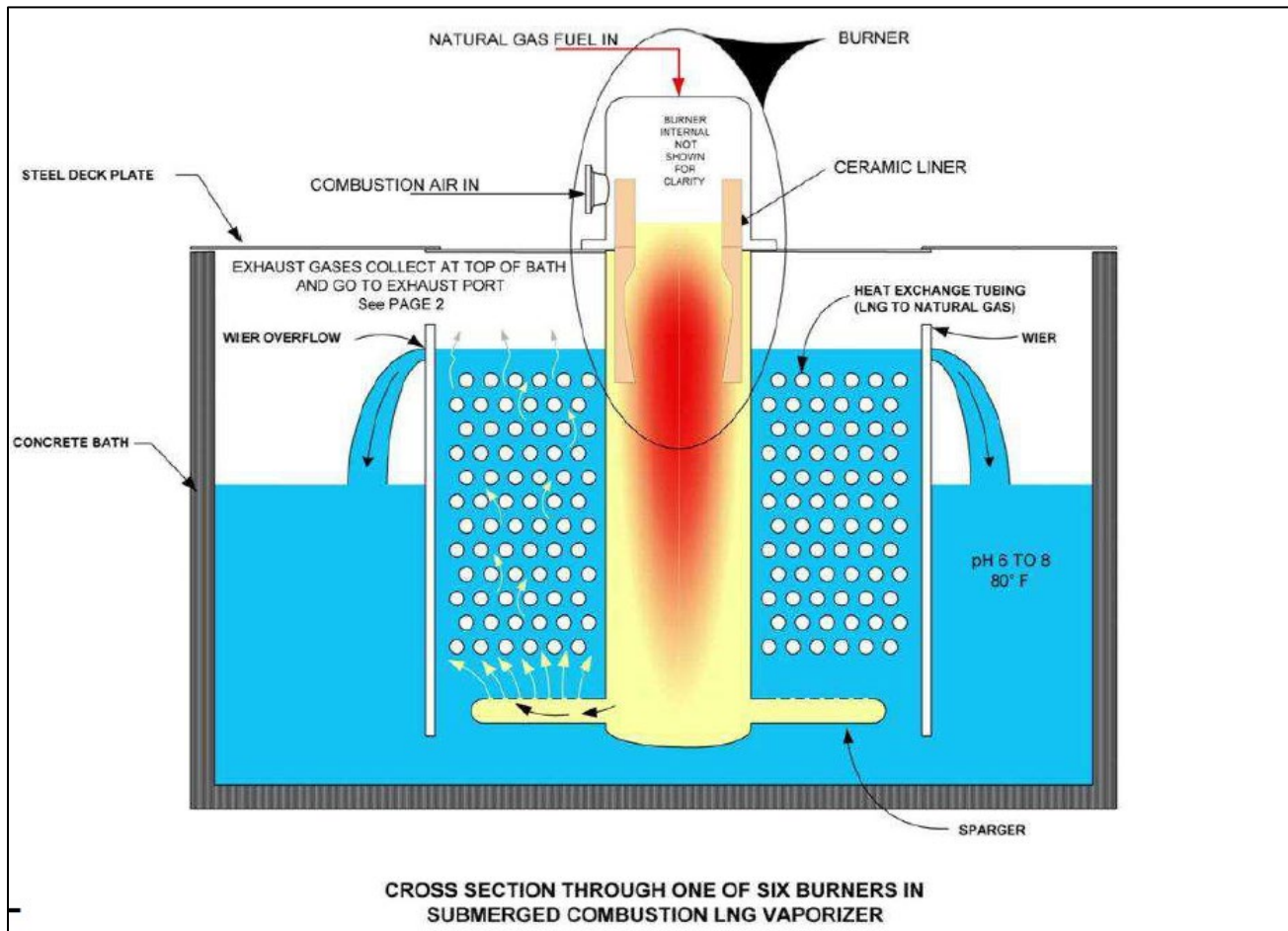


Figure 1 - Process Water Diagram

Outfall 002: The applicant has requested that this outfall be removed from the permit. Formerly, condensation from an air separation process (the production of nitrogen from air) was discharged to Outfall 002. Plant operators elected to start hauling and disposing of this wastewater offsite when concentrations of metals in the effluent became challenging. The condensate discharge is now permanently connected to the sanitary sewer line.

The other change at the operation was a liquefaction project. On April 1, 2013, Dominion filed an application with the FERC (Docket Number CP13-113) for expansion of the Cove Point facilities for gas liquefaction and export. After approval, liquefaction equipment was installed to support the export project, which was completed in early 2018. This made the facility bidirectional (being capable of importation and exportation of LNG). The export facility has the capacity to handle 0.8 billion cubic feet per day of natural gas. The operator reports that this new system will not contribute wastewater to the discharge authorized by this permit since the project design is zero liquid discharge.

III. Review of Stormwater Pollution Prevention Plan (SWPPP)

The facility operation currently has created and maintains a stormwater management program which includes implementing a Stormwater Pollution Prevention Plan (SWPPP). The previous permit included these specific stormwater requirements, based on concerns of the surrounding community. The SWPPP has been reviewed by inspectors and found to be effective.

IV. Results of File Review

The discharges reported occurred in 2017, and no reported discharges since that time. From that limited dataset:

- pH reported for the limited discharge ranged from 6.52 to 8.24 (permit limit is range of 6.5 to 8.5)
- Temperature reported was 67.28°F and 69.8°F (permit limit is maximum of 90°F)

V. Results of Studies

No reports or studies were required during the previous permit term.

VI. Description of Receiving Stream

Outfall 001 discharges to a 0.1-acre spring-fed stormwater management pond on the north side of the facility. The discharge from the pond flows to the north via an unnamed tributary to Grays Creek and then to the Chesapeake Bay.

Low-flow statistics for the receiving stream are not available. The drainage area to the point of discharge at Grays Creek is 0.11 square miles.

VII. Outfall Details

Table 1: Outfall Characteristics

| Outfall or Monitoring Point # | Discharge Monitoring Location | Waste Streams Contributing to the Discharge | Average Flow (GPD) | Comments | Outfall Coordinates (in 1000 ft) | |
|-------------------------------|--|--|--------------------|--|----------------------------------|---------|
| | | | | | Northing | Easting |
| 001 | pH Neutralization System Discharge Point | Natural gas combustion products that are pH-adjusted | 45,000 | Varies with production which in turn varies with the market for natural gas. | 264.37 | 1480.56 |
| Total | | | 45,000 | | | |

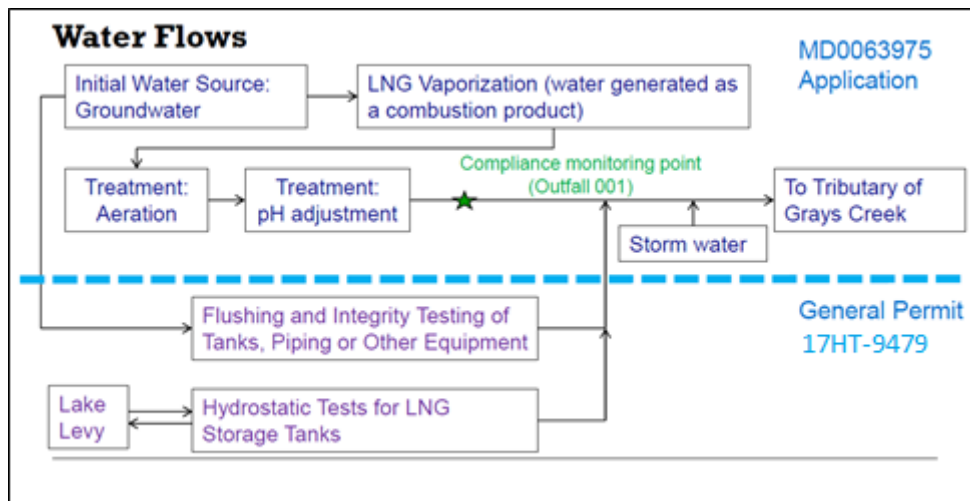


Figure 2 - Flow Diagram of all permitted flows

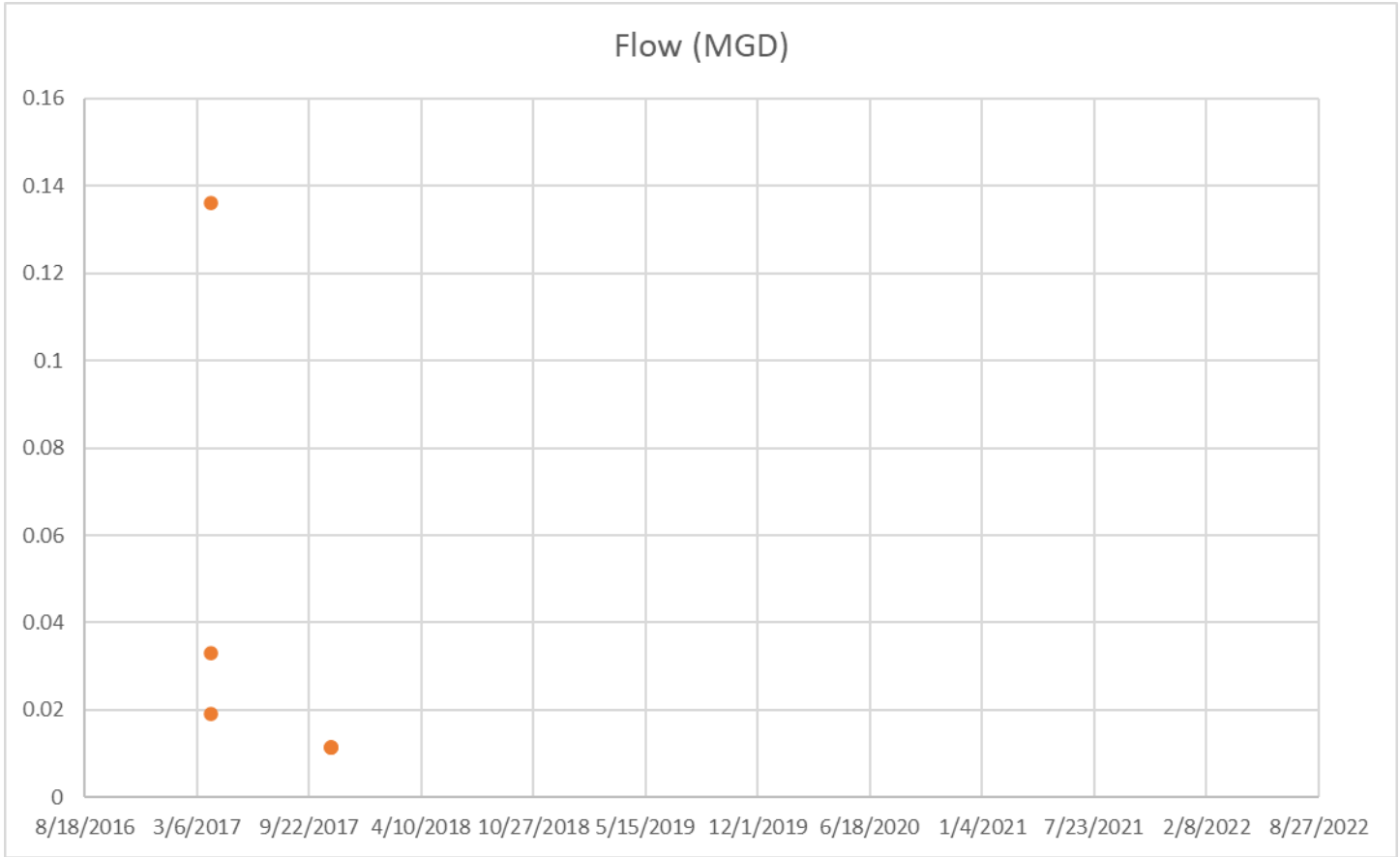


Figure 3 - Flow Reported on Discharge Monitoring Reports

Although the design maximum discharge for operating all 10 vaporizers x 10 gpm/ vaporizer x 24 hr/d x 60 min/hr = 144,000 gpd, the daily average for the permit is 45,000 gpd based on the expectations of the operation.

VIII. Detailed Assessment of Liquid Waste - Outfall 001

Table 2: Outfall 001 Waste Stream Characteristics

| | | | |
|--|--|----------------|--|
| Type of Wastewater Discharged: | <u>Water formed from LNG vaporization</u> | | |
| Treatment Unit: | pH adjustment followed by aeration | | |
| Discharge Type: | Intermittent (fluctuates based on price of domestic vs imported product). | Period: | Time between process runs can vary from a few days to a month or more. |
| Potential Basis for Whole Effluent Toxicity Testing(Biomonitoring): | COMAR 26.08.03.07(d)(1)(c) requires biomonitoring for all discharges which have demonstrated actual or potential toxicity. Based on prior biomonitoring conducted at the facility and considering the type of wastewater being discharged, the Department has determined that no further WET testing is necessary. | | |

Assessment of Nutrients (Total Nitrogen (TN) & Phosphorus (TP) and Total Suspended Solids (TSS) in the Discharge

Anticipated nutrient levels in the discharge were evaluated last permit term. Effluent is process water which has had contact with natural gas combustion byproducts in the SCV baths. These levels were quantified and were included on the previous application. The total average yearly flow for the plant at peak production was estimated to be 10.95 million gallons (30,000 GPD), slightly less than the 45,000 GPD provided in the application. This lower number is based on number of days the facility would be in operation during a peak year, and downtime for facility maintenance etc. The lower number was used as the basis for a total load for this facility.

We note that phosphorus is not produced as a byproduct of this combustion and not considered a constituent of interest.

Loading was calculated during the previous renewal and is given by the following equation.

$$0.030 \text{ MGD} \times 27.5 \text{ mg/l TN} \times 8.34 = 6.88 \text{ lbs/day total nitrogen}$$

and

$$365 \text{ days/year} \times \text{daily load} = 2510 \text{ lbs/year total nitrogen}$$

Table 3: Outfall 001 Effluent Characteristics

| Pollutant | Maximum Value | | Average Value | | Units | | No. of Analyses | Source of Data |
|---|---------------|--------------------------|---------------|---------|-------|-------|-----------------|----------------|
| | Conc. | Other | Conc. | Other | Conc. | Other | | |
| Flow | --- | 0.032552 | --- | 0.01576 | --- | MGD | 5 | Form 2C |
| Temperature (winter) | --- | 11.3 | --- | --- | --- | °C | 5 | Form 2C |
| Temperature (summer) | --- | 19.3 | --- | --- | --- | °C | 14 | Form 2C |
| Temperature | --- | 68.8 | --- | --- | --- | °F | NA | DMR |
| pH | --- | 7.08 (min) 8.16 (max) | --- | --- | --- | s.u. | 19 | Form 2C |
| pH | --- | 6.52 8.24 | --- | --- | --- | s.u. | NA | DMR |
| Sulfate (as SO ₃) | 7.3 | 0.75 | --- | --- | mg/L | lb/d | 5 | Form 2C |
| All other parameters marked “believed absent” or tested below their respective detection limit. | | | | | | | --- | Form 2C |

IX. Total Maximum Daily Load (TMDL) Status of the Receiving Waters from Outfall 001

1. TMDLs Required (Listing Category 5)

The watersheds contributing to the Middle Chesapeake are impaired, with TMDL required, for an unknown pollutant indicated by benthic IBI. The impairment was first listed in 2006. If the pollutant is identified and a TMDL subsequently promulgated, the facility could be affected.

2. TMDLs Completed (Listing Category 4a)

Total nitrogen, total phosphorus and total suspended solids in discharges from Cove Point LNG were accounted for by an aggregate waste load allocation for insignificant dischargers in the *Chesapeake Bay Total Maximum Daily Load for Nitrogen, Phosphorus and Sediment (Bay TMDL; approved December 29, 2010.)* The aggregate WLA was further

subdivided into target loads for individual facilities. The target loads for Cove Point are 2,474 lbs/year of TSS, 1880 lbs/year of nitrogen and 165 lbs/year of phosphorus.

The *Total Maximum Daily Load of Sediment in the Other West Chesapeake Watershed, Anne Arundel and Calvert Counties, Maryland* was approved by U.S. EPA on February 9, 2018. Per the Technical Memorandum Point Sources of Sediment in the Non-Tidal Other West Chesapeake Watershed, “The wastewater category includes those load generated by continuous discharge sources whose permits have total suspended solids (TSS) limits...permits that do not meet these conditions are considered *de minimis* in terms of the total watershed sediment load.” Since the discharges regulated by this permit are intermittent, they are considered to be *de minimis* and require no further regulation to comply with this TMDL.

3. Delisted Parameters – WQAs

There are no impairments that have been delisted for this 8-digit watershed.

X. Antidegradation Review of the Receiving Stream for Outfall 001

This discharge does not go either directly or downstream to Tier II waters. Consequently, this permit has been constructed to protect and maintain the receiving streams’ existing uses and the basic uses of water contact recreation, fishing, protection of aquatic life and wildlife, and agricultural and industrial water supply as is associated with its designated Use.

XI. Standards

Below is a list of technology and water quality standards based on the pollutants found in the discharge.

Table 4: Technology Standards

| # | Pollutant | Maximum Value | | Average Value | | Units | | Regulatory Basis |
|---|-----------|---------------|-------|---------------|-------|-------|-------|---|
| | | Conc. | Other | Conc. | Other | Conc. | Other | |
| 1 | pH | | 6-9 | | | | s.u. | BPJ for pH control, based on common use in EPA Effluent Limitation Guidelines |

Table 5: Water Quality Criteria

| # | Pollutant | Maximum Value | | Average Value | | Units | | Regulatory Basis |
|---|-----------|---------------|-----------|---------------|-------|-------|-------|------------------------------------|
| | | Conc. | Other | Conc. | Other | Conc. | Other | |
| 2 | Temp | 90 | | | | °F | | COMAR 26.08.02-03-3 (Use I waters) |
| 3 | pH | | 6.5 – 8.5 | | | | s.u. | COMAR 26.08.02-03-3 (Use I waters) |

| # | Pollutant | Maximum Value | | Average Value | | Units | | Regulatory Basis |
|---|------------------|---------------|-------|---------------|-------|-------|-------|--|
| | | Conc. | Other | Conc. | Other | Conc. | Other | |
| 4 | Lead | 0.065 | | 0.0025 | | mg/l | | COMAR 26.08.02.03-2 (fresh water) |
| 5 | Chlorine | 0.019 | | 0.011 | | mg/l | | COMAR 26.08.02.03-2 (fresh water) |
| 6 | Dissolved Oxygen | 5.0 (minimum) | | | | mg/l | | COMAR 26.08.02.03-3 (Use I waters), if dechlorinated |

XII. Overall Rationale for Effluent Limitations and Monitoring in the Draft Permit

There are no federal Effluent Limitation Guidelines applicable to the discharges from this outfall.

The Department compared parameters and pollutants in discharges from the facility with applicable technology standards and/or water quality criteria (compiled in Tables 4 and 5 above) to determine if discharges from the facility are likely to violate these standards. The discharge limits, monitoring requirements, and special conditions in the previous permit were also reviewed to determine if updates or modifications were needed. Based on its review the Department determined the limitations and monitoring established in the previous permit may be continued. The rationale for this decision is detailed below.

XIII. Outfall 001 Rationale for Effluent Limitations and Monitoring

Nutrients - During the previous permit term, the goal set for Cove Point LNG was based on a 25% reduction of the estimated 2,510 lbs/year or a yearly load of 1,880 lbs/year. The reported nitrogen discharged was 86 pounds for 2017, and none since that time since they system is idle when they are not importing LNG. That is well within their goal of 1,880 lbs/year. Phosphorus is not considered a constituent of interest. Special Condition P contains permit information regarding the facility’s nutrient goals.

Temperature – A 90 degrees maximum temperature limit is continued the water quality based limits from the existing permit due to anti-backsliding concerns, however the frequency of testing is increased to match pH since the permittee has made improvements to the controls for both pH and Temperature. Discharge temperature has essentially been the same as ambient temperatures.

pH - The pH limit of 6.5 to 8.5 is needed because pH control is part of their process prior to discharge. The process water becomes acidic from the carbon dioxide which results from burning natural gas. Sodium hydroxide is added to neutralize this water in the vaporizers. Additionally, hydrochloric acid may be added to neutralize the wastewater. The basis continues to be water quality-based limit.

Sediment – The source water and resulting discharge do not contain sediments.

XIV. Rationale for Special Conditions in the Draft Permit

- B. **DEFINITIONS** - Definitions were selected from a standard list so that only the definitions relevant to this permit are included.

- C. **TOXIC POLLUTANT REPORTING** - This condition is continued from the previous permit to reflect current standards and practices to address the release of any toxic pollutants not anticipated in the permit review process (standard inclusion).
- D. **REMOVED SUBSTANCES** - This condition is continued from the previous permit to reflect current standards and practices to assure pollutants do not reach State waters by some other route (standard inclusion, activated only if the Department determines a potential need for this information).
- E. **ANALYTICAL LABORATORY** - This condition is continued from the previous permit to reflect current standards and practices and is included in the event the Department needs to know who is conducting testing (standard inclusion).
- F. **WASTEWATER OPERATOR CERTIFICATION** - Required under COMAR 26.06.01. The certification requirement assures that only a properly trained person is operating the wastewater treatment system.
- G. **FLOW MONITORING** - This requirement attempts to assure that flow is monitored competently (standard inclusion).
- H. **FLOW BASIS FOR ANNUAL DISCHARGE PERMIT FEE** - This condition has been continued from the previous permit, and assures the Department receives accurate flow information on which to base the annual fee.
- I. **REAPPLICATION FOR A PERMIT** - This condition assures the Department receives applications in time to reissue the permit prior to expiration.
- J. **PERMIT REOPENER FOR TOTAL MAXIMUM DAILY LOAD (TMDL)** - This condition allows the permit to be reopened if a TMDL is issued for the watershed in which the facility resides, and alerts the permittee that finalization of a TMDL is cause to reopen the permit.
- K. **BIOMONITORING PROGRAM** - This condition is automatically required for all industrial discharge permits (major and minor) when numerical effluent limits may not address all of the conditions or pollutants with potential to cause aquatic toxicity. This is marked [Reserved], refer to Part VIII.
- L. **TOXICITY REDUCTION EVALUATION** - This condition is continued from the previous permit to reflect current standards and practices. In the event that toxicity test data indicates unacceptable, acute or chronic effluent toxicity, this requirement sets forth the steps to be taken to identify and determine the cause of toxicity and implement necessary control measures (standard inclusion).
- M. **MIXING ZONES AND POLLUTION PREVENTION** - The condition is marked [Reserved] in this permit since there are no toxic discharges from the facility that require a mixing zone to meet water quality standards.
- N. **PROTECTION OF WATER QUALITY** – This condition puts the permittee on notice that there are occasions when they may be held accountable for failure to comply with state water quality standards regardless of whether there is a specific limit in the permit.
- O. **USE OF SUFFICIENTLY SENSITIVE TEST METHODS** – This condition assures that the permittee analyzes samples with test methods sensitive enough to detect pollutants at or below their permit limits. While its terms have always been required, the addition of this condition is new to this renewal, per the Department's recent decision to include it in all NPDES permits.

- P. **PROHIBITION** – Discharges of any process water discharges related to the liquefaction equipment are not authorized under this permit.
- Q. **NUTRIENT REDUCTION GOALS** – The permittee met the nutrient requirements in the previous permit solely due to the limited flows from the system. In the event of use of Outfall 001 in the future, these goals will still be in effect consistent with the Department’s commitments to the Chesapeake Bay.
- R. **WASTEWATER FROM HYDROSTATIC TESTING OF PIPES, PIPELINES, AND TANKS** – The permittee is required to continue coverage under the 17-HT or any reissued version of that permit for the various activities on-site that are covered under that permit.
- S. **STORMWATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITIES** – This condition requires the permittee to continue to maintain a Stormwater Pollution Prevention Plan (SWPPP). The permittee notes that this facility is not subject to industrial stormwater NPDES permit requirements based on their SIC code under Code of Federal Regulations 40CFR 122.26. However the previous permit included these specific stormwater requirements, based on concerns of the surrounding community. This renewal continues the requirements and includes the liquification of natural gas in the areas. The condition has been updated to clarify who may sign the SWPPP and to provide the current guidance for SWPPPs on the Department’s website.



MARYLAND DEPARTMENT OF THE ENVIRONMENT

Water and Science Administration
Wastewater Pollution Prevention and Reclamation Program
1800 Washington Boulevard, Suite 455
Baltimore, MD 21230-1708

Response to Public Comments

Regarding

Cove Point LNG Individual Permit

State Discharge Permit Application No. 17-DP-2642

NPDES Permit No. MD0063975

Last Updated: November 9, 2022

Final: _____

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II. INTRODUCTION

The Department has been processing a reissuance of the State/NPDES (National Pollution Discharge Elimination System) Individual Permit for Cove Point LNG, LP, State Permit Number 17DP2642 (NPDES No. MD0063975). The permit is to discharge an average of 45,000 gallons per day of regasification wastewater and variable volumes of storm water from a process that regasifies liquified natural gas from import, located at 2100 Cove Point Rd., near Lusby, MD, to an unnamed tributary of Grays Creek (Use I water).

Notice of a tentative determination regarding this permit was published in The Recorder the weeks of May 06, 2022 and May 13, 2022, after which a request for public hearing was received. A notice of tentative determination and public hearing was subsequently published July 8, 2022 and July 15, 2022, also in The Recorder. The Department held a public hearing regarding the tentative determination on August 17, 2022 at the Prince Frederick Branch, Calvert County Library, 850 Costley Way, Prince Frederick, MD 20678 from 5:00pm to 7:00pm. Notice of the hearing was included in the aforementioned publications. The public comment period concluded on August 24, 2022. Substantive comments which were received during the public comment period, as well as the Department's responses to those comments, have been summarized in this document, below.

In the event of any inconsistencies between the factsheet and this document, this document shall take precedence.

III. SUMMARY OF CHANGES FROM THE DRAFT (TD) PERMIT

The outfalls with stormwater have been added back to the cover of the permit and to the stormwater requirements section of the individual permit. The Outfalls identified are SW001-SW010 and SW012.

The stormwater requirements in Special Condition S are now updated to include:

- 1) a section requiring evaluation and implementation of controls, including the storage, spill and operational cleanup of hazardous and toxic effluents,
- 2) restoration of impervious surfaces,
- 3) adapting these controls and updating the SWPPP based on changes in precipitation,
- 4) quarterly visual monitoring,
- 5) requirements to provide an updated SWPPP upon request within 2 business days, or posting the SWPPP on a website,
- 6) and corrective actions with timeframes.

A definition of industrial stormwater has been added to the definition portion of the permit and the allowable non-stormwater discharges have been included.

IV. COMMENTS ORGANIZED BY TOPIC

A. Comment Category – Who is the permittee?

1. “In 2013, MDE records show the legal ownership of this facility as a.k.a. DCP LNG. This facility permit for renewal states the site name as “Cove Point LNG, LP”, same address. a) In 2017, Dominion requested DOE/FECM for a name change to Dominion Energy Cove Point, LLC (DECP) for blanket authorization to process domestic gas and export as LNG from this facility. Is

this new company part of this permit renewal?” [Karen and Josh Phillips] [June Sevilla for self and the following organizations: Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]

2. “In 2013, MDE records show the legal ownership of this facility as a.k.a. DCP LNG. This facility permit for renewal states the site name as “Cove Point LNG, LP”, same address. a) In 2017, Dominion requested DOE/FECM for a name change to Dominion Energy Cove Point, LLC (DECP) for blanket authorization to process domestic gas and export as LNG from this facility. Is this new company part of this permit renewal? b) In a series of corporate maneuvers, acquired assets of Cove Point LNG now belong to Berkshire Hathaway Energy Gas Transmission and Storage. Since BHE GTS operates Cove Point LNG assets and operations of this facility, does this permit cover all facility operations that generate wastewater and stormwater that carry effluents discharged to facility outfalls, including SWPPP management?” [William Peil & Cynthia Peil, Southern Maryland CARES]
3. “In a series of corporate maneuvers, acquired assets of Cove Point LNG now belong to Berkshire Hathaway Energy Gas Transmission and Storage. Since BHEGTS operates Cove Point LNG assets and operations of this facility, does this permit cover all facility operations that generate wastewater and stormwater that carry effluents discharged to facility outfalls, including SWPPP management?” [Karen and Josh Phillips] [June Sevilla for self and the following organizations: Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]

B. Comment Category – What is covered by this NPDES permit?

4. “Please identify all OUTFALLS in this facility , their location and type of water discharge. Are all outfalls part of the SWPPP and NPDES? If any exceptions, provide Outfall ID and rationale for exclusion from this permit.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
5. “MDE’s database records demonstrate that in Dec 2007, lead and copper monitoring in OUTFALL 1 was eliminated because of SCV equipment upgrade in 2003, which caused these pollutant levels to drop. During that time, DCPLNG was only processing imported LNG which is already refined and has less ensuing effluents than current processing of domestic shale gas feed from Marcellus and Utica.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
6. “b. Any Cove Point LNG processes currently being employed to PRE-TREAT, PROCESS, and create LNG for EXPORT that results in discharges to waterways, environment, and soils are unlawful, unless covered by an appropriate permit. Reference to this specific permit as currently described and discharging to Grays Creek via Outfall1 is not as it is presented in this permit, therefore should be immediately stopped! That applies to all discharges including those purported by the applicant to be “allowed” under a general permit, have not been proven to be “permitted or allowed” under COMAR and other regulations covering such discharges.” [June Sevilla, So MD CARES & Calvert Citizens for a Healthy Community]
7. “C. Dominion’s \$4B Cove Point Liquefaction Project demanded a daily drinking water supply of up to 275,000 GALLONS PER DAY (GPD) from the Lower Patapsco Aquifer, in addition to the already enormous amount of usage from other aquifer wells already in place at the facility. This inordinate daily demand for our precious drinking water does not support the “No Wastewater”

claim, because that volume of water daily has to go somewhere and Appendix H of SWPPP names the DRAINAGE STRUCTURES. a. The applicant's blanket claim that "no wastewater is produced by the processes" is INACURATE and goes against their daily demand of up to 275,000 GPD. The information contained in the SWPPP and reiterated facts herewith, disprove the applicant's "no wastewater" claim. b. Whether LNG is exported or for domestic use, the creation of the finished product is identical. Exporting LNG using the pipeline from the terminal to the PIER for loading the LNG into cargo vessels may not create wastewater, but the processes required to create export quality LNG does create wastewater. c. How the wastewater is classified under what permit requires testing and approval and to the best of my knowledge and as proven by this permit, the classification of wastewater under general permit appears to be arbitrary and unlawful." [June Sevilla, So MD CARES & Calvert Citizens for a Healthy Community]

8. "Processing of Natural Gas at Cove Point may use either or all of the following equipment that may generate wastewater covered by this permit:
 - a. OLD LIQUEFACTION equipment generally used in Peak Shaving refined gas (Imported). This equipment may also be suitable for liquefying feedstock of domestic shale gas from pipeline to Cove Point for temporary storage prior to processing for removal of impurities and other valuable hydrocarbons so that a suitable commercial LNG product may be produced for export. This equipment usually produces air and water effluents. Suitable for both IMPORTED LNG and cooling Shale feedstock in initial and subsequent purification processes. This permit makes no mention of wastewater produced from use of this equipment, where discharged, and how monitored for compliance. Please explain uses for this equipment and provide requested information.
 - b. NEW LIQUEFACTION TRAIN – this equipment is touted as Zero Wastewater for "Liquefaction of LNG for Export". This equipment is capable of more than just liquefaction to LNG as Cove Point is self-advertised as capable of performing all functions of an LNG facility Air pollution becoming water pollution from this set of equipment has also not been addressed. Please provide information as to this type of water pollution from components of this equipment other than the "zero wastewater limited caveat" which is the end process when the resulting LNG is deemed commercially exportable
 - i. In order to process domestic shale gas feedstock into LNG for export, this set of processing equipment must be able to perform several functions before it can deliver a clean product to "liquefy as LNG for export." This means removing impurities and separating the desired methane from other hydrocarbons (NGLs). NOTE: this intermediate processing is at this stage, NOT Liquefaction into LNG for export. Please provide process for removing impurities from domestic DRY GAS, resulting wastewater composition and where discharged.
 - ii. Removal of impurities and NGLs is NOT Liquefaction to LNG, but rather an intermediate process which needs to identify impurities removed and whether any of these impurities create wastewater to comply with NPDES requirements. Please provide process for removing impurities and NGLs from WET GAS, its wastewater composition and where discharged.
 - iii. NGL is a group of hydrocarbons including ethane, propane, normal butane, isobutane and pentanes plus, AKA natural gasoline. Does this

facility store NGLs and further processes them as products? If so, provide process for storage and further separation of NGLs that have commercial value. If any wastewater, provide composition and where discharged.”
[Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]

C. Comment Category – Climate Change Concerns.

9. “Dominion Cove Point generates over 2 million tons of Co2 while performing it’s LNG liquefaction process.” “That amount of Co2 is the equivalent of over 312,000 cars, and that’s every year it produces that. That’s three times more cars than there are cars registered in Calvert County. Three times more. It’s huge. This Co2 does not include the methane generated during the extraction process in the Marcella shale region of Pennsylvania, which is even more damaging than the Co2. With climate change becoming more and more damaging every year, world economies are being devastated. Thousands of lives are being lost because of extremely high temperatures and flooding. Whole ecosystems are being decimated. The activity of this LNG plant is involved in this only contributing to worsening these conditions around the world and here in Maryland.” [William Peil from Public Hearing]

D. Comment Category – Air Pollutant Concerns.

10. “People with asthma and health challenges have the right to know when irritants are being discharged in the air because they also end up in the water.” ... “Also, any fire or explosion at the terminal would certainly cause water and air pollution across the state that would never be able to be adequately measured.” [Cynthia Peil from Public Hearing]
11. “Dominion Cove Point generates 21-and-a half tons of hazardous air pollutions every year. These emissions contain known or suspected carcinogens and are venting them into the air in and around the plant. There are no studies of health impacts to the local community. There needs to be a study to review impacts to workers on site and citizens being exposed to these chemicals. In addition to that 21-and-a-half tons a year is 10 tons of toxic air pollutants every year. They also contain carcinogens.” [William Peil from Public Hearing]
12. “I’ve had two upper respiratory illnesses in the last year, more than I normally have of any nature. And my wife this year alone has burning in her eyes that has not been -- been on. We’ve been living down in Lusby for 40 years now, 44 years. But the burning in the eyes is new to us. And we’re probably one of the few people where I live that we open our windows up. We live in a log cabin, so we open our windows up sometimes. And so we can hear the turbines going at 2:00 in the morning. And, you know, we hear things than the closed environments that most people live in. So I have a concern about that.”... “And I’m just seeing that there’s a lot of -- a lot of illnesses that are being generated from the air steam pollution that I’ve noticed myself. Physically, my wife and me have noticed ourselves. I don’t know who else has noticed that in Chesapeake Ranch Estates or people that live around -- across the street, Papa Acres and everybody else that lives across the street from there.” [Mark Giafrida from Public Hearing]
13. “when I look at my dish water, and when I dump it out there’s, like, some kind of film at the bottom of my dish pan. It doesn’t make sense. And you want to say that’s clean drinking water. There shouldn’t be like a film at the bottom of my dish pan. It’s just questionable.” ... “the

pollutants can go up in the air and then go back into the water. I mean, water comes to us that live near the facility.” [Jeff Dixon from Public Hearing]

E. Comment Category – Suggesting updated Environmental Assessment and Safety Study.

14. “Since stopping anything happening at LNG terminals is extremely unlikely to happen, I would like to request the addition of two conditions as part of the renewal of the water quality permit. The first request is the addition of a safety study as a condition of continued export operations beyond a year.” ... “two of them have had explosions and/or fires. So this is a huge high risk. Now is the time to complete the long-called for updated environmental assessment for the operation of the facility, and environmental assessment has the focus on impacts to human populations, especially in addition to things that happen to -- in the water, which would be horrific if anything like that ever happened. The 2014 explosion at the LNG export terminal in Washington State injured five people, and the 2004 LNG -- no, that wasn't in -- that was on American soil (sic) -- the 2004 LNG export terminal explosion in Algeria where 30 people were killed, and 70 injured, are the reminders of the dangers of LNG Export.” ... “There are people living right next door. As someone here has testified, there are schools, daycare, senior centers, churches, playgrounds, all within a three-mile radius, in addition to a large population, and we are very close also -- I think it's within five miles, or maybe three, of a nuclear power plant. Requiring the applicant to complete an updated environmental assessment and evacuation route study within a year should be included as a condition of the water renewal permit.” [Cynthia Peil from Public Hearing]

F. Comment Category – What other NPDES discharge permits are required?

15. “Is State Discharge Permit 17DP2642 the only MD State Discharge permit for this facility?” [Karen and Josh Phillips] [June Sevilla for self and the following organizations: Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
16. “b. Comment on Applicant’s Oct 2021 SWPPP Summary report: All outfalls have the potential to take allowable NON-STORM WATER and permitted water discharged via the 17-HT general permit. Site map is marked up to reflect current conditions, reprint of map will occur once construction on New Maintenance Building is complete. c. Questions on item b, above: Who decided what non-storm water can be discharged via the 17-HT General Permit? What tests were performed on these non-storm waters from PRE-TREATMENT and the Liquefaction Train to ensure they are allowed under General Permit? Specifically, pollutant metals such as Mercury, Iron, Copper, arsenic, lead, and pollutants such as sulfur, Nitrogen, and other NGLs (NGLs are Natural Gas Liquids, not LNG which is usually pure Methane) are of interest and any undesirable compounds, suspended solids, that would usually be covered by this permit! Have not been addressed!” [June Sevilla, So MD CARES & Calvert Citizens for a Healthy Community]
17. “Does NPDES Permit MD0063975 cover all NPDES and any subset permits for this facility? (As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.) If there are additional NPDES covering this facility, please list ID and function.” [Karen and Josh Phillips] [June Sevilla for self and the following organizations: Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]

18. “Is State Discharge Permit 17DP2642 the only MD State Discharge permit for this facility?
“[William Peil & Cynthia Peil, Southern Maryland CARES]
19. Does NPDES Permit MD0063975 cover all NPDES and any subset permits for this facility? (As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.) If there are additional NPDES covering this facility please list ID and function.” [William Peil & Cynthia Peil, Southern Maryland CARES]

G. Comment Category – Confusion Over Why Permittee Didn’t Expand Discharges.

20. “This 2022 permit renewal shows no apparent change in wastewater effluents being released and monitored, in spite of expanded site operations that can drastically impact wastewater management.” [Karen and Josh Phillips] [June Sevilla for self and the following organizations: Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
21. “I saw no major changes from the original permit. However, there have been some major and unfortunate changes at LNG export terminals that I think should cause us all to take a pause and maybe a stop in some of those operations.” [Cynthia Peil from Public Hearing]
22. “This permit as presented is appears to be a renewal of an old permit which has been previously renewed over the years and according to the MDE 2017 fact sheet, was last renewed coinciding with the completion of the \$4Billion expansion of DCP LNG. Many significant additions and changes to the are ongoing in the operations and ownership of this facility which generated concerns that this permit as it stands, is INCOMPLETE and appears to not address the current operations and planned additional operations.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES]
23. “As such, several issues and concerns have been identified that must be addressed and rectified before tentative determination approve. This 2022 permit renewal shows no apparent change in wastewater effluents being released and monitored, in spite of expanded site operations that can drastically impact wastewater management.” [Jim Wishart]
24. As described by June Savilla in detail there are numerous major differences between the nature and the volume of wastewater between what used to be nothing more than a filling station compared to a gasoline refinery. The casual omission of the word "export" from the application indicates either a callous disregard for pollution from a LNG processing plant or an actual attempt to deceive you and your agency. I do not know which is worse, but it does not matter. This application should be rejected because it has prima-facie defects and ignores the risks to the public and to the environment. [Paul Wahler]

H. Comment Category – Natural Gas Analysis and Request for Additional Information..

25. “I find this permit renewal incomplete, covering only outfall 001 toxic wastewater discharge from the LNG regassification. It is public knowledge that Cove Point LNG pipes in fracked gas from Appalachia, and that same gas is used for domestic clients as well as for export. Therefore, regassification of LNG from fracked gas processed at Cove Point should be included in this permit.” [June Sevilla from Public Hearing]
26. “Any PROCESSING OF DOMESTIC SHALE GAS THAT USES OUTFALL 1 AS DISCHARGE, behooves analyses for effluents such as additional metals, hazardous substances,

and other impurities in addition to previously known copper and lead which would have increased due to additional larger volumes of gas processing, both from IMPORTED LNG and DOMESTIC SHALE GAS sources. Request additional testing, analyses and monitoring for metals and other hazardous effluents as described.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]

27. “The processing of Imported Natural Gas (LNG) is relatively straightforward since the LNG comes into Cove Point already refined and ready for distribution either as liquid via LNG containers or gaseous via pipeline. The effluents generated under the purvey of NPDES are either air pollution that becomes water pollution, condensation of effluents and toxic vapors, or effluents directly from process wastewater. The wastewater from the old Liquefaction equipment for peak shaving and processing is not addressed in this permit. Please explain why and where the wastewater is discharged.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
28. “The processing of domestic gas from fracking of Shale sources such as the Marcellus and Utica require more preparation before these gases become commercially viable for Export. The gaseous components of raw shale gas include sulfur dioxide, hydrogen sulfide, helium, nitrogen, and carbon dioxide. Mercury may also be found in smaller concentrations in most reservoirs where natural gas is obtained and sometimes radon may also be contained in the gas. Please provide the average daily/monthly volume and composition of the domestic gas feedstock piped to Cove Point.” [Jim Wishart] [William Peil & Cynthia Peil, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)] [June Sevilla, Southern Maryland CARES, Calvert Citizens for a Healthy Community (CCHC)]
29. “It is public knowledge that Cove Point LNG pipes in fracked gas from Appalachia and same gas is used for domestic clients as well as export. Therefore, regasification of LNG from fracked gas processed at Cove Point should be included in this permit. MDE should require volume, content analysis of that fracked gas wastewater, treatment process, identity of outfall used and where discharged.” [June Sevilla, So MD CARES, Calvert Citizens for a Healthy Community]
30. “MDE should require volume content analysis of that fracked gas. Wastewater, treatment process, identity of outfall used, and where discharged. Outfall 001 requirements for monitoring and testing, insufficient as stated.” [June Sevilla from Public Hearing]
31. “Treatment of wastewater to remove or reduce toxicity is missing from this permit. Temperature, pH and nitrogen content monitoring alone are insufficient to ensure that toxicity is not harmful to aquatic life, and in turn human consumption on the food chain.” [June Sevilla from Public Hearing]
32. “d. Refining of fracked gas is necessary for quality control of the LNG finished product. Purification is the removal of water, CO₂, Natural Gas Liquids, mercury, radon, sulfur, etc, so the purity of the methane for Liquefaction is ensured. MDE should ask what process is used to perform this removal of impurities to achieve desired LNG quality, and what happens to the toxins and impurities removed, e. MDE should be provided with fracked gas content analysis when it is received at the plant and where in the process of purification is wastewater produced, and the content analysis of that wastewater. The statement that “Liquefaction of LNG for export produces Zero wastewater is misleading since that statement may only apply to creating the final