

**From:** [Graham Kenyon](#)  
**To:** [Wisniewski Luke](#)  
**Cc:** [Matt Piserelle](#)  
**Subject:** Party Submission for Waymon Boyd, DCA20FM026  
**Date:** Friday, August 27, 2021 4:54:21 PM  
**Attachments:** [20210826154729691.pdf](#)  
[Orion's NTSB Party Submission - DCA20FM026.pdf](#)

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To: The Chairman of the National Transportation Safety Board  
490 L'Enfant Plaza, SW Washington, DC 20594

Dear Sirs,

Please find attached Orion's Party Submission, along with one attachment associated with the same.

If you would like to discuss in greater detail, please feel free to contact me.

Yours sincerely,

Graham P. Kenyon

Graham Kenyon  
V.P. Risk Management  
Orion Group Holdings, Inc.  
C: [REDACTED]

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# Orion Group Holdings, Inc. – Party Submission

## Probable Cause

Following the investigation conducted by the NTSB and the various interviews of employees and witnesses from numerous parties, Orion maintains that as concurrent investigations, expert analysis, and litigation are ongoing, it is premature to draw a conclusion as to the probable cause of the incident at this time.

That said, many aspects have come to light that played a significant role in the events that led to the breaching of the Enterprise pipeline and the subsequent fire and explosion onboard the Waymon Boyd that occurred on August 21, 2020.

## Enterprise

### 1. Summary

Enterprise failed to maintain the subject liquid propane pipeline, TX219, in a safe condition and failed to properly assess, and act on, the risk TX219 presented when its cover was lost as the Tule Lake Channel shoreline moved/recessed, uncovering the pipeline. There is effectively little difference from a risk standpoint as to whether a pipeline was intentionally moved or otherwise migrates into the water or embankment erosion moves the shoreline such that it no longer covers a pipeline with a protective layer of soil.

Enterprise has taken the position<sup>1</sup> that Pipeline & Hazardous Materials Safety Administration (PHMSA) regulations referenced by the NTSB do not apply to Line TX219 as the subject channel is not located in the “Gulf of Mexico and its inlets”<sup>2</sup> and, further, that the cited “cover” requirements only apply to new construction and relocated, replaced, or otherwise changed pipelines. Enterprise’s position is based upon improper reasoning and an outdated PHMSA interpretation<sup>3</sup> and ignores basic risk assessment requirements promulgated elsewhere in pipeline regulations.<sup>4</sup>

Enterprise also failed to: (i) request to have a representative onboard the WAYMON L. BOYD during the subject dredging operations; and (ii) to follow-up with or otherwise ensure a

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1 Enterprise Products letter from Jeff Morton, Sr. Director, Transportation Compliance to Mr. Luke Wisniewski, NTSB Office of Marine Safety Senior Marine Investigator, Re: NTSB Party Representative Records and Information Request dated December 8, 2020; Response to Request 105, January 12, 2021.

2 49 C.F.R. § 195.2.

3 Interpretation Response #PI-75-040, published August 1, 1975, (Office of Pipeline Safety Operations). See: <https://www7.phmsa.dot.gov/regulations/title49/interp/PI-75-040>.

4 49 CFR § 195.452 - Pipeline Integrity Management in High Consequence Areas.

proposed bulkhead and fill (which would have protected, buried, and restored Line TX219 to an onshore position) was completed before dredging and construction operations commenced.<sup>5</sup> Enterprise was aware of and consulted with the other parties, but failed to properly identify to those parties that its pipeline was not protected as required by PHMSA regulations.

## 2. Background

A. The incident occurred on Friday, August 21, 2020 at approximately 08:02 Central Standard Time (CST). By 08:43 CST, valves upstream and downstream of the incident location were closed, securing TX219.<sup>6</sup> Approximately 253,008 liquid gallons of propane were released.<sup>7</sup>

B. At 09:47 CST, the Port of Corpus Christi notified the Pipeline Control Center that a pipeline had been struck by a dredging operation.<sup>8</sup>

C. At 09:53 CST, local Enterprise operations personnel confirmed TX219 was involved in the incident.<sup>9</sup>

## 3. Pipeline History and Characteristics

A. The subject liquid propane pipeline, TX219, was constructed in 1968.<sup>10</sup> TX219 was specified as American Petroleum Institute (API) High-Test Line Pipe 5LX, Grade X46, 16-inch nominal outside diameter, and a 0.219-inch nominal wall thickness.<sup>11</sup> TX219 had two coatings, what appears to be coal tar and concrete.<sup>12</sup> Enterprise acquired TX219 in 2005.<sup>13</sup>

B. Enterprise classified TX219 as an onshore pipeline and represented in its 2019 annual report to PHMSA that all its hazardous liquid pipelines in the State of Texas were onshore pipelines, thus not subject to the risk of a dredging incident.<sup>14</sup>

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<sup>5</sup> Technical Review Draft: Pipeline Operations Group Factual Report Dredge Waymon L. Boyd Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, pgs. 12-13.

<sup>6</sup> Technical Review Draft: Pipeline Operations Group Factual Report Dredge WAYMON L. BOYD Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, pgs. 5, 54-56.

<sup>7</sup> Ibid. p. 58.

<sup>8</sup> Ibid. p. 56.

<sup>9</sup> Ibid. p. 56.

<sup>10</sup> Ibid. p. 72.

<sup>11</sup> MATERIALS LABORATORY FACTUAL REPORT DRAFT Report No. 21-022, NATIONAL TRANSPORTATION SAFETY BOARD, Office of Research and Engineering, Materials Laboratory Division, May 2021, p. 3.

<sup>12</sup> Ibid.

<sup>13</sup> Enterprise Products letter from Jeff Morton, Sr. Director, Transportation Compliance to Mr. Luke Wisniewski, NTSB Office of Marine Safety Senior Marine Investigator, Re: NTSB Party Representative Records and Information Request dated December 8, 2020; Response to Request 105, January 12, 2021, p. 3.

<sup>14</sup> Technical Review Draft: Pipeline Operations Group Factual Report Dredge Waymon L. Boyd Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, p. 20.

C. The Texas General Land Office (TGLO) is tasked with overseeing erosion control, mitigation, and coastal preservation projects in the State of Texas.<sup>15</sup> The TGLO website states that “the average erosion rate for the 367 miles of Texas coast is 4.1 feet per year.”<sup>16</sup> The TGLO website further states: “Sixty-four percent of the Texas coast is eroding at an average rate of about 6 feet per year, with some locations losing more than 30 feet per year.”<sup>17</sup>

D. Due to years of progressive land loss near the EPIC Dock project as shown in photographs taken in 1968 and 2016, the ruptured section of TX219 became located within the channel waterway and consequently, all land markings were insufficient.<sup>18</sup>

E. The depth of cover survey performed for EPIC by TMI Solutions, LLC on December 8, 2018 indicated the subject length of TX219 exposed to the water had 0.4 ft of cover on the west end and 2.0 ft of cover on the east end.<sup>19</sup>

F. On July 16, 2020, an Enterprise hazardous liquid pipeline technician observed that all but about 15 to 20 feet of the pipeline segment on the west side of the gap between the shorelines (nearest the breach location) was visibly exposed a few inches to a foot below the water surface. The 15-to-20-foot western-most portion of the pipe was covered by a sandbar. The Enterprise technician could see the pipeline for most of its length between the shorelines, except for about 60 feet of the west side that was covered with sand.<sup>20</sup>

G. During the One Call process, the GPS coordinates for the pipelines were requested from the Enterprise pipeline technicians. Enterprise had this data but failed to provide it.

H. Enterprise conducted its most recent risk assessment of TX219 during the first quarter of 2020.<sup>21</sup> This risk assessment is required by Code of Federal Regulation § 195.452 entitled “Pipeline Integrity Management in High Consequence Areas.” High Consequence Areas include commercially navigable waterways.

I. Enterprise used the Dynamic Risk Ltd. risk assessment spreadsheet tool in their risk assessment process. Their 2020 risk assessment spreadsheet contained categories for third-party damage including signage, right of way exposure, casing presence, and depth of cover. Each of these columns listed “null” for all TX219’s 126 pipeline segment rows, meaning there is no available data, and an assumed default value was automatically assigned. The default value for depth of cover corresponds to three feet of cover, which did not exist.<sup>22</sup>

J. No entries were found relating to the known risks of shore erosion and/or dredging,

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15 Ibid. p. 21.

16 <https://www.glo.texas.gov/coast/coastal-management/coastal-erosion/index.html>.

17 Ibid.

18 Technical Review Draft: Pipeline Operations Group Factual Report Dredge Waymon L. Boyd Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, pgs. 21-23.

19 Ibid.

20 Ibid.

21 Ibid. p. 31.

22 Ibid. pgs. 30-32.

and nonsensically low risk scores were determined for the 730 foot length of TX219 that included the rupture location.<sup>23</sup>

K. The Flint Hills Resources refinery supplied propane to TX219 in batch deliveries, meaning that the pipeline did not run continuously. Generally, two to three propane batches per day were transported on the pipeline. The pipeline was not flowing when not actively transporting product from the refinery.

#### **4. Failures of Enterprise**

A. As noted above, Enterprise was required to, and did, perform a risk assessment of Line TX219 per Code of Federal regulation “49 CFR § 195.452 - Pipeline Integrity Management in High Consequence Areas.”

B. Based on industry standards, Enterprise committed the following errors in its risk assessment: (1) Enterprise identified hazards based only on an inadequate sight inspection and/or failure data for TX219; (2) Enterprise failed to establish a baseline condition and degradation rate for each hazard; and (3) Enterprise failed to adequately mark their pipeline and to ensure their markings were still in place after the passage of Hurricane Hanna shortly after the pipeline was marked. Enterprise made these mistakes with respect to the following factors: pipeline location, cover of the pipeline, and known dredging activity near the pipeline.

C. Custom, practice, and basic risk assessment for pipelines in general dictates that a hazardous pipeline be well marked, particularly near construction and dredging (equivalent to excavation) operations that are in progress or are to commence in the near future. Just as important are the qualifications of those doing the marking; here, the representative(s) Enterprise supplied to ensure their pipelines would not be impacted should have been but were not properly trained or experienced enough to determine from the dredge plans where the pipelines were in relation to the dredging template (slope). Moreover, Enterprise had and should have provided the most accurate location data, the GPS coordinates.

D. Hazard identification is a critical step in any risk assessment.<sup>24</sup> Identifying hazards, particularly high risk – low frequency risks cannot typically be accomplished via a review of a particular pipeline’s history. It requires a diverse team of participants from a variety of disciplines.<sup>25</sup>

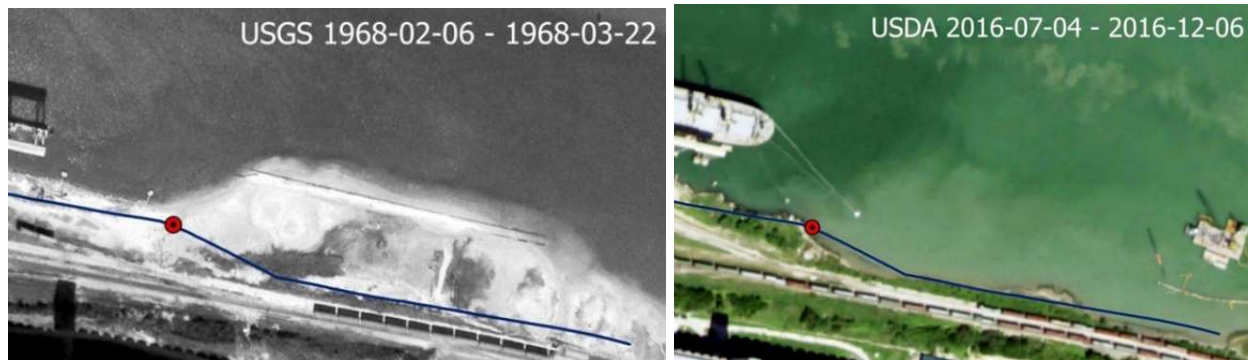
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23 Ibid. p. 32.

24 Oil and Gas Pipelines, Integrity and Safety Handbook, Edited by R.W. Revie, John Wiley & Sons, 2015, p. 701.

25 Ibid.

E. A diverse risk assessment team would have easily identified shore erosion as a hazard based on either, or both, the TGLO coastline loss data (4.1 feet per year) or photographic images and surveying showing TX219 moving from onshore to offshore.<sup>26</sup>



F. The same TGLO data should have been used to establish a baseline degradation rate by Enterprise and Dynamic Risk Ltd. as required in any risk-based inspection method.<sup>27</sup>

G. A diverse risk assessment team would also have flagged the EPIC Dock project involving dredging near shore, calling for a bulkhead and fill. An experienced risk assessment team would have made sure the bulkhead and fill were accomplished prior to dredging or ensured that a company representative was present on the dredge.

H. Enterprise personnel stated to the NTSB: “We looked at the EPIC plans and saw the prism where [the project engineer] said that we’re going to be working, and it was well offshore. And with the knowledge that EPIC wanted to put in a bulkhead and fill in our lines with sand, we knew we were okay with clearing that ticket.”<sup>28</sup> This known risk (dredging near where the shoreline has migrated over a pipeline leaving it exposed) was not followed up on or pursued per Management of Change standards-of-care.

I. Enterprise’s claim that “cover” requirements in 49 CFR Part 195, Section 195.248 do not apply because of a 1975 interpretation is incorrect. An appropriate amount of cover and a bulkhead (when shoreline erosion is present) would clearly be required per a rational interpretation of the risk assessment provisions in 49 CFR § 195.452 - Pipeline Integrity Management in High Consequence Areas.

J. In batch pipeline operations, it is common to work with customers to manage economic risk at times of high product use by maximizing tank storage and run scheduling. The same is true for pipeline maintenance and/or nearby construction operations with high potential risks. Working with product customers to maximize production and tank storage for batch

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<sup>26</sup> Technical Review Draft: Pipeline Operations Group Factual Report Dredge Waymon L. Boyd Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, p. 22.

<sup>27</sup> API RP 581, 3rd Edition, April 2016 - Risk-Based Inspection Methodology.

<sup>28</sup> Technical Review Draft: Pipeline Operations Group Factual Report Dredge Waymon L. Boyd Propane Pipeline Strike Near the EPIC Dock, Corpus Christi Ship Channel Corpus Christi, Texas August 21, 2020, 0802 CDT NTSB# DCA20FM026, April 12, 2021, p. 42.

operations to allow shutdown for high risk procedures is standard procedure and common in pipeline risk management, and a prudent pipeline operator would have done so. Batch runs and high risk maintenance and/or construction operations (e.g. adjacent excavation or dredging) should be scheduled to avoid simultaneous operations. Enterprise, however, failed to request a dredging schedule so that it could take steps to shut in TX219 while dredging operations near the pipeline took place.

### **Safety Recommendations**

There are numerous safety lessons that can and should be learned from this incident. Some of the lessons are administrative, while others are physical changes regarding how things should have been done. These recommendations are from Orion's viewpoint, rather than those of the other parties involved.

- A. Ensure all requests for information and documentation from third parties are sent and responses are received in writing.
- B. Ensure all pipelines are properly marked by the pipeline owner to both industry standards and those standards required by Orion.
- C. Ensure GPS coordinates are received on all pipelines that are in the vicinity of dredging operations and that if GPS coordinates are unavailable, that the reasons for same are fully documented in writing.
- D. Ensure that all pipeline owners whose pipelines could be impacted by dredging are offered the ability to be onboard the dredge and/or its flotilla during dredging operations while in the vicinity of their pipelines. All responses from the pipeline companies in either the affirmative or negative should be documented.
- E. Ensure HSE department is advised and aware of potentially dangerous utilities in the area and includes them in the site-specific safety plans.
- F. Request should be made, where possible, that pipelines potentially affected by dredging be temporarily closed down, working with the pipeline owners to dredge at a convenient time. As part of this request, a dredging activity schedule should be provided.
- G. Place all objects that may impact dredging, even if they may fall outside the dredge template, on Dredgepack, to ensure that their position is easily seen and visually communicated to the relevant crew.
- H. Increase training in pipeline awareness, as part of the overall safety program (already implemented by Orion – see attached training aid).
- I. Assign an individual safety person to each dredge to ensure consistency of both coverage and lines of communication (already implemented by Orion).

# Underwater Utilities



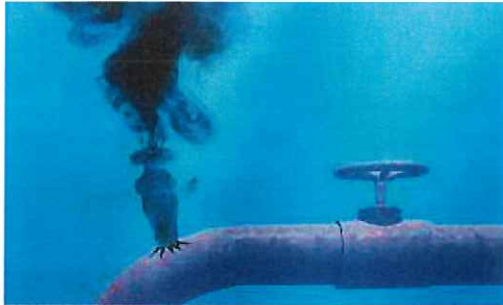
## General Requirements

- Contact 811 prior to work to verify if any underwater utilities are in your work area.
- Owners of the pipeline shall advise of the specific location for the utilities – coordinates.
- Owners of the pipeline shall flag / mark the location of the utilities.
- Gather boundaries, 'no-go'/standoff zone specifics and information from the pipeline owner.
- Post the contact information for the pipeline owner on vessels or project site.
- The utility owner shall have the option to be present when performing work near the utility.
- Advise the HS&E Department of the presence of hazardous utilities for inclusion on site specific safety plans.



## Questions to be asked:

- Who is the owner of the under-water utilities?
- What is the type of under water utility/product?
- What is the size and diameter of the pipeline?
- What is the depth of the utilities – Under mudline and under water surface?
- Are the utilities buried or sitting on the floor of the waterway or shore?



## Emergency Response

- Shut down all operations.
- Shut down the use of all possible ignition sources.
- Account for all crew members and communicate the hazards to them.
- Contact NRC, USCG and 911 to update emergency responders on the situation.
- Consider ordering an Abandon Ship.

**ORION** **TARGET ZERO**

HAZARD ANALYSIS

Operation: \_\_\_\_\_ Prepared By: \_\_\_\_\_  
 Work Area: \_\_\_\_\_ Date: \_\_\_\_\_

STOP-BE-D-PLAN		RISK IDENTIFICATION	
Activity	Step #	Activity	Step #

High Work  
 Ladders  
 Physical Work  
 Critical Lift  
 Felling/Cutting  
 Heavy Equipment  
 Confined Space  
 Live Loads

03-10-2014

## Hazards to be Addressed on JHA

- Identify all locations of emergency stop switches to ignition sources.
- Ensure all navigational devices are working properly.
- Ensure the location of utilities and tolerance zones have been marked.
- Prepare and drill for these situations on your project site or vessel.



**From:** [Ehlers Andrew](#)  
**To:** [Graham Kenyon](#)  
**Cc:** [Wisniewski Luke](#); [Hoepf Michael](#); [Stancil Paul](#); [Martini Rebecca](#); [Matt Piserelle](#)  
**Subject:** RE: Waymon Boyd Investigation: Follow-up to Orion Party Submission  
**Date:** Thursday, September 2, 2021 2:33:31 PM

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Graham,

Got it. Thanks.

Best regards,  
Drew

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**From:** Graham Kenyon <[REDACTED]>  
**Sent:** Thursday, September 2, 2021 2:19 PM  
**To:** Ehlers Andrew <[REDACTED]>  
**Cc:** Wisniewski Luke <[REDACTED]>; Hoepf Michael <[REDACTED]>; Stancil Paul <[REDACTED]>; Martini Rebecca <[REDACTED]>; Matt Piserelle <[REDACTED]>  
**Subject:** RE: Waymon Boyd Investigation: Follow-up to Orion Party Submission

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Drew,

Orion does not run a separate drill for a pipeline strike. The fire and abandon ship drills both encompass procedures to take in the event of a pipeline strike, and thus, to streamline emergency procedures, a separate pipeline breach drill is not performed. The actions suggested to be taken in the training aid are covered by both drills.

Best regards,

Graham

Graham Kenyon  
V.P. Risk Management  
Orion Group Holdings, Inc.  
C: [REDACTED]

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**From:** Ehlers Andrew <[REDACTED]>  
**Sent:** Thursday, September 2, 2021 12:30 PM  
**To:** Graham Kenyon <[REDACTED]>  
**Cc:** Wisniewski Luke <[REDACTED]>; Hoepf Michael <[REDACTED]>; Stancil Paul <[REDACTED]>; Martini Rebecca <[REDACTED]>; Matt Piserelle <[REDACTED]>  
**Subject:** RE: Waymon Boyd Investigation: Follow-up to Orion Party Submission

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Graham,

Thanks; this is very helpful information. I need to clarify my question on the drills: *Does Orion run drills on the procedures (contained in the training aid) for responding to a pipeline strike?*

Thanks,  
Drew

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**From:** Graham Kenyon <[REDACTED]>  
**Sent:** Wednesday, September 1, 2021 2:37 PM  
**To:** Ehlers Andrew <[REDACTED]>  
**Cc:** Wisniewski Luke [REDACTED]; Hoepf Michael [REDACTED];  
Stancil Paul [REDACTED]; Martini Rebecca [REDACTED]; Matt Piserelle  
[REDACTED]  
**Subject:** RE: Waymon Boyd Investigation: Follow-up to Orion Party Submission

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Drew,

Please see below responses to your follow-up questions:

1. When was this training implemented? (pre- or post-accident?)  
June of 2021
2. Who receives the training (dredge crews, dredge supes, survey supes and surveyors, others)?  
All crews company wide, including dredge crews and their supervisors, support staff (shore-based personnel including dredge superintendents, safety, survey, project management and engineering, etc.) and leadership.
3. How often is the training given?  
At a minimum, the training is administered twice a year. Beyond that, it is supplemented as needed or directed by leadership and management, or as specific projects require.
4. Regarding the "questions to be asked" section of the training aid, who asks these questions?  
How is this information communicated to the dredge crews?  
This is regarded as a section to remind everyone what questions need to be asked when working on a project that may encounter an underwater utility. The "questions to be asked" are discussed during training, and all individuals referenced in 2 above are instructed to ask themselves these questions (which are posted in the training aid around the dredge) for every project. If there is any confusion in that individual's mind, they are trained to seek clarification from their supervisor (crews should seek clarification from the captain, the captain from dredge superintendents, the project engineer from the project manager, and so on).

5. Regarding the emergency response in the training aid, is this procedure posted on dredges? If so, where?

The training aid is posted in several areas around the dredge: in the lever room, the galley, and the captain's office.

6. Does Orion run drills for the emergency response procedure?

- a. Yes – Fire Drill, Abandon Ship Drill, Man Overboard Drill and Collision Drill (See attached drill summary sheet). The fire and abandon ship drills both encompass procedures to take in the event of a pipeline rupture, and thus, to streamline emergency procedures, a separate pipeline breach drill is not performed. **Comment to everyone: the training aid specifically states to shut off all possible ignition sources – is this encompassed by “secure all equipment – lockout controls” in the fire and abandon ship procedures?**

Regarding the assignment of an individual safety person to each dredge:

1. Is this different than the safety representative previously assigned to the dredge prior to the accident?

Yes, as the Waymon Boyd did not have a safety supervisor assigned full time to the vessel on the EPIC project. Now, each dredge has a dedicated safety supervisor assigned to it for the duration of the project. Currently, Orion has 5 dredges and 5 safety supervisors. Each dredge working on a project therefore has a designated safety supervisor on site, five days a week, for the duration of the project.

2. What are this person's specific duties?

- Facilitate the HS&E program for the project, vessel, and equipment/sites to which they are assigned, including participation in daily safety meetings, equipment inspections, and all JHA's
- Communicate with, instruct, train, coach, and listen to the crews and leadership to continuously improve the safety culture at Orion
- Hazard, Risk, and Incident mitigation and management, including communication of any utilities in the area that may present a risk to Nathan Hawthorne, Regional HS&E Manager, for addition to the Site Specific Safety Plan
- HS&E document control (ensuring Captains are completing and timely submitting HS&E documents such as JHA's, safety meetings, equipment inspection checklists, etc.)
- Emergency drill management
- Assist with client relations and act as a regulatory agency liaison for the dredge/project alongside the Captain
- Inspect for, audit, and assist with identification and correction of HS&E issues that may arise throughout the project
- Work alongside the Dredge Captain, General Superintendent, Project Manager, Regional HS&E Manager, and Director of Operations to ensure the dredge and project site(s) are working at optimal safety

Best regards,

Graham  
Graham Kenyon  
V.P. Risk Management  
Orion Group Holdings, Inc.  
C: [REDACTED]

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**From:** Ehlers Andrew <[REDACTED]>  
**Sent:** Tuesday, August 31, 2021 1:07 PM  
**To:** Graham Kenyon [REDACTED]  
**Cc:** Wisniewski Luke [REDACTED]; Hoepf Michael [REDACTED];  
Stancil Paul [REDACTED]; Martini Rebecca [REDACTED]; Matt Piserelle  
[REDACTED]  
**Subject:** Waymon Boyd Investigation: Follow-up to Orion Party Submission

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Good afternoon Graham,

We've reviewed Orion's party submission, and we appreciate the input from the company. I have some follow up questions regarding the Safety Recommendations included in the submission, specifically those that note that they are already implemented by Orion.

Regarding the pipeline awareness training and the training aid provided with the submission:

1. When was this training implemented? (pre- or postaccident?)
2. Who receives the training (dredge crews, dredge supes, survey supes and surveyors, others)?
3. How often is the training given?
4. Regarding the "questions to be asked" section of the training aid, who asks these questions? How is this information communicated to the dredge crews?
5. Regarding the emergency response in the training aid, is this procedure posted on dredges? If so, where?
6. Does Orion run drills for the emergency response procedure?

Regarding the assignment of an individual safety person to each dredge:

1. Is this different than the safety representative previously assigned to the dredge prior to the accident?
2. What are this person's specific duties?

As Luke has mentioned, we'd like to include information about actions taken postaccident, and the responses to the questions above will help complete the picture. There's a better than average chance that we'll have follow-up questions, so if you think it's best we can schedule a Teams meeting later this week to run through this. Please let me know a convenient time for you to meet if this works for you.

Thanks,  
Drew

Andrew C. "Drew" Ehlers  
Marine Accident Investigator  
National Transportation Safety Board (NTSB)  
(O) [REDACTED]

(M) [REDACTED]  
[REDACTED]

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