

# Vessel Critical Profile

**Vessel Name:** ANTIPODES      **Primary VIN:** WN9815NZ      **Call Sign:**      **Flag:** UNITED STATES

Alternate VINs	Type
WN9815NZ	State Number
CG1109603	Coast Guard Number

### ---Involved Parties---

Role	Name	Party Id	IMO Company Number
Owner	OCEANGATE, LLC.	1758688	
Operator (in control/in charge)	OCEANGATE, LLC.	1758688	

### ---Vessel Specifics---

**Class:** Research Ship      **Type:** Oceanographic      **Subtype:** General  
**Service:** Research Vessel      **Gross Tons (GRT):**      **Gross Tons (GT ITC):**  
**Deadweight Tonnage:**      **Length:** 13.0      **Propulsion:**  
**Inspection Subchapter:** C      **Date Keel Laid:**      **Date Delivered:**  
**Route:**      **Hull Material:** Steel      **Hull Color:** Yellow  
**Super Structure Color:** Yellow  
**Hailing Port:** Everett, Washington, UNITED STATES  
**Number of Fuel Tanks:** 0

### ---Certificate/Document Status---

Certificate/Document Type	Activity Id	Agency	Owning Unit	Issued Date	Expire Date	Status
Legacy - Unknown	4470462					
Letter of Designation (oceanographic research)	6955365					
Letter of Designation (oceanographic research)	7560760					
Other						
Other						
Other						
Other	7560760					
Other						
Other						
Plan Review Documents						
Plan Review Documents						

U.S. DEPARTMENT OF HOMELAND SECURITY U.S. COAST GUARD CG-3752 (Rev. 6-04)	<b>APPLICATION FOR INSPECTION OF U.S. VESSEL</b>	FORM APPROVED OMB NO. 1625-0002
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An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number.

The Coast Guard estimates that the average burden for this report is 15 mins. You may submit any comments concerning the accuracy of this burden estimate or any suggestion reducing the burden to: Commandant (G-MOC), U.S. Coast Guard, Washington, DC 20593-0001 or Office of Management and Budget, Paperwork Reduction Project (1625-0002), Washington, DC 20503.

Address to reply to:  
Ocean Gate, LLC  
9802 29th Ave. W.  
B-103  
Everett, WA 98204  
  
TELEPHONE NUMBER: [REDACTED]  
DATE: 4/13/10

TO: Officer in Charge, Marine Inspection

Marine Inspection Zone Sector Seattle

The undersigned applies to have the  Steam Vessel  Motor Vessel  
 Motorboat  Barge  Other (Indicate) Submarine

named Antipodes Official or Award No. WN 9815NZ

inspected under the laws of the United States; to be employed as a  Passenger Vessel (No. of Passengers 4)

Cargo Vessel  Tank Vessel  MODU  Other (Indicate) \_\_\_\_\_

on the following route: (Waters, Geographical limits) Puget Sound

Liquid cargo in bulk  will  will not be carried as follows:  
 Flammable or Combustible (Indicate grade) \_\_\_\_\_  
 Chemicals (Indicate) \_\_\_\_\_

Length of vessel 15 ft.

Hull material:  Steel  Other (Indicate) \_\_\_\_\_

Vessel will be at (Port, Pier, etc.) TBD

The current Certificate of Inspection expires on \_\_\_\_\_

Inspection is desired on 4/13/10

Cargo Ship Safety Construction Certificate to be issued by  ABS  USCG.

Vessel  is  is not to be classed.

If classed, indicate Classification Society:  ABS  Other (Indicate) \_\_\_\_\_

I CERTIFY that previous application for this inspection  has  has not been made. I further certify that I have instructed the master to present the vessel ready in all respects for the above requested inspection on the date specified. I understand that if this inspection is to be conducted at foreign port or place the vessel owners will be billed for the cost of the inspection.

(Signature) \_\_\_\_\_  
(Title) \_\_\_\_\_

U.S. Department of  
Homeland Security

United States  
Coast Guard



## Activity Summary Report

MISLE Activity ID: 4145113  
Activity Type: Vessel Inspection  
Title/Description: ORV  
Status: Closed - Agency Action Complete  
Point Of Contact: [REDACTED]  
Owning Unit: Sector Puget Sound  
Originating Unit: Sector Puget Sound  
Start Date/Time: 14MAY2010 10:15Z  
Prompt Date:  
Team Lead: [REDACTED].

### Vessel Information:

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<b>Vessel Name:</b> ANTIPODES	<b>Call Sign:</b>	<b>Current Flag / Flag At Time Of Activity:</b> UNITED STATES /
<b>Classification:</b> Research Ship - Oceanographic - General	<b>Primary VIN:</b> WN9815NZ	<b>Length:</b> 13.0
<b>ITC/Convention (Subpart B):</b>	<b>Regulatory (Subpart C or D):</b>	<b>Year Completed:</b> 1973
<b>Engine Compartment In An Open Space:</b> No	<b>Fuel Compartment In An Open Space:</b> No	<b>Vessel Constructed Of All Open Spaces:</b> No

### Propulsion System Type:

### Vessel Associated Parties:

<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Operator (in control/in charge)
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**Address:**  
1111 80th Street, Suite 250  
EVERETT, WASHINGTON 98203

<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Owner
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**Address:**  
1111 80th Street, Suite 250  
EVERETT, WASHINGTON 98203

### Inspection Results: (None)

### Narrative:

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Vessel is 13" X 58" Manned Submersible built in 1973 and classed A1 Submersible by ABS. Vessel wants Designation as an Oceanographic Research vessel and to a COI as a passenger submersible.

Design depth 1000 FSW (305 m), Rated depth 936 FSW (285 m) or less depending on most recent supervised test dive, Test depth 1250 FSW (381 m). Overall dimensions 15" long, 7.5" wide and 8" high.

Crane weight 14,340 lbs, payload 875 lbs, Viewports two (2) 58" (1.47M OD 150 degree spherical sections with conical edge, seven (7) 8" (0.20 m ID) conical frustum. Drop weight tray with lead 916 lbs, propulsion thrusters six (6) two hp reversible thrusters, vectored for three (3) axes maneuverability, speed two knots cruising, three knots maximum, power two (2) lead-acid battery banks 120 VDC @ 165ah 12/24 VDC from converters, backup power 24 VDC @ 260ah gel batteries. Dive duration 8 hours. Life support Normal operation - 5 [persons for 8 hours. Reserve - 5 persons for 72 hours: oxygen supply and carbon dioxide scrubbing capacity, 5 air BIBs, 5 MSA rebreathing units, emergency food and water rations. Navigation digital flux compass, digital fathometer, multi-beam sonar.

Vessel has started a 5 year ABS survey using ABS Rules for Survey After Construction 2010, Chapter 11.

The following items were tested or inspected: pressure boundaries, view ports, life support systems, ballasting, flotation, buoyancy systems, communication, electrical, emergency arrangements, propulsion, corrosion control systems, instrumentation, pressure hull, and portable pressure containers. Tested the fixed ballast (916 lbs of lead) release sat.

All instrumentation was sent out for calibration.

External portable pressure containers were hydrostatically tested.

Through hull fittings were removed and examined sat.

View ports were removed and the sealing surfaces examined sat.

IAW NVIC 5-93 enclosure 1 chapter 10 the attending marine inspector attended the 40 hour classroom instruction. For the sub operators. This included surface vessel support operations, remotely operated vehicles. A Pilot training Manual was developed during this course.

During test dives methods of sub rescue were tested. A buoy with 1500 feet of 6000 lbs breaking strength was released from the sub. Sub can be rescued with the line or a ring can be attached to the line and an ROV can be sent to the sub with tools (cable cutter) or hook for external lifting (sub has several external lifting points). ROV's are also equipped with multi-beam sonar.

The company has developed an Operations and Safety Manual for Oceanographic Research Vessel Expeditions. Is approved by ABS for operations up to and including Sea State 3. ABS letter approval dated March 5, 2007.

It covers External Checks Prior to Launch, Internal Checks Prior to Launch, Electrical Systems Checks, Pre Tow/Boarding, Pre Dive Final Checks, Post Dive Check List, Operational mission time and depth capabilities, Sea state capabilities, Geographical dive site limitations, Life support system description including capacities, Electrical system description, Launch and recovery operation procedures, Liaison with support vessel, emergency procedures and Emergency rescue plan.

30AUG2010: Test dive to 936 feet in Puget Sound, WA position 47 45.2 N 122 26 W. All systems operated as designed. Inspection for ORV complete. ORV letter issued.

## Inspection Details

Inspection Type:	Date:	Unit:
ORV Letter of Designation	30AUG2010	Sector Puget Sound

## Streamlined Inspection Program (SIP) Summary:

**Vessel Name:** ANTIPODES

**Company Name:**

### PHASE I

Inspector Comments:

### PHASE II

Inspector Comments:

### PHASE III

Inspector Comments:

### PHASE IV

Inspector Comments:

**Location(s): (None)**

Associated Parties: (None)

**TWIC Details: (None)**

**Radiation Details:**

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**Radiation:** No Radiation Detected

**Operational Controls: (None)**

**Log:**

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<b>Effective Date:</b>	<b>Description/New Value:</b>	<b>Logged By Unit:</b>	<b>Logged By:</b>
14SEP2011	Activity Created. Status: "Open - In Progress"	Sector Puget Sound	Admin, System
27MAR2013	Status Changed to "Closed - Agency Action Complete"	Sector Puget Sound	Admin, System
27MAR2013	Status_DtTm	Sector Puget Sound	Admin, System

**Documents: (None)**

**Certificates: (None)**

U.S. Department of Homeland Security

United States Coast Guard



Officer in Charge, Marine Inspection  
United States Coast Guard  
Sector Puget Sound

1519 Alaskan Way S., Bldg 4  
Seattle, WA 98134-1192  
Staff Symbol: spi  
Phone: (206) 217-6180  
Fax: (206) 217-6199

16711  
August 30, 2010

OceanGate, LLC



9802 29<sup>th</sup> Ave. West  
Everett, WA. 98204

Subj: LETTER OF DESIGNATION AS AN OCEANOGRAPHIC RESEARCH VESSEL  
13' MANNED SUBMERSIBLE, ANTIPODES, WN 9815 NZ

In response to your request, the R/V ANTIPODES, WN 9815 NZ, a 13' MANNED SUBMERSIBLE, is designated as an oceanographic research vessel in accordance with the provisions of Title 46, United States Code, 2101 (18).

This designation shall remain in effect until August 30, 2012 in accordance with 46 CFR 3.10-1(c), provided the vessel does not change employment or deviate from engaging exclusively in oceanographic research operations. Any such changes or deviations may constitute violations of inspection laws and must be reported to this office by the master, owner, or agent of the vessel. A determination will then be made regarding the vessel's eligibility to retain this designation.

A request for renewal of this designation should be made 30 days prior to expiration. This letter shall be maintained on board the vessel at all times.

Sincerely



Chief, Inspection Division  
By direction of the  
Officer in Charge, Marine Inspection

Hand delivered 30 Aug 10  


U.S. Department of  
Homeland Security

United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Marine Safety Center

2100 2<sup>nd</sup> St. SW Stop 7102  
Washington, DC 20593-7102  
Staff Symbol: MSC-2  
Phone: (202) [REDACTED]  
Fax: (202) [REDACTED]  
Email: [REDACTED]

16710/P016299/mse  
Serial: E1-1100567  
March 4, 2011

Ocean Gate

Attn: [REDACTED]  
1111 80 Street, SW  
Suite 250  
Everett, WA 98203

Subj: ANTIPODES, CG1109603  
Oceanographic Research Vessel (C)  
13' Manned Submersible (PVHO)  
Pressure Vessel Design and Engineering Systems

Ref: (a) Finite Element Analysis of Antipodes Manned Submersible, dated September 21, 2006  
(b) Southwest Research Institute Final Report, "Hydrostatic Pressure Test and Stress Analysis of Antipodes Submersible Hull", dated June 14, 2006  
(c) Operations Manual for Submarine Antipodes  
(d) American Bureau of Shipping Certificate of Classification (A1, Submersible) for Manned Submersible Antipodes, dated August 30, 2010  
(e) Navigation and Inspection Circular (NVIC) 5-93, "Guidance for Certification of Passenger Carrying Submersibles"

Dear [REDACTED]:

We have reviewed the information provided by reference (a) through (d), submitted by your February 9, 2001 letter, pertaining to the passenger carrying submersible to determine compliance with reference (e). Additional information is required to assess the submersible to those requirements.

You must provide the necessary documentation and plans to address the pressure vessel design, life support, fire protection, bilge/ballast, power systems, battery charging, gas detection, vessel control/automations systems, and a failure modes and effects analysis. System descriptions for a few of these systems are noted in reference (c); please provide the related plans.

Our acceptance of the hull/pressure vessel design is based on compliance with either ASME "Pressure Vessels for Human Occupancy (PVHO-1)" or ABS "Rules for Underwater Vehicle Systems and Hyperbaric Facilities". The ABS Classification certificate, finite element analysis and testing documentation are noted. The following additional information is required to determine acceptability of the pressure vessel for the requested operating depth of 150 FSW:

- (1) Pressure boundary calculations proving compliance with ASME PVHO-1 or ABS Rules; details shall include nozzles and reinforcements.
- (2) As built plans and drawings; plans should include material details, welded joint details, penetrations and nozzles.

16710/P016299/mse

Serial: E1-1100567

March 4, 2011

Subj: ANTIPODES, CG1109603  
Pressure Vessel Design and Engineering Systems

- (3) Supporting documentation from ABS proving the system's safe working history, including reports and certificates from initial construction (radiography reports, acrylic window certificates, etc.).
- (4) Thickness measurements of the pressure vessel shell and heads.
- (5) Plans of any on board piping systems.

An operations manual review to verify compliance with reference (e) and 46 CFR Part 197, and inspection and testing in accordance with paragraph 16.E.3.C of the Marine Safety Manual Volume II, as applicable, will be completed by the OCMI.

Plans pertaining to the vessel's stability and buoyancy submitted with your letter, not specifically addressed herein, will be the subject of separate correspondence from another branch within the Marine Safety Center.

Our Project Number for this vessel is P016299. Ensure that future correspondence includes the Project Number, and either the Coast Guard (CG) number that appears in the subject line or the Official Number, if assigned.

[REDACTED] at [REDACTED] regarding electrical, automation and FEA issues.

Sincerely,

[REDACTED]

Chief, Machinery Branch  
By direction

Copy: Commander, Coast Guard Sector Puget Sound, Prevention Department



SENT VIA ELECTRONIC MAIL

19 June 2012

[REDACTED]  
US Vessels Inspection, Sector Miami  
United States Coast Guard  
100 MacArthur Causeway  
Miami, FL 33139-5199

**RE: RENEWAL OF OCEANOGRAPHIC RESEARCH VESSEL LETTER OF DESIGNATION  
ICO R/V ANTIPODES**

Mr. Bates:

On 22 September 2010, OceanGate's manned submersible, *Antipodes*, was awarded a Letter of Designation as an Oceanographic Research Vessel (as defined in Title 46, United States Code §2101(18) and 46 CFR §188.10-53) by the Chief of the Inspection Division for Sector Puget Sound. This LOD will expire on 30 August 2012, so in accordance with 46 CFR §3.10-5 please accept this letter as our formal request for renewal. We are submitting this request to Sector Miami, because we relocated the submersible's home port to Miami in January 2012.

I understand that we have previously submitted to you all of the underlying documentation required for you to make this determination, including the original ORV LOD, our Operations & Safety Manual, and our Operations Plan for Miami. As we have for the past two years, we plan to continue operating the submersible for the purposes of oceanographic research, collecting valuable data for scientific analysis and contributing to the exploration of the marine environment. In doing so, we will continue adhering to the requirements set forth in United States Code and the Code of Federal Regulations for oceanographic research vessels.

If you have any questions or require any additional information, please feel free to contact me directly via email [REDACTED]

Very Respectfully,

A large black rectangular redaction box covering the signature of the Chief Operating Officer.

Chief Operating Officer

Copies to: [REDACTED] Sector Miami  
[REDACTED] Sector Puget Sound

325 NW South River Drive, Miami, FL 33128 USA \* +1 (425) 939-8409 \* [www.opentheoceans.com](http://www.opentheoceans.com)

U.S. Department of  
Homeland Security

United States  
Coast Guard



## Activity Summary Report

MISLE Activity ID: 4420142  
 Activity Type: Vessel Inspection  
 Title/Description: Reissue ORV Itr  
 Status: Closed - Approved Inspection  
 Point Of Contact: [REDACTED]  
 Owning Unit: Sector Miami  
 Originating Unit: Sector Miami  
 Start Date/Time: 16AUG2012 16:27Z  
 Prompt Date:  
 Team Lead: [REDACTED]

### Vessel Information:

<b>Vessel Name:</b>	<b>Call Sign:</b>	<b>Current Flag / Flag At Time Of Activity:</b>
ANTIPODES		UNITED STATES / UNITED STATES
<b>Classification:</b>	<b>Primary VIN:</b>	<b>Length:</b>
Research Ship - Oceanographic - General	WN9815NZ	13.0
<b>ITC/Convention (Subpart B):</b>	<b>Regulatory (Subpart C or D):</b>	<b>Year Completed:</b>
		1973
<b>Engine Compartment In An Open Space:</b>	<b>Fuel Compartment In An Open Space:</b>	<b>Vessel Constructed Of All Open Spaces:</b>
No	No	No
<b>Propulsion System Type:</b>		

### Vessel Associated Parties:

<b>Name:</b>	<b>Type:</b>	<b>Role:</b>
OCEANGATE, LLC.	Organization	Operator (in control/in charge)
<b>Address:</b>		
1111 80th Street, Suite 250 EVERETT, WASHINGTON 98203		
<b>Name:</b>	<b>Type:</b>	<b>Role:</b>
OCEANGATE, LLC.	Organization	Owner
<b>Address:</b>		
1111 80th Street, Suite 250 EVERETT, WASHINGTON 98203		

### Inspection Results:

<b>System:</b>	<b>Inspection Results:</b>	<b>Date:</b>
Documentation	Inspected Satisfactory	16AUG2012
Fire Fighting	Inspected Satisfactory	16AUG2012
Lifesaving	Inspected Satisfactory	16AUG2012
Navigation	Inspected Satisfactory	16AUG2012
Operations/Management	Inspected Satisfactory	16AUG2012
Personnel	Inspected Satisfactory	16AUG2012

### Narrative:

Received request for reissuance of ORV letter to the submarine ANTIPODES from vessel owner/operator OCEANGATE. Met with vessel operator to discuss scope of vessel employment and to verify vessel operation would be exclusive Oceanographic Research. Operator had requested permission have operators pay for a course in operation of the sub to qualify as a sub pilot. We informed operator this would be considered passengers for hire as consideration was flowing to the owner operator, the person on board receiving the instruction would be paying to be on board and would not be paid crew. Denied owners request. ORV letter was changed from example in MSM to ensure operation of submarine would be limited to oceanographic research.

Visited vessel afloat at Miami Beach Marina in company with LTJG [REDACTED] to examine vessel. Reviewed requirements in letter with operator and reminded operator of his responsibility to report all required marine casualties. Inspection complete, no deficiencies noted no deficiencies remain outstanding.

[REDACTED]

### Inspection Details

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<b>Inspection Type:</b>	<b>Date:</b>	<b>Unit:</b>
ORV Letter of Designation	16AUG2012	Sector Miami

### Streamlined Inspection Program (SIP) Summary:

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**Vessel Name:** ANTIPODES

**Company Name:**

**PHASE I**

Inspector Comments:

**PHASE II**

Inspector Comments:

**PHASE III**

Inspector Comments:

**PHASE IV**

Inspector Comments:

**Location(s): (None)**

**Associated Parties: (None)**

**TWIC Details: (None)**

### Radiation Details:

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**Radiation:** No Radiation Detected

**Operational Controls: (None)**

### Log:

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<b>Effective Date:</b>	<b>Description/New Value:</b>	<b>Logged By Unit:</b>	<b>Logged By:</b>
23AUG2012	Activity Created. Status: "Open - In Progress"	Sector Miami	Admin, System
23AUG2012	Status Changed to "Closed - Approved Inspection"	Sector Miami	Admin, System
23AUG2012	Status_DtTm	Sector Miami	Admin, System

**Documents: (None)**

**Certificates: (None)**

U.S. Department of  
Homeland Security



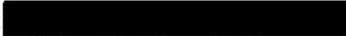
United States  
Coast Guard

Commander  
U. S. Coast Guard  
Sector Miami

100 MacArthur Causeway  
Miami Beach, FL 33139-6940  
Staff Symbol: (sp)  
Phone: (305) 535-8736  
Fax: (305) 535-8740

16711/12-1658  
August 13, 2012

Ocean Gate

Attn:   
325 NW South River Drive  
Miami, FL 33128

LETTER OF DESIGNATION AS OCEANOGRAPHIC RESEARCH VESSEL:  
R/V ANTIPODES, O.N. WN9815NZ

The vessel listed above is reported to meet the requirements of Title 46, United States Code (USC), Section 2101 (18) and Title 46, Code of Federal Regulations (CFR), Part 3, as an Oceanographic Research Vessel (ORV) and is so designated.

An Oceanographic Research Vessel is limited to oceanographic research or instruction. Such operations may be conducted by persons in addition to the navigation crew who are adult scientific personnel engaged in research or instruction in oceanography. College students in receipt of instruction at undergraduate or graduate levels are to be currently enrolled in accredited oceanographic courses of study and acting in a capacity as a scientist in training. Personnel allowed on board are restricted to paid crew and college students/scientists.

An Oceanographic Research Vessel cannot engage in the carriage of freight or passengers, towing and salvage, testing of navigation or sonar equipment, or archaeology. Receipt of payment for instruction in vessel operation, scuba diving or seamanship would constitute violations of inspection laws.

Designation as an Oceanographic Research Vessel under the provisions of 46 USC 2101(18) exempts this vessel from most of the inspection laws of the United States. However, the requirements of 46 CFR Parts, 24 through 26 (Uninspected Vessels) apply as do the manning requirements of 46 USC 8104.

This designation remains valid until August 30, 2014, provided that the operating conditions are confined to those authorized for ORV's. If the vessel operates in a manner deviating from exclusive oceanographic research operations, this letter becomes null and void. The vessel may then be subject to inspection by the U. S. Coast Guard and may be found to be in violation of the applicable inspection statutes. It is incumbent upon the owner/operator to request a renewal of this classification and notify the cognizant Officer in Charge, Marine Inspection of any change to the vessel's employment.



Commander, U.S. Coast Guard  
Officer in Charge, Marine Inspection  
Miami

U.S. Department of  
Homeland Security

United States  
Coast Guard



## Activity Summary Report

MISLE Activity ID: 4470462  
Activity Type: Vessel Inspection  
Title/Description: REQUEST FOR SUBMARINE OPS  
Status: Closed - Agency Action Complete  
Point Of Contact: [REDACTED]  
Owning Unit: Sector San Francisco  
Originating Unit: Sector San Francisco  
Start Date/Time: 23AUG2012 08:42Z  
Prompt Date:  
Team Lead: [REDACTED]

### Vessel Information:

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<b>Vessel Name:</b> ANTIPODES	<b>Call Sign:</b>	<b>Current Flag / Flag At Time Of Activity:</b> UNITED STATES / UNITED STATES
<b>Classification:</b> Research Ship - Oceanographic - General	<b>Primary VIN:</b> WN9815NZ	<b>Length:</b> 13.0
<b>ITC/Convention (Subpart B):</b>	<b>Regulatory (Subpart C or D):</b>	<b>Year Completed:</b> 1973
<b>Engine Compartment In An Open Space:</b> No	<b>Fuel Compartment In An Open Space:</b> No	<b>Vessel Constructed Of All Open Spaces:</b> No

**Propulsion System Type:**

### Vessel Associated Parties:

<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Operator (in control/in charge)
<b>Address:</b> 1111 80th Street, Suite 250 EVERETT, WASHINGTON 98203		
<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Owner
<b>Address:</b> 1111 80th Street, Suite 250 EVERETT, WASHINGTON 98203		

**Inspection Results: (None)**

**Narrative:**

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23AUG2012:

Received e-mail correspondence from [REDACTED] (OceanGate Foundation) informing Sector San Francisco that the submarine ANTIPODES was intending to operate in Monterey for a period of 2 weeks. Contacted [REDACTED] to discuss operations. [REDACTED] initially indicated that the ANTIPODES would be operating under Sector Miami's ORV letter (see documents in vessel profile.) After further conversation, requested a letter from OceanGate delineating specific details about the proposed submarine operations.

Background:

In 2011, OceanGate contacted Sector San Francisco to inform of upcoming submarine operations in Monterey, CA. At the time, the ANTIPODES had been issued a Letter of Designation (LOD) as an Oceanographic Research Vessel (ORV) from Sector Seattle. OceanGate requested that tye be allowed to operate as a recreational vessel while in Monterey.

ACID San Francisco contacted D11 Legal for a determination of "exclusive employment" as required by an ORV Designation (MSM Vol II Chapter 4.) D11 legal responded to ACID's request via e-mail, and determined that the ANTIPODES was not being "employed" if they were not charging for passengers (no consideration as defined in 46 USC). Resulting from this interpretatiopn, ACID allowed ANTIPODES to operate as a "recreational vessel."

17SEP2012:

Received letter from OceanGate as requested (see attached in documents within this activity.) Letter also states that they will NOT be operating under ORV LOD issued by Sector Miami. OceanGate proposes to operate ANTIPODES for "discovery dives." ANTIPODES is a 5 person submarine, but only requires 3 people for operation. Contacted Mr. Sohnlein for further clarification of "discovery dives."

[REDACTED] stated that ANTIPODES would be operated by 3 people employed by Ocean Gate, and 2 additional personnel would be in the submarine during the dives. Inquired as to the additional personnel; [REDACTED] stated these were VIPs and/or independent investors. Explained to [REDACTED] that this type of operation would meet the "passenger for hire" definition, which cannot be conducted by an ORV. [REDACTED] challenged this by saying that they were operating as a recreational vessel. Informed [REDACTED] that we would research some more and verify with chain of command.

Researched MSM Volume II, Section B, Chapter 4. On page B4-40, MSM states that ORV operations are exclusive and any deviation of exclusive use may constitute violations of inspection statutes. Also contacted Sector Miami Domestic branch chief, who stated that they met with [REDACTED] & clarified the types of operations the ANTIPODES can & cannot conduct under the ORV Designation (see LOD scanned in vessel documents.)

## Inspection Details

Inspection Type:	Date:	Unit:
Administrative Inspection	23AUG2012	Sector San Francisco

## Streamlined Inspection Program (SIP) Summary:

**Vessel Name:** ANTIPODES

**Company Name:**

### PHASE I

Inspector Comments:

### PHASE II

Inspector Comments:

### PHASE III

Inspector Comments:

### PHASE IV

Inspector Comments:

**Location(s): (None)**

**Associated Parties: (None)**

## TWIC Details:

Worker Type:	Checked:	Compliant:	Noncompliant:	Remarks:
Other	0	0	0	

## Radiation Details:

**Radiation:** No Radiation Detected

**Operational Controls: (None)**

**Log:**

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<b>Effective Date:</b>	<b>Description/New Value:</b>	<b>Logged By Unit:</b>	<b>Logged By:</b>
23OCT2012	Activity Created. Status: "Open - In Progress"	Sector San Francisco	Admin, System
07JAN2015	Status Changed to "Closed - Agency Action Complete"	Sector San Francisco	Admin, System
07JAN2015	Status_DtTm	Sector San Francisco	Admin, System

**Documents:**

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<b>Name:</b>	<b>Type:</b>	<b>Description:</b>
USCG Letter -- OceanGate Monterey 2012 Expedition Plan (2)	Legacy - Unknown	

**Certificates: (None)**



DELIVERED VIA ELECTRONIC MAIL

September 17, 2012

[REDACTED]  
Assistant Chief, Inspections Division  
Sector San Francisco, United States Coast Guard  
Building 14, Coast Guard Island  
Alameda, CA 94501

**RE: OPERATIONS PLAN FOR MONTEREY 2012 EXPEDITION**

Dear [REDACTED],

Per our recent telephone discussions, this letter outlines the current plan for operating our manned submersible in your sector over the next few weeks. Since this will be essentially a scaled-down version of our operations last October (including the same dive sites), it is our expectation that we will follow similar Sector approvals from that previous expedition.

Even though we generally operate our submarine under an Oceanographic Research Vessel Letter of Designation issued by Sector Miami, during this expedition we will not be getting paid (cash or other consideration) by anyone going in the sub. Instead, we will be supporting two 501(c)(3) nonprofit organizations: the BLUE Ocean Film Festival ([www.blueoceanfilmfestival.org](http://www.blueoceanfilmfestival.org)) during its biannual awareness-building event and the OceanGate Foundation ([www.oceangatefoundation.org](http://www.oceangatefoundation.org)) during its annual education and outreach program to the Monterey community. **Therefore, we will not be operating as an ORV.**

- Phase I:** 24 September to 28 September – static display at BLUE (Portola Hotel)
- Phase II:** 29 September to 07 October – 5 days of “discovery dives”
- Dive Sites:** Shipwreck (unnamed barge off Breakwater Cove), depth 50 feet, 2 dive days  
Shipwreck (*Art Riedel Sr.*), depth 300 feet, 3 dive days

In order to properly support our surface operations, we have chartered the USCG-certified *Sanctuary* (<https://www.sanctuarycruises.com/ourvessel.html>) from Sanctuary Cruises, who will also be providing a licensed captain and one crew. Please note that we will continue our standard practice of making a courtesy notification to the local USCG OOD prior to departing the marina on each dive day.

If you have any questions or require additional information, I would be happy to talk on the phone or meet with you in person once I arrive in California on 22 September. I can be reached on my cell phone [REDACTED] or via e-mail ([REDACTED]). Otherwise, we look forward to your response and appreciate your time and consideration.

Very Respectfully,

[REDACTED]

Chief Operating Officer

U.S. Department of  
Homeland Security  
  
United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Marine Safety Center

US Coast Guard Stop 7430  
2703 Martin Luther King Jr Ave SE  
Washington, DC 20593-7430  
Staff Symbol: MSC-1  
Phone: (202) [REDACTED]  
Email: [REDACTED]

16710/P016299/amh  
Serial: H1-1903423  
October 17, 2019

OceanGate, Inc.

Attn: [REDACTED]  
1205 Craftsman Way, Suite 112  
Everett, WA 98201  
[REDACTED]

Subj: ANTIPODES, CG1109603  
Perry Submarine Builders Hull No. Unknown  
15' x 7.5' x 8' Submersible Small Passenger Vessel (T)  
Stability and Plan Review

Ref: (a) Marlin Submersibles Doc. "Stability Calculations," 19 pages, dated June 2001  
(b) Navigation and Vessel Inspection Circular (NVIC) 5-93, "Guidance for Certification of Passenger Carrying Submersibles"  
(c) Our letter Serial No. E1-1100567 dated March 4, 2011

Dear [REDACTED]

We reviewed reference (a), submitted with your email dated September 9, 2019 (MSC Document No. 1916401), for compliance with 46 CFR Subchapter T and reference (b). Reference (a) is being held in abeyance pending resolution of the following comments:

1. Several features of the vessel and its operation are not covered in sufficient detail in the information provided, or they appear to depart significantly from longstanding design, construction, and operating standards accepted by the Coast Guard. While not an exhaustive list, features of the subject vessel that appear to depart from the standards include: positive buoyancy in all operating modes, viewport pressure cycle life, means of escape, fire protection, general arrangement, and rails/guards.

2. While we permit departure from existing standards to accommodate novel design features, we do so only when it has been demonstrated to our satisfaction that the overall design and operations provide a level of safety equivalent to that intended by existing laws, regulations, and policy. Based on the information provided, we are unable to determine the vessel provides a level of safety equivalent to that intended by 46 CFR Subchapter T and reference (b).

3. Please provide an analysis of the differences that exist between the ANTIPODES as currently built and outfitted, as well as the planned operations of the vessel, against the requirements in 46 CFR Subchapter T and reference (b). Where differences are noted, you should detail what steps or additional features are incorporated into your design that provides an

equivalent level of safety to the requirements. In addition, please provide an updated operations manual to assist our review.

4. Based on a historical review of prior submittals for this vessel to our office, we note that the comments in reference (c) remain valid. Please ensure they are addressed in future submittals to our office.

Our Project Number for this vessel is P016299. Please ensure that all future correspondence includes the Project Number and the Coast Guard (CG) number that appears in the subject line.

Please contact [REDACTED] at [REDACTED] with questions concerning our review.

[REDACTED]

Chief, Hull Division  
By direction

Copy: Commander, Coast Guard Sector Puget Sound, Prevention Department

U.S. Department of  
Homeland Security  
  
United States  
Coast Guard



Commanding Officer  
United States Coast Guard  
Marine Safety Center

US Coast Guard Stop 7430  
2703 Martin Luther King Jr Ave SE  
Washington, DC 20593-7430  
Staff Symbol: MSC-1  
Phone: (202) [REDACTED]  
Email: [REDACTED]

16710/P016299/amh  
Serial: H0-2000246  
February 18, 2020

OceanGate, Inc.  
Attn: [REDACTED]  
1205 Craftsman Way, Suite 112  
Everett, WA 98201  
[REDACTED]

Subj: ANTIPODES, CG1109603  
Perry Submarine Builders, Hull No. Unknown  
15.0' x 7.5' x 8.0' Submersible Small Passenger Vessel (T)  
Conceptual Design Review

- Ref:
- (a) OceanGate Doc. "Antipodes Vessel Hull and Systems Description," 49 pages, received December 23, 2019
  - (b) OceanGate Doc. "Antipodes Conformity NVIC No. 5-93," 8 pages, received December 23, 2019
  - (c) OceanGate Doc. "Operations Manual," 37 pages, dated October 2019
  - (d) OceanGate Doc. "OceanGate Submersible Pilot Training Manual," 74 pages, dated December 15, 2019
  - (e) Navigation and Vessel Inspection Circular (NVIC) 5-93, "Guidance for Certification of Passenger Carrying Submersibles"
  - (f) ASME PVHO-1-2007, "Safety Standard for Pressure Vessels for Human Occupancy"
  - (g) ABS Rules for Underwater Vehicles Systems and Hyperbaric Facilities

Dear [REDACTED]:

We reviewed references (a) through (d), submitted with your email dated December 23, 2019 (MSC Document No. 1919174), for the subject vessel's potential service as a U.S. Coast Guard certificated small passenger vessel, subject to the requirements of 46 CFR Subchapter T and reference (e). References (a) through (c) are **Disapproved**. As currently built, we have determined that the design does not meet the requirements of 46 CFR Subchapter T nor does it provide a level of safety equivalent to that intended by existing laws, regulations, and policy. Our primary concerns with the safety of this design include the following:

1. References (a) and (b) indicate the vessel has only one means of escape. In accordance with 46 CFR 177.500 and Chapter 3, Part D of reference (e), two means of escape are required to minimize the risk that one incident (fire, obstruction, etc.) will not block both escapes. The gap analysis within reference (b) states that the lack of two means of escape is mitigated by the vessel's size and rescue availability. However, Chapter 9, Part E of reference (e) requires the immediate availability of rescue divers for all submersibles (in addition to the two means of escape). While we understand that the vessel is small, reference (e) is applicable to all small passenger submersible vessels (regardless of size and capacity) and we do not find that the provided justification demonstrates an equivalent level of safety.

2. Chapter 3, Part E(2)(a) of reference (e) requires sufficient separation between the control area and the passenger area to prevent passengers from interfering with operator performance. Reference (b) indicates that there is no partition or separation due to the vessel's small size; rather, the operator sits in the center of the vessel and passengers remain seated at the fore and aft ends. Reference (a) describes the arrangement of the various engineering system control panels around the interior. The current arrangement provides passengers with unrestricted access to control panels and the ability to interfere with the operation of the vessel. It also does not possess adequate headroom for standing passengers as required by Chapter 3, Part E(2)(d) of reference (e).

3. Chapter 3, Part A(2) of reference (e) requires positive buoyancy in all operating modes so that the vessel can return to the surface naturally if a critical system is lost. While references (a) and (c) state that the vessel is positively buoyant in its normal operating mode, it is also noted that the Variable Ballast Tanks can provide upwards of 80 pounds of positive or negative buoyancy. Because the vessel can have negative buoyancy as currently designed, we do not find that this meets the intent of reference (e).

4. Reference (a) indicates that the operator and passengers will be weighed before each dive and lead ballast bags will be added or removed to provide even trim and heel. This procedure would only be acceptable if the vessel's stability compliance is not dependent upon the active ballasting.

5. As the transfer of passengers between a submersible and its tender is often the most dangerous activity, Chapter 3, Part F of reference (e) requires side rails and guards in the vessel's design. Due to the submersible's low freeboard to the embarkation deck and resultant impacts of wave effects, etc., the proposed arrangement does not meet the requirements of reference (e).

6. Your plans and system description note the dimensions, wall thickness, and construction material of the cylindrical hull of the PVHO, but does not provide pressure boundary calculations in accordance with references (f) or (g).

7. Your system description notes seven, 8 inch, 60 degree conical frustum viewports on the conning tower and two 58 inch spherical sector with conical edge viewports on the fore and aft sections of the hull. Both sets of viewports were installed in 2001 and have each received life cycle extensions from ABS. As per Chapter 2, Part H(2) of reference (e), all viewports must meet the design life requirements of Section 2-2.7 of reference (f), as measured from each viewport date of fabrication. Any request for increases in design life must be demonstrated by the method outlined in Section 2-2.7.9 of reference (f). Operators wishing to extend the cycle life of viewports through testing must contact Commandant for approval of testing procedures. Additionally, Section 7-1.1 of reference (g) notes that windows are to comply with the latest edition of reference (f).

8. Your submittal does not include drawings for various piping subsystem arrangements as required by Chapter 2, Part C(2) of reference (e). Drawings and calculations for all required systems, including the high pressure air, oxygen, CO2 removal, hydraulic, fire suppression, ventilation, and bilge systems are required. The plans must comply with Chapters 5 and 6 of reference (e) and Sections 4 and 7 of reference (f).

We allow departure from existing standards to accommodate novel features, but only when it has been demonstrated to our satisfaction that the overall design and operation of the vessel provide a level of safety equivalent to that intended by existing laws, regulations, and policy. This design and intended operation present numerous significant safety concerns that I consider insurmountable without radical modification of the proposed design.

If you feel aggrieved by our decision, you may appeal in accordance with the provisions of 46 CFR 1.03-30.

Our Project Number for this vessel is P016299. Please ensure that all future correspondence includes the Project Number and the Coast Guard (CG) number that appears in the subject line.

Please contact [REDACTED] [REDACTED] with questions concerning our review.

Sincerely,

[REDACTED]

Copy: Commander, Coast Guard Sector Puget Sound, Prevention Department

U.S. Department of  
Homeland Security

United States  
Coast Guard



## Activity Summary Report

MISLE Activity ID: 6955365  
Activity Type: Vessel Inspection  
Title/Description: ORV Letter ANTIPODES  
Status: Closed - Agency Action Complete  
Point Of Contact: [REDACTED]  
Owning Unit: Sector Puget Sound  
Originating Unit: Sector Puget Sound  
Start Date/Time: 14MAY2020 16:46Z  
Prompt Date:  
Team Lead: [REDACTED]

### Vessel Information:

<b>Vessel Name:</b> ANTIPODES	<b>Call Sign:</b>	<b>Current Flag / Flag At Time Of Activity:</b> UNITED STATES / UNITED STATES
<b>Classification:</b> Research Ship - Oceanographic - General	<b>Primary VIN:</b> WN9815NZ	<b>Length:</b> 13.0
<b>ITC/Convention (Subpart B):</b>	<b>Regulatory (Subpart C or D):</b>	<b>Year Completed:</b> 1973
<b>Engine Compartment In An Open Space:</b> No	<b>Fuel Compartment In An Open Space:</b> No	<b>Vessel Constructed Of All Open Spaces:</b> No

### Propulsion System Type:

### Vessel Associated Parties:

<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Operator (in control/in charge)
---------------------------------	------------------------------	---

**Address:**  
1111 80th Street, Suite 250  
EVERETT, WASHINGTON 98203

<b>Name:</b> OCEANGATE, LLC.	<b>Type:</b> Organization	<b>Role:</b> Owner
---------------------------------	------------------------------	-----------------------

**Address:**  
1111 80th Street, Suite 250  
EVERETT, WASHINGTON 98203

### Inspection Results:

<b>System:</b> 01 - Certificates & Documentation	<b>Inspection Results:</b> Inspected Satisfactory	<b>Date:</b> 14MAY2020
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### Narrative:

14MAY2020: Received request for renewal of vessel's designation as Oceanographic Research Vessel on 14 May 2020. Contacted POC and conducted telephone interview on 19 May 2020 regarding operation of vessel, POC reports that vessel's operations have not changed nor deviated from original evaluation. Vessel has conducted approximately 3 maintenance dives since last issuance of ORV Designation letter.

Designation letter drafted and routed.

Inspection continues.

//s// [REDACTED]

10JUL2020: Signed letter sent to [REDACTED]

Inspection complete.

//s// [REDACTED]

### Inspection Details

<b>Inspection Type:</b>	<b>Date:</b>	<b>Unit:</b>
Administrative Inspection	14MAY2020	Sector Puget Sound

### Streamlined Inspection Program (SIP) Summary:

<b>Vessel Name:</b>	ANTIPODES
<b>Company Name:</b>	
<b>PHASE I</b>	
Inspector Comments:	
<b>PHASE II</b>	
Inspector Comments:	
<b>PHASE III</b>	
Inspector Comments:	
<b>PHASE IV</b>	
Inspector Comments:	
<b>Location(s):</b>	

<b>Latitude:</b>	<b>Longitude:</b>	<b>Recorded Date/Time:</b>	<b>Description:</b>
48°00.1 N	122°13.0 W	14MAY2020 16:46Z	1205 Craftsman Way, Suite 112

### Associated Parties:

<b>Name:</b>	<b>Type:</b>	<b>Role :</b>
OCEANGATE, LLC.	Organization	Company (Owner/Operator)
<b>Address:</b>		
1111 80th Street, Suite 250 EVERETT, WASHINGTON 98203		

### TWIC Details:

<b>Worker Type:</b>	<b>Checked:</b>	<b>Compliant:</b>	<b>Noncompliant:</b>	<b>Remarks:</b>
Other	0	0	0	

### Radiation Details:

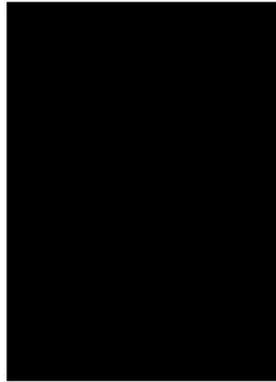
<b>Radiation:</b>	No Radiation Detected
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### Operational Controls: (None)

### Log:

<b>Effective Date:</b>	<b>Description/New Value:</b>	<b>Logged By Unit:</b>	<b>Logged By:</b>
12AUG2020	Closed Date: 8/12/2020 7:21:19 PM	Sector Puget Sound	[REDACTED]

18MAY2020	Involved Personnel Point Of Contact: No	Sector Puget Sound
18MAY2020	Involved Personnel Point Of Contact: No	Sector Puget Sound
18MAY2020	Owning Unit: Sector Puget Sound	Sector Puget Sound
18MAY2020	Point Of Contact [REDACTED]	Sector Puget Sound
18MAY2020	Start Date: 5/14/2020 4:46:43 PM	Sector Puget Sound
12AUG2020	Status/Subtype: Closed/Agency Action Complete	Sector Puget Sound
18MAY2020	Status/Subtype: Open/In Progress	Sector Puget Sound
19MAY2020	Status/Subtype: Open/Submitted for Review	Sector Puget Sound
18MAY2020	Title: ORV Letter ANTIPODES	Sector Puget Sound
18MAY2020	Vessel: ANTIPODES	Sector Puget Sound



**Documents:**

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Name:	Type:	Description:
ORV Designation Letter Signed	Letter of Designation (oceanographic research)	

**Certificates: (None)**

U.S. Department of  
Homeland Security

United States  
Coast Guard



Officer in Charge, Marine Inspection  
U.S. Coast Guard  
Sector Puget Sound

1519 Alaskan Way S., Bldg 4  
Seattle, WA 98134-1192  
Staff Symbol: spi  
Phone: (206) [REDACTED]  
Fax: (206) [REDACTED]

16711/ANTIPODES  
July 11, 2020

OceanGate, Inc.

Attn: [REDACTED]

1205 Craftsman Way, Suite 112  
Everett, WA 98201

Subj: LETTER OF DESIGNATION AS AN OCEANOGRAPHIC RESEARCH VESSEL,  
ANTIPODES, WN9815NZ

In accordance with the provisions of Title 46, United States Code 2101(18), the vessel ANTIPODES, WN9815NZ, is hereby designated an Oceanographic Research Vessel.

This designation shall remain in effect until July 11, 2022, provided the vessel does not change employment or deviate from engaging exclusively in oceanographic research operations. Any such changes or deviations may constitute violations of inspection laws and must be reported to this office by the master, owner, or agent of the vessel. A determination will then be made regarding the vessel's eligibility to retain this designation.

A request for renewal of this designation should be made 60 days prior to expiration. This letter shall be maintained on board the vessel at all times.

Sincerely,

[REDACTED]

Officer in Charge, Marine Inspection  
U. S. Coast Guard

Copy: Commandant (CG-CVC)

September 7, 2022

OCMI, Sector Puget Sound  
United States Coast Guard  
1519 Alaskan Way South  
Seattle, WA 98134-1192

**SUBJECT: Renewal of letter of designation**

This letter is to request the renewal of the Letter of Designation as an Oceanographic Research Vessel for the vessels below. All operating conditions remain unchanged.

**Vessel: *Antipodes***

WN 9815NZ  
LOA: 13'  
Beam: 8'  
Weight: 14,400lbs  
Depth rating: 1,000 ft

**Vessel: *Cyclops 1***

WN 6745SF  
LOA: 22'  
Beam: 8' 6"  
Weight: 18,000lbs  
Depth rating: 1,700 ft

An ORV designation is requested for each submersible based on research requirements following U.S. Code, Title 46 › Subtitle II › Part A › Chapter 21 › § 2101 Paragraph (18):

*“An oceanographic research vessel” means a vessel that the Secretary finds is being employed only in instruction in oceanography or limnology, or both, or only in oceanographic or limnological research, including studies about the sea such as seismic, gravity meter, and magnetic exploration and other marine geophysical or geological surveys, atmospheric research, and biological research”.*

Your assistance obtaining in the renewal of ORV designation for each submersible is appreciated and will help expedite reporting and compliance with our research partners in the marine community.

Thank you for your time and consideration. If you have any questions, please do not hesitate to give me a call at my office at [REDACTED]

Sincerely

[REDACTED]

Director of Logistics and Quality Assurance  
OceanGate, Inc.

U.S. Department of  
Homeland Security

United States  
Coast Guard



Officer in Charge, Marine Inspection  
United States Coast Guard  
Sector Puget Sound

1519 Alaskan Way S., Bldg 4  
Seattle, WA 98134-1192  
Staff Symbol: spj  
Phone: (206) [REDACTED]  
Fax: (206) [REDACTED]

16711/ANTIPODES  
September 7, 2022

OceanGate, Inc.

Attn: [REDACTED]

1205 Craftsman Way, Suite 112  
Everett, WA 98201

Subj: LETTER OF DESIGNATION AS AN OCEANOGRAPHIC RESEARCH VESSEL,  
ANTIPODES WN9815NZ

In accordance with the provisions of Title 46, United States Code of Federal Regulations (CFR) Part 3, the ANTIPODES, WN9815NZ, is hereby designated as an Oceanographic Research Vessel.

This designation shall remain in effect until September 7, 2024, provided the vessel does not change employment or deviate from engaging exclusively in oceanographic research operations. Any such changes or deviations may constitute violations of inspection laws and must be reported to this office by the master, owner, or agent of the vessel. A determination will then be made regarding the vessel's eligibility to retain this designation.

A request for renewal of this designation should be made by July 9, 2024. This letter shall be maintained on board the vessel at all times.

Sincerely,

A large black rectangular redaction box covering the signature of the Officer in Charge.

Captain, U.S. Coast Guard  
Officer in Charge, Marine Inspection

Copy: Commandant (CG-CVC)