ABS
AMERICAS DIVISION

10 April 2002
REVISED

Refer To: HPR/ S-281591
FileRef: T-8-2

"DIXIE ENDEAVOR" PID: 41696 RC
ABS VID 112632
SEMCO Hull 1009
166.5' x 103.0' x 13.0'
Self Elevating Unit (Restricted Service)
U.S. Registry (O.N. 1115290)
Stability Review

SEMCO
186 Jean Lafitte Blvd.
Lafitte, LA 70067

Attention: Mr. [redacted]
Naval Architect

We have your letter dated 15 March 2002 submitting four (4) copies of the following:

"Intact and Damaged Stability Analysis" Rev. 0, March 2002

and your faxes dated 3 April 2002, 4 April 2002 and 10 April 2002 submitting revised transit and storm survival Allowable VCG values for the subject unit, for our review in accordance with the following Rules and Regulations:

- American Bureau Of Shipping, Rules for Building and Classing Mobile Offshore Drilling Units, 2001
- U.S. Coast Guard Regulations as set forth in 46 CFR Subchapter S under the provisions of NVIC 3-97

Having completed our analysis, we have found the stability of the unit to be in compliance with the above requirements based on and subject to the following:

1. The maximum molded draft is 10.00 feet subject to restrictions by our Load Lines Department **and the development of a loading condition at that draft to comply with the restrictions below**.

ABS PLAZA, 16855 NORTHCHASE DRIVE, HOUSTON, TX 77060-6008 USA
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2. The vertical center of gravity measured above the base line of the unit, corrected for free surface effects, shall not exceed the following Allowable VCG (AVCG):

Draft (feet)	Allowable VCG (feet ABL)
8.00	60.50
8.50	53.80
9.00	51.75
9.50	48.75
10.00	43.50

Intermediate Values May Be Determined By Linear Interpolation.

The above AVCG values are for the unit in the following configurations:

Leg Length (feet)	Tip of Can (TOC) (feet)	Footings Condition	Wind Velocity (knots)
250	2.5 ABL	Buoyant	70

When operated in accordance with the above AVCG limitations, the unit will be in compliance with the intact stability requirements of the above regulations with a wind speed of 70 knots and with the damage stability requirements with extents of damage as set forth by said regulations with a 50 knot wind superimposed.

3. The watertight integrity of the unit's subdivision bulkheads and boundaries as defined in the enclosed sheets titled "WATERTIGHT INTEGRITY" must be maintained.

   All penetrations for piping, cables, ventilation, etc. through the watertight bulkheads and boundaries must be maintained watertight. All piping and ventilation systems running through these bulkheads and boundaries must be capable of preventing progressive flooding.

   All watertight doors leading through the watertight boundaries should comply with our MODU Rules 3/3.9.2. A list of these doors and their closing appliances should be included in the Operations Manual.

4. During afloat conditions, all watertight and weathertight closures on main deck shall be kept closed. These include manholes, cargo hatches, preload hatches, doors and ventilators, except for the intake and exhaust ventilators of the engine room, as given

below which remain open during afloat operations and were considered for our intact and damage stability analysis:

Description	X (From Origin)	Y (Off CL)	Z (Above BL)
Pt Engine Intake Louver	27.00	-16.77	25.63
Pt Engine Intake Louver	27.00	-11.90	25.63
St Engine Intake Louver	27.00	16.77	25.63
St Engine Intake Louver	27.00	11.89	25.63
Eqpt Rm Intake Louver	27.00	5.25	25.63
Eqpt Rm Intake Louver	27.00	8.06	25.63
Pt Engine Exhaust Louver	30.00	-25.25	22.79
Pt Engine Exhaust Louver	30.00	-27.73	22.79
St Engine Exhaust Louver	30.00	25.25	22.79
St Engine Exhaust Louver	30.00	27.73	22.79

The origin for x values is located at Frame 14, 70.00 feet aft of frame zero with positive values aft and to starboard.

7. The following downflooding points, representing typical airpipes, hatches, doors .. etc. (having weathertight closures) are additionally used in the damage stability analysis:

Description	X (From Origin)	Y (Off CL)	Z (Above BL)
Tank A Pt	-51.50	-45.83	15.50
Tank A St	-51.50	45.92	15.50
Tank B	-44.00	-49.17	15.50
Tank C	-56.58	-44.17	15.50
Tank D	-54.00	-44.17	15.50
Tank E	-56.33	44.00	15.50
Tank F	-44.00	49.17	15.50
Tank G	-26.00	-49.17	15.50
Tank H	-22.12	-44.17	15.50
Tank J	-22.12	44.17	15.50
Tank K	-26.00	49.17	15.50
Tank L	16.50	-49.05	15.50

Tank M	16.50	49.05	15.50
Tank N	43.00	-40.35	15.50
Tank O	43.00	40.35	15.50
Tank P	48.50	-39.04	15.50
Tank Q	54.00	-26.00	15.50
Tank R	63.00	-7.50	15.50
Tank S	54.00	26.00	15.50
Tank T	58.00	36.77	15.50
Tank U	79.00	-7.50	15.50
Tank V	79.00	7.50	15.50
BT Vent	-2.00	45.83	15.50
PSR Vent	63.00	-20.08	15.50
SSR Vent	63.00	20.08	15.50
PPW Tank	12.30	-43.00	15.50
SPW Tank	12.30	43.00	15.50
PFD Tank	25.50	-36.29	15.50
SFD Tank	25.50	36.29	15.50
PFS Tank	-22.12	-45.83	15.50
SFS Tank	-22.12	45.83	15.50
LO Tank	26.50	36.29	15.50
WO Tank	26.50	-36.29	15.50
HYD Tank	56.00	26.00	15.50

The following engine exhaust points are additionally used in the damage stability analysis. The are to be maintained watertight along their length to prevent the ingress of water into the engine room through them:

Description	X (From Origin)	Y (Off CL)	Z (Above BL)
St Engine Exhaust 1	33.58	27.00	20.83
St Engine Exhaust 2	35.16	27.00	20.83
St Engine Exhaust 3	37.00	27.00	20.83
Pt Engine Exhaust 1	33.58	-27.00	20.83
Pt Engine Exhaust 2	35.16	-27.00	20.83

Pt Engine Exhaust 3	37.00	-27.00	20.83

8. Any other down flooding point may produce a lesser flooding angle; therefore, all other openings are to be fitted inboard and higher than those listed above. Otherwise they will require further evaluation. Our office should be advised if such openings are present or if they are added in the future.

9. All air pipes are to be fitted with automatic means of closures of the ball or float check type.

The Operations Manual should be updated to reflect the above limitations, the approved lightship characteristics, and to include loading conditions complying with the above AVCG up to the deepest loadline draft.

The Allowable VCG tables have been stamped "APPROVED" this date to indicate our review on behalf of the US Coast Guard.

Please be advised that our "REVIEWED" stamp is reserved for Lightship Characteristics Reports, Operating Manuals and Trim and Stability Booklets only. The "NOT REVIEWED" stamp is placed on other submittals as "Acknowledged for the Record Only". However, we confirm that the subject documents with the drawings and calculations they contain were the basis for our independent review of the stability. We are hereby returning two (2) copies of your submittal stamped as explained, one (1) copy has been retained for our files, and one (1) copy is being held for distribution to the USCG.

Please be advised that the Bureau is not responsible for the operation of the unit. It is the Owner's responsibility to provide training supervision, and guidance to insure that the unit is operated within the limits of Classification and applicable regulations.

An invoice covering our technical services will be subject of further correspondence.

Very truly yours,

[redacted]

Principal Engineer
MODU Stability Group
Offshore Engineering Department

Enclosures

AMERICAS DIVISION

To: SEMCO
Subject: "DIXIE ENDEAVOR"
Date: 10 April 2002
REVISED

CC: USCG MSC, Washington, DC. Attn: [redacted]
USCG Oversight File , w/enclosure (Hold)
USCG Marine Safety Office, New Orleans
ABS New Orleans, Attn: [redacted]
ABS Loadlines. Attn: [redacted]

WATERTIGHT INTEGRITY

"DIXIE ENDEAVOR" - SEMCO 1009, ABS PID 41696 RC

While afloat, the watertight integrity of the following subdivision bulkheads and boundaries shall be maintained at all times:

1. The transverse bulkhead at Frame 0 from sideshell to sideshell, bottom to main deck.

2. The transverse bulkhead at Frame 2 from 30.0 feet off centerline to starboard to 30.0 feet off centerline to port, bottom to main deck.

3. The transverse bulkheads at Frame 7 from 8.25 feet off centerline to starboard to starboard sideshell and from 8.25 feet off centerline to port to port sideshell, bottom to main deck, except in way of the leg wells.

4. The transverse bulkheads at Frame 9 from 18.25 feet off centerline to starboard to 30.00 feet off centerline to starboard and from 18.25 feet off centerline to port to 30.00 feet off centerline to port, bottom to main deck.

5. The transverse bulkhead at Frame 14 from sideshell to sideshell, bottom to main deck.

6. The transverse bulkheads at Frame 16 from 30.00 feet off centerline to starboard to starboard sideshell and from 30.00 feet off centerline to port to port sideshell, bottom to main deck.

7. The transverse bulkheads at Frame 17 from 30.00 feet off centerline to starboard to starboard sideshell and from 30.00 feet off centerline to port to port sideshell, bottom to main deck and from 8.25 feet off centerline to starboard to 8.25 feet off centerline to port.

8. The transverse bulkhead at Frame 23 from sideshell to sideshell, bottom to main deck.

9. The transverse bulkheads at Frame 26 from 8.25 feet off centerline to starboard to 30.00 feet off centerline to starboard and from 8.25 feet off centerline to port to 30.00 feet off centerline to port, bottom to main deck.

10. The transverse bulkhead at Frame 27 from 30.0 feet off centerline to starboard to 30.0 feet off centerline to port, bottom to main deck.

11. The longitudinal bulkheads at 8.25 feet off centerline to port and to starboard from Frame 2 to Frame 27, bottom to main deck.

12. The longitudinal bulkheads at 18.25 feet off centerline to port and to starboard from Frame 9 to Frame 17, bottom to main deck.

13. The longitudinal bulkheads at 30.00 feet off centerline to port and to starboard from Frame 0 to Stern, bottom to main deck.

14. The plating forming the leg wells.

15. The plating forming the watertight sections of the pads.

16. The plating forming the cylindrical legs.

17. The 20 inch OD tubulars on the perimeter of the pads.