

**MODIFICATION –
SKIMMER INSTALL FOR
FACET & CANADIAN
BUILT UNITS**

Equipment and parts required:

Drill 1/2"

Cutter 3 1/4"

Punch 1 1/2"

PVC solvent

PVC glue

PVC pipes and fittings

Hydraulic hose and fittings 1/2 "

Steel for the manufacture of supports

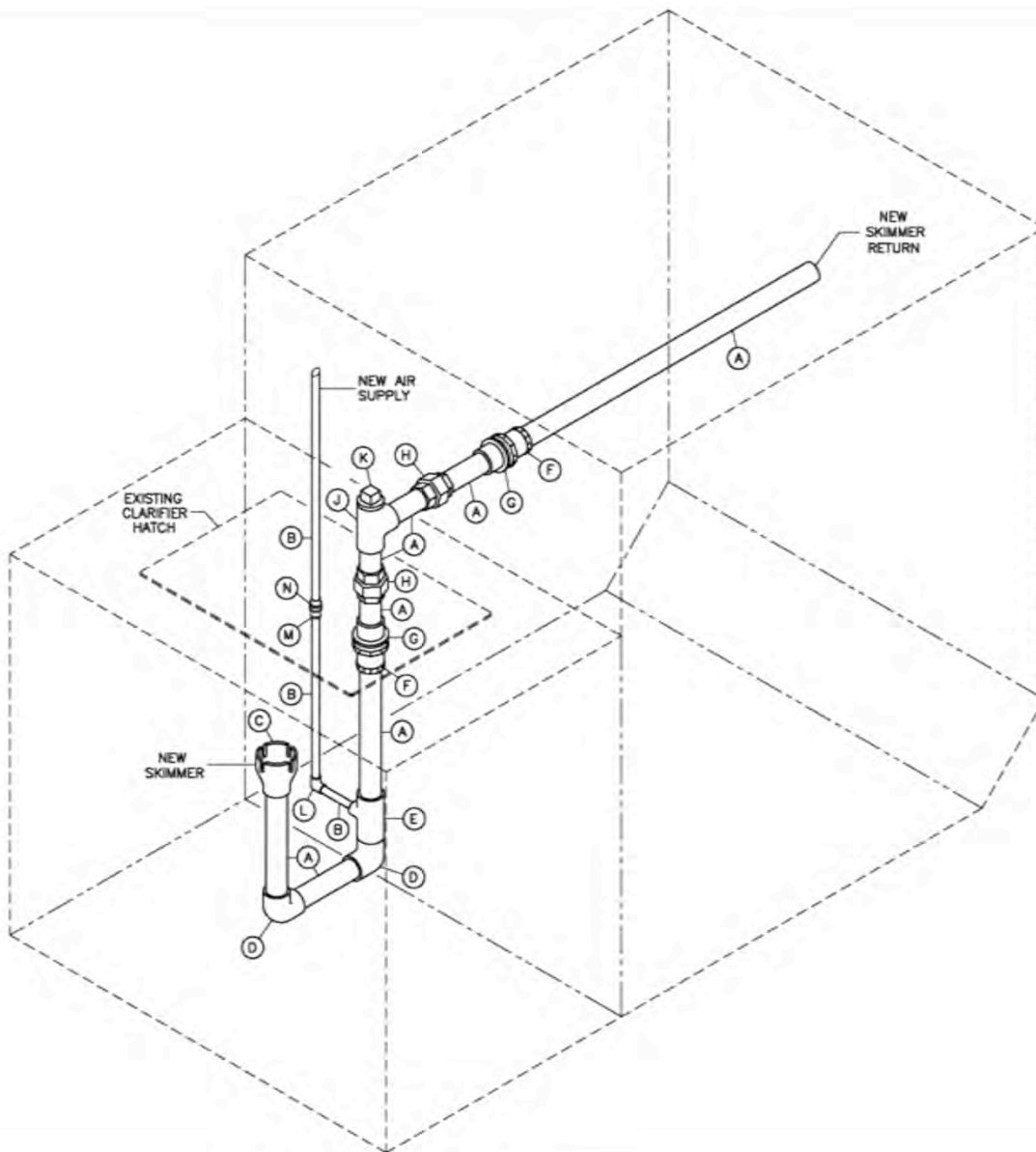
Jointing sealent

Key to large-diameter pipe

Galvanized pipe fittings

Confined Space Permit

It should be noted that measurements may vary from one box to another health. Important to observe action indicated when required..



BILL OF MATERIALS

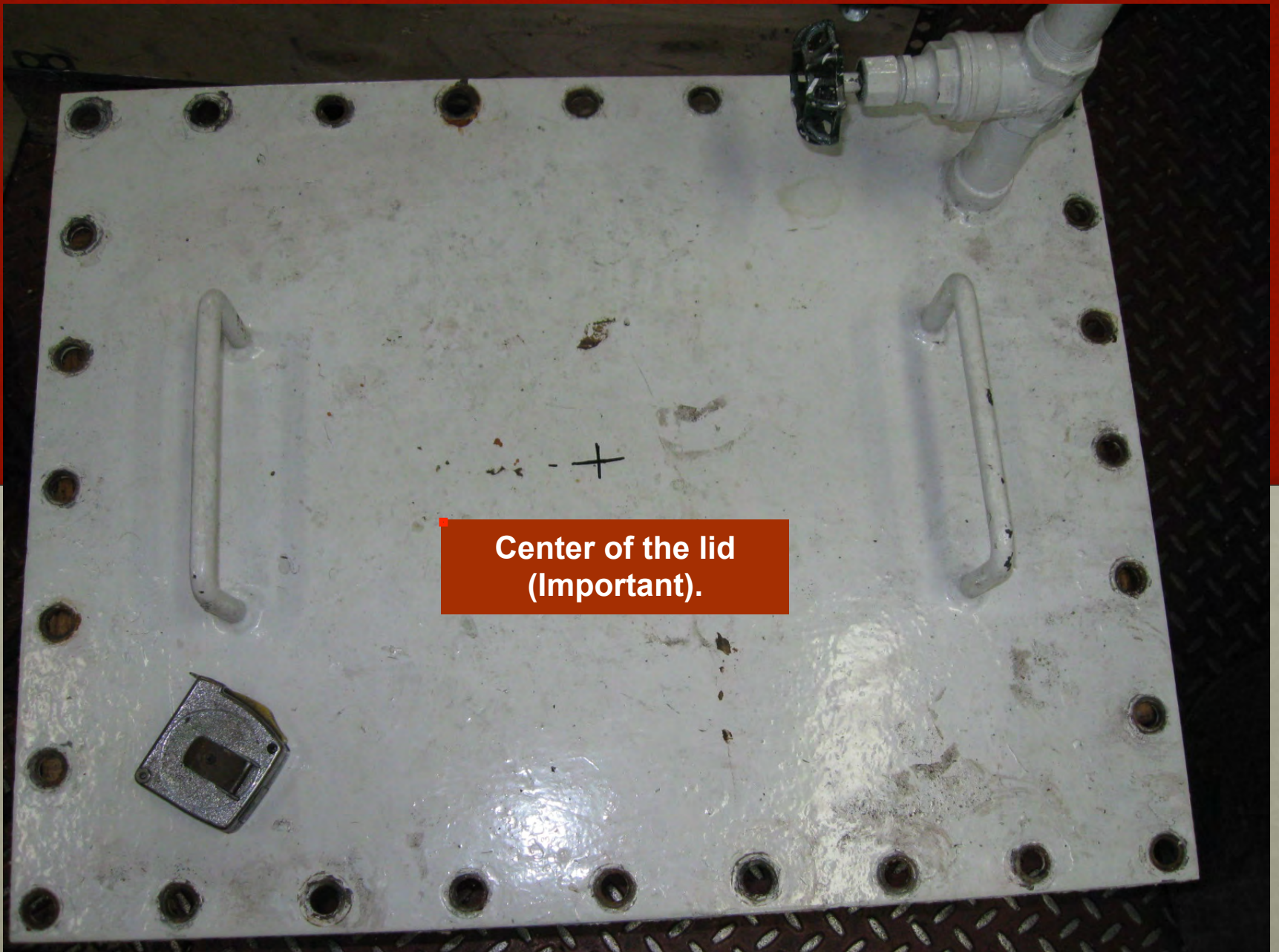
| MARK | DESCRIPTION |
|------|------------------------------------|
| (A) | 2" SCH 40 PIPE - PVC |
| (B) | 1/2" SCH 40 PIPE - PVC |
| (C) | 4" X 2" CONCENTRIC REDUCER - PVC |
| (D) | 2" SCH 40 90° ELBOW - PVC |
| (E) | 2" X 1/2" SCH 40 REDUCER TEE - PVC |
| (F) | 2" SCH 40 MALE ADAPTOR - PVC |
| (G) | 2" SCH 40 BULKHEAD FITTING - PVC |
| (H) | 2" SCH 40 UNION - PVC |
| (J) | 2" SCH 40 STRAIGHT TEE - PVC |
| (K) | 2" SCH 40 BULL PLUG - PVC |
| (L) | 1/2" SCH 40 90° ELBOW - PVC |
| (M) | 1/2" SCH 40 MALE ADAPTOR - PVC |
| (N) | 1/2" SCH 40 BULKHEAD FITTING - PVC |

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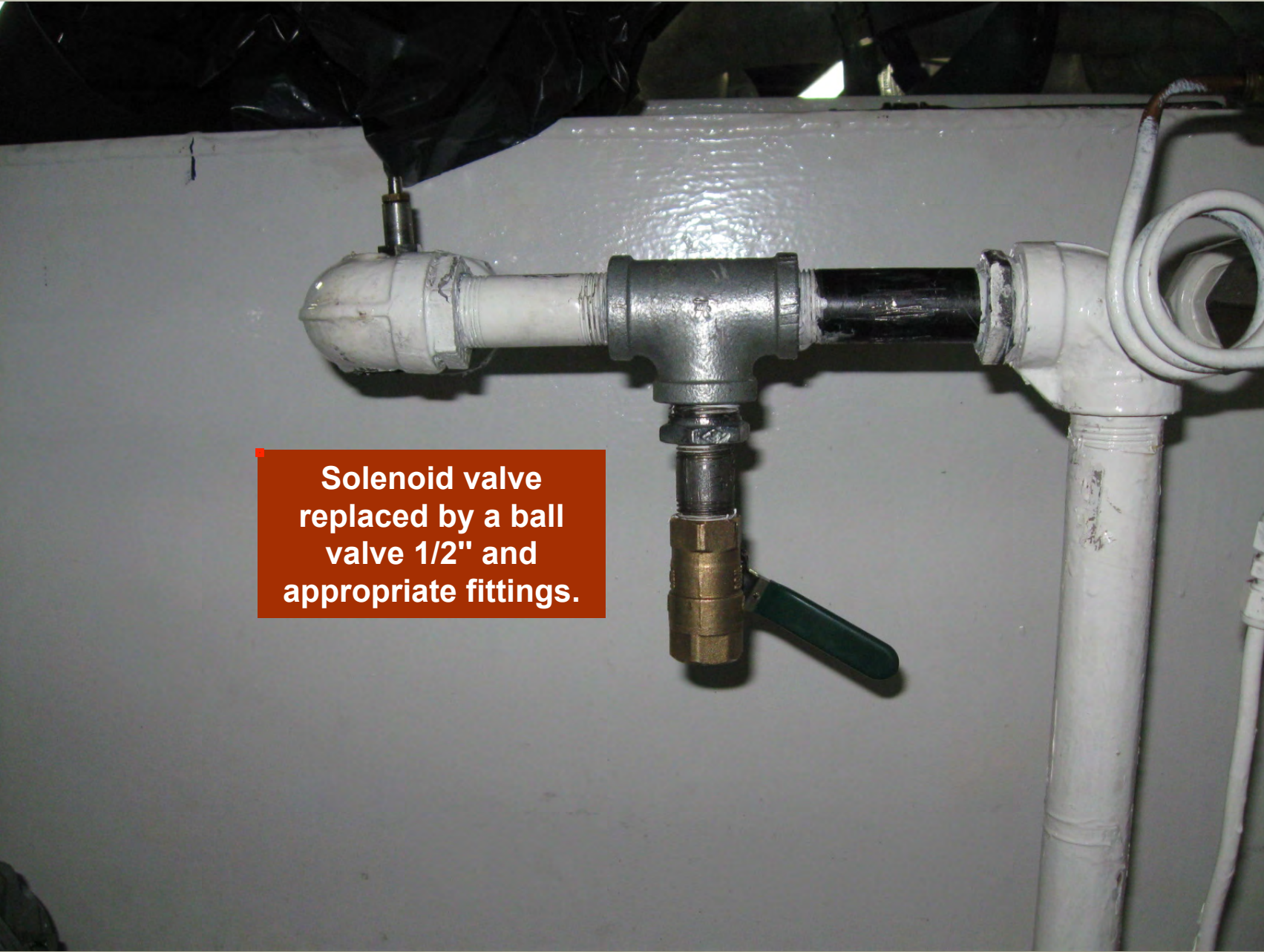
redfox

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|--|----------------------|------|----------|-------------|------|----------|-------------|
| redfox ENVIRONMENTAL SERVICES, INC. | | DATE | REV. NO. | DESCRIPTION | DATE | REV. NO. | DESCRIPTION |
| PROJECT | MSD Skimmer Upgrade | DATE | 05/06/09 | PRELIMINARY | DATE | 05/06/09 | PRELIMINARY |
| CLIENT | PACIFIC GULF MARINE | DATE | 05/06/09 | 001 | DATE | 05/06/09 | 001 |
| DESIGN | MSD SKIMMER RETROFIT | DATE | 05/06/09 | NONE | DATE | 05/06/09 | NONE |
| DRAWN | GENERAL ARRANGEMENT | DATE | 05/06/09 | NONE | DATE | 05/06/09 | NONE |

DATE: 05/06/09
REV. NO.: 001
DESCRIPTION: MSD SKIMMER RETROFIT
GENERAL ARRANGEMENT



**Center of the lid
(Important).**



**Solenoid valve
replaced by a ball
valve 1/2" and
appropriate fittings.**



**Bulkhead installed
on the lid.**



Drilled hole for the bulkhead of sludge return to the balance pipe from the second to the first course.



Holes



Positioned in the second stage for the return of sludge (with removable ring for the maintenance of the compartment) with the new air line attached and a new medium for the tip). The pipe should not touch the wall (bottom) of the funnel, it should be about 1/2".

The bulkhead splices must be installed so that they can tighten if necessary, during the operation.



A black pipe is shown running vertically. A wooden bracket, made of two horizontal pieces of wood, is attached to a light-colored wooden wall. The bracket is secured with metal bolts. The pipe is held in place by a metal clamp that is part of the bracket assembly. The clamp has a threaded rod passing through it, which is secured with a nut and washer. The pipe is black and has some white residue or paint on it. The background is a light-colored wooden wall and a concrete floor.

**New removable
pipe support, for
easy
maintenance.**



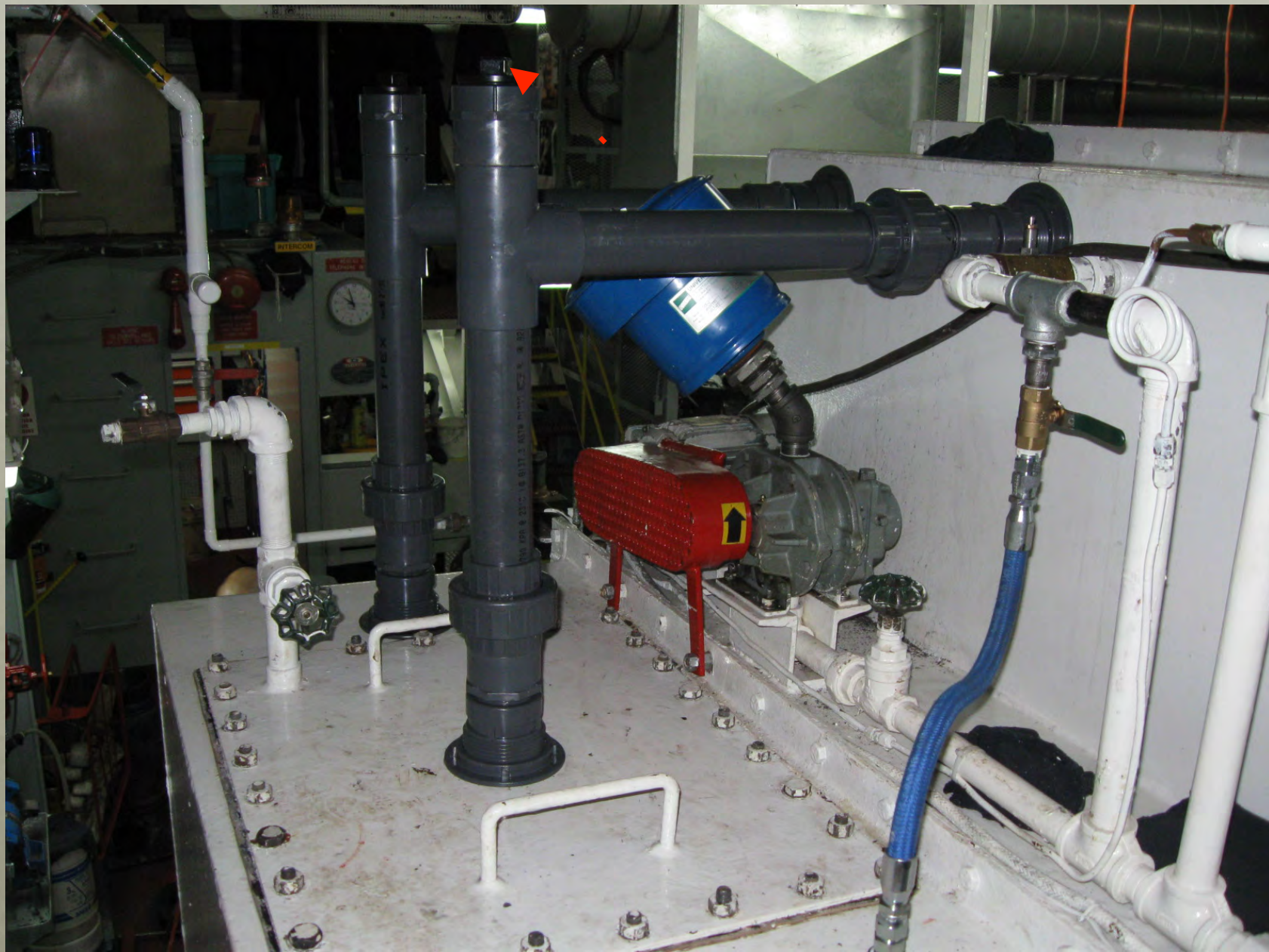
A photograph of a black PVC air supply line installed in a corner of a white, textured wall. The line runs horizontally and features a union fitting. A red arrow points to the union. The wall shows signs of wear and discoloration.

**Air supply line positioned in the second stage
(with union for maintaining the compartment).**



**Position for skimmer location
from top of clarifier.**

**Important: The pipe must be set
to 1 3/4" from under the cover,
centered with the hole
previously drilled in the lid. It
should not be located below the
top of the perforated line
4" (manifold and transfer to the
third stage).**





■ Aeration Tank View