

A

To: P. J. Kober

From: J. M. Edwards
Date: October 26, 1989

Subject: BLOWDOWN TANK PUMP
RELEASE OF 10/24/89

Interoffice
Communication

VISTA

The purpose of this memo is to document the accidental release of New Module blowdown tank water on 10/24/89. The total release conservatively calculated was 0.088 pounds of VCM in a one second event.

The calculations were based on the following conditions:

Blowdown Tank Temperature	150°F
Blowdown Tank Pressure	40 psig
Blowdown Tank Pump Discharge Pressure	60 psig
Release from 3/4" Hills McCanna Ball Valve	1 second duration
	Cv=55
	Valve Opening 75%

Physical Constants and Calculated Amounts:

Specific gravity of liquid in BD Tank	0.9806
Weight Fraction of VCM in Liquid	0.00431

The following equations were used to calculate the release:

$X \text{ (weight fraction)} = \exp [7.74 \times 10^{-3} T - 9.0] P/P^0$

$Q \text{ (flow)} = C_v \sqrt{\frac{\Delta P}{S.G.}}$

If there are any questions, please see me or refer to file for the calculations.



Jim Edwards
Process Engineer

/tjs

cc: RWS, RBN, FGJ, SCH
File: 8.5.2

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