



ATOMIC POWER COMPANY •
ENGINEERING OFFICE

TURNPIKE ROAD (RT. 9)
WESTBORO, MASSACHUSETTS 01581
617-366-9011

B.5.3.2
WMY 78-99

October 23, 1978

United States Nuclear Regulatory Commission
Washington, D.C. 20555

Attention: Office of Nuclear Reactor Regulation
Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

References: a) License No. DPR-36 (Docket No. 50-309)
b) USNRC letter to R.H. Groce from R.W. Reid dated April 24, 1978,
Subject: Amendment No. 37 to Facility Operating License

Dear Sir:

Subject: Fire Protection System Modifications - Reactor Coolant Pump
Lube Oil Collection

Table 3.2 of the Safety Evaluation Report attached as part of Reference (b) above, required us to submit information on our proposed modifications to the Reactor Coolant Pump. The requirement is as follows:

3.2.7 Reactor Coolant Pump Lube Oil

The licensee will evaluate the potential for lube oil leakage from the reactor coolant pump lube oil system to determine the modifications necessary to effectively collect and contain lube oil leakage from all mechanical connections. The necessary modifications will be proposed and design details and criteria will be submitted for NRC staff review (5.15).

Maine Yankee has evaluated the potential for lube oil leakage from the reactor coolant pump lube oil system. The following information contains a brief description of the oil system and a proposed modification to effectively collect and contain lube oil leakage from mechanical connections.

The reactor coolant pump motor has 3 bearings; a lower journal bearing, an upper journal bearing and a thrust bearing. The lower journal bearing is enclosed in the motor housing and is lubricated by an enclosed

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reservoir. The potential for oil loss in this bearing is extremely remote and no modification to this area will be considered.

The upper journal bearing and thrust bearing are located in a "top hat" section on the top of the motor (see attached drawing). The bearings and oil reservoir are enclosed in a steel cylinder and are not subject to oil loss. The oil lift and backstop pumps, coolers, and associated piping are located external to and around the cylinder.

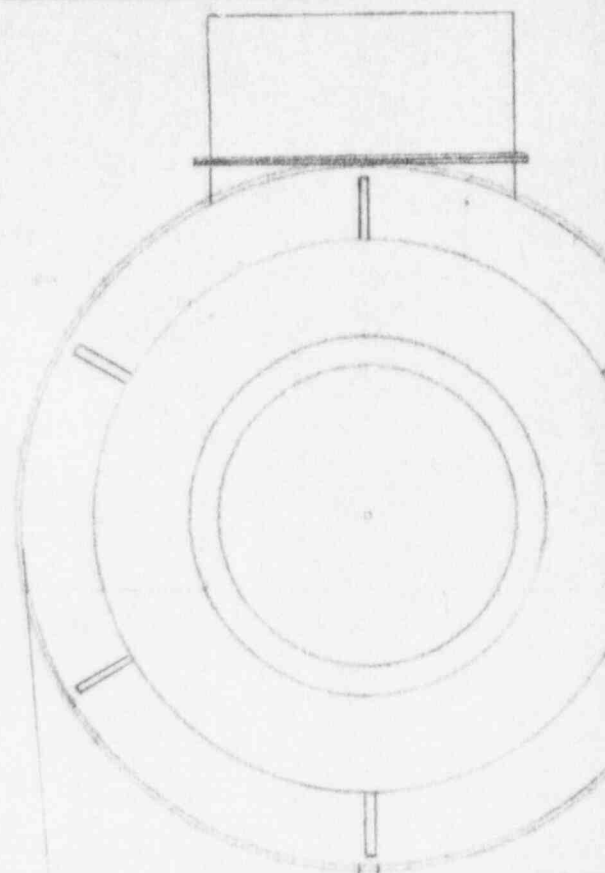
There is some probability that oil leakage will occur at one or more of the mechanical connections of the oil system causing an oil loss. Maine Yankee proposes to collect the oil by welding a 2 inch steel curb around the base of the R.C.P. motor top hat area, thus preventing any oil leakage from running down the side of the motor and eventually coming in contact with hot R.C. system piping. The steel curb will be drilled to provide a flow path and a gravity flow piping system will be installed to conduct the oil from the "top hat" area to a 55 gallon drum located on the 2' elevation of the containment. The barrel will be covered and a vent will be provided. Each R.C.P. will be provided with an oil collection system.

We trust that the above modification answers the NRC concerns with this area. If further information is desired, please contact us.

Yours very truly,

Maine Yankee Atomic Power Company

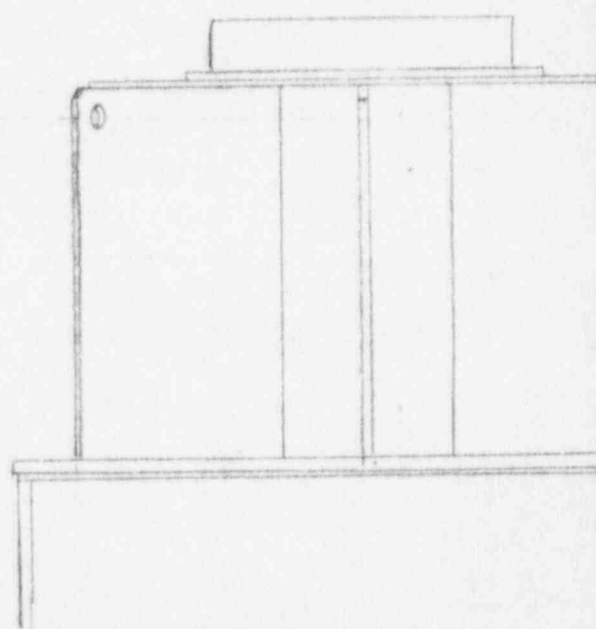
Signature for D.E. Moody
D. E. Moody
Manager of Operations



MOTOR COOLER

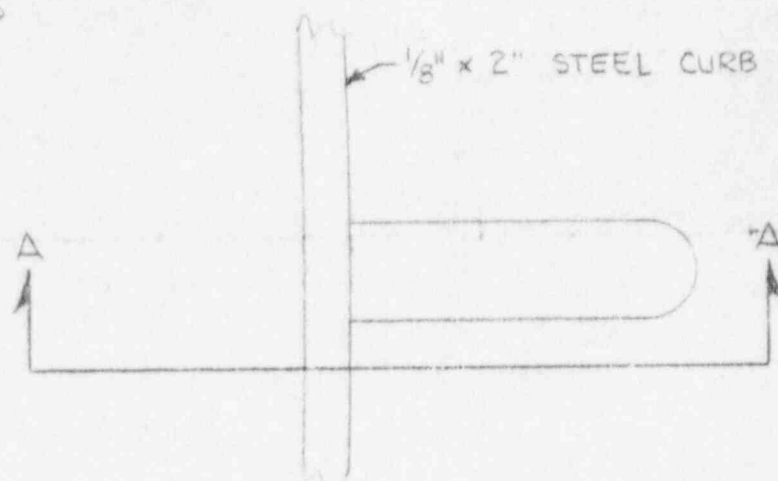
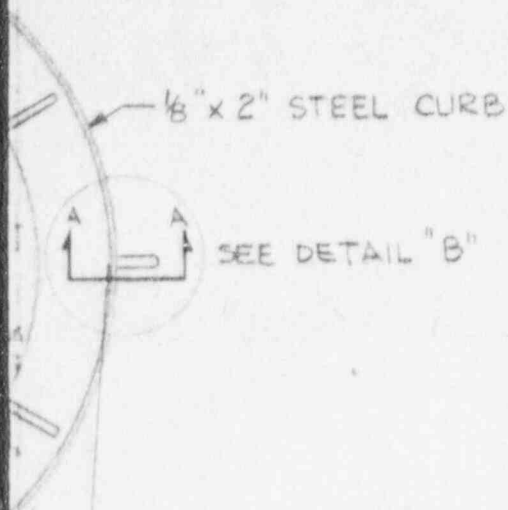
REACTOR COOLANT PUMP

SCALE $\frac{3}{8}'' = 1'-0''$



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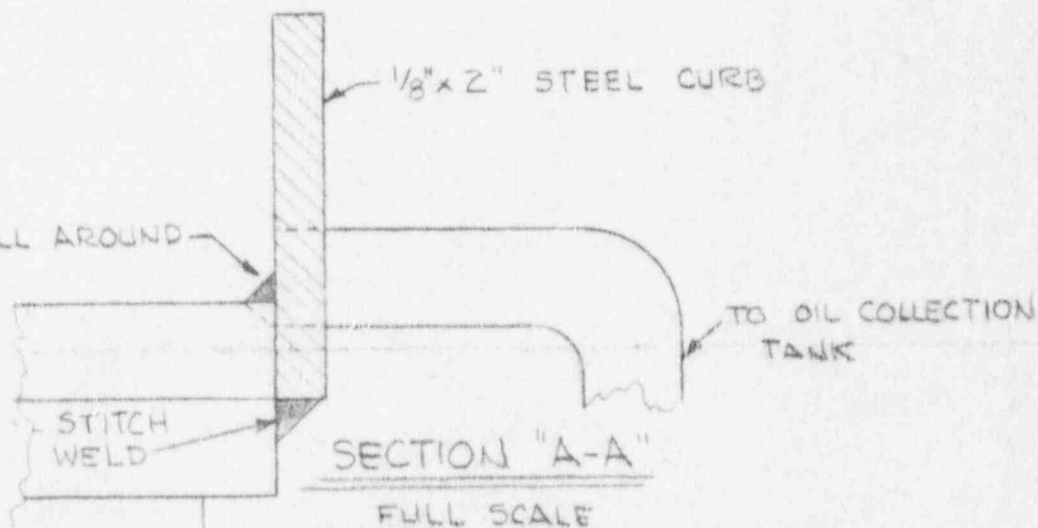
DATE	SYM	REVISION RECORD	AUTH.	DR.	CK.
10-5-78	1	CHND TO 1/8" CURB		DD	



DETAIL "B"
FULL SCALE

MOTOR

EPOXY SEAL ALL AROUND



1/8" x 2" STEEL CURB

TO OIL COLLECTION
TANK - 55 GAL.
DRUM AT EL. 2'-0"

TOLERANCES (EXCEPT AS NOTED)		MAINE YANKEE ATOMIC POWER CO.			
DECIMAL		PRELIMINARY	SCALE AS NOTED	DRAWN BY D. ROSS	
±				APPROVED BY R.C. Jones	
FRACTIONAL		TITLE REACTOR COOLANT PUMP MOD. LUBE OIL COLLECTION SYSTEM			
±					
ANGULAR		DATE 9-18-78		DRAWING NUMBER	
±					

MADE IN U.S.A.