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 FACIL: 50-220 Nine Mile Point Nuclear Station, Unit 1, Niagara Powe 05000220
 AUTH. NAME AUTHOR AFFILIATION
 LEMPGES, T.E. Niagara Mohawk Power Corp.
 RECIP. NAME RECIPIENT AFFILIATION
 EISENHUT, D.G. Division of Licensing

SUBJECT: Submits plans for Phase I decontamination of reactor, recirculation loops, consisting of decontamination from pump discharge valves to recirculation outlet nozzles. Phase II to be submitted at later date.

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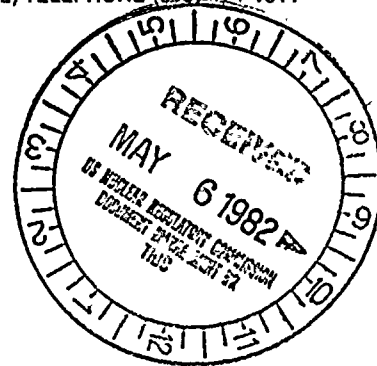
The following information was obtained from the records of the
 Bureau of the Census, Department of Commerce, Bureau of Economic
 Analysis, Office of Business Economics, Washington, D. C., on
 the subject of the above-captioned company, and is being
 furnished to you for your information.

The Bureau of the Census, Department of Commerce, Bureau of Economic
 Analysis, Office of Business Economics, Washington, D. C., has
 advised that the above-captioned company is a corporation
 organized in the State of New York, and is engaged in the
 business of manufacturing and distributing electrical
 equipment.

The Bureau of the Census, Department of Commerce, Bureau of Economic
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 advised that the above-captioned company is a corporation
 organized in the State of New York, and is engaged in the
 business of manufacturing and distributing electrical
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 equipment.



April 30, 1982

Mr. Darrell G. Eisenhut, Director
Division of Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Dear Mr. Eisenhut:

In accordance with your letter of April 21, 1982, Niagara Mohawk submits herein our plans for the Phase I decontamination of the reactor recirculation loops at Nine Mile Point Unit 1. Phase I consists of decontaminating from the pump discharge valves to the recirculation outlet nozzles. The Phase II decontamination plan, which will apply to the remaining portion of the recirculation loops, will be provided at a later date. A seal plug will be installed in the reactor vessel annulus region to provide a boundary between decontamination fluid and the reactor water. In addition, a four inch hot tap will be placed in the elbow for a flow path.

Figure 1 attached shows a typical recirculation loop configuration. This figure includes all of the piping penetrations into the recirculation loops, the material and the line sizes. Figure 2 is a detail of the hot tap to be used.

The method of decontamination to be used on these portions of the loops has previously been described to the Nuclear Regulatory Commission. In a meeting on August 27, 1981, a proprietary report entitled "Information Requested by NRC Re: Decontamination of Recirculation Pumps at Nine Mile Point Unit 1, March 18-April 14, 1981" was provided to the Nuclear Regulatory Commission by London Nuclear Services, Inc. Section 1(c) of that report is a description of the decontamination process which includes oxygen removal and the passivation step.

The only specific item not addressed in that report is flushing after decontamination. However, Niagara Mohawk believes that the water purification, which is the final step in the decontamination process, will actually eliminate any concern relative to decontamination fluid in crevices or pipe ends. As can be seen from Figure 1, there are no extensive crevices or long runs of dead end piping, so that removal of decontamination fluid is not anticipated to be a problem.

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The previously mentioned report also contains the range of concentration and composition of the decontamination fluid. The specific range of concentration to be used in Phase I is 0.15-0.20 weight percent of reagent LND-101A. The temperature range will be 80-90°C, and the process will take 12-24 hours per loop. The passivation will take approximately 48 hours.

Niagara Mohawk has investigated the effects of the decontamination process on the recirculation system. The review of appropriate data indicates that the clean surfaces will not be more susceptible to stress corrosion cracking nor will there be increased susceptibility to intergranular attack than now exists. A portion of the test data, which forms the basis of our review, is included in the report provided to the Nuclear Regulatory Commission on August 27, 1981. This data includes crevice corrosion, galvanic corrosion, general corrosion, material condition (i.e., sensitized, cold worked, etc.), consequences of long term exposure and the effects of thoroughly decomposed decontamination solutions. In addition, the fracture mechanics tests which have been performed are summarized in that report.

Niagara Mohawk has performed an ALARA review comparing not decontaminating to decontaminating. Assuming decontamination factors of 5 and 10, Niagara Mohawk expects to save between 700 and 800 person rems exposure by decontaminating. Therefore, the benefits of decontamination clearly outweigh the costs.

The overall volume of the decontamination solution for Phase I for each individual loop is approximately 1600 gallons. The volume of the waste resins generated by the decontamination process is estimated to be 15 cubic feet per loop.

The waste resins generated by the decontamination process will be dewatered and placed in high integrity containers. Niagara Mohawk estimates that 15 cubic feet of waste resins, which contain 30-50 curies of activity, will be generated per loop. Since the anion resins portion of the waste (about half the total) contains approximately 2 weight percent of chelating agents, disposal will be in accordance with proposed rule 10 CFR 61.55 (i.e., Niagara Mohawk will discuss with the proposed burial site the concentration of the chelant in the resin and determine acceptability prior to shipping offsite).

A safety evaluation in accordance with the provisions of 10 CFR 50.59 has been performed for this decontamination phase. It is scheduled to be reviewed by the Site Operations Review Committee on May 3, 1982 and is available for your review at the site. That safety evaluation concludes that no unreviewed safety issues exist for the process, including hot taps and material. The safety evaluation also states that the conductivity of the reactor water, near the seal plug, will be monitored to assure that decontamination fluid does not leak into the vessel and that no chlorides are leached into the reactor water. In addition, chlorides will be monitored in the decontamination fluid during the process.



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Mr. Darrell G. Eisenhut

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April 30, 1982

The only alternative to decontaminating is to effectively shield all the radiation sources. However, evaluating the quantities of shielding required, it appears to be a cumbersome task at best.

Your expeditious review of this phase of the decontamination effort is requested. Tentatively, the elbows are scheduled to be hot tapped beginning May 7, 1982, and the decontamination will begin as soon thereafter as possible.

Please note that this letter does not address all of the issues raised in your April 21, 1982 letter. The remainder of the information required to respond to all of those issues will be provided at a later date.

Very truly yours,

NIAGARA MOHAWK POWER CORPORATION



T. E. Lempges
Vice President Nuclear Generation

GJG:ja
Attachments

THE BOARD OF DIRECTORS OF THE NATIONAL ASSOCIATION OF REALTORS
HAS ADOPTED THE FOLLOWING RESOLUTIONS:

RESOLUTION NO. 1. WHEREAS the National Association of Realtors is a non-profit organization and its primary purpose is to promote the interests of the real estate profession and the public;

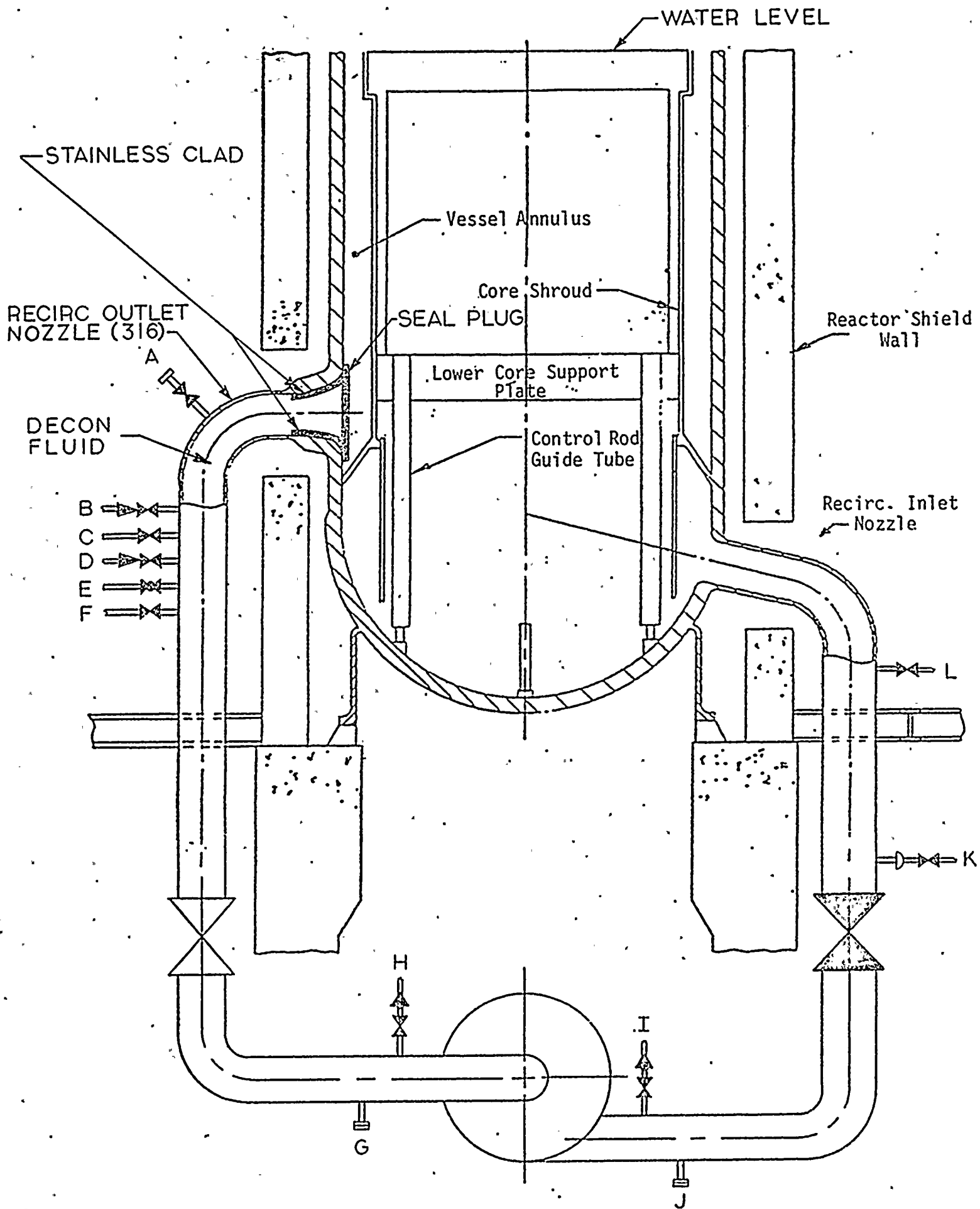
AND WHEREAS the Board of Directors has the honor and pleasure to announce the election of the following officers for the year 1964:

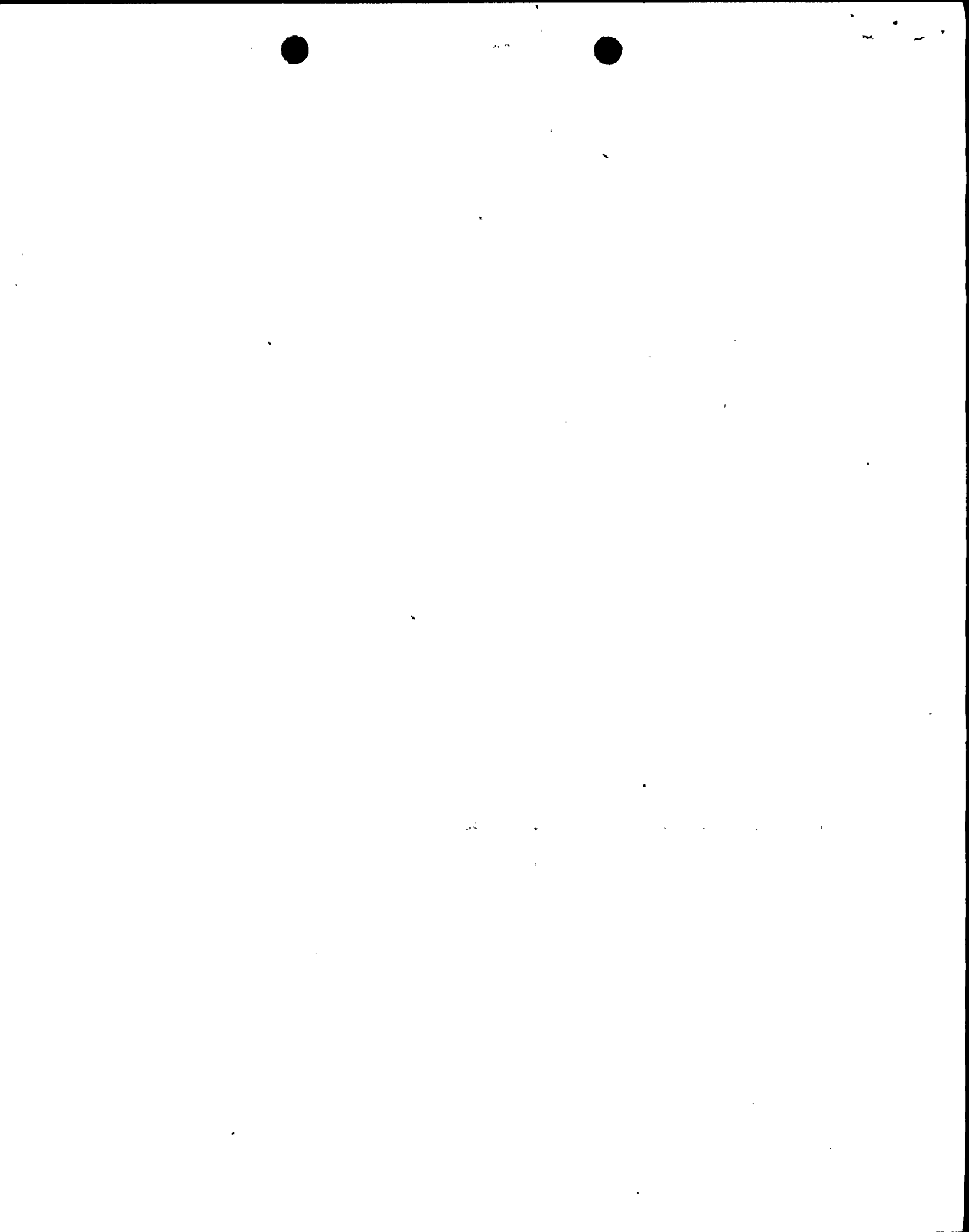
President: [Name]
Vice President: [Name]

Secretary: [Name]
Treasurer: [Name]

1964

FIGURE 1





KEY FOR FIGURE 1

Conn.	Line Size To IV	Mat'l Type	Description	Pump Number	Distance From Centerline of Valve
A	4"	C	Hot Tap	11, 12, 13, 14, 15	Upper Suction Elbow
B	12"	304	Emer. Cond. Ret.	11	23'-6"
C	14"	304	Rx. Shutdown Sys. Supply	14	23'-6"
D	12"	304	Emer. Cond. Ret.	15	20'-0"
E	1"	-	Sampling Conn.	11	20'-0"
F	6"	304	Clean Up Sys. Supply	11	17'-9"
G	2"	F316	Decontamination Tap	11, 12, 13, 14, 15	Lower Suction Elbow
H	1"	-	Diff. Press. XMTR	11, 12, 13, 14, 15	Lower Suction Elbow
I	1"	-	Diff. Press. XMTR	11, 12, 13, 14, 15	Lower Disch. Elbow
J	2"	F316	Decontamination Tap	11, 12, 13, 14, 15	Lower Disch. Elbow
K	*	304	Former 6" Clean Up Ret.	12	4'-1"
L	14"	304	Rx. Shutdown Sys. Ret.	15	21'-7"

* 6" Pipe is capped. Cap is vented by 1" valve.



1111

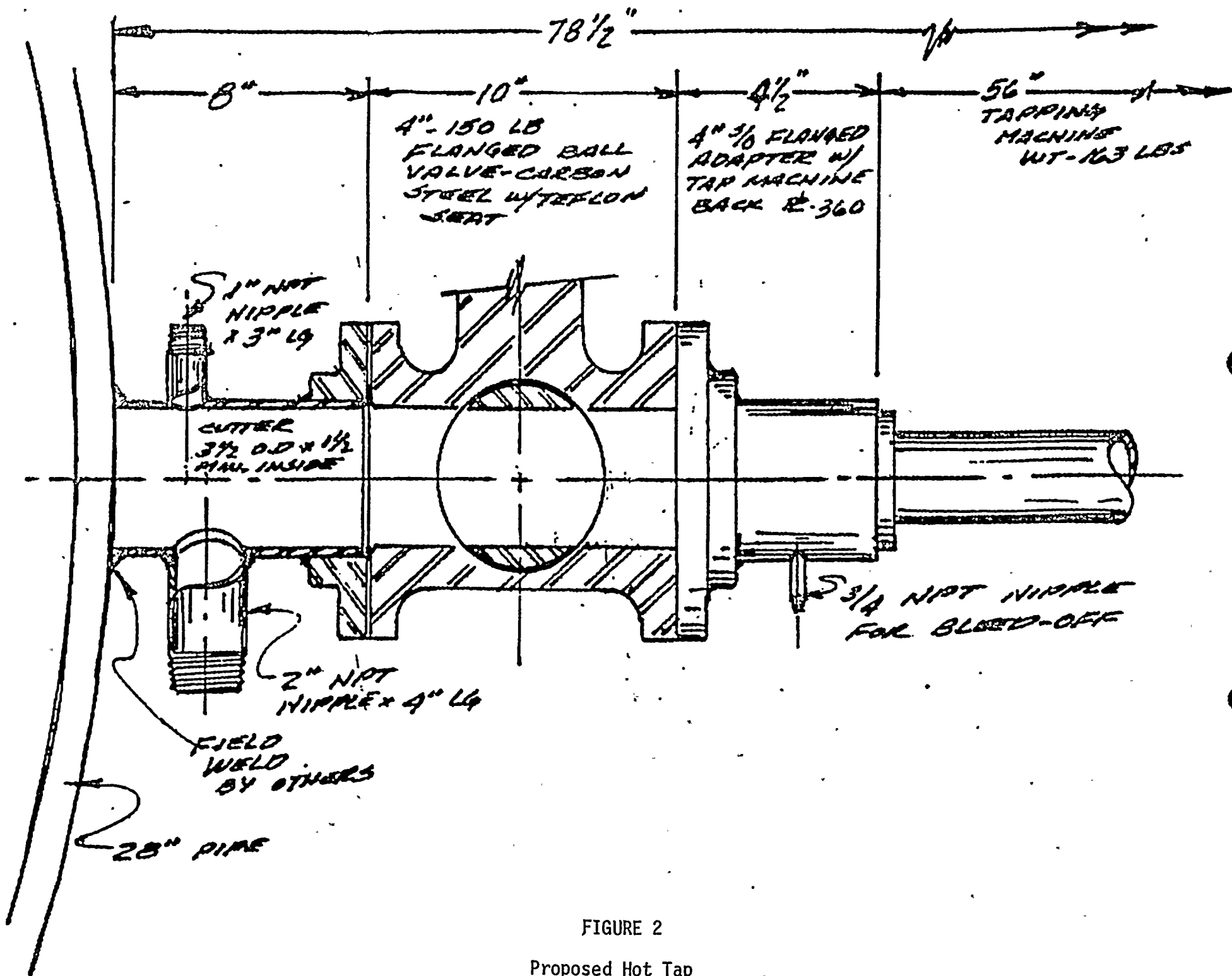


FIGURE 2

Proposed Hot Tap

