



LOSS PREVENTION SURVEY



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B. F. GOODRICH COMPANY
TIDAL ROAD
3/4 MILE NORTH OF HWY. 225
DEER PARK, HARRIS, CO., TX 77536

BY: A.K. Godso
LOC.ID: 800083/860854
DATE: Dec. 13, 1989
HRS: 7
CONFERRED WITH: Mr. B. DesJardins, Safety Engineer

RECOMMENDATION
UPDATE

NEW*: None
COMPLETED: None

(89-0)

RECOMMENDATIONS

- 85-1 **FIRE PUMPS:** Provide two automatic horizontal centrifugal fire pumps, diesel engine driven each rated at 2,500 gpm at a pressure of 125 psi, and arranged in accordance with NFPA Standard No. 20 to take suction from reservoir containing 1,200,000 gallons. The pumps should be provided with control panels and the following additional features: (No plans to comply. Oxychem is upgrading its water supply system by replacing the 40 plus year old firemain) RSVP* PLANS**
- A detached noncombustible pump house heated to maintain it above 40 deg. F and equipped with emergency lighting.
 - A standard pump test header equipped with 8 hose valves in accordance with NFPA Standard No. 20.
 - The reservoir should be split into two equal sections and arranged so that either pump can take suction from either side.
 - Eight "Underwriters" playpipes with 1-1/8 in. and 1-3/4 in. tips for test purposes.
- 85-2 **PROTECTIVE SIGNALING:** Extend the proprietary signaling system to include deluge system waterflow and halon extinguishing system trips. (To comply. Project has been approved and is in early engineering stage. Presently, alarms go to a panel in the Operations Building which isn't constantly attended.) RSVP* PLANS**
- 85-3 **PCB TRANSFORMER:** Replace the unit(s) located along the east side of the Main Substation with equipment that meets or exceeds the requirements of the

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AS	PROT	RM	PEP	WS	SUPR	FD	HPS	PCB	VAS	VASN	CNST1	CNST2	CNST3	CNST4	OCC	FSO CPC
8	8	8	9	5P	2F	2G	00	3010	52	5	18	82	0	0		

This survey is made for property insurance purposes only and is based upon conditions and practices observed and information made available at the time of this review. It does not purport to list all hazards nor to indicate that other hazards do not exist. No responsibility is assumed for the control or correction of conditions or practices existing at the insured premises. IRI specifically disclaims any warranty or representation that compliance with any advice contained herein will make any premises or operations safe or healthful, or in compliance with any law, rule, or regulation. If there are any questions concerning the recommendations or you have alternate solutions, please contact us.

85-3 (Continued)

National Electrical Code for installations of Less-Flammable Liquid-Insulated Transformers. (To comply by second quarter of 1990)

85-7 **FIREPROOFING:** (Revised 5/2/88) Provide fireproofing for the pipe rack supports in the following areas using material having a 2 1/2 hour fire resistance rating per UL 1709. The protection should extend to include the vertical and horizontal members of the first level of pipe racks. Details of the installation should be determined in consultation with the local IRI District Office. (No plans to comply)

d. Along the east and south sides of the VCM charge pumps which are located south of the reclaimed VCM bullets.

IN LIEU OF THE ABOVE

AUTOMATIC SPRINKLERS: Provide a deluge system to protect all levels of pipe rack supports designed to provide 0.25 gpm/ft² (10.2 L/min/m²) over the protected area. RSVP* PLANS**

AND

FIREPROOFING: Provide fireproofing for the areas mentioned in items a through d using material having a 1 1/2 hour fire resistance rating by UL 1709. The protection should extend to include the vertical and horizontal members of the first level of pipe racks. Details of the installation should be determined in consultation with the local IRI District Office.

87-1 **YARD MAINS:** Perform a hydrostatic test of the fire protection mains at a pressure of 150 psi (10.35 bars) for two hours. (To do by second quarter of 1990)

SIGNIFICANT CHANGES

The Occidental Petroleum facility (920053/860854), currently supplying the fire water supply to the insured, has begun a three phase project to provide an independent fire water system. The existing process/fire water system will be used solely as process water system after the independent fire water system is installed. So far, approximately 4000 ft (1220 m) of new mains have been installed at Occidental with a tie-in to B.F. Goodrich's system expected the first quarter of 1990.

A new blowdown tank will be installed north of the reactor structure in 1990. No details were available.

The corroding sprinkler system in the cooling tower was replaced with a new system identical to the previously existing system.

COMMENTS

RSVP*: The completion of this recommendation will involve an impairment of your fire protection. Please notify the IRI's Houston Office, 1225 North Loop West, Suite 927, Houston, TX 77008, (713) 868-5814 at least 48 hours before starting this work.

PLANS:** Completion of this recommendation requires the review and acceptance of detailed working drawings and necessary supporting calculations. All fire protection equipment should be listed by a recognized testing laboratory. All installations should be designed in accordance with applicable NFPA Standards unless modified by an IRI interpretation guide. Duplicate sets of drawings and specifications should be sent to IRI's Houston Office, 1225 North Loop West, Suite 927, Houston, TX 77008 for review. IRI's acceptance should be secured before construction or installation begins.

Mr. Richard Kitchen has been requested to submit information regarding various boiler & machinery objects. Due to limited manpower, this information was not available during this survey; instead, it will be available by the first quarter of 1990.

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RISK: B.F. Goodrich Company

LOC ID: 800083/860854

WATER SUPPLIES & TEST RESULTS

<u>SUPPLY DESCRIPTIONS</u>	<u>GPM</u>	<u>FLOW LOC</u>	<u>STAT</u>	<u>RESD</u>	<u>RESD LOC</u>	<u>DATE</u>
1-10" conn to 1-10" private main at east side of Plt	6326	The VCM sphere deluge system, the VCM reclaim tanks deluge system and four 2-1/2" off hydrants 1 & 57	62	55	VCM deluge valve	6/16/87 DL
1-14" conn to 1-14" private main at NW side of Plt	1061*	Monitors north of reactor structure	55	43	Deluge valve for East Reactor	11/14/88
1-14" conn to 1-14" private main at SW side of Plt	3973	VCM sphere & reclaim tank deluge systems & monitors in the area	100	65	Hydt. off PIV No. 151	7/13/89 DL

1-6" conn to 1-10" private main at Office Building

Note: Private mains connect to the Occidental combination service/fire protection water system. 4 Electric service pumps (approximately 4000 gpm, 70 psi) with a 200,000 gal. reservoir.

*No pumps kicked on.

<u>PUMP RATING</u> <u>GPM/PSI</u>	<u>DRIVE</u>	<u>AUTO/</u> <u>MAN</u>	<u>SUCTION SOURCE</u>	<u>CHURN</u> <u>PSI</u>	<u>GPM</u>	<u>DISC</u> <u>PSI</u>	<u>RPM</u>	<u>SUCT</u> <u>PSI</u>	<u>COND</u>	<u>DATE</u>
2500/100	#4 Die.	Auto	1,000,000 gal.	125	2500	100		15	Good	9/87
2500/100	#3 Die.	Auto	Abvgrd tank	125	2500	100			Good	PDF & DVJ
2500/100	#2 Elec.	Auto	200,000 gal. Abvgrd. tank	109	3820	80	?	-3	Good	7/21/87 DL
1500/100	#1 Die.	Man	"	108	1269	92	1800	2	Fair	12/2/79 JRD

These pumps are the Occidental fire protection system.

N20C Rev. 8/82

MMW/2223V

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