

U.S. Department
of Transportation
**United States
Coast Guard**



Commanding Officer
U.S. Coast Guard
Civil Engineering
Unit Oakland

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FEB 19 1993

From: Commanding Officer, Coast Guard Civil Engineering Unit Oakland
To: Officer-in-Charge, Coast Guard LORAN Station Havre

Subj: LORAN STATION HAVRE, TRIP REPORT

1. CEU Oakland personnel recently visited your unit. Enclosed is a trip report of the visit.
2. If you have any questions, please contact Mr T J Sidhu at (510) 535-7224
3. I appreciate your assistance and cooperation rendered to my staff during his visit.


HARRY C YOUNG
By direction

Encl: (1) Trip Report of T J Sidhu

Copy: CGD13 (oan)

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DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

UNITED STATES GOVERNMENT MEMORANDUM

10 February 1993
11000


Subj: TRIP REPORT TO LORAN STATION HAVRE
From: T J SIDHU
To: meb
Via: Judd Janes, oeb, cab

1. Mr. Socrates Calizo and I visited Coast Guard LORAN Station on Wednesday 3 February 1993. The purpose of our visit was to check the mechanical and electrical systems and to investigate the cause of condensation/ice build up on portions of exterior walls, doors and electrical receptacles. We met with the Officer-In-Charge, ETC Tracy Boutwell and MK-1 Cody Brazier.
2. We walked thru the building with ETC Tracy Boutwell and MK-1 Cody Brazier to verify and determine the condition and location of HVAC units, ductwork, electrical panels and receptacles, entrance doors, and walls.
3. The HVAC units are in good condition and functioning as required. Per the electrical engineer, Socrates Calizo, electrical power is available for providing extra heating to the building if needed.
4. Exterior walls of the transmission room, operation room and lobby area are insulated and do not have the condensation problem. Exterior walls of the remaining building do not have furring, insulation and vapor barrier material. Whenever the temperature of these walls falls below the room dew point temperature, condensation starts building up and eventually turns into ice. The same thing is true with the electrical receptacles. They are directly mounted on the interior side of the outside concrete wall without any insulation material in between. The building has four entrance doors and only one has a vestibule. The doors without vestibules or proper thermal break and air gap around the periphery causes the condensation/ice build up.
5. Exterior walls of rooms 116 (old storage), 113, 114 and the garage area can be furred and insulated from inside to resolve the condensation problem. I will advise the project architect if more heat/insulation is needed in the generator and electrical rooms after doing the heat load calculations. An expedient design to control condensation by warming cold surfaces with warm air or radiation is probably not in the best interest of energy conservation objectives. Besides adding more heat (if required)

to the generator and electrical rooms, any additional insulation may have to be provided to the exterior walls from outside the building. This is due to the large amount of equipment mounted on the interior walls where insulation would be required.

6. To avoid condensation on the doors without vestibules, either vestibules or doors with a thermal break should be provided. In the transmission room area, the design temperature is 65°F. Since the equipment already generates a large amount of heat, thus requiring the A/C units provide cooling to the area, it is not advisable to provide more heat to the transmission room in an attempt to resolve the condensation problem at the exterior doors. However, heat can be provided in a vestibule.

7. Ice build up on electrical receptacles mounted on the exterior wall can be solved by relocating the receptacles to the surface of the existing wall and providing insulation and a vapor barrier system between them and the exterior wall.


T J SIDHU