DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 377TH AIR BASE WING (AFMC)

NOV 1 9 1999

MEMORANDUM FOR SEE DISTRIBUTION

FROM: 377 CEG/CE2

SUBJECT: Failure of Jet Fuel Offloading Pipeline

1. On 11 November 1999, in-house hydrostatic testing of our Jet Fuel lines revealed the failure of both off-loading pipelines at the fuel storage facility on Kirtland AFB. The failure of these lines severely limits our capability to support the refueling mission and will require a change in our operational procedures and delivery schedules. The replacement of these lines must be programmed and scheduled immediately to return us to full mission capability prior to the exhaustion of our fuel reserves.

2. The five-year hydrostatic pressure test of our off loading lines exposed the following pressure losses in the JP-8 lines:

- Tank 22 Off loading line: 100 PSI to 30 PSI in 30 seconds
- Tank 23 Off loading line: 100 PSI to 0 PSI in 30 seconds

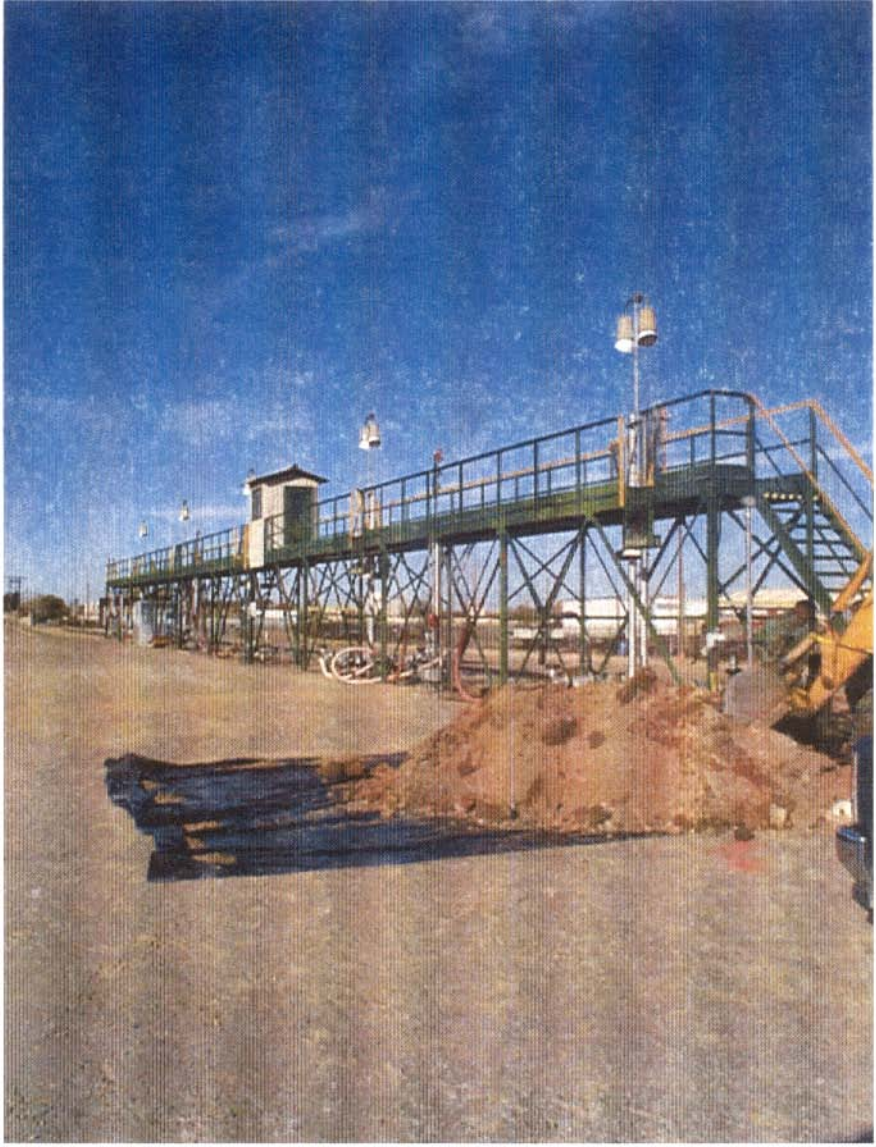
During the testing of the tank 23 pipeline, a cam-lock coupling failed resulting in a fuel spill of approximately 300 gallons. During the testing of the Tank 23 pipeline, a cam-lock coupling failed resulting in a fuel spill of approximately 300 gallons. During the retest of the Tank 23 line, product visibly bubbled from the ground. We uncovered portions of the pipeline and found the 48 year old lines failed because of corrosion (see attached photos).

3. We immediately isolated the failed pipelines and devised a temporary method to off-load commercial trucks. This temporary workaround drastically limits our ability to offload our fuel demand and will require a creative round-the-clock delivery schedule to keep us in service. Contract operators of the fuel system are aggressively investigating new concepts of operation to overcome this limiting factor.

4. Request the necessary coordination, programming and approval to allow the immediate replacement of the failed lines and associated equipment. Our recommended corrective action will provide four off loading headers each equipped with two off loading pantographs. An additional single point connection will be provided for R-11 truck returns. The expedient approval of this emergency design-build project will allow us to meet our mission requirements. Please address your questions or concerns on this issue to CMSgt Joel Reinhard, Chief, Utility Infrastructure at DSN 246-2454.

RAYMOND T.L. CHING, PE
Deputy Base Civil Engineer

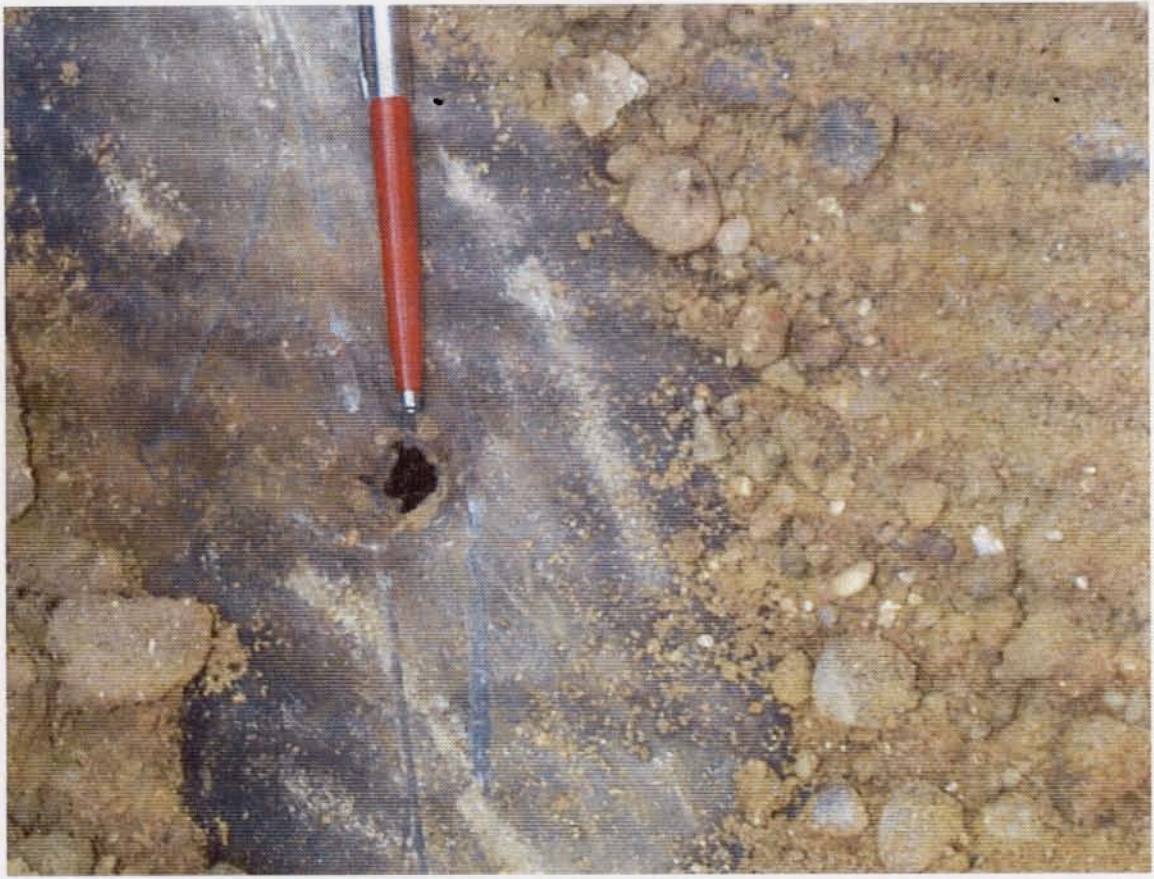
Attachment:
Photos (4 ea)



Pıpelıne failures located under old stands

Rusted risers and buried couplings

Failed pipe coating and pipline rust



One of the rust through spots

Obsolete RR tank car Headers used for truck offloading

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