DFRC Record of Environmental Consideration	DFRC CONTROL NUMBER 11-09

INSTRUCTIONS: Section I to be completed by Proponent. Sections II and III to be completed by the Safety, Health & Environmental Office. Continue on page 2 or attach additional sheets as necessary and reference appropriate item number(s).

SECTION I - PROPONENT INFORMATION Start Date: 01-01-2012

1. TO:	2. FROM: (Proponent organization and functional address symbol)	2a. TELEPHONE NO.
Safety, Health, & Environmental Office Code SH	Code F	EX# 3491

3. TITLE OF PROPOSED ACTION/START DATE
Centerwide Fire Main Repairs

4. PURPOSE AND NEED FOR ACTION (Describe why you need to take this action.)
The purpose of this project is to replace, center-wide, severely corroded fire water piping. The need is to keep the fire mains in working order, replacement piping would also include flanged ties that would connect up to future facilities per the updated Facility Master Plan.

5. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES (DOPAA)(Provide sufficient details for evaluation of the total action.)
The proposed action is to replace Dryden's severely corroded fire water piping center-wide. Replace existing corroded fire mains with non-corrosive PVC piping and fittings along realignment routes to clear new roads, utilities, and valuable building sites. New underground valves would be provided to allow proper isolation of the system. There would be installations of 47 new fire hydrants at locations with poor coverage or protection and at future building sites per updated Facility Master Plan. Fire water storage tanks would be inspected and re-lined if appropriate. (Continued on page 2)

6. PROPONENT		6b. DATE
Troy S Spiger		1-9-12

SECTION II - PRELIMINARY ENVIRONMENTAL ANALYSIS (Check appropriate box and describe potential environmental effects and mitigations.) (+ = positive effect; 0 = no effect; - = adverse effect; U = Unknown effect)	+	0	-	U
7. NOISE/LAND USE ZONE (Noise, accident potential, land use, etc.)			X	
8. AIR QUALITY (Emmissions, attainment status, conformity, etc.)			X	
9. WATER RESOURCES (Quality, quanity, source, etc.)		X		
10. SAFETY & OCCUPATIONAL HEALTH (Asbestos/radiation/chemical exposure, explosives, safe quantity-distance, etc			X	
11. HAZARDOUS MATERIALS/WASTE (Use/storage/generation/solid waste, etc.)			X	
12. BIOLOGICAL RESOURCES (Floodplains, flora, fauna, etc.)			X	
13. CULTURAL RESOURCES (Architectural ,historical, etc.)		X		
14. GEOLOGY & SOILS (Topography, Superfund Program, seismicity, etc.)			X	
15. SOCIOECONOMIC (Employment/population projections, school and local fiscal impacts, etc.)	X			
16. OTHER (Potential Impacts not addressed above.)				

SECTION III - ENVIRONMENTAL ANALYSIS DETERMINATAION

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	X	PROPOSED ACTION QUALIFIES FOR CATEGORICAL EXCLUSION (CATEX) 4.2.1.d ; OR
		PROPOSED ACTION DOES NOT QUALIFY FOR A CATEX; FURTHER ENVIRONMENTAL ANALYSIS IS REQUIRED.

18. SHE OFFICE CERTIFICATION	18a. SIGNATURE	18b. DATE
Dan Morgan		1-9-12

(Continued from Block 5) Three of the site fire pumps would be restored to minimum operating condition. Piping (includes fittings) quantity: 4699 ft., 6" dia, C900 PVC class 200, 726 ft., 8" dia, C900 PVC class 200, 50 ft., 10" dia, C900 PVC class 200; 1318 ft., 12" dia, C900 PVC class 200; 2027 ft., 16" dia, C905 PVC class 200; 11087 ft., 20" dia, C905 PVC class 200, for at total of 19907 feet. Valves: 38 ea, 6" post indicator (PIV); 4 ea, 8" PIV; 2 ea, 12" PIV; 1 ea, 3" gate, 47 ea; 6" gate; 3 ea, 8" gate; 2 ea, 10" gate; 4 ea, 12" gate; 11 ea, 16" gate; 20 ea, 20" gate; 1 ea, 16" butterfly for a total of 133 valves. No other alternatives were considered.

IMPACT ANALYSIS AND PROJECT REQUIREMENTS:

NOISE/LAND USE: An increase in short-term, local noise levels produced by project activities would occur with varying intensity and duration. Noise impacts from this project would not be significant. Hearing conservation requirements and procedures contained in 29 CFR 1910.95 must be followed by all personnel working on this project. Major noise sources on the flightline are from aircraft operations, engine testing, and the operation of powered aircraft ground equipment. As such, workers along the flightline may be exposed to increased noise levels that may be above acceptable levels established by Occupational Safety and Health Administration (OSHA) regulations. The contractor/proponent shall be responsible for implementing OSHA hearing protection measures for their employees.

AIR QUALITY: A short-term degradation of air quality may occur during the proposed project. These emissions would be minor and are well below the de minimis thresholds for non-attainment areas; therefore, a formal conformity determination is not required. Vehicle emissions from additional personnel required for temporary duty are exempt under 40 CFR 51.853(c)(2)(vii) & (x) and were not evaluated. Air quality impacts from this project would not be significant. Equipment with an internal combustion engine over 50 bhp may need an operating permit from the Kern County Air Pollution Control District (KCAPCD) or would be registered with the California Statewide Portable Equipment Registration Program. Contact Jennifer Martin at extension 2909 for further information and to coordinate your application. Allow a minimum of 120 days lead time to obtain a KCAPCD permit.

SAFETY AND OCCUPATIONAL HEALTH: Project personnel shall be properly trained in working in confined spaces. Contact Ron Walters of Code SH at extension 6128 for more information and requirements. Lead-based paint may be present in paint striping in the project area(s). If striping is planned to be disturbed, sampling and/or abatement may be required. Proper safety, health, and environmental protocols would need to be developed and followed. Lead-based paint shall be abated by a licensed contractor prior to construction activities. All work must be conducted in a manner that does not expose workers or building occupants to lead or asbestos as outlined in 40 CFR Parts 61 and 763, 29 CFR Parts 1910 and 1926, and 8 CCR Section 5216. Also, a written notification (per the National Emissions Standards for Hazardous Air Pollutants Program) must be made to the Kern County Air Pollution Control District at least 10 working days prior to the start of asbestos abatement activities. For more information contact Charlie Patanasiri of Code SH at extension 2077.

HAZARDOUS MATERIALS/WASTE: Hazardous materials/waste, including asbestos and lead-based paint contaminated materials, shall be handled in accordance with applicable regulations. All hazardous materials used at Dryden shall be included in the DFRC Chemical Management System. For more information contact Steve Fedor of Code SH at extension 7403. Hazardous wastes are subject to land disposal restriction requirements. Signed hazardous waste disposal manifests shall be required for all hazardous waste that may be generated on this project to include (but not limited to) ACM, lead, mercury, chromium, heavy metal-based paints, treated wood waste, and/or PCB-containing wastes prior to transportation for offsite disposal to a California Department of Toxic Substance Control (DTSC) and/or an Environmental Protection Agency-approved landfill. The proponent/contractor shall submit all manifests to Code SH for signature prior to shipping waste offsite. Contact Steve Fedor at extension 7403 for submittal requirements.

BIOLOGICAL RESOURCES: The desert tortoise, listed as a threatened species under the Federal Endangered Species Act, is present at DFRC. Vegetated areas adjacent to this project are within potential desert tortoise habitat. A 95 ABW/EM authorized biologist must conduct a resurvey of the work area. If desert tortoises are present, specific training may be required for all onsite personnel. To arrange for a survey or training, contact Dara English of Code SH at extension 3863 at least 72 hours prior to any site work. All project personnel working in the area shall complete desert tortoise awareness training prior to commencing work or visiting the work site. Contact Dara English of Code SH at extension 3863 for assistance. Open excavations of any kind created during project activities shall be secured at the end of each day by back filling, placing a cover over the excavation, installing a temporary Code SH-approved desert tortoise fence, and/or ramping excavations at a 3:1 slope. Excavations left unsecured during the workday shall be checked three times per day (morning, midday, and late afternoon) for trapped animals.

If any animals are found in an excavation, immediately notify Code SH at extension 3863 or 3976. Desert tortoises and their burrows shall be avoided. All project personnel shall inspect under all vehicles and equipment for desert tortoises prior to operation. Any sightings of desert tortoise within the project site must be reported immediately to the monitoring biologist or Code SH at extension 3863 or 3976. All project personnel shall immediately report sightings of desert tortoises or desert tortoise burrows found within the project area to 95 ABW/EM at (661) 277-1401. Project activities are not permitted between dusk and dawn unless pre authorized by Code SH. The project area shall be clearly marked at the outer boundaries to define the work area. All workers shall be instructed that their activities must be confined to locations within the fenced, flagged, or marked areas. No activities shall take place between dusk and dawn. Project personnel shall use existing access roads and staging areas, and follow flagged access routes that have been surveyed or cleared of desert tortoises. Habitat disturbance shall be contained to pre-disturbed areas as much as possible. Any pipes stored within the area shall be capped on open ends or elevated at least 12 inches off the ground to prevent entry by desert tortoise or other wildlife. Speed limits on dirt roads within the project area shall be less than 20 mph unless otherwise posted. All trash shall be contained within raven-proof (covered) containers and removed from the project site. No pets or fire arms shall be allowed on the project site. Project activities may impact the road shoulders. The shoulders shall not be widened any more than it presently is, nor shall habitat be disturbed or destroyed (includes staging vehicles/equipment) without receiving guidance from Code SH. Contact Dara English of Code SH at extension 3863 no less than 3 days in advance if disturbance to the shoulders cannot be avoided. Design and construction of the proposed facility should minimize potential nesting sites for birds. Migratory birds nest in the area yearly (nesting season is typically February to August, but some birds can nest year round) and are protected under the Migratory Bird Treaty Act. Nests may occur on the ground, in burrows or culverts, in vegetation (such as cattails), or on manmade structures (such as buildings, radar towers, static plane displays, catwalks, rafters, etc.). Anti-perching devices shall be installed to deter birds from perching on the structure.

GEOLOGY & SOILS & RESTORATION: The use of fill material from an on-base borrow pit shall come from an approved borrow site as described in the Environmental Assessment for Borrow Sites at Edwards Air Force Base, California (USACE and AFFTC 1996). The only approved borrow pit on NASA DFRC property is on the north side of Lilly Avenue. Prior to removing material from the borrow pit, personnel shall check the area for burrows, desert tortoises, and burrowing owls. Contact Code SH at extension 5425 or 3976 for more information or assistance. This project is located within a contaminated groundwater plume, (see attached map for plume boundaries). Contaminated soil and/or groundwater may be encountered 5-50 feet below the ground surface. If planned activities extend below the 5-foot level, a HASP may be required. Even shallow digging may require monitoring for vapors that may be released. Additionally, activities that result in the excavation of soil may require compliance with KCAPCD Rule 414.2 for potential VOC air emissions resulting from piles of excavated contaminated soil. Activity within the plume boundaries site requires coordination with the DFRC Safety office to determine if a HASP is required, which the contractor shall prepare prior to starting any excavation. If the proponent/contractor notices soil discoloration or odors during activities, they shall report this observation immediately Environmental Office Dan Morgan ex #3976to coordinate your activities within this site.

MONITORING WELLS: Care must be taken to avoid disturbing monitoring well casings. Locate all well casings within the work area and avoid all excavations or heavy equipment operation that may damage monitoring wells.

DIG PERMIT: This project will require a D-WK 808-8, Facilities Engineering Excavation Permit (digging permit). The proponent/contractor shall coordinate the digging permit. Contact Code F at extension 3370 for specific requirements.

HOT WORK PERMIT: Project activities involving welding, torching, cutting and brazing require an AF Form 592, Welding, Cutting and Brazing Permit (Hot Work Permit) from the Base Fire Department. For further information on hot work permits, contact Code SH at extension 2307.

SOCIOECONOMIC: A minor positive impact to the local construction industry would result from this project.

PROJECT MODIFICATIONS: The Project Manager must evaluate proposed changes in project scope to see if they result in significant deviations from the project description outlined in this Record of Environmental Consideration. Notify Dan Morgan of Code SH at extension 3976 or Dara English at extension 3863 concerning changes in project activities to allow for timely analysis of potential environmental impacts.

CONCLUSION: Based on the above environmental impact analysis it is concluded that this is a categorically excluded action [NASA NPR 8580.1, paragraph 4.2.1.d., Minor construction of new facilities, including rehabilitation, modification, and repair.] that does not substantially impact the human environment; therefore, neither an EA nor an EIS is required.