STATE OF ARIZONA
DEPARTMENT OF EMERGENCY AND MILITARY AFFAIRS

DEMA DIRECTIVE 25.5
05 May, 2022

ARNG AND ANG TECHNICIAN PERSONNEL
ENVIRONMENTAL DIFFERENTIAL & HAZARD DUTY PAY (EDP/HDP)

This Plan is applicable to the National Guard of Arizona. Any previous guidance pertaining to the Technician Environmental Differential & Hazard Duty Pay (EDP/HDP) is hereby rescinded. Supplementation of this Plan is not authorized.

SECTION 1 General Information

| 1.1 Purpose | 2 |
| 1.2 References | 2 |
| 1.3 Objectives | 3 |
| 1.4 Responsibilities | 3 |
| 1.5 Organization and Functions of the EDP/HDP Committee | 5 |
| 1.6 Submission of Situations to EDP/HDP Committee | 6 |
| 1.7 Processing EDP/HDP Determination | 6 |
| 1.8 Control Numbering for Approved Work Situations | 7 |
| 1.9 Official File Copy of EDP/HDP Plan | 7 |
| 1.10 Approved EDP/HDP Pay Situations | 7 |
| 1.11 Termination of EDP/HDP Differential Pay | 7 |
| 1.12 Definitions | 8 |

Attachment AEDP/HDPSituations

| A1 List of Approved EDP/HDP Situations | 10 |
| A2 Examples of Approved EDP/HDP Requests | 12-46 |

Attachment B Administration

| B1 Example EDP/HDP Situation Form | 47 |
| B2 Blank Certificate of Authorization for EDP/HDP | 50 |
ENVIRONMENTAL DIFFERENTIAL & HAZARD PAY (EDP/HDP) PLAN

Section 1 General Information

1.1 PURPOSE: To establish procedures for the review of work situations that warrant environmental differential pay (EDP) and hazard duty pay (HDP) determinations. This Policy includes administrative procedures, evaluative criteria, and guidance to AZ NG / Federal Technicians in the process for EDP/HDP entitlements. To document determinations on situations under which environmental differential pay or hazard pay may or may not be paid.

1.1.1 Management philosophy within the AZNG Federal Technicians has always been to eliminate or alleviate the hazard so that the workplace (working environment) meets or exceeds prevailing safety standards. The object is to assure that all hazards, physical hardship and working conditions of an unusually severe nature are eliminated or reduced to the lowest level possible. When these efforts do not correct the unusually severe nature of the hazard, physical hardship, working conditions and compensation is not already paid, then EDP/HDP is warranted. The existence of EDP/HDP differentials is not intended to condone work practices circumventing law, regulation, or safety rules. The payment of pay differentials is a measure, directed by statute, which admits that no available means can reasonably be employed to eliminate the hazard or reduce discomfort to reasonably tolerable levels.

1.2 REFERENCES:

1.2.1 5 U.S.C. 5343 (c) (4) - Hazard Duty: Proper differentials for duty involving severe working conditions / hazards.

1.2.2 5 U.S.C. 5545 (d) – Hazardous duty differential.

1.2.3 5 U.S.C. 5305 (b) (3) & (4) Special Pay Authority.

1.2.4 5 U.S.C. 5548 (b) – Authorization for Hazard Duty Regulations.

1.2.5 5 C.F.R 532.511, Appendix A, subpart E – Environmental Differential Pay

1.2.6 5 C.F.R 550.901, Appendix A, subpart 1 – Pay for involving physical hardship or hazard.

1.2.7 5 C.F.R 532, Part 532, Sections 532.501 and 532.511, Part 1 Payment for actual exposure and Part II payment on basis of hour in pay status for subpart E and appendixA – Environmental differentials paid for exposure to various degrees of hazards, physical hardships, and working conditions of an unusually severe nature.

1.2.8 The Agency and ACT Chapter #71 Collective Bargaining Agreement.

1.2.9 The Agency and ACT Chapter #61 Collective Bargaining Agreement.
1.3 **OBJECTIVES:** To provide the basis for orderly and efficient management of the payment of EDP/HDP. An EDP/HDP Committee will be established to aid in this management. This committee will assist the Human Resources Office (HRO) by reviewing, on an annual bases or as called by a Committee member, request(s) for the following:

1.3.1 Unusually severe working conditions, physical hardships, hazardous situations and risk management controls.

1.3.2 New situations and determinations are made on EDP/HDP entitlements.

1.4 **RESPONSIBILITIES:**

1.4.1 **The Adjutant General (TAG):**

1.4.1.1 The Adjutant General (TAG) of Arizona is the approving authority for duty situations that potentially entitle technicians to differential pay (EDP or HDP). This authority may be delegated to the Human Resources Officer (HRO), in accordance with the requirements of CNGBI 1400.25 Vol. 511, dated 30 June 2020. Decisions on EDP and HDP situations are based on State EDP/HDP Committee recommendations to the HRO.

1.4.1.2 Appoint an EDP/HDP Committee consisting of management and no fewer than two bargaining unit members, one from surface maintenance and one from aviation. (IAW ACT 61 CBA 2021 13.14). This authority may be delegated to the Human Resources Officer (HRO).

1.4.1.3 Ensure compliance with governing directives.

1.4.2 **Managers, Supervisors, Labor Organization, Employees and the State EDP/HDP Committee.**

1.4.2.1 Understand the goals of the EDP/HDP State program and actively participate in accomplishing these goals.

1.4.2.2 Conduct an annual review of EDP/HDP approved work situations.

1.4.2.3 Create a work environment to ensure compliance with EDP/HDP plan.

1.4.3 **Human Resource Office (HRO):**

1.4.3.1 Provide advisory and administrative support to the committee.

1.4.3.2 Publicize the EDP/HDP program.

1.4.3.3 Render staff assistance concerning this plan to managers, supervisors and
technicians.

1.4.3.4 Act on recommendations of the committee.

1.4.3.5 Ensure that the appropriate technician payroll office is promptly informed of approved work situations and their corresponding authorized EDP/HDP rates.

1.4.3.6 Approve or disapprove work situations for EDP based upon evaluation against defined categories in Appendix A of 5 CFR, Part 532, Sections 532.501, 532.511 and subpart E, and recommendations of EDP/HDP committee.

1.4.3.7 Approve or disapprove work situations for HDP based upon evaluation against defined categories in Appendix A of 5 CFR, Part 550, Section 550.901 through 907 and recommendations of EDP/HDP committee.

1.4.4 Supervisors:

1.4.4.1 Shall inform employees of the EDP/HDP Plan.

1.4.4.2 Conduct an annual review of EDP/HDP approved work situations upon request of EDP/HDP Committee.

1.4.4.3 Supervisors will use the assistance of their appointed Collateral Safety personnel who will assist in the management of EDP/HDP situations within their local facility.

1.4.4.4 Continually review the work environment for work situations that present a hazard or unusually severe working conditions. Document such and submit on AZSP Form 532-1 (appendix B, attachment 1) for facility coordination to the AZNG Public Health Technician, Occupational Safety Specialist, Bio-Environmental Engineering Technician, Environmental Coordinator, and for the Army State Safety Manager and Occupational Health Nurse, to the EDP/HDP Committee through AZAA-HRO-C. Requests must provide specific information.

1.4.4.5 Ensure that pay entitlements to EDP/HDP are recorded on Time and Attendance cards when authorized and performed.

1.4.4.6 If an immediate elimination of the hazard or hardship situation is not possible, the supervisor will seek assistance to develop an abatement plan to eliminate or reduce the severity of the situation. Safety, Environmental, and Occupational Health will be contacted for an analysis of the situation and development of potential abatement procedures.

1.4.5 Technicians: Ensure every effort is made to protect themselves and others from potential hazards or physical hardships. Upon discovery, advise immediate supervisor when hazards or unusual severe working conditions exist.

1.4.6 Army and Air National Guard Civil Service Technician Payroll Offices will:
1.4.6.1 Determine which individuals, by appropriate Position Description Classification Number (PDCN), are authorized EDP/HDP, using approved differential pay determinations received from the HRO.

1.4.6.2 Provide instructions to supervisors for payroll documentation of EDP/HDP entitlements.

1.5 ORGANIZATION AND FUNCTIONS OF THE EDP/HDP COMMITTEE:

1.5.1 A single committee will be appointed to make EDP/HDP recommendations for the Army and Air National Guard. The committee will be headed by HRO-C who will select an alternate chairperson to act in their absence. When necessary to conduct business of the Committee, the committee shall consist of twelve (12) voting members. Six (6) voting members shall constitute a quorum. In each quorum, there must be no fewer than two bargaining unit members, one from surface maintenance and one from aviation as part of the committee (IAW ACT 61 CBA 2021 13.14).

1.5.1.1 The organization of the committee will be as follows:

1.5.1.1.1 Phoenix and Tucson ANG:
   Public Health Technician
   Occupational Safety Professional
   Bio-Environmental Engineering Technician Environmental Coordinator

1.5.1.1.2 Army NG:
   State Safety Manager
   Sr. Safety Specialist
   Occupational Health Nurse

1.5.1.1.3 ACT Chapter 61 and 71 Labor Organization:
   No fewer than two bargaining unit members, one from surface maintenance and one from aviation as part of the committee (IAW ACT 61 CBA 2021 13.14).

1.5.1.1.4 Human Resource Office (HRO): (Non-Voting Positions)
   Position Classification Specialist
   Labor Relations Specialist

1.5.1.2 EDP/HDP Committee Functions:

1.5.1.2.1 Evaluate situations submitted for review against appropriate criteria.

1.5.1.2.2 Explore possibilities for elimination or reduction of the hazardous or severe working conditions that exist.
1.5.1.2.3 Make recommendations on eligibility for EDP/HDP to the HRO.

1.5.1.2.4 Notify parties submitting situations of determinations rendered.

1.5.1.2.5 At a minimum, annually review all current approved situations to determine whether the hazard or physical hardship has been practically eliminated to the degree which would preclude continuance of payment of the differential.

1.6 SUBMISSION OF SITUATIONS TO EDP/HDP COMMITTEE: AZSP FORM 532-1 (EDP/HDP Situation Form) appendix B attachment 1, will be used to submit to the committee through ANG Public Health Technician, Occupational Safety Professional, Bio-Environmental Engineering Technician, Environmental Coordinator and/or the Army, the State Safety Manager and Occupational Health Nurse to AZAA-HRO-C any situation that poses a potential or real hazard, physical hardship or working condition of an unusually severe nature.

1.6.1 The form will be completed as follows:

1.6.1.1 Type of Exposure: Indicate the kind of exposure involved; for example, cold weather, dirty work, cramped quarters, explosives, etc. Reference Appendix A, 5CFR, Part 532 and Appendix A, 5 CFR, Part 550, subpart 1.

1.6.1.2 Duration of Exposure: Give the estimated amount of time during which the exposure will continue to exist.

1.6.1.3 Work Situation: Describe the situation or condition that exists as precisely and clearly as possible. See examples of EDP/HDP work situations in Appendix A. All EDP/HDP requests that require further clarification will be returned to requester for additional information.

1.6.1.4 Impact: Give the approximate number of employees affected by the proposed situation by classification and grade levels.

1.6.1.5 Point of contact for additional information: This should be a supervisor or technician in authority over the area where the situation exists or who is well qualified to advise the committee concerning the situation.

1.6.1.6 Submit AZSP FORM 532-1 thru: (AIR Facilities) Public Health Technician, Occupational Safety Professional, Bio-Environmental Engineering Technician, and the Environmental Coordinator; (ARMY Facilities) State Safety Manager and the Occupational Health Nurse, to the HRO, Attn: AZAA-HRO-C. In addition, attach any accident records and safety directives, if applicable. Include the hazard classification if situation involves explosives or incendiary devices. Indicate whether protective clothing/equipment is required.

1.7 PROCESSING EDP/HDP DETERMINATION

1.7.1 IAW OPM, two conditions must exist before payment of EDP/HDP may be approved by an agency.
1.7.2 The Recorder will enter the recommended situations in the EDP/HDP Situation Log. The Recorder will furnish committee members a copy of each situation form submitted for consideration prior to a scheduled meeting. A case file will be established for each situation. Approved situations will become an attachment to the plan. Disapproved situations will be filed in the HRO functional files system.

1.7.3 Committee members will review the situation form(s) and related criteria prior to the scheduled meeting. HRO Classification Specialist will notify supervisor prior to the meeting of any inadequate requests and/or additional information required.

1.7.4 All EDP/HR HDP requests submitted by the supervisor and/or requester will be required to present a briefing to the Committee members during a formal EDP/HDP Committee meeting. This forum will allow Committee members to ask specific questions regarding the request.

1.7.5 All EDP/HDP requests may be subject to an on-site visit by the Committee if follow up is required.

1.7.6 The committee will meet at the call of any Committee Member and make a recommendation by majority vote of a quorum after thorough examination of the situation, criteria and other related facts. In most cases, the recommendation will not be made until after an on-site visit. Final approval will be made by the HRO and/or ADJUTANT GENERAL.

1.7.7 Negative determinations will be documented and filed as indicated above. Parties who have submitted the situation form will be notified formally of the denial.

1.7.8 Approved situations will be documented on AZSP FORM 532-2 (EDP/HDP determination Form) and will be added to Appendix A. Certifying officials and payroll sections will be furnished copies of approved situations.

1.8 CONTROL NUMBERING FOR APPROVED WORK SITUATIONS: The Human Resource Office (HRO) will assign a state number to all approved work situations using the following method. The first digit will indicate the location, i.e., “A” for Army National Guard, “P” for Air National Guard in Phoenix and “T” for Air National Guard in Tucson. The next two numbers will indicate the calendar year of approval. The fourth digit would indicate the consecutive control number assigned.

1.9 OFFICIAL FILE COPY OF EDP/HDP PLAN: The Recorder will maintain the official, current status plan to include all approved and disapproved situations.

1.10 APPROVED EDP/HDP PAY SITUATIONS: See Attachment A to administratively process EDP/HDP pay. All previously issued instructions or plans will be rescinded.

1.11 TERMINATION OF EDP/HDP DIFFERENTIAL PAY: When the Committee has
determined all safety hazards have been mitigated to an acceptable level of risk, IAW applicable laws, rules, and regulations, a recommendation for termination of EDP/HDP can be made.

1.12 DEFINITIONS:

1.12.1 Hazard: A duty performed under circumstances when an accident could result in serious injury or death.

1.12.2 Physical Hardship: A duty that may not in itself be hazardous but causes extreme physical discomfort or distress and is not adequately alleviated by protective or mechanical devices, such as duty involving exposure to extreme temperatures for a long period of time, arduous physical exertion, or exposure to fumes, dust, or noise that causes nausea, skin, eye, ear, or nose irritation.

1.12.3 Unusually Severe: Working conditions that are unusually severe include those conditions which are not taken into consideration in the job-grading process. In other words, Position Descriptions (PD) may already describe hazardous or inherently risky work. The work situation is considered "usual" and pay has already been considered in the grading process.

1.12.4 Environmental Differential Pay: Additional pay that has been authorized for wage system technicians as specified in Appendix A, 5 CFR, Part 532 and changes there to, for a duty involving unusually severe hazards or unusually severe working conditions.

1.12.5 Differential rate: This is the hourly rate payable and is computed by multiplying the percentage for the described exposure times the second step/hourly rate for specific wage grade on the current non-supervisory wage schedule for the area regardless of the grade of the individual. The rate will be rounded to the nearest cent.

1.12.6 Hot work category: This is work in a confined space which creates cramped working conditions such as: Jet engine intake and exhaust, fuel cells or fuel cell compartments, crawlways inside of wings, tail booms or empennage sections where movement is severely restricted. If an employee is in an area where he/she can readily step outside or otherwise remove himself/herself from the high temperature at the first signs of distress, he/she is not confined in the sense intended by the EDP and is not entitled to the differential.

1.12.7 Close Proximity: The employee is subject to the same degree of personal injury as the person who is actually conducting the hazardous operation.

1.12.8 Practically Eliminated: The term “practically eliminated” does not require a complete or absolute elimination of potential injury. This term does not mean “virtually”, the would require that a higher standard is to be applied than is required in the regulation. The term is more correctly defined as “almost” and is more consistent with the intent of the language of the regulation. The regulation only requires that potential injury be “practically eliminated” and as such, total elimination of the hazard not required, nor expected (Arbitration decision, FMCS Case NO. 95-07381).

1.12.9 Environmental Differential Pay (EDP) may be available to Prevailing Rate (wage) employees in certain circumstances under statutory provision (5 U.S.C. 5343(c)(4)). Pay administration rules for environmental differentials are found in 5 CFR 532.511.
Environmental Differential Pay categories are listed in Appendix A to subpart E of 5 CFR part 532.

1.12.9 Hazard Duty Pay (HDP) is additional pay for the performance of hazardous duty, or duty involving physical hardship, if the hazardous duty has not been taken into account in the classification of the employee position. HDP is payable to General Schedule (GS) employees covered by chapter 51, and subchapter III of chapter 53 of title 5, United States Code. HDP differentials are established under 5 CFR 550, Appendix A to subpart I.

The proponent of this directive is the DEMA Human Resources Office. Users are invited to send comments and suggested improvements to the 5636 E. McDowell Road, Phoenix AZ 85008-3495, ATTN: DEMA/HRD.

KERRY L. MUEHLENBECK
Major General, AZ ANG
The Adjutant General
# Attachment A - Environmental Differential Pay Situations

## 2.0 LIST OF APPROVED EDP SITUATIONS

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<thead>
<tr>
<th>Number</th>
<th>Work Situations</th>
<th>Category</th>
<th>Percent</th>
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<tr>
<td></td>
<td><strong>AIR NATIONAL GUARD - 162 FW – TUCSON:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T711</td>
<td>Explosives and Incendiary Material (Munitions)</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>T712</td>
<td>Explosives Low Degree Hazard; (Egress).</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>T744</td>
<td>Explosives and Incendiary Material (Armament)</td>
<td>3</td>
<td>4%</td>
</tr>
<tr>
<td>T871</td>
<td>Hot Work; Fuels Systems Handling (F-16, EPU) Maintenance (Hydrazine Emergency Response)</td>
<td>6</td>
<td>4%</td>
</tr>
<tr>
<td>T872</td>
<td>Work in Fuel Storage Tanks; (F-16 Fuel Cell)</td>
<td>9</td>
<td>8%</td>
</tr>
<tr>
<td>T901</td>
<td>Explosives Low Degree Hazard; (Aircrew Flight Equipment)</td>
<td>3</td>
<td>4%</td>
</tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T922</td>
<td>Poisons (Toxic Chemicals) High Degree Hazard; Hydrazine Facility</td>
<td>4</td>
<td>8%</td>
</tr>
<tr>
<td>T923</td>
<td>Explosives &amp; Incendiary Material (EOR) &amp; Poisons (Toxic Chemicals) (EOR) Low Degree Hazard</td>
<td>3 &amp; 5</td>
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<td><strong>AIR NATIONAL GUARD - 161 ARW - PHOENIX:</strong></td>
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<td>P765</td>
<td>Work in Fuel Storage Tank; (KC-135E) (Fuel Cell)</td>
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<td><strong>ARMY NATIONAL GUARD - AASF #2 / WAATS - MARANA:</strong></td>
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<td>A901</td>
<td>Ground Work Beneath Hovering Helicopter</td>
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<td>A902</td>
<td>Fire Fighting Low Degree</td>
<td>10</td>
<td>8%</td>
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<td>A903</td>
<td>Flying (Helicopter Maintenance)</td>
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<td>Ground Work Beneath Hovering Helicopter</td>
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<td>15%</td>
</tr>
<tr>
<td>A905</td>
<td>Fire Fighting Low Degree</td>
<td>10</td>
<td>8%</td>
</tr>
<tr>
<td>A906</td>
<td>Flying (Helicopter Maintenance)</td>
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<td>100%</td>
</tr>
<tr>
<td>A941</td>
<td>Poisons (Radiation) (CSMS, Calibration)</td>
<td>5</td>
<td>4%</td>
</tr>
</tbody>
</table>
2.1 EXAMPLE PAY PLANS:

ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T711

162 WG Explosive and Incendiary Material – Low Degree Hazard (Munitions)

WORK SITUATION: Munitions Storage Element
162nd Wing (ANG)
P.O. BOX 11037, Tucson, AZ 85734-1037

Individuals working with or in close proximity to explosives and incendiary material, which are required to load and unload munitions items on/off trailers and delivery to/from the flight line. Assemble and inspect single cartridge into practice bombs, inspect 2.75-inch Rockets, inspect/assemble chaff, flares and process 20mm ammunitions.

CATEGORY: Part II; Category 3, Explosives and Incendiary Material-Low Degree Hazard; 4%.

OFFICIAL AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Maintenance Squadron Commander, Munitions Officer, Equipment Maintenance Flight Supervisor and Munitions Supervisors.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Two (2) WS-09, One (1) WL-10, and Twelve (12) WG-10.

AVERAGE LENGTH OF EXPOSURE: 6 to 7 hours per day.

Updated 31 JUL 2001
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T712

162 WG – Explosives -Low Degree Hazard (Egress)

WORK SITUATION: Aircraft Maintenance Branch (Egress)
162nd Wing (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

Works in close proximity to explosives, removes all explosive devices such as initiators, thrusters, canopy remover and catapults. Hazards include possible powder burns and fired projectiles.

CATEGORY: Part II, Category 3, Explosives, Low Degree Hazard 4%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL

DOCUMENTATION:
Superintendent, Aerospace Systems Supervisor, Field Maintenance Supervisor and Maintenance Officer.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Egress Systems Supervisor, WS-09, ten (10) egress mechanics, WG-10, and one (1)WL10.

AVERAGE LENGTH OF EXPOSURE: 2 hours per day.

Updated: 31 Jul 2001
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T744

162 WG – Explosives and Incendiary Material - Low Degree Hazard

WORK SITUATION: Aircraft Sortie Generation Flights
162nd Wing (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

Weapons maintenance technicians are required to work in close proximity of explosives and incendiary material. Duties involve loading and unloading of aircraft with 20mm ammunition, bombs, dispensers, missiles, chaff, flares and ejector cartridges; arm and de-arm aircraft, maintenance of jammed ammunition systems.

CATEGORY: Part II; Category 3, Explosives and Incendiary Materiel - Low Degree Hazard; 4%.

OFFICIALS AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Logistic Commander, Logistics Squadron Commander, Sortie Generation Flight Commander, Sortie Generation Flight Production Supervisor, Weapons Element Supervisor.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED Seven (7) WS-11 Supervisors, Five (5) WL-11 Work Leaders, Forty-Two (42) WG-11 Employees.

AVERAGE LENGTH OF EXPOSURE: 5 to 6 hours per day.

Updated 31 Jul 2001
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T871

162 WG Hot Work; Fuels Systems Handling (F-16 EPU) Maintenance

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section
162nd Wing Logistics (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

Technicians assigned to Fuel Shop are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills that occur. During this process, protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

CATEGORY: PART I, CATEGORY 6, HOT WORK, 4%; F-16 (EPU)

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION:
Superintendent, Intermediate Maintenance. Supervisor Aerospace system.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) WL-10, Nine (9) Fuel Technicians, WG-10.

AVERAGE LENGTH OF EXPOSURE: Daily during Hot Weather.

Updated 31 Jul 2001
EDP/HP DETERMINATION
SITUATION NO. T871

CATEGORY OF EXPOSURE: PART I, CATEGORY 6, HOT WORK, F-16 (EPU)

DIFFERENTIAL RATE: 4%_____ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section
162nd Wing (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

Technicians assigned to Fuel Systems are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean up, decontaminate and neutralize any spills that occur. During this process, protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) Fuel Shop Supervisor, WS-09, One (1) Leader, WL-10, Nine (9) Fuel Technicians, WG-10.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES: Superintendent, Intermediate Maintenance. Supervisor Aerospace Systems.

Date on-site review made: Nov 18, 1987

Accident records attached? No Safety report on work situation attached? No
Protective clothing/equipment required? Yes (If yes, list) See Atch 1

Hazard classification (If involving explosive or incendiary device): Appropriate technical instructions: 6J14-4-11-2, 11H5-26-1, 33A5-9-5-1, 33D2-3-95-1, 42B1-1-18, 1F-16( )-2-49GS-00-1, 1F-16( )-2-49JG-00-1, 1F-16( )-2-49JG-00-2, 1F-16( )-2-49JG-00-3, 1F-16( )-2-49JG-00-4, 162WGI 32-4001, LCL162WG-F-16-HYDRAZINE RESPONSE, AFI 48-137 & 48-145 AFMAN 48-146 & 91-203, 162WG OPLAN CEMP 10-2, RCRA policies, and 162WG Hazardous Waste Management Plan.

EDP/HP DETERMINATION: _______ DATE OF DETERMINATION: Nov 19 1987

XX Recommend Approval _______ Recommend Disapproval
JUSTIFICATION

Technicians assigned to Fuel Shop are required to work on the F-16 emergency power unit (EPU), during periods when outside air temperatures (OAT) exceed 100 degrees Fahrenheit. Fuel personnel are required to service, handle, purge, test, clean up, decontaminate and neutralize any spills that occur. During this process, protective clothing results in an unusual degree of discomfort and potential for heat stress, where such exposure is not practically eliminated by the mechanical equipment or protective devices being used. Many of these maintenance operations preclude technicians from leaving aircraft to relieve potential heat stress.

Updated 31 Jul 2001
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T872

162 WG – Work in Fuel Storage Tanks (F-16 Fuel Cell)

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section
162nd Wing Logistics (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, de-puddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in cramped and strained body position. The atmosphere within the tank is toxic requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

When technicians work under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by toxic vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.

CATEGORY: PART II, CATEGORY 9, WORK IN FUEL STORAGE TANKS (F-16); 8%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: LG, Maintenance Officer, Branch Chief and Section Chief.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) Leader, WL-10, Nine (9) Fuel Technicians, WG-10

AVERAGE LENGTH OF EXPOSURE: 2 Days per month.

Note: Change from 4% to 8% EDP due to length of exposure slightly increased and safety protection equipment requires a respirator. HRO 6 approved this Jan1995.

Updated 31 Jul 2001
EDP/HP DETERMINATION
SITUATION NO. T872

CATEGORY OF EXPOSURE: PART II, CATEGORY 9, WORK IN FUEL STORAGE TANKS (F-16)

DIFFERENTIAL RATE: 8% XX Hours in Pay Status _____ Actual Exposure

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section
162nd Wing (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, de-puddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in cramped and strained body position. The atmosphere within the tank is hazardous requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

When technicians work in conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by hazardous vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) Leader, WL-10, Nine (9) Fuel Technicians, WG-10

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
LG, Maintenance Officer, Branch Chief and Section Chief.

Date on-site review made: Nov 18, 1987
Accident records attached? No Safety report on work situation attached? No
Protective clothing/equipment required? Yes (If yes, list): RESPIRATOR – 3M 7800 (or 3M Ultimate FX FF-400) Full Face, with 3M Regulators and 3M Hoses, Coveralls: Tri-Layer (Wet Operations) and White Cotton (Dry – Operations), Neoprene socks/boots, Nitrile gloves, Rescue harness & lanyard, Safety glasses or chemical, Splash Goggles Hearing protection (Ear plugs / Ear Muffs)

Hazard classification (If involving explosive or incendiary device): N/A
Appropriate technical instructions: T.O. 1-1-3, 1F-16() -2-10JG-10-1,
AFMAN 91-203, AFMAN 90-821, , 00-25-172, 00-25-235
EDP/HP DETERMINATION: XX  DATE OF DETERMINATION: Nov 19 1987

XX Recommend Approval    _____ Recommend Disapproval

Updated 31 Jul 2001

JUSTIFICATION

1. The fuselage fuel cells of the F-16 aircraft are of bladder and integral type construction. Components such as pumps, valves, and connecting lines are assembled and disassembled from the interior of the cell. A defueling, de--puddling, and purging process is required to remove fuel and vapors from the cell. Physical entry into the cell is required to repair the cell and repair or replace components. Technicians performing such duties must work in a cramped and strained body position. The atmosphere within the tank is toxic requiring use of protective equipment to reduce damage to skin and inhalation of vapors.

2. When technicians work under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced (i.e., closed system) by toxic vapors and failure of the breathing apparatus would result in serious injury or death within the time required to leave the full cell, EDP is appropriate. When there is ready access to oxygen and no danger of serious injury or death, EDP is not authorized. Provisions of AFR 127-101 and applicable Technical Orders and Directives will be followed while performing Fuel Cell/Storage Tank Maintenance.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T901

162 WG – Explosives, Low Degree Hazard (Aircrew Flight Equipment)

WORK SITUATION: Aircrew Flight Equipment Branch
162nd Fighter Wing
P. O. Box 11037, Tucson, AZ 85734-1037

Aircrew Flight Equipment personnel at the 162d Wing are required to perform inspections, repairs, and complete repacks of F-16 ACES II Recovery parachute assemblies, Survival kit assemblies, and Drogue chute assemblies.

During the complete inspection/repack of the ACES II recovery parachute, technicians are required to remove and install two types of explosive devices, which are reefing line cutters and UWARS (Universal Water Activated Release System) assemblies. Each Recovery parachute is equipped with two reefing line cutters and two UWARS assemblies, which are classified as 1.4S explosives. The complete repack process on the ACES II recovery parachute will normally take 6 to 9 hours.

During the complete inspection/repack of the ACES II Survival kit, technicians are required to remove and install three types of explosive devices, which are reefing line cutters, the MK-124, and the A/P 25S-5A flares. Each survival kit is equipped with one reefing line cutter and one MK-124, which are classified as 1.4S explosives. Survival kits could also be equipped with and one Flare Gun A/P 25S-5A flare, which is a 1.3 Class explosive. The reefing line cutter and flares are required to be removed during routine survival kit inspection/maintenance, physically inspected IAW T.O. 11A10-26-7 and 14S1-3-51, and then reinstalled in the survival kit assembly prior to it being installed in the aircraft. The complete repack process on the ACES II Survival kit will normally take 6-8 hours.

The Drogue chute assembly is inspected and repacked in the egress section. It is packed in a compartment located in the rear section of the ejection seat. Technicians are required to disengage the drogue compartment door, which entails disconnecting the retaining latch bolted to the drogue gun cartridge. During the removal and installation of the drogue assembly, technicians are facing the drogue gun cartridge and are in close proximity to the seat stab rocket motor, drogue severance cutters, harness release cartridge, spin-up gyro gas generator, mortar cartridge, trajectory divergent rocket, ejection initiators, and inertia reel initiator. All the explosives that technicians are exposed to when working on the drogue chute are classified 1.3C and 1.4S. The complete repack process on the drogue chute assembly will normally take 3 to 4 hours.

Working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of employees engaged in the operation and possible adjacent employees, minor irritation of the skin, minor burns, and the like; minimal damage to immediate or adjacent work area or equipment being used and wherein protective device and/or safety measures have not practically eliminated the potential for such injury.

CATEGORY: Part II, Category 3, Explosives, Low Degree Hazard 4%.
OFFICIALS AUTHORIZED TO APPROVED PAYROLL DOCUMENTATION:
Aircrew Flight Equipment Superintendent.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (2) Aircrew Flight Equipment Technicians, WG-10. AVERAGE LENGTH OF EXPOSURE: 3-9 Hours per day.

XX  Recommend Approval  _____ Recommend Disapproval

JUSTIFICATION

Criteria is working with or in close proximity to explosives and incendiary material which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation and possible adjacent employee, minor irritation of the skin, minor burns and the like, minimal damage to immediate or adjacent work area or equipment being used and wherein protective devices and/or safety measures have not practically eliminated the potential for such injury.

All operations involving handling of explosive and incendiary ordnance material other than small arms ammunition.

Assembly, disassembly, and inspections of primers, fuses, propellant charges, boosters, igniters.

Handling and packing of hand-held signals, smoke signals, and colored marker signals.

Arming/disarming or the installation/removal of any squib, explosive device, of component thereof, connected to or part of a solid propulsion system, including work situations involving removal, inspection, test and installation of aerospace vehicle egress and jettison systems and other cartridge actuated devices and rocket assisted systems or components thereof, when accidental or inadvertent operation of the system or a component might occur.

Updated 31 Jul 2001
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

T922

162 WG – Poisons (Toxic Chemicals) - High Degree Hazard (Hydrazine Facility)

WORK SITUATION: Aircraft Maintenance Section, Aerospace Section
162nd Wing Logistics (ANG)
P.O Box 11037, Tucson, AZ 85734-1037

Fuel shop technicians are required to work in close proximity and handle hydrazine used as a monopropellant for the F-16 emergency power unit. Hydrazine is a very toxic chemical, which has many temporary, as well as many long lasting side effects. Exposure to hydrazine depending on the extent of exposure can be fatal. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills that occur. Depending on size of spill or leak, they could be exposed to this agent for as long as 13 hours. Hydrazine EPU maintenance is a required part of their duties.

CATEGORY: Part II, Category 4 Poisons (Toxic Chemicals) High Degree Hazard (Hydrazine).


APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) Fuel Shop Supervisor, WS-09, One (1) WL-10, Nine (9) Fuel Technicians, WG-10

AVERAGE LENGTH OF EXPOSURE:
EDP/HP DETERMINATION
SITUATION NO. T922

CATEGORY OF EXPOSURE: PART II CATEGORY 4, POISONS (TOXIC CHEMICALS) HIGH DEGREE HAZARD (HYDRAZINE)

DIFFERENTIAL RATE: 8%  Hours in Pay Status: 1-4 hours, 6 times per month

WORK SITUATION:  Aircraft Maintenance Section, Aerospace Section
162nd Wing Logistics (ANG)
P.O. Box 11037, Tucson, AZ 85734-1037

Fuel shop technicians are required to work in close proximity and handle hydrazine used as a monopropellant for the F-16 emergency power unit. Hydrazine is a very toxic chemical, which has many temporary, as well as many long lasting side effects. Exposure to hydrazine depending on extent of exposure can be fatal. Fuel personnel are required to service, handle, purge, test, clean-up, decontaminate and neutralize any spills that occur. Depending on size of spill or leak, they could be exposed to this agent for as long as 13 hours. Hydrazine EPU maintenance is a required part of their duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE:  One (1) Fuel Shop Supervisor, WS-09, One (1) WL-10, Nine (9) Fuel Technicians, WG-10

Officials Authorized To Certify To Exposures For Pay Purposes:

Date on-site review made: Nov 18, 1987

Accident records attached? No  Safety report on work situation attached? No

Protective clothing/equipment required? Yes  (If yes, list) See Atch 3

Hazard classification (If involving explosive or incendiary device): Appropriate technical instructions:

The operation of this facility for storage, maintenance and servicing of Hydrazine (H-70) fuel will be in accordance with Technical Orders: 6J14-4-11-2, 11H5-26-1, 33A3-9-5-1, 33D2-3-95-1, 42B1-1-18, 1F-16( )-2-49GS-00-1, 1F-16( )-2-49JG-00-1, 1F-16( )-2-49JG-00-2, 1F-16( )-2-49JG-00-3, T.O. 1F-16( )-2-49JG-00-4, 162WG 32-4001, LCL162WG-F-16-HYDRAZINE RESPONSE, AFI 48-137 , AFMAN 91-203, 162WG OPLAN CEMP 10-2, RCRA policies, and 162FW Hazardous Waste Management Plan.

EDP/HP DETERMINATION:  DATE OF DETERMINATION: Nov 19 1987

______ Recommend Approval  XX Recommend Disapproval
JUSTIFICATION

1. The EDP/HP Committee reviewed EDP/HP Work Situation Hydrazine, H-70. The protective equipment listed in AFOSH Standard 48-8, Atch 6, Table A6-1, see Atch1, provides more than adequate protection against hydrazine. However, since this work situation is regular and recurring, it will be summarized in detail.

2. For purposes of health hazard evaluation and health protection, H-70 hydrazine exposure to an unprotected individual could occur via inhalation of vapor or through skin absorption of the liquid. Personnel working with hydrazine are provided with and are required to use proper protective equipment to prevent exposure via these routes. Supplied air respirators provide protection from inhalation of vapor. Rocket fuel handler protective equipment is impregnable to hydrazine and thus prevents skin contact.

3. Air sampling surveys have indicated that hydrazine vapor concentrations during tank maintenance could reach up to two parts per million (during tank top-off). This concentration does not present an immediate hazard and, in reality, is immaterial since technicians wear respiratory protection. The Immediately Dangerous to Life or Health (IDLH) vapor concentration for hydrazine has been established at 80 parts per million (ppm). This concentration is the maximum level from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects. Therefore, even if the respiratory protective equipment were to fail, the technician would not be exposed to IDLH vapor concentrations.

4. Contrary to popular belief, hydrazine is not a human carcinogen. It has caused tumors in specific species of mice, yet under the same conditions, has not caused tumors in other species of mice. In light of such conflicting test data, the chemical must be treated with respect and the 8-Hour Time Weighted Average exposure criteria (discussed in the next paragraph) has been established with the cancer potential incorporated.

5. Referencing "exposure tolerance" per AFOSH Std 48-8. The implication is that "tolerance" is a vapor concentration, which must not be exceeded even momentarily. Such is not the case. The "tolerance" referred to is the 8-Hour Time Weighted Average concentration (8-Hr TWA). The 8-Hr TWA is the time weighted average concentration for a normal 8-hour workday or 40-hour workweek to which nearly all technicians may be repeatedly exposed, day after day, without adverse effects. The 8-Hr TWA for hydrazine is 0.1 ppm. A simple example should explain the 8-Hr TWA concept. If a technician deals with hydrazine without respiratory protection several times per week and his exposure is 1 ppm for four hours and zero ppm for 4 hours, his 8-Hr TWA exposure would be 0.5 ppm. For this case, since he dealt with the hydrazine frequently and did not use respiratory protection, he routinely exceeded the 0.1 ppm 8-Hr TWA exposure and corrective measures, such as respiratory protection or mechanical ventilation, would be in order.

However, if this same individual wore respiratory protection, his 8-Hr TWA exposure would be zero. The time weighted average concentration outside of his protective equipment would still be 0.5 ppm, but since protective equipment was used, he is not exposed to any vapor and his 8-Hr TWA exposure would be zero.
It should be pointed out that many industries rely strictly on the 8-Hr TWA as a means of worker "protection". That is, if the 8-Hr TWA is not exceeded, they do not have to provide respiratory protection or mechanical ventilation. The Air Force, however, takes a stricter approach and provides protective equipment when there are vapors in the area - even though the 8-Hr TWA of 0.1ppm may not be exceeded.

6. The Daeger tube does not measure down to the "tolerance level" listed in AFOSH Std 48-8, Atch 2. As discussed in the above paragraph, this "tolerance level" is not a momentary hazardous concentration that must not be exceeded. It is an average. The Daeger tube is not used to determine the 8-Hr TWA; it is only used to detect hydrazine vapor concentrations over a short period of time (approximately one minute). Therefore, the fact that the Daeger tubes do not detect down to 0.1 ppm is inconsequential. The Daeger tubes measure down to 0.25 ppm and this is sufficient for the task performed and more than sufficient to measure the IDLH concentration of 80 ppm. In addition, during the hydrazine related work tasks, respiratory protection is worn and therefore no vapor is inhaled.

7. Referencing DODPM, Section G, Para 20361 entitlements and 20362 requirements, a military entitlement will be paid to military members without regard to exposure to hazardous materials. This incentive pay is not to be confused or compared to the Environmental Differential Pay program, which is administered under OPM/NGB directives and requires worker exposure to hazardous materials or conditions that cannot be controlled or eliminated by protective, engineering controls, etc.

8. Environmental Differential Pay is not given if a potentially hazardous material is used - it is given if proper protective equipment cannot practically eliminate the hazard. Personnel in this situation are provided with maximum protection. Both the inhalation hazard and skin absorption hazard have been addressed (that is, personnel have respiratory and skin protection). Therefore, the payment of differential pay is not warranted. We will continue to evaluate EDP situations in accordance with OPM/NGB philosophy concerning technician exposure.

Addition: The EDP authorization was based on hot work caused by the protective clothing during service of the EPU and during response to leaks and spills. It was submitted for toxic chemicals but quantification of exposure-precluded approval.

MARY E. JEFFRIES, Col, AZ ANG
Human Resources Officer

MARY E. JEFFRIES, Col, AZ ANG
Human Resources Officer
A six man team consisting of three aircraft mechanics and three weapons end of runway (EOR) crew members are required to work in close proximity to F-16s that are loaded with several types of explosives and utilize a hydrazine propelled emergency power unit (EPU) for back up electrical power in the case of generator failure. The three member’s weapons crew arms explosives that include 20mm ammunition, BDU-33 training bombs, chaff/flare dispensers, training missiles, and explosive ejector cartridges. The three member aircraft mechanics crew performs critical last chance inspection for mission panels, fasteners, safety pin removal, and other defects of the aircraft, that if go undetected would be detrimental to the safety of the aircraft and pilot during flight. These six crew members are exposed to the same hazards five days a week involving approximately sixty sorties per day, Monday through Friday, and also one weekend a month during the monthly 162FW UTA. This six member crew is continuously exposed to each aircraft a minimum of five minutes during which the aircraft are armed with explosive munitions and the EPU safety pin has also been removed (so the system will activate during an emergency power loss). There is no other area on the base where all of the safety devices have been removed preparing the aircraft for flight, where individuals must be in and around each aircraft for five minutes, unprotected from these dangers.

**IMPACT:**
3- WG-10 Aircraft Mechanic Technicians per work shift
3- WG-10 Aircraft Weapons Technicians per work shift

**WHO TO CONTACT FOR ADDITIONAL INFORMATION:**

**NAME:** SMSgt Joseph D. Koughn, Duty Phone: DSN: 924-6569

**TITLE:** Support Flight Supervisor

**WORK LOCATION:**

End of Runway (EOR), last chance area where the aircraft are thoroughly inspected in conjunction with weapons arming: Aircraft Armament Activation (ARM).

**ACCIDENT RECORDS ATTACHED:**

YES, (On file at 162FW & Human Resource Office)
SAFETY DIRECTIVES ATTACHED:

T.O.1F-16A-7WC-1-21, Card #2.005.
Warning: Stay clear of forward firing ordnance. Firing of ordnance can result in serious injury or death.

PROTECTIVE CLOTHING/EQUIPMENT REQUIRED:

Hearing Protection, gloves and eye protection.

HAZARD CLASSIFICATION IF SITUATION INVOLVES EXPLOSIVES OR INCENDIARY DEVICE:

1.4/1.3 Category explosives and incendiary materials of low degree hazard.

Close proximity: This six-member crew, while accomplishing in-depth inspections and arming weapons while assigned EOR duties are subjected to the same hazards, by virtue of their close proximity 3 to 6 hours a day as hazardous explosive operations are conducted in conjunction with in-depth inspections with an armed EPU in the same location, averaging 60 aircraft per day.

DIFFERENTIAL RATE: 4%

DESCRIBE WORK SITUATION:

A six man team consisting of three aircraft mechanic technicians’ and three weapons crew members are required by Technical Direction to be assigned End-of-Runway (EOR) inspection duties in direct support of daily organizational and mission requirements, working in close proximity of explosive and incendiary materials and an emergency power unit (EPU). The location of the EOR area is an extremely small area with an average of 60 sorties a day moving through it. At any time as many as six to eight aircraft can be in this area awaiting inspections and arming. This exponentially increases the potential of injury to personnel due to the close proximity of personnel arming aircraft and due to running aircraft engines. The EPU can activate without warning if the generator fails, endangering all personnel in the area. Since December of 2000, five personnel have been sent to the hospital requiring treatment after being around an aircraft that has had an EPU activate.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE:

3 Aircraft Mechanic personnel per day on EOR Crew
3 Weapons Mechanic personnel per day on EOR Arm Crew

ACCIDENT RECORDS ATTACHED: Yes, (On file at 162FW & HRO)

SAFETY REPORT ON WORK SITUATION ATTACHED: YES (On file at 162FW & HRO)

HAZARD CLASSIFICATION (IF INVOLVING EXPLOSIVE & INCENDIARY DEVICE):

1.4/1.3 Category Explosives and incendiary materials of low degree hazard.

APPROPRIATE TECHNICAL INSTRUCTIONS:


JUSTIFICATION:

The EOR operation at the 162FW is a very unique situation. It has a six-member EOR team that
is dedicated to the safety of the aircraft and pilots. The 162nd Wing flies the oldest F-16s in the USAF inventory. Due to the age of the aircraft, the systems do not contain many of the redundant systems that the newer F-16s are built with. Most of the 162WG's aircraft are 1978 to 1982; block 10.15 aircraft that have a single generator. If this generator fails, it will cause the EPU to activate. The newer F-16s have two generators and this type of emergency is significantly reduced.

Because of the close proximity of this entire process in EOR, all six crewmembers are at risk if an EPU activates. The area where the 162WG conducts arming and de-arming is extremely small and can only hold six F-16s. On average, it takes approximately five minutes to inspect and arm each aircraft. The six-member team stays close together for support as they prepare each aircraft to fly. With the 162WG conducting 60 or more sorties a day it makes it very difficult to function even if nothing goes wrong with the aircraft. When you also Add the summer temperatures of over 105 degrees to this equation, and this area has an extremely high potential for risk of an injury or exposure.

**Associated Hazards (Explosives)**

Aircraft mechanic technicians are required by technical data instructions and job description to accomplish End-of-Runway (EOR) inspection in conjunction with Weapons’ personnel arming F-16 aircraft. The F-16 aircraft are armed in isolated areas, removed from unessential personnel and resources because of the potential for uncommanded jettison of explosives and or incendiary materials when the jettison protection devices are removed prior to flight. The aircraft areas for arming in conjunction with EOR inspections are in the same area at the end of each active runway. Aircraft mechanic personnel accomplish their EOR inspection within close proximity to the weapon crews during arming procedures, which during the removal or installation of the jettison protection devices will not eliminate the potential for injury to the support personnel in the adjacent area. This injury potential to the aircraft mechanic technicians is of the same degree of injury as to the weapons personnel responsible for conducting the hazardous operations. After the hazardous operation of aircraft, arming is completed, and with no safety devices installed for the jettison of explosives or incendiary materials, the support section aircraft mechanic technicians must return to the unprotected and armed aircraft in the last chance area to complete their EOR inspections. With an average of five minutes per aircraft to inspect for any last minute problems, all EOR crewmembers have the same potential for injury or exposure.

**Associated Hazards (Hydrazine)**

The average of sixty aircraft sorties a day exponentially increases the potential of injury to personnel due to their close proximity to aircraft with an EPU that is activated when an aircraft has an electrical system malfunction. The wear of proper protective equipment, (i.e., air breathing packs, body suits or face shields) while performing EOR duties is not practical due to mobility and visibility restrictions presented around the launching of running aircraft. It also presents a problem to the aircraft, as this equipment could be sucked into the intake of the engine if dislodged from one of these EOR crewmembers, causing a mishap to the aircraft or injury to the EOR member. Often the only indication of an EPU activation or potential leak of hydrazine is by pilot notification (using hand signals) that the generator has failed, the strong smell of ammonia from the EPU exhaust, or the Hydrazine Detector Pellet on the right hand underside of the aircraft wing that changes to a purple color indicating exposure to hydrazine. In all three cases, the likelihood of an EOR crewmember being exposed is very high due to the close proximity of the aircraft. Aircraft mechanic technicians and weapons arm crews are in constant exposure with this system. These crewmembers have been exposed to hydrazine during recent EPU activation’s in the past quarter and have been sent to the hospital for observation. Factors contributing to a greater number of EPU activation’s are older F-16 aircraft with minimal redundant electrical system components, student pilots unfamiliar with proper switch
position and or procedures: (i.e. placing EPU switch in wrong position causing EPU to inadvertently activate on F-16 aircraft. Hydrazine is very a toxic chemical, which has many temporary as well as many long lasting side effects. Exposure to hydrazine depending on extent of exposure can be fatal. EOR crews exposed to even the EPU exhaust smell the ammonia and may have to undergo hospital admission, several blood tests, and medical evaluations. All of these factors along with the unique situation at the 162nd Wing for specializing this six-member crew and the aspect of local operation deserve special consideration and compensation for EDP/HDP at 4%.

ATCH#1

EDP/HDP Determination: 4%  Date of Determination: 12 July 2001

XXX  Recommend Approval  _____Recommend Disapproval

HAZARD CLASSIFICATION (IF INVOLVING EXPLOSIVE & INCENDIARY DEVICE):

1.4/1.3 Category Explosives and incendiary materials of low degree hazard.

APPROPRIATE TECHNICAL INSTRUCTIONS:


JUSTIFICATION:

The EOR operation at the 162FW is a very unique situation. It has a six member EOR team that is dedicated to the safety of the aircraft and pilots. The 162FW flies the oldest F-16s in the USAF inventory. Due to the age of the aircraft the systems don’t contain many of the redundant systems that the newer F-16s are built with. Most of the 162FW’s aircraft are 1978 to 1982, block 10/15 aircraft that have a single generator. IF this generator fails it will cause the EPU to activate. The newer F-16s have 2 generators and this type of emergency is significantly reduced. Because of the close proximity of this entire process in EOR, all six crewmembers are at risk if an EPU activates. The area where the 162FW conducts arming and de-arming is extremely small and can only hold six F-16s. On average it takes approximately five minutes to inspect and arm each aircraft. The six member team stays close together for support as they prepare each aircraft to fly. With the 162FW conducting 60 or more sorties a day it makes it very difficult to function even if nothing goes wrong with the aircraft. When you also add the summer temperatures of over 105 degrees to this equation, and this area has an extremely high potential for risk of an injury or exposure.

//Signed//

MICHAEL R. SMITH, COL, AZ ANG
Human Resource Officer
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

P765

161 ARW – Work in Fuel Storage Tank (KC-135E Fuel Cell)

WORK SITUATION: Aircraft Maintenance Section (Fuel Cell Repair Shop)
161st Air Refueling Wing (ANG)
2001 S. 32nd Street
Phoenix, AZ 85034

All unit aircraft have integral wing tanks with additional bladder body tanks. Mechanics must enter the fuel cells through a limited number of access ports each of which measures approximately 10 x 17 inches. Individuals who are small in physical stature are usually assigned fuel cell repair responsibilities because of the small access ports and restricted work area within the tanks. The restrictive conditions inside the fuel cells readily complicates emergency egress in the event of equipment failure or sickness. There are 16 individual fuel cells in each assigned aircraft. These cells are only entered when fuel leaks exist or when other aircraft maintenance is required within the cell itself. Frequent Exposure to the hazardous environment within aircraft fuel tanks is experienced by mechanics assigned to the fuel cell shop. Approximately 6 man-days per month involve working inside aircraft fuel tanks.

The hazard is encountered when entering fuel tanks. Even though the cells have been completely drained and purged, residues remain that deplete oxygen supply. These vapors are detrimental to humans if exposed within confined areas even if only for a few minutes. Internal fuel cell maintenance, therefore, must be a two-man job to insure immediate survival procedures in case of an equipment malfunction. Protective devices such as proper clothing, ventilation and breathing equipment is provided by the Air Force to effect safe fuel cell maintenance under normal circumstances. Failure of equipment, however, would create an emergency situation and expose the technicians to hazardous fumes. Exposure to the skin is limited by providing special purpose clothing.

Even though extensive precautions are taken to purge fuel systems of residual fuel there generally remains sufficient quantities of fuel within the pores of the tank wall to render the cell interior potentially hazardous. Personnel who are required to perform fuel cell duties primarily enter fuel tanks for the following purposes. (1) To change valves and fuel pumps and (2) Seal leaks in integral and bladder tanks.

CATEGORY: Part II, Category 9 – Fuel Systems Repair; 8%.

OFFICIAL AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Deputy Commander for Maintenance, Maintenance Officer.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Two, (2) Fuel Cell Repair Technicians.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 Hours, Six Times per Month
Updated 19 May 1998

PROTECTIVE CLOTHING/EQUIPMENT REQUIRED: Yes (If yes, list): Special clothing.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A901

AASF #2 – Ground Work Beneath Hovering Helicopter

WORK SITUATION: Aircraft Maintenance Section
Army Aviation Support Facility #2
Bldg. L45-300
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 are required periodically to assist with sling loads and act as ground guides. All of these operations place the technicians either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders; night vision goggles load training and assorted community support projects.

CATEGORY: Part 1, Category 2, Ground Work Beneath Hovering Helicopter; 15%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES: Maintenance Officer, Maintenance Foreman.


AVERAGE LENGTH OF EXPOSURE: Two (2) hours per month.

Updated 31 Jul 2001
EDP/HP DETERMINATION
SITUATION NO. A901

CATEGORY OF EXPOSURE: Part 1, Category 2, Ground Work Beneath Hovering Helicopter. (All Types)

DIFFERENTIAL RATE: 15% Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section
Army Aviation Support Facility #2
Bldg. L45-300
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 are required periodically to assist with sling load operations. Technicians are required to rig loads, hook up loads and act as ground guides. All of these operations place the technician either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders; night vision goggles load training and assorted community support projects.


OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review make: 21 Feb 90

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list):

Helmet, eye protection, hearing protection, grounding squib.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 22 Apr 90

XX Recommend Approval _____ Recommend Disapproval

JUSTIFICATION

Army Aviation Support Facility technicians are required at times to participate in operations and/or pilot training to attach and detach external loads to helicopters hovering just overhead.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A902

AASF #2 – Fire Fighting – Low Degree Hazard

WORK SITUATION: Aircraft Maintenance Section
Western Army Aviation Training Site
Army Aviation Support Facility #1
Army Aviation Support Facility #2
Bldg. L45-300
Marana, AZ 85653-9598

Technicians assigned to the maintenance section are required to assist in firefighting duties and crash rescue. The technicians on crash rescue duties act as a supplement to a limited dedicated fire fighting force and are specifically trained for firefighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and firefighting.

Due to the high volume of emergency procedure training done at the AASF #2, there is a high probability of an aircraft mishap that could result in a post-crash fire.

CATEGORY: Part II, Category 10, Fire Fighting; 8%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) WS-10 Aircraft Maintenance Foreman, Eight (8) WG-10/WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 8 Hours daily on call.

Updated 31 Jul 2001
EDP/HP DETERMINATION

SITUATION NO. A902

CATEGORY OF EXPOSURE: Part II, Category 10, Fire Fighting

DIFFERENTIAL RATE: 8%  XX Hours in pay status  ____Actual Exposure

WORK SITUATION: Technicians assigned to the maintenance section are required to assist in firefighting duties and crash rescue. There are twelve (12) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically training for the firefighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and firefighting.

Due to the high volume of emergency procedure training done at the AASF #2, there is a high probability of an aircraft mishap that could result in post-crash duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: One (1) WS-10 Aircraft Maintenance Foreman, Eight (8) WG-10/WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 21 Feb 90
Accident records attached? No  Safety report on work situation attached? No
Protective clothing/equipment required? Yes  (If yes, List):
Fire suit, Fire truck, SCBA respirators, and fire extinguishers.
Hazard classification (If involving explosive or incendiary device): NA
Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION:  DATE OF DETERMINATION: 22 Apr 90
XX  Recommend Approval  ____ Recommend Disapproval

JUSTIFICATION

Participating or assisting in firefighting operation or immediate fire scene and indirect exposure to the hazards inherent in containing or extinguishing fires.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A903

AASF #2 – Flying (Helicopter Maintenance)

WORK SITUATION: Aircraft Maintenance Section
Army Aviation Support Facility #2
Bldg. L45-300
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 maintenance section are required to perform aerial flights. Technicians participate in:

   a. Maintenance Test Flights.
   b. Pilot Emergency Training.
   c. Low Level Terrain Flight Training below 500 feet.
   d. Search and Rescue, Law Enforcement, and Wildlife Survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and the engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60A helicopter. Missions routinely include emergency training for pilots, low-level terrain flight, search and rescue, wildlife surveys, law enforcement activities and VIP missions.

CATEGORY: Part 1, Category 1, Flying; 100%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) WS-9 Aircraft Maintenance Foreman, Five (5) WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 hours daily.

Note: 100% EDP is due to maintenance personnel required to fly, to conduct duties and responsibilities. The change includes the fact that engine mechanics fly as per duty requires, per 5 CFR, Chapter 1, Part 532, Sections 532.501 and 532.511, subpart E and appendix A. This was approved by HRO 6 Jan 1995.

Updated 31 Jul 2001
EDP/HP DETERMINATION

SITUATION NO.  A903

CATEGORY OF EXPOSURE:  PART 1, CATEGORY 1, Flying

DIFFERENTIAL RATE:  50%  ____ Hours in Pay Status  ____ Actual
Exposure

WORK SITUATION:  Aircraft Maintenance Section
Army Aviation Support Facility #2
Bldg. L45-300
Marana, AZ 85653-9598

Technicians assigned to the AASF #2 maintenance section are required to perform aerial flights. Technicians participate in:

a. Maintenance Test Flights.
b. Pilot Emergency Training.
c. Low Level Terrain Flight Training below 500 feet.
d. Search & Rescue, Law Enforcement, and Wildlife survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60A helicopter. Missions routinely include emergency training for pilots, low-level terrain flight, search and rescue, wildlife surveys, law enforcement activities and VIP missions.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: One (1) WS-9 Aircraft Maintenance Foreman, Five (5) WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 21 Feb 90

Accident records attached? No  Safety report on work situation attached No

Protective clothing/equipment required? Yes (If yes, list): Nomex flight suit, flight helmet, flight gloves, and boots.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION:      DATE OF DETERMINATION: 22 Apr 90
XX Recommend Approval       ____ Recommend Disapproval
JUSTIFICATION

Participating in flights under one or more types of the following conditions:

a. Test Flights of a new or repaired plane or modified aircraft when the repair or modification may affect the flight characteristics of the aircraft.

b. Flights to test aircraft performance under adverse conditions such as in low altitude or severe weather conditions, maximum load limits, or overload.

c. Flights to deliver aircraft, which have been prepared for one time flight without being test flown prior to delivery flight.

d. Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions, which parallel conditions, encountered in performing flight tests.

e. Low-level flights in small aircraft including helicopters at altitude of 500 feet and under in daylight and 1000 feet and under at night when the flights are over mountainous terrain, or in helicopters maneuvering and hovering over water at altitudes of less than 500 feet.

f. Low-level flights in an aircraft flying at altitudes of 200 feet and under while conducting wildlife surveys and law enforcement activities, and conducting or facilitating search and rescue operations.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A904

AASF #1 – Ground Work Beneath Hovering Helicopter

WORK SITUATION: Aircraft Maintenance Section
Army Aviation Support Facility #1
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 are required periodically to assist with sling loads and act as ground guides. All of these operations place the technicians either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders, night vision goggles load training and assorted community support projects.

CATEGORY: Part 1, Category 2, Ground Work Beneath Hovering Helicopter; 15%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES: Maintenance Officer, Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Five (5) WG-10, Aircraft Maintenance Mechanics, Six (6) WG-11, Aircraft Maintenance Mechanics

AVERAGE LENGTH OF EXPOSURE: Two (2) hours per month.

Updated 31 Jul 2001
EDP/HP DETERMINATION

SITUATION NO. A904

CATEGORY OF EXPOSURE: Part 1, Category 11, Ground Work Beneath Hovering Helicopter. (All Types)

DIFFERENTIAL RATE: 15% ____ Hours in Pay Status XX Actual Exposure

WORK SITUATION: Aircraft Maintenance Section
Army Aviation Support Facility #1
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 are required periodically to assist with sling load operations. Technicians are required to rig loads, hook up loads and act as ground guides. All of these operations place the technician either directly under the hovering aircraft or within its rotor wash.

Sling load missions include moving fuel bladders; night vision goggles load training and assorted community support projects.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Five (5) WG-10 Aircraft Maintenance Mechanic, Six (6) WG-11 Aircraft Maintenance Mechanic.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review make: 20 June 90

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, list):
Helmet, eye protection, hearing protection, grounding squib.

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 20 June 90
XX Recommend Approval _____ Recommend Disapproval

JUSTIFICATION

Army Aviation Support Facility technicians are required at times to participate in operations and/or pilot training to attach and detach external loads to helicopters hovering just overhead.
Technicians assigned to the maintenance section are required to assist in firefighting duties and crash rescue. There are eleven (11) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically trained for firefighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and firefighting.

Due to the high volume of emergency procedure training done at the AASF #1, there is a high probability of an aircraft mishap that could result in a post-crash fire.

CATEGORY: Part II, Category 10, Fire Fighting; 8%.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Nine (9) WG-10 & Nine (9) WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 8 Hours daily on call.
EDP/HP DETERMINATION

SITUATION NO. A905

CATEGORY OF EXPOSURE: Part II, Category 10, Fire Fighting

DIFFERENTIAL RATE: 8%       XX Hours in pay status       ____ Actual Exposure

WORK SITUATION: Technicians assigned to the maintenance section are required to assist in firefighting duties and crash rescue. There are eleven (11) technicians on crash rescue duties at all times during the duty day. They act as a supplement to a limited dedicated fire fighting force and are specifically training for the firefighting duties.

During the swing shift, the night crew has sole responsibility for crash rescue and firefighting.

Due to the high volume of emergency procedure training done at the AASF #1, there is a high probability of an aircraft mishap, which could result in post-crash duties.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Nine (9) WG-10 & Nine (9) WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 20 June 90

Accident records attached? No    Safety report on work situation attached? No

Protective clothing/equipment required? Yes (If yes, List Fire suit, Fire truck, SCBA respirators, and fire extinguishers).

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION:       DATE OF DETERMINATION: 20 June 90

XX Recommend Approval       ____ Recommend Disapproval

JUSTIFICATION

Participating or assisting in firefighting operation on immediate fire scene and in direct exposure to the hazards inherent in containing or extinguishing fires.
WORK SITUATION:
Aircraft Maintenance Section
Army Aviation Support Facility #1
Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 maintenance section are required to perform aerial flights. Technicians participate in:

a. Maintenance Test Flights.
b. Pilot Emergency Training.
c. Low Level Terrain Flight Training below 500 feet.
d. Search & Rescue, Law Enforcement, and Wildlife Survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and the engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H, UH-60, helicopters. Missions routinely include emergency training for pilots, low-level terrain flight, search and rescue, wildlife surveys, law enforcement activities.

CATEGORY: Part 1, Category 1, Flying; 100%.

OFFICIALS AUTHORIZED TO APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Three (3) WS-09/10 Aircraft Maintenance Foreman, Nine (9) WG-10 Aircraft Maintenance Mechanics, Nine (9) WG-11 Aircraft Maintenance Mechanics.

AVERAGE LENGTH OF EXPOSURE: 1 to 4 hours daily.

Note: 00% EDP is due to maintenance personnel required to fly to conduct duties and responsibilities. The change also includes the fact that engine mechanics fly as per duty requires, per % CFR, Chapter 1, Part 532, Sections 532.501 and 532.511, subpart E and appendix A. HRO 6 approved this Jan 1995.

Updated 31 Jul 2001
EDP/HP DETERMINATION
SITUATION NO. A906

CATEGORY OF EXPOSURE: PART 1, CATEGORY 1, Flying
DIFFERENTIAL RATE: 50%  ____ Hours in Pay Status  ____ Actual Exposure

WORK SITUATION: Aircraft Maintenance Section
                  Army Aviation Support Facility #1
                  Phoenix, AZ 85008-3495

Technicians assigned to the AASF #1 maintenance section are required to perform aerial flights. Technicians participate in:

  a. Maintenance Test Flights.
  b. Pilot Emergency Training.
  c. Low Level Terrain Flight Training below 500 feet.
  d. Search & Rescue, Law Enforcement, and Wildlife survey below 200 feet.

Test flights routinely require the use of the Chadwick Vibrex and engine vibration monitor. With this equipment installed on the aircraft, the cockpit becomes crowded and uncomfortable. The boxes and wires that are used make emergency egress from the helicopter difficult. This adds to the already hazardous nature of the flight.

Technicians perform crew duties on the UH-1H helicopter and UH-60 helicopter. Missions routinely include emergency training for pilots, low-level terrain flight, search and rescue, wildlife surveys, law enforcement activities.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE: Three (3) WS-09/10 Aircraft Maintenance Foreman, Nine (9) WG-10 Aircraft Maintenance Mechanics, Nine (9) WG-11 Aircraft Maintenance Mechanics.

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

Date on-site review made: 20 June 90
Accident records attached? No  Safety report on work situation attached No
Protective clothing/equipment required? Yes (If yes, list): Nomex flight suit, flight helmet, flight gloves, and boots.
Hazard classification (If involving explosive or incendiary device): NA
Appropriate technical instructions: Safety Directives

EDP/HP DETERMINATION:  DATE OF DETERMINATION: 20 June 90
XX Recommend Approval  ____ Recommend Disapproval
JUSTIFICATION

Participating in flights under one or more types of the following conditions:

a. Test Flights of a new or repaired plane or modified aircraft when the repair or modification may affect the flight characteristics of the aircraft.

b. Flights to test aircraft performance under adverse conditions such as in low altitude or severe weather conditions, maximum load limits, or overload.

c. Flights to deliver aircraft, which have been prepared for one-time flight without being test flown prior to delivery flight.

d. Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions, which parallel situations, encountered in performing flight tests.

e. Low-level flights in small aircraft including helicopters at altitude of 500 feet and under in daylight and 1000 feet and under at night when the flights are over mountainous terrain, or in helicopters maneuvering and hovering over water at altitudes of less than 500 feet.

f. Low-level flights in an aircraft flying at altitudes of 200 feet and under while conducting wildlife surveys and law enforcement activities, and conducting or facilitating search and rescue operations.
ENVIRONMENTAL DIFFERENTIAL PAY PLAN

A941

AASF#2 – Poisons (Radiation) (CSMS, Calibration)

CATEGORY OF EXPOSURE: Category 5

DIFFERENTIAL RATE: 4% XX Hours in pay status _____Actual Exposure

WORK SITUATION: Employee(s) perform calibration and wipe/leak testing of radioactive materials. Job requires the use of personnel dosimetry to monitor exposure. With the addition of responsibilities to perform as a RPO for the MC-1 employees will now participate in a whole body dosimetry program as required by regulations and Federal NRC laws.

OFFICIALS AUTHORIZED TO ASSIGN EMPLOYEES AND APPROVE PAYROLL DOCUMENTATION: Aircraft Maintenance Officer, Aircraft Maintenance Foreman.

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED: Four (4).

AVERAGE LENGTH OF EXPOSURE: 4-6 hours per year

OFFICIALS AUTHORIZED TO CERTIFY TO EXPOSURES FOR PAY PURPOSES:
Date on-site review made: 24 Apr 98

Accident records attached? No Safety report on work situation attached? No

Protective clothing/equipment required? No (If yes, List):

Hazard classification (If involving explosive or incendiary device): NA

Appropriate technical Instructions: Safety directives

EDP/HP DETERMINATION: DATE OF DETERMINATION: 20 June 90
XX Recommend Approval _____ Recommend Disapproval

Updated 31 Jul 2001
Attachment B - Administration

1. EDP/HP will be administered in accordance with NGB Pam 37-105-1/AFM 177-372 VOL 2, Technician Time and Attendance Procedures.

2. Administrative procedures for performance of approved EDP/HP duty:
   - For ANG technicians:
     - Supervisor or designated authority submit a list of eligible members (include name, position and grade) to FMFPC.
     - When EDP/HP work is performed, supervisor or designated authority submit completed NGB Form 104, Certificate of Authorization for EDP/HP (Annex B), with attached time and attendance report(s) to FMFPC.
   - For ARNG technicians:
     - DCP time and attendance report must be accompanied with NGB Form 104, Certificate of Authorization for EDP/HP (Annex B).
     - These documents must be forwarded to arrive in USPFO for Arizona, ATTN: AZAA-PFC-PT no later than close of business, Friday, at the end of the pay period.

3. NGB Form 104 – Category of Exposure column must reflect the locally approved category of exposure and differential rate.
   (1) The letter code, NGB Form 104 “Summary of Environmental Differential Pay Hours” section will be used; code letters are keyed to Section 3 Par I and Part II categories and differentials.
   (2) Exposure must be shown as it occurs each workday, even though the same exposure may occur on consecutive workdays.
   (3) Exposure is entered by date, inclusive clock time, and actual elapsed time in hours for each exposure category shown.
   (4) EDP is paid under Appendix J, on either the basis of actual exposure or on basis of hours in a pay status.
   (5) EDP is payable only when safety and health procedures have not practically eliminated the hazard.

4. For New EDP/HP work situations: To request EDP/HP work situation to be reviewed, fill out an EDP Situation Form (ANNEX A).

5. For Approved EDP/HP work situations: To document actual exposure status of approved EDP/HP work situations, supervisor fill out NGB Form 104 (ANNEX B).
EDP/HP SITUATION FORM

TO: HRO (AZAA-HR-CS)  Date Submitted: _______________
   Attn: Position Classification Specialist
   5636 E. McDowell Road
   Phoenix, AZ  85008-3495

TYPE OF EXPOSURE: __________________________________________________________

DURATION OF EXPOSURE: ____________________________________________________

DESCRIBE WORK SITUATION: _______________________________________________

____________________________________________________

____________________________________________________

IMPACT: ________________________________________________________________

____________________________________________________

COORDINATING OFFICES:

ANG (Phoenix & Tucson)
   Unit Commanders
   Public Health Technician
   Occupational Safety Specialist
   Bio-Environmental Engineering Technician
   Environmental Coordinator

ARMY NG
   Unit Commanders
   State Safety Manager
   Environmental Protection Specialist

WHOM TO CONTACT FOR ADDITIONAL INFORMATION:

   Name:_____________________________  Duty Phone: _______________________
   Title: ______________________________

   Work Location: ____________________________
                   ____________________________

ACCIDENT RECORDS ATTACHED? _________ SAFETY DIRECTIVES ATTACHED? _________
PROTECTIVE CLOTHING/EQUIPMENT REQUIRED? ______(If yes, list) ___________________

HAZARD CLASSIFICATION IF SITUATION INVOLVES EXPLOSIVES OR INCENDIARY DEVICE:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Attachment #1

EDP/HP DETERMINATION

DATE SUBMITTED: ______  SITUATION #: ________
CATEGORY OF EXPOSURE:
________________________________________________________________________
________________________________________________________________________

DIFFERENTIAL RATE: ______%  Hours in Pay Status ________Actual Exposure ____________

DESCRIBE WORK SITUATION: ______________________________________________________
________________________________________________________________________
________________________________________________________________________

APPROXIMATE NUMBER OF EMPLOYEES INVOLVED BY TYPE:
Official(s) authorized to certify to exposures for pay purposes: __________________________
________________________________________________________________________

Date on-site review made:
Accident records attached? ______Safety report on work situation attached? ______________
Protective clothing/equipment required? (If yes, list) __________________________
________________________________________________________________________

Hazard classification (If involving explosive or incendiary device):
________________________________________________________________________

Appropriate technical instructions: ________________________________________________
________________________________________________________________________

48
EDP/HP DETERMINATION: __________ DATE OF DETERMINATION: _______________________

________ Recommend Approval ________ Recommend Disapproval

AZSP FORM 532-2 (15 Jun 98)
For use of this form see AZ ARNGR 690-532-1/AZ ANGR 40-532-1

JUSTIFICATION

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

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________________________________________________________________________
Attachment B

Certification of Authorization for Environmental Differential Pay

<table>
<thead>
<tr>
<th>Name</th>
<th>SSAN</th>
<th>Unit &amp; Location</th>
</tr>
</thead>
</table>

I certify below that this employee is exposed to the following hazard, physical hardship, or working condition category(ies) for the duration indicated, incidental to performing his assigned duties and is, therefore, authorized environmental differential pay in accordance with Subchapter S8-7 and Appendix J of FPM Supplement 532-1.

<table>
<thead>
<tr>
<th>Cat</th>
<th>Expo</th>
<th>Date</th>
<th>From</th>
<th>To</th>
<th>Total Hours</th>
<th>Signature &amp; Title of Authorizing Officer</th>
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<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>0830</td>
<td>0930</td>
<td>0:00</td>
<td>Intermittent Exposure-Record as 1.7 hours of EDP</td>
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<tr>
<td></td>
<td>2</td>
<td>1400</td>
<td>1440</td>
<td>:40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3</td>
<td>0900</td>
<td>1100</td>
<td>0:00</td>
<td>Intermittent Exposure to Two Differentials at same time, highest differential only is considered, record as 2.5 hours of EDP</td>
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</tr>
<tr>
<td>D</td>
<td>3</td>
<td>1400</td>
<td>1425</td>
<td>:25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
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<td>1045</td>
<td>1:45</td>
<td>Exposure to 3 Differentials – Highest only is considered</td>
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</tr>
<tr>
<td>B</td>
<td>6</td>
<td>0900</td>
<td>1045</td>
<td>1:45</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>6</td>
<td>1030</td>
<td>1045</td>
<td>:15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>14</td>
<td>0900</td>
<td>1100</td>
<td>0:00</td>
<td>Single Differential Exposure</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>15</td>
<td>1000</td>
<td>1010</td>
<td>:10</td>
<td>Single Differential Exposure – Paid Minimum of one hour’s differential for Each exposure – record as 1 hour EDP</td>
<td></td>
</tr>
</tbody>
</table>

FOR PAYROLL USE ONLY

Summary of Environmental Differential Pay Hours

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<th>Hours</th>
<th>Rate</th>
<th>Category II Code</th>
<th>Hours</th>
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</thead>
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<td>A</td>
<td></td>
<td>50%</td>
<td>M</td>
<td></td>
</tr>
<tr>
<td>25%</td>
<td>B</td>
<td></td>
<td>8%</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>15%</td>
<td>C</td>
<td></td>
<td>4%</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>4%</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NGB Form 104
15Jun 80

The proponent of this directive is the DEMA Human Resources Department. Users are invited to send comments and suggested improvements to the 5636 E. McDowell Road, Phoenix AZ 85008-3495, ATTN: DEMA/HRD.

KERRY L. MUEHLENBECK
Major General, AZ ANG
The Adjutant General