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Authorization for the Performance of and Payment for Duty Involving Physical Hardship or Hazard

1. INTRODUCTION

This order establishes Agency policy regarding administration of Pay for Duty Involving Physical Hardship or Hazard. It describes the procedure for submitting and processing requests for hazard pay differentials (HPDs) and includes a standard mechanism for formally reviewing and approving HPD requests and documenting employee hazard exposure data. This order also provides guidance for determining whether or not a HPD is authorized for a particular work activity.

This order supersedes EPA Order 3100.3, dated October 31, 1977, PMM Number 550-4, dated December 12, 1984 and PMM 550-5, dated December 12, 1984. It also functionally supplements and updates Chapter 9 of the EPA Pay Administration Manual (Pay for Duty Involving Physical Hardship, Hazard, or Difficult Working Conditions--last partially revised in 1979), which remains in force despite its obsolescence, pending its complete revision.

2. PURPOSE

This order is intended to ensure:

- C. The application of simplified and uniform procedures for determining and paying HPD throughout EPA.
- D. Inclusion of the Regional Health and Safety Officer (RHSO) integral review of and recommendation on requests for hazard pay differential and evaluation of work contexts for compliance with Agency health and safety policy and constraints.
- E. Formal documentation of employee hazard exposure data, administrative practices, and personal protective equipment (PPE) utilized.

3. BACKGROUND

5 U.S. Code 5545 (d) authorizes the Office of Personnel Management (OPM) to allow up to 25% of an employee's basic pay to be paid as a HPD for work involving physical hardship or hazard. The Office of Personnel Management's Schedule of Pay Differentials for Hazardous Duty is found in Title 5 of the Code of Federal Regulations (5 CFR) at Part 550. The types of duties and exposures for which a differential is currently authorized, along with percentages of basic pay that may be paid, is cited therein.

EPA is required by Executive Order 12196, Occupational Safety and Health Programs for Federal Employees, to provide employees with employment conditions devoid of recognized hazards that cause or are likely to cause death or serious physical harm. The Agency has established a Safety, Health and Environmental Management Program (SHEMP) to ensure that the provisions of that Executive Order are effectively carried out at EPA. The Safety, Health and Environmental Management Division (SHEMD) of the Office of Administration administers the agency-wide SHEMP. Within the Agency's major operating units, program offices, and regional offices, SHEMP operations are managed by designated officials. Those officials, in turn, delegate authority and assign responsibilities for general management of the program at local operating units and facilities to SHEMP managers. Local managers and supervisors are responsible for ensuring that SHEMP policies and other requirements are carried out in all day-to-day work activities. Employees are responsible for complying with the SHEMP program requirements and all safety, health and environmental laws, regulations, rules, standards, policies and orders that are applicable to their assigned work. Employees must perform their work in a manner that is consistent with the performance standards established by Agency guidance documents, including SHEMP standard operating practices and standard methods, as well as other guidance documents.

Normally, supervisors may not assign or permit employees to perform work or participate in activities involving known hazards that pose a significant risk to health or well-being. Prior to the performance of work, supervisors and employees are expected to implement precautions that are intended to reduce the element of hazard to a less than significant level of risk, consistent with generally accepted standards that may be applicable. Such standards include those of the Occupational Safety and Health Administration and other nationally recognized and accepted standards, including consensus standards, that are applicable to the workplace.

However, in emergency or other situations where hazards are not known or are not readily identifiable (e.g., emergency response or hazardous waste removal), the assignment of work under hazardous conditions may be necessary. In these situations, prior to authorizing employees to perform work, supervisors must still first seek to identify actual and potential hazards that pose a significant level of risk. To the degree foreseeable under the circumstances, supervisors must ensure that administrative controls, engineering controls, or personal protective equipment, appropriate to the specific hazards and conditions, are provided to eliminate or minimize reasonably foreseeable hazards to employees. The HPD Request Form (Appendix B) will be used

to request and approve the payment of a hazard pay differential to an employee for work that has been performed and also to document any potential employee exposure.

The 1990 Federal Employees Pay Comparability Act (FEPCA) contains changes modifying the Title 5 provisions for payment of HPD. Further, on June 29, 1994, OPM issued a Final Rule amending 5 CFR Part 550. That amendment delegates to agencies the authority to authorize payment of a differential to an employee when the hazardous duty has been taken into account in the classification of a position, and it clarifies the circumstances under which HPD may be terminated. The two major changes that resulted are summarized below:

1. The requirement that the hazardous duty be “irregular or intermittent” is eliminated. Differential pay may now be authorized for hazardous duty that is neither irregular nor intermittent.
2. OPM has authorized agencies to pay HPD for cases in which the employee’s position classification already takes into account the degree of physical hardship or hazard involved. The head of an agency may approve payment of a HPD when:
 - a) The actual circumstances of the specific hazard or physical hardship have changed from that taken into account and described in the position description, and
 - b) Using the knowledge, skills, and abilities that are described in the position description, the employee cannot control the hazard or physical hardship; thus, the risk is not reduced to a less than significant level.

4. COVERAGE

This policy applies to EPA General Schedule (GS) employees engaged in assigned work activities (nationally or internationally), or engaged in work that is on the periphery of official duties that are discretionary in nature. These employees may be eligible for a hazard pay differential for the performance of hazardous duties, or duties involving physical hardship (such as temperature extremes), as identified in 5 CFR, Part 550, Subpart I, Pay for Duty Involving Physical Hardship or Hazard, Appendix A (the current version of which is provided for reference as Appendix A of this Order).

In contrast, Prevailing Rate employees, primarily Wage Grade (WG), not covered by this Order, may be eligible for a differential for duty that is not hazardous but causes physical discomfort or distress. The differential for prevailing rate employees is called an Environmental Differential.

One of the changes underlying this Order revision is the bifurcation of hazard pay between “white collar” hazard pay differentials and “blue collar” environmental differentials. 5 CFR Part 532, Subpart E contains a Schedule of Environmental Differentials (Appendix A) that cites specific differentials applying only to Prevailing Rate employees (“blue collar”). EPA has no

Prevailing Rate employees who are likely to perform such duty. Chapter 9 of the Pay Administration Manual provides guidance for cases in which Prevailing Rate employees may be exposed to hazardous conditions, physical hardship, or unusual, offensive, or disagreeable conditions. The EPA Pay Administration Manual is updated as necessary to incorporate 5 CFR Part 532, Subpart E, Appendix A and any other pertinent changes that occur from time to time.

The HPD form in Appendix B may be used to request a HPD and to document potential employee exposure and situational hazards. It is not intended for use in conjunction with the unlikely event of a Prevailing Rate employee request.

SES members are excluded from receiving premium pay (overtime, Sunday, holiday, night, annual (e.g., standby duty) pay and hazardous duty differential) by 5 U.S.C. 5541(2) (xvi). Also, Public Health Service Commissioned Corps members, Administrative Law Judges, and other employees remunerated under non-General Schedule pay schedules are ineligible for HPD.

5. DEFINITIONS

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- F. **Hazardous Duty**—Work performed under circumstances in which an accident could result in serious injury or death. It is work that poses a significant level of risk, from a danger or threat, to the employee’s material health and well-being. A danger or threat is the potential to cause serious injury, illness, or death either immediately or after the passage of time. The existence of such a threat or danger is defined as “risk.” Significant risk could also result from working in close proximity to explosives or piloting or riding in flying aircraft in unusual and adverse conditions, such as in extreme weather or at low levels that threaten or severely limit control of the aircraft. Other examples are duties performed on a high structure where protective facilities are not used or on an open structure where adverse conditions such as darkness, lightning, steady rain, or high wind velocity exist, and other conditions also apply.
- G. **Physical Hardship Duty**—Duty that may not in itself be hazardous, but which causes extreme physical discomfort or distress and is not adequately alleviated by protective devices. Examples are duties involving exposure to extreme temperatures for long periods of time, arduous physical exertion, or exposure to fumes, dust or noise that causes skin, eye, ear, or nose irritation. (Please note that although the above definition is taken directly from 5 CFR 550, payment of a differential is still contingent upon a direct applicability of a specific duty as contained in Subpart I, Appendix A when physical hardship is experienced.)
- **Less Than Significant Level of Risk**—A situation in which the danger or threat to an employee’s safety or health is insignificant on its face, or is determined to be insignificant, based upon the professional judgement of the responsible Health and Safety Officer (HSO), consistent with generally accepted standards that may be

applicable, such as those published by the Occupational Safety and Health Administration, Department of Labor.

6. DUTIES AND RESPONSIBILITIES

Supervisors—Supervisors identify potentially hazardous work for which safeguards may be inadequate, notify the Regional or Designated Safety Officer of the possible need for such work, authorize hazardous or physical hardship duty, and initiate requests for payment of a hazard pay differential. When an employee feels that a differential is warranted, but the supervisor declines to initiate a claim request, or when the request is disapproved, the employee has recourse through the Agency administrative grievance process or appropriate negotiated grievance procedures.

Human Resources Officer (HRO)—The HRO is the approving official and is responsible for overseeing the administrative process for HPD. HDP requests are pay administration actions and the HRO has the primary responsibility for maintaining the integrity of the claims process and ensuring that submitted claims are covered by the authorized schedule of differentials. The HRO is charged with overall responsibility for the administrative handling of claims. In the event of claim disapproval, the HRO furnishes an explanation for the disapproval to the initiating supervisor or official.

Safety, Health Environmental Management Division (SHEMD)—The SHEMD, at EPA Headquarters, approves the nomination of Regional Health and Safety Officials (RHSOs) and the nomination of Designated Health and Safety Officials (DHSOs). The SHEMD oversees the health and safety aspects of HPD and makes recommendations for engineering controls, personal protective equipment (PPE) usage, and medical monitoring documentation through the RHSO and, if applicable, the DHSO. The SHEMD also adjudicates hazardous duty and hazard pay differential disputes when (a) multiple RHSO jurisdiction involvement results in conflicting opinions and (b) when no RHSO opinion is available due either to the absence of an RHSO jurisdiction or the absence of the RHSO in the position having jurisdiction over the claim. In the absence of an appropriate RHSO, the SHEMD reviews HPD requests and advises the HRO.

Regional Health and Safety Official (RHSO)—An individual who is officially delegated the authority and assigned the responsibility for administering or managing the Region's Health and Safety Program (HASP) as a primary duty in a position-classified Health and Safety position. The RHSO's responsibilities include intervening to terminate any egregious breach of the Agency health and safety protocols, reviewing the hazard pay differential requests, making inquiries as necessary, and acting as an advisor to the supervisors and the approving official, and drafting or assisting in drafting explanations when a HPD request is disallowed or disputed.

Designated Health and Safety Official (DHSO)—The DHSO administers the Health and Safety Program for any operating unit or facility at any organizational level within the Agency, either as a full-time or collateral duty. Although not required by this order, operating units and facilities may elect to staff hazardous duty authorizations and hazard pay differential

requests through their DHSO, preliminary to or after the performance of hazardous duty or physical hardship duty, and prior to the forwarding of hazard pay differential requests to the RHSO.

7. POLICY

It is EPA policy that:

- h.** Working conditions involving unusual physical hardship or significant risk to employees' health and safety will be eliminated or reduced to the extent feasible. When unusual hazard or physical hardship is known and reasonably foreseeable, but cannot be eliminated or reduced to a less than significant level, risk will be reduced to the extent possible through the use of administrative controls, engineering controls, or protective equipment.
- i.** When the hazard is unknown (emergency response, hazardous waste removal, etc.), risk will be reduced also to the extent possible through the use of administrative controls, engineering controls, or protective equipment.
- j.** In circumstances involving emergency or other essential activities in which the Agency is unable to prevent its employees from being potentially exposed to significant hazards, the risk(s) will be reduced to the maximum degree feasible while resolving the emergency or completing the essential activities.
- k.** When use of all reasonable administrative controls, engineering controls, and protective equipment is insufficient to avoid physical hardship or reduce to a less than significant level the risks associated with a particular hazard, a differential may be authorized for an employee. Use of personal protective equipment (PPE), in and of itself, does not automatically negate potential hazards to the employee and is not to be considered as an engineering control that would disqualify an employee from receiving a HPD. Therefore, depending on other factors and conditions, the donning of PPE may, or may not, result in the reduction of risk to a less than significant level.
- l.** HPDs will be paid only as stated in OPM's Schedule of Pay Differentials Authorized for Hazardous Duty (5 CFR, Part 550, Subpart I, Appendix A). Guidance has been developed under the auspices of the SHEMD, in cooperation with the regions and laboratories, to furnish RHSOs, DHSOs, supervisors and employees with examples of specific cases in which payment of hazardous duty pay differentials is likely to be appropriate. These examples are set forth in Appendix C of this order. It must be emphasized that the examples presented in Appendix C should not be construed as covering all possible circumstances, nor do they constitute an absolute entitlement to a HPD. Although the examples are guidance intended to furnish more concrete and detailed parameters than those present in 5 CFR 550, Subpart I, Appendix A, they are only a foundation for the

reviewing and approving authority of HPD requests. Decisions made by the approving and reviewing officials may also take into account safety, legal, technical or other appropriate considerations not addressed in this order or its appendices.

- m. When use of proper safeguards avoids physical hardship or reduces the risk associated with a particular hazard to a less than a significant level (based on the examples in Appendix C as determined by the responsible RHSO), a HPD will not be authorized or reauthorized.
- n. HPDs will be paid consistently and uniformly throughout the Agency.

Determining that risk has been reduced to a less than significant level—5 CFR, Section 550.906, Termination of Hazard Pay Differential, requires that an agency discontinue payment of hazard pay differential to an employee when: (a) one or more of the conditions requisite for such payment ceases to exist; (b) adequate safety precautions have reduced the element of hazard to a less than significant level; or (c) protective or mechanical devices have adequately alleviated physical discomfort or distress.

Determining whether the risk (i.e., the exposure or proximity to the hazard) has been reduced to a less than significant level is the responsibility of the RHSO. Because there is often no absolute basis for determining that risk is insignificant, the RHSO's decision will be made on the basis of his or her professional judgement and the best available technical information. At his or her discretion, the RHSO may consult the DHSO, the requesting supervisor and the employee affected on the measures used to reduce the risk involved. When appropriate, the opinions of recognized experts should be solicited.

8. **HAZARD PAY DIFFERENTIAL REQUEST PROCEDURE**

The procedure for processing HPD requests is described below.

Supervisor's Initiation of the Request---The supervisor initiates a request for payment of a hazardous duty pay when he or she believes that an employee has performed any of the duties listed in Appendix A or has been subjected to any of the physical hardships cited there. The request format located in Appendix B is initiated by the supervisor and submitted for review to the responsible RHSO, who, in turn, forwards the request and his or her recommendations to the servicing human resources officer for approval or disapproval and final processing. If approved, the servicing HRO forwards the form as appropriate for processing; if disapproved, the servicing HRO provides an explanation on the form and returns it to the originating supervisor. In cases in which sampling or monitoring was conducted at the work site relative to the claim, the results of the sampling or monitoring will be forwarded by the supervisor with the claim. In the event the employee disagrees with the supervisor's characterization of the activity performed, the supervisor may attach a statement signed by the employee presenting the employee's view.

RHSO Review and Recommendation—The RHSO reviews the request to assess operational compliance with required Agency health and safety policies, procedures and safeguards. Specifically, the RHSO:

- Ascertains whether the work performed was in accordance with applicable safety, health and environmental laws, regulations, rules, standards, policies and orders. If the RHSO decides that a serious safety breach has occurred, the RHSO will take action immediately to preclude further manifestation of the factors contributing to the breach. Note: a finding that the work performed was contrary to the Health and Safety policies of the Agency will not necessarily result in a subsequent disapproval of the request.
- Makes an evaluation as to whether or not the protective and precautionary measures taken were sufficient to avoid physical hardship or reduce risk to a less than significant level.
- Formulates a recommendation to the approving official on the request form located at Appendix B. In those situations in which the RHSO recommends disapproval of the request, appropriate technical explanation will be included in the recommendation.
- Completes and forwards the appropriate sections to the employee's supervisor.
- Initiates immediate remedial steps as a priority over the processing of the HDP request if upon his or her evaluation the request reflects the existence of a serious breach of Agency safety protocol or avoidable hazard or physical hardship.

Human Resources Review and Action—Upon receipt of the HPD request from the RHSO, the HRO will:

- Review the request to ensure that all required components are present.
- Consider the recommendation of the RHSO or the SHEMD and consult with the RHSO or SHEMD when further health and safety matters require greater clarification.
- Ensure that the cited duty is properly accounted for in 5 CFR 550, Subpart I, Appendix A. Determine the appropriate differential percentage and ensure that it is properly reflected in the request.
- Approve or disapprove the request submitted by the supervisor.
- Upon approval, forward the form as appropriate for payment.
- Upon disapproval, return the form to the originator with appropriate explanation or comment.

Responsibility for Filing of Completed HPD requests—A copy of the request is retained by the human resources officer, the RHSO, and the operational unit. The operational unit must keep its copy for 30 years as part of an employee’s exposure record.

9. DETERMINING HOURS FOR WHICH THE HAZARD PAY DIFFERENTIAL IS PAYABLE

The HPD is paid for the total number of hours in a pay status on the calendar day that hazardous duty is performed, not for the actual time of exposure or duration of work around the hazard. For example, an employee who performs hazardous duty for three hours during an eight-hour-work-day is paid a HPD for the entire eight hours (5 CFR 550.905).

When an employee performs hazardous work during a tour of duty that continues past midnight into the next calendar day, those hours are added to those worked the previous day that the tour of duty was begun, and they are not to be added to the hours of any subsequent tour of duty worked later that day.

Example: An employee works a regular eight-hour tour of duty on a Tuesday and begins a hazardous duty assignment at 10:00 p.m. that same day and continues the hazardous work until 2:00 a.m. on Wednesday. The employee may later work a regular eight-hour tour of duty on Wednesday. In this example, the employee will be paid HPD for a total of 12 hours. This total includes the four hours of hazardous duty on Tuesday night and Wednesday morning, plus the eight hours in a pay status on Tuesday, the day the hazardous duty begins. No HPD is paid for Wednesday.

Effect of Leave: As stated above, HPD is computed on the basis of the number of hours in a pay status on the day that hazardous duty was performed. For this reason, HPD is paid for hours in a paid leave status that occur on the same day as the hazardous duty. If an employee with an 8-hour tour of duty performs hazardous duty for one hour and is in a paid leave status for seven hours, for example, a HPD is paid for eight hours.

10. RELATIONSHIP TO OTHER PAY

The HPD is:

- Paid in addition to other pay and allowances.
- Not considered part of the employee’s rate of basic pay when computing other pay or allowances.
- Not included when computing the aggregate limitation on pay.

NOTE: Employees may not be paid a HPD for HOURS for which they receive annual premium pay for regularly scheduled standby duty, administratively uncontrollable overtime or law enforcement officer availability pay---please see item VIII of the request format, Appendix B.

11. REFERENCES

Executive Order 12196

5 United States Code, Section 5545(d)

5 Code of Federal Regulations, Part 550, Subpart I (Paragraphs 550.901-907), and Appendix A and A-1

5 Code of Federal Regulations Part 532, Subpart E

EPA Pay Administration Manual, Chapter 9

12. APPENDICES

Appendix A Schedule of Pay Differential Authorized for Hazardous Duty Under 5 CFR, Part 550, Subpart I, Appendix A

Appendix B Request for Approval of A Hazard Pay Differential (and Incorporated Employee Exposure Record) [blank form]

Appendix C Guidance—Hazardous Duty Pay Examples

Appendix D Guidance—Examples of Work Conditions For Which Hazardous Duty Pay Is Not Authorized

Appendix E Guidance—Example of Work Conditions for Which More Information Must be Obtained in Order to Ascertain that the Requirements Contained in 5 CFR 550, Subpart I, Appendix A Are Met

APPENDIX A

(FOR REFERENCE ONLY—SUBJECT TO CFR REVISIONS)

The following chart is copied from the Code of Federal Regulations, Title 5, Volume 1, Parts 1 to 699, revised January 1, 2000 and in effect as on the approval date of this EPA order. Since the CFR schedule of HDP differentials is subject to revisions and updates, it is provided as a reference only. Actual decisions made about the appropriateness of any particular work activity being eligible for a hazard differential and the applicable percentage of the differential must be based on the current year edition of the Code of Federal Regulations.

**APPENDIX A TO SUBPART I OF PART 550---SCHEDULE OF PAY DIFFERENTIALS
AUTHORIZED FOR HAZARDOUS DUTY UNDER SUBPART I**

DUTY	Rate of HDPD (percent)	Effective Date
<i>Exposure to Hazardous Weather or Terrain:</i>		
(1) <i>Work in rough and remote terrain.</i> When working on cliffs, narrow ledges, or near vertical mountainous slopes where a loss of footing would result in serious injury or death, or when working in areas where there is danger of rock falls or avalanches.	25	First pay period beginning after July 1, 1969.
(2) <i>Traveling under hazardous conditions</i> (a) When travel over secondary or unimproved roads to isolated mountain top installations is required at night, or under adverse weather conditions (such as snow, rain, or fog) which limits visibility to less than 30 meters (100 feet), when there is danger of rock, mud, or snow slides. (b) When travel in the wintertime, either on foot or by means of vehicle, over secondary or unimproved roads or snow trails, in sparsely settled or isolated areas to isolated installations is required when there is danger of avalanches, or during "whiteout" phenomenon which limits visibility to less than 3 meters (10 feet). (c) When work or travel in sparsely settled or isolated areas results in exposure to temperatures and/or wind velocity shown to be of considerable danger, or very great danger, on the wind chill chart (appendix A-1), and shelter (other than temporary shelter) or assistance is not readily available.	25	Ditto.
(3) <i>Snow or ice removal operations.</i> When participating in snow plowing or snow or ice removal operations, regardless of whether on primary, secondary or other class of roads, when (a) there is danger of avalanche, or (b) there is danger of missing the road and falling down steep mountainous slopes because of lack of snow stakes, "white-out" conditions, or sloping ice-pack covering the snow.	25	Ditto.

<p>(4) <i>Water search and rescue operations.</i> Participating as a member of a water search and rescue team in adverse weather conditions when winds are blowing at 56 km/h (35 m.p.h.) (Classified as gale winds) or in water search and rescue operations conducted at night.</p>	25	Ditto.
<p>(5) <i>Travel on Lake Pontchartrain.</i> (a) When embarking, disembarking or traveling in small craft (boat) on Lake Pontchartrain when wind direction is from north, northeast, or northwest, and wind velocity is over 15 knots; or (b) When traveling in small craft, where craft is not radar equipped, on Lake Pontchartrain is necessary due to emergency or unavoidable conditions and the trip is made in a dense fog under fog run procedures.</p>	25	Ditto.
<p>(6) <i>Hazardous boarding or leaving of vessels.</i> When duties (a), (b), or (c) are performed under adverse conditions of foul weather, or ice, or night and when the sea state is high (3 feet and above): (a) Boarding or leaving vessels at sea or standing offshore during lightering or personnel transfer operations. (b) Boarding, leaving or transferring equipment between small boats or rafts and steep, rocky or coral surrounded shorelines. (c) Transferring equipment between a small boat and rudimentary dock by improvised or temporary facility such as an unfastened plank leading from boat to dock.</p>	25	First pay period after May 7, 1970.
<p>(7) Conducting craft tests to determine the sea keeping characteristics of small craft in a seaway when U.S. Storm Warnings normally indicate unsafe seas for a particular size craft.</p>	25	First pay period beginning after October 1, 1972.
<p>(8) <i>Working on a drifting sea ice flow.</i> When the job requires that the work be performed out on sea ice, e.g., installing scientific instruments and making observations for research purposes.</p>	25	First pay period beginning on or after March 16, 1973.
<p><i>Exposure to Physiological Hazards:</i></p>		

<p>(1) <i>Pressure chamber subjects.</i> (a) Participating as a subject in diving research tests which seek to establish limits for safe pressure profiles by working in a pressure chamber simulating diving or, as an observer to the test or as a technician assembling underwater mock-up components for the test, when the observer or technician is exposed to high pressure gas piping systems, gas cylinders and pumping devices which are susceptible to explosive ruptures. (b) Working pressurized sonar domes. Performing checkout of sonar system after sonar dome has been pressurized. This may include such duties as changing transducer elements, setting of transducer turntables, checking of cables, piping, valves, circuits, underwater telephone, and pressurization plugs. (c) Working in nonpressurized sonar domes that are a part of an underwater system. Performing certification pretrial inspections, involving such duties as calibrating, adjusting, and photographing equipment, in limited space and with limited egress.</p>	25	First pay period beginning after July 1, 1969.
	8	First pay period beginning after Feb 16, 1975.
	4	First pay period beginning after Feb 16, 1975.
<p>(2) <i>Simulated altitude chamber subjects/observers.</i> Participating in simulated altitude studies ranging from 18,000 to 150,000 feet either as subject or as observer exposed to the same conditions as the subject.</p>	25	Ditto.
<p>(3) <i>Centrifuge subjects.</i> Participating as subject in centrifuge studies involving elevated G forces above the level of 5 G's whether or not at reduced atmospheric pressure.</p>	25	Ditto.
<p>(4) <i>Rotational flight simulator subject.</i> Participating as a subject in a Rotational Flight Simulator in studies involving continuous rotation in one axis through 360° or in a combination of any axes through 360° at rotation rates greater than 15 r.p.m. for periods exceeding three minutes.</p> <p>Hot Work–Working in confined spaces wherein the employee is subject to temperatures in excess of 43 deg. C (110 deg. F).</p>	25	First pay period beginning after July 1, 1969.
	4	First pay period beginning after Feb 16, 1975.
<p>(5) <i>Environmental thermal-chamber tests:</i> Subjects and observers exposed to the hazards and physical hardships of an environmental chamber-thermal test which simulates adverse weather or sea conditions such as the exposure to sub-zero temperatures; high heat and humidity; and cold water, spray, wind, and wave action.</p>	25	May 4, 1988.

(6) <i>Working at high altitudes.</i> Performing work at a land-based work site more than 3900 meters (12,795 feet) in altitude, provided the employee is required to commute to the work site on the same day from a substantially lower altitude under circumstances in which the rapid change in altitude may result in acclimation problems.	8	Jan. 11, 1999.
<i>Exposure to Hazardous Agents, work with or in proximity to:</i>		
(1) <i>Explosive or incendiary materials.</i> Explosive or incendiary materials which are unstable and highly sensitive.	25	First pay period after July 1, 1969.
(2) <i>At-sea shock and vibration test.</i> Arming explosive charges and/or working with, in close proximity to, explosive armed charges in connection with at-sea shock and vibration tests of naval vessels, machinery, equipment and supplies.	25	Ditto.
(3) <i>Toxic chemical materials.</i> Toxic chemical materials when there is a possibility of leakage or spillage.	25	Ditto.
(4) <i>Fire retardant materials test.</i> Conducting tests on fire retardant materials when the tests are performed in ventilation restricted rooms where the atmosphere is continuously contaminated by obnoxious odors and smoke which causes irritation to the eyes and respiratory tract.	25	Ditto.
(5) <i>Virulent biologicals.</i> Materials of micro-organic nature which when introduced into the body are likely to cause serious disease or fatality and for which protective devices do not afford complete protection.	25	Ditto.
(6) <i>Asbestos.</i> Significant risk of exposure to airborne concentrations of asbestos fibers in excess of the permissible exposure limits (PELS) in the standard for asbestos provided in title 29, Code of Federal Regulations, Secs. 1910.1001 or 1926.58, when the risk of exposure is directly connected with the performance of assigned duties.	8	First pay period beginning on or after June 8, 1993.
<i>Participating in liquid missile propulsion tests and certain solid propulsion operations:</i>		
(1) <i>Tanking and detanking.</i> Tanking or detanking operations of a missile or the test stand "run" bottles with liquid propellants.	25	First pay period after July 1, 1969.
(2) <i>Hoisting a tanked missile.</i> Hoisting a tanked missile or a solid propellant propulsion system into and/or over the test stand.	25	Ditto.

(3) <i>Pressure tests.</i> Pressure tests on loaded missiles, missile tanks, or run bottles during pre-fire preparations.	25	Ditto.
(4) <i>Test stand tests.</i> Test stand operations on loaded missiles under environmental conditions where the high or low temperatures could cause a failure of a critical component.	25	Ditto.
(5) <i>Disassembly and breakdown.</i> Disassembly and breakdown of a contaminated missile system or test stand plumbing after test.	25	Ditto.
(6) <i>“Go” condition test stand work.</i> Working on any test stand above the 50-foot level or any stand work while the system is in a “go” condition.	25	Ditto.
(7) <i>Arming and dearming propulsion systems.</i> Arming, dearming, or the installation and/or removal of any squib, explosive device, or a component thereof connected to, or part of, any live or potentially expended liquid or solid propulsion system.	25	Ditto.
(8) <i>Demolition and destruct tests.</i> Demolition, hazards classification, or destruct type tests where the specimen is nonstandard and/or unproven and the test techniques do not conform to standard or proven procedures.	25	Ditto.
<i>Work in Fuel Storage Tanks:</i>		
When inspecting, cleaning or repairing fuel storage tanks where there is no ready access to an exit, under conditions requiring a breathing apparatus because all or part of the oxygen in the atmosphere has been displaced by toxic vapors or gas, and failure of the breathing apparatus would result in serious injury or death within the time required to leave the tank.	25	Ditto.
<i>Firefighting:</i>		
(1) <i>Forest and range fires.</i> Participating as a member of a firefighting crew in fighting forest and range fires on the fireline.	25	Ditto.
(2) <i>Equipment, installation, or building fires.</i> Participating as an emergency member of a firefighting crew in fighting fires of equipment, installations, or buildings.	25	Ditto.
(3) <i>In-water under-pier firefighting operations.</i> Participating in water-under-pier firefighting operations (involving hazards beyond those normally encountered in firefighting on land, e.g., strong currents, cold water temperatures, etc.).	25	Ditto.

<i>Work in open trenches:</i>		
Work in an open trench 4.6 meters (15 feet) or more deep until proper shoring has been installed.	25	Ditto.
<i>Underground work:</i>		
Work underground performed in the construction of tunnels and shafts, and the inspection of such underground construction, until the necessary lining of the shaft or tunnel has eliminated the hazard.	25	Ditto.
<i>Underwater duty:</i>		
(1) <i>Submerged submarine or deep research vehicle.</i> Duty aboard a submarine or deep research vehicle when it submerges.	25	Ditto.
(2) <i>Diving.</i> Diving, including SCUBA (Self-Contained Underwater Breathing Apparatus) diving, required in scientific and engineering pursuits, or search and rescue operations, when: (a) at a depth of 20 feet or more below the surface; or (b) visibility is restricted; or (c) in rapidly flowing cold water; or (d) vertical access to the surface is restricted by ice, rock, or other structure; or (e) testing or working with hardware which presents special hazards (such as work with high voltage equipment or work with underwater mockup components in an underwater space simulation study).	25	Ditto.
<i>Sea duty aboard deep research vessels:</i>		
Participating in sea duty wherein the team member is engaged in handling equipment on or over the side of the vessel when the sea-state is high (12-knot winds and 8-foot waves) and the work is done on deck in relatively unprotected areas.	25	First pay period be after July 1, 1969.
<i>Collection of aircraft approach and landing environmental data:</i>		
When operating or monitoring camera equipment adjacent to flight deck in the area of maximum hazard during landing sequence while conducting photographic surveys aboard aircraft carriers during periods of heavy aircraft operations.	25	First pay period after July 1, 1969.
<i>Experimental landing recovery equipment tests:</i>		

Participating in tests of experimental or prototype landing and recovery equipment where personnel are required to serve as test subjects in spacecraft being dropped into the sea or laboratory tanks.	25	Ditto.
<i>Land impact or pad abort of space vehicle:</i>		
Actual participation in dearming and safing explosive ordinance, toxic propellant and high pressure vessels on vehicles that have land impacted or on vehicles on the launch pad that have reached a point in the countdown where no remote means are available for returning the vehicle to a safe condition.	25	Ditto.
<i>Height work:</i>		
Working on any structure of at least 15 meters (50 feet) above the base level, ground, deck, floor, roof, etc., under open conditions, if the structure is unstable or if scaffolding guards or other suitable protective facilities are not used, or if performed under adverse conditions such as snow, sleet, ice on walking surfaces, darkness, lightning, steady rain, or high wind velocity.	25	Ditto.
<i>Flying, participating in:</i>		
(1) <i>Pilot proficiency training.</i> Flights for pilot proficiency training in aircraft new to the pilot under simulated emergency conditions which parallel conditions encountered in performing flight tests.	25	Ditto.
(2) <i>Delivery of new aircraft for flight testing.</i> Flights to deliver aircraft which has been prepared for one-time flight without being test flown prior to delivery flight.	25	Ditto.
(3) <i>Test flights of new, modified, or repaired aircraft.</i> Test flights of a new or repaired aircraft or modified aircraft when the modification may affect the flight characteristics of the aircraft.	25	Ditto.

(4) <i>Reduced gravity---parabolic arc flights---</i> <i>subjects/observers.</i> Reduced gravity flight testing in an aircraft flying a parabolic flight path and providing a testing environment ranging from weightlessness up through +20 meters per second [squared] (+2 gravity conditions).	25	Ditto.
(5) <i>Launch and recovery.</i> Test flights involving launch and recovery aboard an aircraft carrier.	25	Ditto.
(6) <i>Limited control flights.</i> Flights undertaken under unusual and adverse conditions (such as extreme weather, maximum load or overload, limited visibility, extreme turbulence, or low level flights involving fixed or tactical patterns) which threaten or severely limit control of the aircraft.	25	Ditto..
(7) <i>Flight tests of expandable aircraft tires.</i> Landing to test aircraft tires designed to deflate upon retraction, undertaken to appraise the normal deflate-reinflate cycle and also to evaluate the capability to make a satisfactory landing with the tires deflated.	25	Ditto.
(8) <i>Landing and taking-off in polar areas.</i> Landing in polar areas on unprepared snow or ice surfaces and/or taking-off under the same conditions.	25	Ditto.
<i>Experimental parachute jumps:</i>		
Participating as a jumper in field exercises to test and evaluate new types of jumping equipment and/or jumping techniques.	25	Ditto.
<i>Ground work beneath hovering helicopter:</i>		
Participating in ground operations to attach external load to helicopter hovering just overhead.	25	Ditto.
<i>Sling-Suspended Transfers:</i>		
When performance of duties requires transfer from a helicopter to a ship via a sling on the end of a steel cable or from a ship to another ship via a chair harness hanging from a high-line between the ships when both vessels are underway.	25	First pay period beginning after October 11, 1969.
<i>Carrier Suitability Trials Aboard Aircraft Carriers:</i>		
Participating in carrier suitability trials aboard aircraft carriers when work is performed on the flight deck during launch, recovery, and refueling operations.	25	Ditto.

<i>Cargo Handling During Lightering Operations:</i>		
Off-loading of cargo and supplies from surface ships to Landing Craft--Medium (LCM) boats involving exposure not only to falling cargo but such other hazards as shifting cargo within the LCM, swinging cargo hooks, and possibility of falling between the LCM and cargo vessel.	25	Ditto.
<i>Work in Unsafe Structures:</i>		
Working within or immediately adjacent to a building or structure which has been severely damaged by earthquake, fire, tornado, flood, or similar cause, when the structure has been declared unsafe by competent technical authority, and when such work is considered necessary for the safety of personnel or recovery of valuable materials or equipment, and the work is authorized by competent authority.	25	First pay period on or after Apr. 11, 1976.
<i>Tropical Jungle Duty:</i>		
Work outdoors in undeveloped jungle regions outside the continental United States. Work must involve both of the following: (1) An unusual degree of physical hardship caused by high heat, humidity, or other inclement conditions; and (2) An unusual danger of serious injury or illness due to: (a) Travel on unimproved roads or rudimentary trails in rugged terrain (e.g., walking on narrow trails in steep mountainous areas, fording deep, fast-moving rivers, and crossing deep crevasses via log or other unsafe means); (b) Immediate presence of dangerous wildlife (e.g. venomous snakes, poisonous insects, and large carnivores); or (c) Known exposure to serious disease for which adequate protection cannot be provided.	25	June 14, 1989

APPENDIX B

REQUEST FOR APPROVAL OF A HAZARD PAY DIFFERENTIAL (AND INCORPORATED EMPLOYEE EXPOSURE RECORD)

Date: _____

I. EMPLOYEE

Name: _____

Title & Grade: _____ Work Phone: _____

Organization: _____

II. SITE OR LOCATION OF HAZARDOUS DUTY PERFORMED

_____ Site ID Number: _____

III. APPLICABLE HAZARDOUS CONDITIONS (CHECK ALL THAT APPLY)

- | | | |
|---|--|---|
| <input type="checkbox"/> Hazardous Weather | <input type="checkbox"/> Hazardous Terrain | <input type="checkbox"/> Extreme Temperature |
| <input type="checkbox"/> Explosive Materials | <input type="checkbox"/> Incendiary Materials | <input type="checkbox"/> Toxic Chemicals |
| <input type="checkbox"/> Virulent Biologicals | <input type="checkbox"/> Asbestos | <input type="checkbox"/> Fire |
| <input type="checkbox"/> Underwater Duty | <input type="checkbox"/> Sea Duty–Sampling | <input type="checkbox"/> Limited Control Flight |
| <input type="checkbox"/> Height Work | <input type="checkbox"/> Unsafe Structure Work | <input type="checkbox"/> Fuel Storage Tank Inspect. |
| <input type="checkbox"/> Other (please explain) _____ | | |

IV. LEVEL OF PROTECTION (A, B, C, D etc.)

Level A: _____

Level B: _____ Suit: Saran Tyvek Acid/Rain Other _____
Gloves: _____ Boots: _____

Level C: _____ Canister Type/#: _____; Cartridge Type/#: _____; APR: _____

Level D—(Justify): _____

V. TYPE OF AIR MONITORING

- Radiation O2/LEL PID/FID RAM Draeger
 Personal Area Other _____

VI. DESCRIPTION OF ACTIVITY AND JUSTIFICATION FOR REQUEST

(supervisor: attach employee comments, if any, and any relevant sampling and monitoring data):

Applicable 5 Code of Federal Regulation 550, Subpart I, Appendix A Citation:

VII. HOURS IN PAY STATUS DURING DAY (INCLUDING CONTINUATION OF TOUR IN SUCCEEDING CALENDAR DAY) IN WHICH THE HAZARDOUS DUTY WAS WORKED OR THE PHYSICAL HARDSHIP WAS EXPERIENCED (A separate form must be used for each pay period in which hazardous duty was performed or physical hardship was experienced—do not enter hours for days for which a HPD is not claimed.)

Pay Period: _____, ending _____
 (enter number of hours in pay status for each day hazard pay differential is warranted).

	Su	M	T	W	Th	F	Sa	Su	M	T	W	Th	F	Sa
Date														
<u>Hours in Pay Status</u> (incl. regularly scheduled tour of duty, overtime and paid leave)														

VIII. IS THE EMPLOYEE IN AN ANNUAL PREMIUM PAY STATUS? Yes [] No []

If the employee is in an premium pay status (i.e., AUO, Standby Duty Pay or LEO Availability Pay) the supervisor must certify that the employee is not being recommended for receipt of HPD for HOURS for which the employee receives annual premium pay.

(Initial) _____

IX. OVERALL SUPERVISORY CERTIFICATION

(Signature) _____

X. ADDITIONAL LEVEL OF REVIEW (Optional—e.g., DHSO, 2d level supervisor):

 (Signature, title or function) [attach comments, if appropriate]

XI. REGIONAL HEALTH AND SAFETY OFFICER COMMENT, RECOMMENDATION OR CONCURRENCE (where no RHSO is resident, SHEMD staffing is necessary)

_____ [] Concur/Recommend Approval [] Non-Concur/Recommend Disapproval

Recommendation or comment:

(attach further details, if necessary)

XII. HUMAN RESOURCES OFFICER DETERMINATION ON HAZARD PAY DIFFERENTIAL REQUEST

Approved **Comments:** _____

Appropriate Percentage of the Differential: **25%** **8%**: **4%**

Disapproved: **Reason(s) for Disapproval:**

(attach further detail, if necessary)

Human Resources Officer Signature: _____

(Date) _____

APPENDIX C

GUIDANCE---HAZARDOUS DUTY PAY EXAMPLES

The following examples illustrate a variety of work situations for which a Hazardous Pay Differential may be paid to EPA General Schedule employees. These examples are not intended to be all-inclusive of the situations in which such a pay differential is warranted. It is important that sound managerial, professional and technical judgement be exercised, and care be taken, before the assignment or performance of any duties by an EPA employee that the employee at significant risk of (1) extreme physical discomfort or distress, or (2) serious injury, illness, or death. In addition, once the hazards at the scene or site have been mitigated (essentially, stabilized) such that there is no longer a significant risk, hazardous duty pay differential is no longer authorized unless an additional risk is identified to the Health and Safety Officer.

EXPOSURE TO HAZARDOUS AGENTS—WORK WITH OR IN CLOSE PROXIMITY TO:

Explosive or Incendiary Materials That are Unstable and Highly Sensitive: (5 CFR 550, Subpt. I)

Example 1: The employee initiated a preliminary assessment at an inactive facility in Level B personal protection equipment. After conducting air monitoring, the employee downgraded the personal protective equipment Level to Level C and continued the assessment. The facility repackaged and distributed pharmaceutical and industrial chemicals and stored over 30,000 lab-sized reagents and over 350 drums, cylinders and other sized containers. Hazardous materials included explosives, pyrophorics, water and air reactives, poisons, PCBs, flammable liquids, strong corrosives, et al. The containers were in various degrees of degradation; some were leaking their contents with visible serious degradation of containers and shelving.

Justification: The employee was in close proximity to unstable reagents during a preliminary investigation of an inactive site at which unknown conditions existed. These reagents included explosives, unstable, water reactive and flammable substances. Hazardous duty pay differential is warranted. This scenario meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, Item (1). This warrants a 25 % hazard pay differential.

Example 2: The employee donned Level B personal protection equipment to participate in site entry and preliminary assessment of chemical drums found in an abandoned truck at a Superfund activity. During sampling of the drums in the “hot zone,” the employee moved among drums of unknown chemicals and gas cylinders of highly flammable and explosive liquified petroleum gas. The employee was in close proximity to the drums, providing oversight to the operations that included the opening of the drums and the acquisition of samples.

Justification: The employee conducted a preliminary site assessment of an unknown situation. The employee was in close proximity to unknown and potential unstable hazardous and explosive chemicals. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, Item (1). This warrants a 25 % hazard pay differential.

Example 3: Based on air monitoring data, the employee performed a site inspection in Level C personal protection equipment to ascertain the status of a cleanup precipitated by a fire and explosion. The cleanup involved the removal of hazardous materials such as flammable liquids, organic salts, and unknowns. Up to 1000 drums, tanks and lab-sized containers of chemicals were stored on the premises. Tanks, vats, and drums of flammable and corrosive liquids, with extremely low flash points were in a general state of disrepair. Some drums were found to be leaking. A number of drums were bulging, indicating obvious volatility of their contents.

Justification: The site contained various low flash point flammable materials that were in an unstable condition. This was evident from the description of the bulging drums. The employee was in close proximity to unknown and potential unstable hazardous and/or explosive chemicals. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or close proximity to: Items (1) and (3). A 25% hazard pay differential is warranted.

Example 4: The employee donned Level C personal protection equipment and entered the hot zone to assess progress of the removal action. Site personnel continued to find bulk liquid acids. Additionally, site personnel conducted tank decontamination activities and rinsed empty containers resulting from bulking operations. Within the confines of the buildings and site yard, there were approximately 6,000 55-gallon drums, over 100 tanks, and 11,000 smaller laboratory containers in various stages of deterioration. Contents of the containers included unknown, corrosive, air and water reactive, carcinogenic, flammable and explosive substances. While handling these containers in the past, fires and incompatible reactions have occurred.

Justification: A history of fires and reactions demonstrates the risks involved with being in proximity to unknown, volatile, and incendiary materials at this site. The employee was in close proximity to unknown and potential unstable hazardous and explosive chemicals. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in the close proximity of: Item (1). A 25% hazard pay differential warranted.

Example 5: Assessing and directing response operations at oil spill or hazardous material release events where a fire is in progress or a significant fire or explosion potential exists.

Justification: Agency employee experience with fires involving hazardous materials, including gasoline spills, oil tank and chemical warehouse fires, has clearly established that employees responding to these situations are at risk of exposure. Fires react erratically to change of wind directions exposing employees to unknown airborne contaminants. Any fires that involve tanks or containers in buildings that contain unknown tanks, cylinders or drums present a significant chance of explosion. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (1). A 25% hazard pay differential is warranted.

Toxic Chemical Materials When There Is a Possibility of Leakage Or Spillage: (5CFR 550, Subpart I)

Example 6: Assessing and directing response operations at an anhydrous ammonia rail road tank car release at a rail road switching yard, the employee conducted air monitoring at the scene in Level B personal protection equipment while emergency response crews tried to stop the leak. Air monitoring

results showed levels of anhydrous ammonia in close proximity to the source to be above the National Institute of Safety and Health line for “Immediately Dangerous to Life and Health” (IDLH).

Justification: Agency employee experience involving hazardous material uncontrolled releases has clearly established that employees responding to these situations are at risk of exposure. In addition, the restricted movement and vision of being in Level B personal protection equipment in an unfamiliar environment (where rail road cars are being moved and the ground is rough and uneven) increases the exposure risk. Air releases react erratically to change of wind direction exposing employees to airborne chemicals. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (3). A hazard pay differential of 25% is warranted.

Example 7: The employee conducted a removal action at an abandoned manufacturing facility that contained a large amount of friable asbestos exposed to the environment. High wind conditions constantly caused dusty conditions on the site. Air monitoring at the site for asbestos revealed the presence of airborne friable asbestos at levels above the permissible exposure limits (PEL).

Justification: Due to the unstable site conditions (i.e., abandoned building in a state of disrepair; slip, trip and fall hazards; atmospheric changes; and lack of adequate engineering controls) significant risk of exposure to airborne concentrations of asbestos fibers in excess of the PEL is possible due to the nature of the site activities and assigned duties. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (6) [Asbestos]. A hazard pay differential of 8 % is warranted.

Example 8: The employee provided contractor oversight during the excavation of test pits into a dump landfill. These test pits were dug to determine if hazardous material was present in the landfill. Readings from the Photo Ionization Detector (PID) and the Organic Vapor Analyzer (OVA) used for assessment were two times the background level. The employee donned Level B personal protection equipment and visually inspected containers to determine which would be sampled. The excavation produced numerous drums that were not intact. Some of the drums had leaked or threatened release. Other drums were damaged, crushed, or inadvertently punctured or torn open by the backhoe. Bottles of unidentified chemicals were found to be broken or in poor condition. A previous removal action at the site had uncovered drums and containers of chlorinated and non-chlorinated solvents (e.g., trichlorethylene and benzene) and lead-containing wastes. Surface and buried trash and debris at the landfill posed a breaching threat to the integrity of personal protection equipment that was worn.

Justification: In addition to the close proximity threat of potential unidentified chemical release, the presence of sharp objects increased the risk that personal protection equipment could be torn, thereby exposing individuals to unidentified hazardous substances. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (3). A hazard pay differential of 25% is warranted.

Example 9: The employee donned Level B personal protection equipment to enter a smoke plume emanating from a plastics warehouse fully engulfed in flames. Work involved measuring ambient levels of air contaminants released from the fire and placing air samplers to collect material from the fire. This work was done in conjunction with an EPA emergency response activity at this facility. At the time of the

response, it was believed the building contained 800,000 pounds of methyl methacrylate, methacrylic acid, PCB transformers and other hazardous substances.

Justification: The employee was at risk of exposure to hazardous chemicals while working in a toxic smoke plume. This request is also justifiable because of the presence of incendiary materials. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (3). A hazard pay differential of 25% is warranted.

Example 10: The employee donned Level B personal protection equipment and entered the hot zone to inspect removal site activities. The site contained over 200 drums of poisons, peroxides and flammable, corrosive, and oxidizing substances stored without regard to compatibility. Lighting was poor and the warehouse was old, dilapidated and filled with holes. The site has many physical hazards due to low-hanging overhead pipes and holes in the floors. The site was open to the elements. The site personnel were opening containers and pulling samples, thereby making site entry even more hazardous. Drums were moved to a staging location for sampling purposes. Elevated levels of organic vapors were detected in the ambient air during the sampling event.

Justification: This example qualified for HPD for a number of reasons. The employee was in close proximity to flammable materials that presented a risk of fire or explosion. The site also had physical hazards to the employee that could lead to breaches in PPE. Holes in the floor, poor lighting, presence of puncture hazards, combined with reduced visibility from the use of PPE, increased the level of risk from physical hazards. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Items (1) and (3). A hazard pay differential of 25% is warranted.

Height Work: Working on any structure of at least 50 feet above the base level, ground, deck, floor, roof, etc. under open conditions, if the structure is unstable or if scaffolding guards or other suitable protective facilities are not used, or if performed under adverse conditions such as snow, sleet, ice on walking surfaces, darkness, lightning, steady rain, or high wind velocity.
(5 CFR 550, Subpart I, Appendix A)

Example 11: During a temporary duty assignment, the employee was required to climb to the top of a stack to observe air emission stack sampling. The stack stands 260 feet above the ground under open conditions. During the assignment, high shear wind conditions and gusts were experienced on several occasions during inspection. High wind velocity, wind shear and wind gusts are common for work on structures of this height. The employee was wearing fall protection appropriate for climbing the stack. The worker did evaluate weather conditions, including the potential for high winds and abrupt wind shear from the ground prior to climbing the stack. Conditions as judged from the ground were deemed acceptable for conducting the climb. It is noted that, especially in clear weather, it is often difficult or impossible to determine in advance if there are high shearing winds at altitude.

Justification: The employee inspected air emission sampling on a structure that was greater than 50 feet above the ground under adverse weather conditions (high shearing winds). Although the employee was wearing fall protection, the presence of high shearing winds at such altitude created conditions in which an accident could have resulted in serious injury or death. HPD is warranted. This meets the requirements

specified in 5 CFR 550, Subpart I, Appendix A, Height Work. A hazard pay differential of 25% is warranted.

Flying, Participating In: Limited control flights—Flights undertaken under unusual and adverse conditions (such as extreme weather, maximum load or overload, limited visibility, extreme turbulence, or low level flights involving fixed or tactical patterns) which threaten or severely limit control of the aircraft. (5 CFR 550, Subpart I, Appendix A)

Example 12: An employee participated in helicopter flight maneuver to maintain position in a prolonged hover mode for the purpose of a water survey to identify floating materials. It was necessary to hover at altitudes of under 500 feet in order to observe clearly the floating debris and identify the materials and sources, determine their nature and consistency, and ascertain if they were likely to sink or continue to float. Water samples were collected by hovering at altitudes of less than 500 feet over open water areas.

Justification: Because of the need to hover at low altitudes and remain in a particularly static hover mode for prolonged intervals to positively identify floating debris and obtain necessary water samples, the control of the aircraft is limited by the reduced potential to maneuver at low altitude in a static flight mode. In essence, the flight pattern of the aircraft is subordinated to the external task of hovering, observing and sampling, thus reducing the safety parameters of the flight pattern. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Flying, participating in: Item (6). This warrants a hazard pay differential of 25%.

Example 13: The employee participated in helicopter overflight of a hazardous waste site for the purpose of viewing and photographing five tanks that had to be accessed from the top for sampling. Hovering at about 100 feet was required. Due to the hazardous nature of the site and the physical obstacles surrounding the site, an emergency landing would have been difficult.

Justification: A helicopter hovering at an altitude of less than 500 feet is in a precarious position to recover from an engine malfunction. An auto-rotational spin may result, eliminating forward motion and causing the helicopter to descend in a spiral. Should this happen, it would be difficult for the helicopter to make a controlled landing. Even if a forced landing could be attempted, it might well be necessary to do so within the confines of the hazardous waste site, despite the physical obstacles and hazardous substances present. The risks inherent in making any emergency landing are heightened at a hazardous waste site; the rotor downwash produced by the turning of the rotor blades is sufficient to dislodge debris on the ground and to disturb the contents of receptacles, causing liquids to splash or gases to disperse in or around the cockpit area. Materials, both non-toxic and potentially toxic drawn skyward by the downdraft may impair the vision of the pilot and the control of the aircraft. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Item (3), and Flying, participating in: Item (6). This warrants a hazard pay differential of 25%.

Sea Duty Aboard Deep Research Vessels: Participating in sea duty wherein the team member is engaged in handling equipment on or over the side of the vessel when the sea-state is high (12-knot winds and 3-foot waves) and the work is done on deck in relatively unprotected areas. (5 CFR 550, Subpart I, Appendix A)

Example 14: In mid-January, during a voyage on a boat, to a ocean dumping site off the coast of the United States, the employee deployed a current meter and mooring in deep water. This involved the handling of equipment on deck and over the side of the vessel. Wave heights of 10 to 15 feet were encountered, winds gusts up to 25 knots, and the water temperature was 35 degrees Fahrenheit. The employee wore survival equipment, including a cold-water survival suit, head protection, boots, gloves, Type I Personal Flotation Device, and tethering harness equipment connected to a jackstay with a four-foot-restraint length, and eye protection.

Justification: All conditions stipulated for the category were met. Due to the extreme weather conditions, even though personal protective equipment was used, it could not reduce the significant risk of serious injury to a negligible level. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Sea Duty Aboard Deep Research Vessels. A hazard pay differential of 25% is warranted.

Underwater Duty: Diving, including SCUBA (self-contained underwater breathing apparatus) diving, required in mandatory training/certification, scientific and engineering pursuits, or search and rescue operations, when:

- (a) at a depth of 20 feet or more below the surface; or,
- (b) visibility is restricted; or,
- (c) in rapidly flowing or cold water; or,
- (d) vertical access to the surface is restricted by ice, rock, or other structure; or
- (e) testing or working with hardware which presents special hazards (such as work with high voltage equipment or work with underwater mockup components in an underwater space simulation study). (5 CFR 550, Subpart I, Appendix A)

Example 15: Scientists were engaged in diving operations to test new equipment at a depth of 25 feet in muddy water.

Justification: The conditions for an HPD were met in this instance for two reasons: (1) the underwater diving activity was performed at a depth greater than 20 feet, and (2) visibility was restricted. Either condition would serve as sufficient justification. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Underwater Duty, Item (2)(a) and Item (2)(b). A hazard pay differential of 25% is warranted.

Exposure To Hazardous Weather Or Terrain: Traveling Under Hazardous Conditions. When travel over secondary or unimproved roads to isolated mountain top installations is required at night, or under adverse weather conditions (such as snow, rain, or fog) which limits visibility to less than 100 feet, when there is danger of rock, mud, or snow slides. (5 CFR 550, Subpart I, Appendix A)
(See Example 16)

When travel in the wintertime, either on foot or by means of vehicle, over secondary or unimproved roads or snow trails, in sparsely settled or isolated areas to isolated installations is required when there is danger of avalanches, or during “whiteout” phenomenon which limits visibility to less than 3 meters (10 feet). (5 CFR 550, Subpart I, Appendix A) (See Example 17)

Example 16: A field activity was required at a remote mountain top location during a winter storm. The employee was required to traverse unimproved mountain roads at night, during snow adverse conditions that reduced visibility to less than thirty meters or 100 feet.

Justification: The employee's ability to control or alleviate the effects of adverse weather conditions is limited. Emergency situations requiring immediate response at remote sites to which no maintained access is available contribute to hazardous conditions. These situations include narrow, winding roads with significant drop-offs not protected by guard rails. Hazardous conditions may be further aggravated by significant snowfall which increases the possibility of avalanche, or rain which increases the possibility of avalanche and mud slides resulting in very slippery, unsafe roads. This meets the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Weather or Terrain, Item (2)(a), Traveling under hazardous conditions. A hazard pay differential of 25% is warranted.

Example 17: During a response to a train derailment in a remote location, the employee had to take an ice boat across a large, ice-covered lake to the accident scene during heavy snowfall that limited visibility to less than 3 meters (10 feet). The lake ice cover at the wreck was breached by the impact of the derailed train.

Justification: The example involved travel under hazardous conditions at wintertime during which visibility was reduced to "whiteout" conditions. Hazardous conditions were created by significant snowfall which decreased visibility and reduced the ability of the operator to detect obstacles, breaks in the ice cover or other dangers. The limited visibility effects of the adverse weather conditions were little subject to control or alleviation by the employee. Emergency situations requiring immediate response at remote sites to which no maintained access was available necessitated functioning in the hazardous conditions. In this instance, the activity was performed during heavy snowfall reducing visibility to less than 10 feet, creating a whiteout phenomenon. The necessity of traversing a frozen lake with an ice cover of uncertain weight-bearing integrity that had already been breached by the rail car accident entailed the danger or risk of further rupture or collapse of the ice cover while traveling on it, and working from it. If an accident with the ice boat had occurred, the employee would have been at significant risk of exposure due to ice breakthrough. In this context, the ice-covered lake constituted a "secondary or unimproved road or snow trail." This meets the requirement in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Weather and Terrain, Item (2)(b), Traveling under hazardous conditions. A hazard pay differential of 25% is warranted.

APPENDIX D

GUIDANCE---EXAMPLE OF WORK CONDITIONS FOR WHICH HAZARDOUS DUTY PAY IS NOT AUTHORIZED

The following examples are intended to illustrate a variety of work situations for which a Hazardous Pay Differential may ***NOT*** be paid to EPA employees.

Example 1: The site had been stabilized by the over-packing of drums and repackaging of laboratory chemicals. These drums contained flammable liquids and poisons. The employee entered the “hot zone” in Level C personal protection equipment to inspect the drums prior to off-site shipment.

Justification for denial of HPD: The drums of flammable liquids and poisons had been put into containers and were ready to be offered for shipment off-site. Engineering controls such as the good structural integrity of the drums and the use of personal protective equipment negated the risk of working in close proximity to these drums. HPD is not warranted.

Example 2: The employee was performing a preliminary inspection at an abandoned building containing unknown drums. Initially, the assessment was performed in Level B personal protection equipment, but air monitoring results allowed for downgrading the protection to Level C. The drums of unidentified liquids were sampled and found to contain an unknown liquid that did not exhibit any dangerous or directly toxic characteristics. Laboratory results confirmed the field testing.

Justification for denial of HPD: Even though the employee donned Level B and Level C personal protection equipment, HPD is not warranted because the drums did not contain hazardous or toxic agents. The supervisor may submit the HPD request pending analytical results of the unidentified contents of the containers, but if analysis of the drums does not show chemicals that justify HPD, the HPD must be denied.

Example 3: An employee wearing Level C personal protection equipment entered the “hot zone” on-site to monitor contractor work. The work involved excavation and stockpiling of PCB and soil contaminated by various metals. Particulate air monitoring had not demonstrated significant dusting from the excavations.

Justification for denial of HPD: The contaminated soil being excavated contained carcinogens. However, since Level C personal protection equipment was worn and particulate monitoring results revealed no elevated dusting hazard, it is reasonable to conclude that adequate engineering controls were in place to eliminate the hazards to the employee.

APPENDIX E

GUIDANCE—EXAMPLE OF WORK CONDITIONS FOR WHICH MORE INFORMATION MUST BE OBTAINED IN ORDER TO ASCERTAIN THAT THE REQUIREMENTS CONTAINED IN 5 CFR 550, APPENDIX I ARE MET.

Example 1: The employee donned Level C personal protection equipment and entered a “hot zone” to conduct air monitoring, sampling, enforcement, photo-documentation and to monitor contractor sampling of abandoned containers. These containers had been abandoned for a number of years, were in very poor condition and appeared to have leaked. Unidentified but possibly present were potentially hazardous substances such as paint solvents containing benzene, toluene and xylene. These paint solvents were possibly flammable and possibly carcinogenic. These potentially carcinogenic paint solvents may have also contained other unidentified substances that may have been central nervous system depressants.

Justification Provided in Request: The site contained various low flash point flammable materials that were in an unstable condition. This was evident from the description of the containers. The employee was in close proximity to unidentified and potentially unstable hazardous or explosive chemicals. The monitoring of the contractor’s sampling operation placed the employee in an area where there was the possibility of spillage and splash hazards.

Status of Request: This case, as presented, fails to meet the requirements specified in 5 CFR 550, Subpart I, Appendix A, Exposure to Hazardous Agents, work with or in close proximity to: Items (1) and (3) such that a hazard pay differential of 25% is warranted.

The description of the containers does not, in fact, present sufficient information to conclude that the containers contained low flash point flammable materials. Although it appears that low flash point inflammables were suspected, absent sampling results, it cannot be established that there was actually danger from explosive or incendiary materials.

Absent data from air sampling it cannot be established that the suspected leakage involved toxic chemicals, or even that the personal protection equipment did not reduce the risk of exposure to toxic chemicals to a negligible level.

CONCLUSION: The approving authority should withhold decision until the results of the air monitoring and sampling tests are available. The HRO should request these data from the submitting office.