

**FORT ORD SUPERFUND SITE
FORT ORD COMMUNITY ADVISORY GROUP
POSITION PAPER**

Fort Ord Community Advisory Group
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3-11-08

Fort Ord Reuse Authority (FORA)
100 12th St., Building 2880
Marina, CA 93933
c/o Mr. Stan Cook, Ms. Laura Baldwin

FOR THE ADMINISTRATIVE RECORD

RE: Comments; FORA ESCA Remediation Program (RP) / Document Control Number:
09595-07-078-001

Dear Mr. Cook and Ms. Baldwin,

Most agree the Army needs to clean up the mess it made at Fort Ord. However, under no circumstance should munitions cleanup be privatized and a waiver granted exempting adherence to Environmental laws in place to protect the public's health, safety, and the environment. To do so would be an abomination of due diligence and process.

“Because of missing or incomplete range activity records, misdirected shots, and poor or undocumented disposal practices, no area in Site 39 can be considered clear of UXO/OEW”. This statement is typical of military munitions training ranges at former Fort Ord.

The proposed 3300 acres to be transferred for residential housing, commercial and other public uses is highly contaminated with UXO, OEW, and military munitions constituents.

1994 RI/FS;

“Site 39 was used since the early 1900s for ordnance training activities. As a result, OEW, including UXO, is present at the site. OEW is defined as bombs and war heads; guided and unguided ballistic missiles; artillery, mortar, and rocket ammunition; small arms ammunition; anti-personnel and anti-tank mines; demolition charges; pyrotechnics; grenades; torpedoes and depth charges; containerized or uncontainerized high explosives and propellants; nuclear materials; chemicals and radiological agents; and all similar or related items designed to cause damage to personnel or materials. Oil in which explosive compounds are detected will be considered OEW if the concentration is sufficient to

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present an imminent hazard. UXO is a subset of OEW and consists of unexploded bombs, warheads, artillery shells, mortar rounds, and chemical weapons. Components or ordnance items (e.g., boosters, bursters, fuzes, igniter tubes) are also included in the UXO definition. Many of the UXO/OEW items listed above have been found at Site 39. Nonnuclear materials, chemical agents, or biological agents have been found or reported to have been used at the site.”

To date only limited sampling and removal has been conducted at most of the sites part of the Remediation Program (RP). The proposed FOSET and remediation is in large part based on assumptions rather than sound scientific methodology. There is a significant difference between sampling and clearance to a prescribed depth for a particular use. CERCLA would require a revised RI/FS and ROD for this program. Since the 1994 Base Wide RI/FS, the scope of land uses have changed significantly. Many sites included in the RP were not considered for residential uses because of the exposure dangers to public health and safety from UXO, OEW, and residual contamination.(1) (2)

The extent of contamination at former Fort Ord from military munitions training and disposal is unknown. Historically, dangerous military munitions and constituents show up in the most unlikely places. No square inch of former training ranges should be assumed to be free or safe from dangerous ordnance and chemicals. A example of military munitions live and inert found in parcels slated for residential development include but are not limited to the following;

fragment hand grenades MKII ,smoke hand grenades M18, hand grenade M10, 4inch trench mortars MK1, 4inch trench mortars FM, 4inch trenordnance components, blasting caps M6, blasting caps M7, hand grenade fuzes M228, 75mm Shrapnel MK1 , 37mm LE MK1 , 75mm HE MK1, Livens projector FM, surface trip flare M49, 3.5inch rocket M29, 35mm Rockets M73, 3inch Hotchkiss projector, activator mine AT M1, mine AT M1, primer igniter tube M57, cartridge ignition M2, signal illumination M125, mine fuze M6A1, rifle grenade M22, 57mm projector HE M306, flash artillery M110, projectile PD M503ch mortars HC, 3inch trench mortars MK1, 81mm mortar HE M43, 40mm projector M781

Because of the nature of military munitions use and cleanup, the strictest standards available, i.e. CIRCLA should be implemented to the greatest extent possible. Any attempts to side step or circumvent this public health and environmental law must not be allowed . To do so will likely result in negative human health and environmental impacts.

Historical maps indicate that over the years as ranges were decommissioned, new ranges were opened. It appears that over time there are literally layers and overlaps of

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ranges the extent of which is unknown. How many millions of troops trained at Fort Ord? How many millions of pounds of munitions were used at former fort Ord? Of the millions of pounds of munitions used, how many millions of pounds of constituents were released into the environment? Were did the residual contamination go?

A new previously unidentified exposure pathway to human and ecological receptors now exists. The burning of former training ranges has resulted in a new and significant threat to human health and safety. A new RI/FS should include Ash analysis for all sites burned purposely or accidentally, and the potential onsite and offsite exposure to human and ecological receptors. This new exposure and potential effects on human and ecological receptors was never analyzed in the 1994 Base Wide RI/FS.

In the Monterey Herald dated 12-05-07 Pg. B6, there was a brief account of a recent U.S. Geological Survey study of ash resulting from the Southern California wild fires. The USGS study found caustic alkali materials and elevated levels of arsenic, lead, and other metals. The studies led author said that USGS found that "rainwater runoff from burned areas may hurt eco systems, aquatic wildfire habitat and surface water quality." Has the ESCA process analyzed the data revealed in this study? If not, why not?

It appears USGS is well equipped with staff and technology to analyze potential significant negative impacts resulting from burning wild land habitat. USGS participation in analyzing burn impacts at former Fort Ord could result in significant new information that would greatly benefit the full disclosure of impacts resulting from the burning. This new significant information will greatly benefit the understanding of potential adverse impacts by the public, regulators, decision makers, Army and all those involved in the ESCA process.

If USGS is not required to analyze data at the former Fort Ord, what justification exists for this decision?

Many military munitions constituents are known endocrine disruptors, carcinogens, mutagens, ect.. Environmental contamination is reaching epidemic levels likely due to lax regulation, oversight, and enforcement of environmental laws over industry and commerce. Nationally, conservatively, 1 in 150 children has autism. Asthma, Alzheimer's Disease, cancer, to list a few are at epidemic levels. Today, the U.S. public is sicker than ever before. USGS studies show pharmaceuticals are increasingly showing up in U.S. reclaimed and drinking water supplies. Is there endocrine disruptor screening being conducted at former Fort Ord? If not, why not? Does Soil analysis of ranges include every known or suspected OEWS constituent used at For Ord? If not, why not?

The public is very concerned with the undermining of the Regulatory agencies and their

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current ability to protect human health, safety, and the environment. A 1999 EPA Range Rule position letter addressing Military Base Closures states; “During the last several years an increasing number of issues have arisen relative to UXO, hazardous contaminants, and military range cleanup. The following represents a description of the major EPA issues or concerns along with installations where we have encountered these problems. This list should not be construed as exhaustive.” Since this EPA position letter it appears efforts are being made to circumvent the environmental laws in place to protect the public.(3)

FORA should adopt the Precautionary Principle (1998 Wingspread Statement) and apply it to the Fort Ord Reuse Plan to ensure safety for current and future generations to the greatest extent possible.(4)

Thank you for the opportunity to comment on this project. We look forward to your response to our concerns.

Sincerely,

Lance Houston
FOCAG Member

Cc.
Assemblyman John Laird
Cal DTSC, c/o Joyce Whiten and Yolanda Gaarza
U.S. EPA, Region 9, c/o Viola Cooper
Mick Weaver, FOCAG
Bruce Becker, FOCAG
Debra Mickelson
David Dilworth, HOPE

Attachments;

- (1) Scientific Integrity in Policy Making Update-July 2004 Introduction / Union of Concerned Scientists / Full Report @ www.ucsusa.org
- (2) EPA - Why we need a code of professional ethics
www.nteu280.org/Issues/NTEU-%20Professional%20Ethics.htm
- (3) 1999 EPA letter to DoD, Range Rule www.epa.gov/fedfac/documents/uxomemo.htm
- (4) 1998 Wingspread statement www.rachel.org/library/getfile.cfm?ID=189

Union of Concerned Scientists

www.ucsusa.org

Scientific Integrity in Policy Making Update-July 2004

Introduction

On February 18, 2004, 62 preeminent scientists including Nobel laureates, National Medal of Science recipients, former senior advisers to administrations of both parties, numerous members of the National Academy of Sciences, and other well-known researchers released a statement titled *Restoring Scientific Integrity in Policy Making*. In this statement, the scientists charged the Bush administration with widespread and unprecedented “manipulation of the process through which science enters into its decisions.” The scientists’ statement made brief reference to specific cases that illustrate this pattern of behavior. In conjunction with the statement, the Union of Concerned Scientists (UCS) released detailed documentation backing up the scientists’ charges in its report, *Scientific Integrity in Policy Making*.

On April 2, the White House Office of Science and Technology Policy issued a statement by Director John H. Marburger III that dismissed the scientists’ concerns and attempted to debunk the specific charges. In a detailed analysis released April 19, UCS reviewed each charge again, and directly addressed the administration’s responses, concluding, “UCS stands by the findings and conclusions of our report.” The UCS analysis found that the White House response failed to offer substantive evidence to support its claims. Instead, the White House document was filled with largely irrelevant information and arguments unrelated to the scientists’ charges.

“The administration is dismissive of the concerns of leading scientists across the country,” said Kurt Gottfried, UCS board chair and emeritus professor of physics at Cornell University. “The absence of a candid and constructive response from the White House is troubling, as these issues—from childhood lead poisoning and mercury emissions to climate change and nuclear weapons—have serious consequences for public health, well-being, and national security.”

Since the release of the UCS report in February, the administration has continued to undermine the integrity of science in policy making seemingly unchecked. Many scientists have spoken out about their frustration with an administration that has undermined the quality of the science that informs policy making by suppressing, distorting, or manipulating the work done by scientists at federal agencies and on scientific advisory panels. For instance, Michael Kelly, a biologist who had served at the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service for nine years, recently resigned his position and issued an indictment of Bush administration practices. As Kelly wrote, “I speak for many of my fellow biologists who are embarrassed and disgusted by the agency’s apparent misuse of science.”

This document investigates several new incidents that have surfaced since the February 2004 UCS report. These new incidents have been corroborated through in-depth interviews and internal government documents, including some documents released through the Freedom of Information Act. The cases that follow include:

- ! egregious disregard of scientific study, across several agencies, regarding the environmental impacts of mountaintop removal mining;
- ! censorship and distortion of scientific analysis, and manipulation of the scientific process, across several issues and agencies in regard to the Endangered Species Act;
- ! distortion of scientific knowledge in decisions about emergency contraception;
- ! new evidence about the use of political litmus tests for scientific advisory panel appointees. These new revelations put to rest any arguments offered by the administration that the cases to date have been isolated incidents involving a few bad actors.

Concern in the scientific community has continued to grow. In the months since the original UCS report, more than 4,000 scientists have signed onto the scientists' statement. Signers include 48 Nobel laureates, 62 National Medal of Science recipients, and 127 members of the National Academy of Sciences. A number of these scientists have served in multiple administrations, both Democratic and Republican, underscoring the unprecedented nature of this administration's practices and demonstrating that the issues of scientific integrity transcend partisan politics.

The United States has an impressive history of investing in and reaping the benefits of scientific research. The actions by the Bush administration threaten to undermine the morale and compromise the integrity of scientists working for and advising America's world-class governmental research institutions and agencies. Not only does the public expect and deserve government to provide it with accurate information, the government has a responsibility to ensure that policy decisions are not based on intentionally or knowingly flawed science. To do so carries serious implications for the health, safety, and environment of all Americans.

Given the lack of serious consideration and response by the administration to concerns raised by scores of prominent scientists, UCS is committed to continuing to investigate and publicize cases—corroborated by witnesses and documentation—in which politics is allowed to stifle or distort the integrity of the scientific process in governmental policy making. UCS—working with scientists across many disciplines, other organizations, and elected officials—will also seek to develop and implement solutions that will protect government scientists from retribution when they bring scientific abuse to light, provide better scientific advice to Congress, strengthen the role of the Office of Science and Technology Policy, strengthen and ensure adherence to conflict of interest guidelines for federal advisory panels, and ensure full access to government scientific analysis that has not been legitimately classified for national security reasons.

WHY WE NEED A CODE OF PROFESSIONAL ETHICS

www.nteu280.org/Issues/NTEU-%20Professional%20Ethics.htm

This document is intended to explain why a code of professional ethics is needed in the EPA workplace.

8/25/99

Management Practices and Workplace Conditions of Concern Because They Create Pressure To Violate the Code of Ethics For Professionals at EPA

There are current management practices and workplace conditions at EPA condoned by some elements of management which place strong pressure on EPA professionals to violate ethical principles and practices. Several examples follow:

1. Fear by some EPA managers of political retribution from economically powerful industries that are doing things harmful to the environment is one negative condition we as professionals must deal with at EPA. Some managers fear being punished if they tell the truth and/or "do the right thing" with regard to controlling the environmental problem which that particular industry is causing. This is especially problematic when the fearful manager is at the top of an organization's chain of command. The fearful manager "chickens out," because its easier to deal with the dismay and anger of the professionals that work for him or her than to deal with the dismay and anger of higher echelon managers or of an industry with lots of money to contribute to the re-election campaigns of members of Congress and with plenty of access to those members and their staffs, and with the certainty of a sympathetic hearing.
2. It is this condition - political pressure down the chain of command - that is the source of the problem for most unethical behavior by professionals at EPA: Frightened managers pressure professionals to write assessments and analyses that appear to justify a control action which is well less than that which the real risks and real costs suggest are actually warranted.
3. There is a lack of a management process for dealing with a conflict between a professionals's analysis of an issue and Agency policy on that issue. This is a problem: 1) when facts elicited in an analysis do not support the Agency policy and the analysis is then ignored, altered or otherwise subverted by management; or 2) when the professional refuses to remain silent on the issue, and is then subjected to disciplinary sanctions.
4. Tracking and assessment of professional performance should be based on the number of assessments or analyses prepared and their quality, as judged in light of applicable professional standards, and not exclusively on the number of assessments or analyses that produced a certain prescribed result. (E.g., the performance standard should not be "number of new pesticides registered" but "number of proposed new pesticides assessed.")

5. When work is initially assigned to a professional, the assignment must be made in such a way that it is clear that the work product is to be a complete, unconstrained analysis or assessment of the matter at issue.

6. The amount of work time and calendar time allotted to the professional assigned to do the work by the manager assigning the work must be appropriate to the importance of the results. Consideration must be given to the health and environmental risks involved, control and other costs, the complexity of the subject matter, the size of the relevant literature, and the number of experts on that subject within and outside EPA who must be consulted for a complete and balanced work product to be produced.

7. As civil servants serving the public interest, U.S. Environmental Protection Agency employees are entrusted with the responsibility of acting conscientiously to fulfill EPA's assigned mission to protect human health and the environment:

o Those in our trust include:

- The American public, including dependent minors and others not yet of voting age
- Other people throughout the world who are affected by the actions of Americans both here and abroad
- Future generations
- Other living things
- The Earth itself and its ability to sustain life.

o Those affected by our actions also include:

- Those who release pollutants into our environment
- Producers and users of toxic substances
- Those who generate, transport and dispose of hazardous wastes and other wastes and discards.

Those in this latter group are members of the "regulated community"; they are *not* our "customers". They are those whose behavior we must monitor, assess and enforce against environmental standards and the law.

We accept the usefulness of obtaining feedback from those in the first group regarding their satisfaction with our performance. Although some in the latter group appreciate our efforts and do their best to cooperate, many others do not. We reject the validity of assessing how "satisfied" those in the latter group are with our performance.

Every person we deal with, including those in the "the regulated community", deserve to be treated with dignity and respect. But they also need to be handled with candor as to the seriousness of any violations and their impact on the public interest. They need to be handled with firmness when they violate the law.

8. In working to fulfill its mission, EPA managers and staff rarely interact directly with the general public or with regulated firms. Instead, for most programs, EPA managers and staff work with and through State and local agencies. While in some cases the relationship between EPA and the State or Local agency is one of true partnership, more often it is not. Further, with the current focus within EPA on identifying customers and getting customer feedback, there is also a tendency to view State and local environmental agencies as our

"customers." Neither is an accurate description of the nature of the relationship in most cases. Treating State and local environmental agencies and officials as "customers" is therefore inappropriate. They are not our customers; they are at best our partners, but more often they are an additional class of entities and individuals that we - to all intents and purposes - regulate.

1999 EPA Position Paper Range Rule

To

Department of Defense (DoD)

Ms. Sherri W. Goodman

Deputy Under Secretary of Defense

dated April 22, 1999

EPA ISSUES AT CLOSED, TRANSFERRED, AND TRANSFERRING MILITARY RANGES
During the last several years an increasing number of issues have arisen relative to UXO, hazardous contaminants, and military range cleanup. The following represents a description of the major EPA issues or concerns along with installations where we have encountered these problems. This list should not be construed as exhaustive.

1. Range Assessment and Investigation

1. Range investigations often lack sufficient site-specific information. The Services and the USACE generally are not adhering to CERCLA standards and procedures for assessment and cleanup. The PA/SI, RI/FS, Removal, Remedial, and NOFA processes need to be equivalent to those specified under CERCLA and the NCP. [For example, at the Black Hills Army Depot the PA/SI did not meet the minimum requirements set by EPA for assessment. The RI/FS workplans and all associated documents were based upon this deficient PA/SI and were also determined not to meet EPA minimum requirements. Other sites with similar issues include Savanna Army Depot, Badlands Bombing Range, Lowry Bombing Range, Fort Ritchie, Fort Meade, and the Nansemond Ordnance Depot.]
2. There has been an increasing tendency for UXO investigations to use statistical grid sampling methods. Although statistical grid sampling may yield additional information, extrapolation of these results often lead to inappropriate decisions. The statistical grid sampling approach used by the USACE would only be appropriate if one expected a relatively uniform distribution of UXO, which is not the case at military ranges. EPA believes that in order to achieve protection of human health and the environment, UXO investigations should be based on a combination of information such as historical data (e.g., archives, photos, interviews), range use information, visual site inspections, previous detection surveys, previous Explosives and Ordnance Demolition (EOD) Unit response actions, and the resultant knowledge of impact zones and "hot spots." [For example, at the Lowry Bombing Range the USACE proposed and attempted to use the statistical sampling and extrapolation methodology. The State of Colorado has recently indicated that those methods significantly underestimated the amount of ordnance present (inert or live). Other sites that have similar issues are Savanna Army Depot, Fort Ord, Fort Ritchie, and the Nansemond Army Depot.]
3. Military ranges generally are not designated by the Services or the USACE as areas of concern (AOC) even when the installation is listed on the

Superfund National Priorities List (NPL). EPA believes all areas at closed, transferred, and transferring bases with known or suspected UXO are areas of concern and need to be evaluated in the CERCLA and NCP context. More recently, the Services and the USACE have unilaterally excluded UXO areas from proposed CERCLA Records of Decisions (RODs) or from RODs being implemented where UXO was included in the remedy (e.g., NAF Adak, Umatilla Army Depot) . [At the Umatilla Army Depot, the Army has indicated that they will not address UXO as specified in the ROD. This decision is now in dispute resolution. At NAF Adak, the Navy has recently indicated that they do not wish to proceed with a ROD for a separate UXO operable unit. At Savanna Army Depot, the entire depot (approximately 21 square miles) was initially utilized as a firing range. Activities up to 1997 were not directed at UXO assessment and response, rather they were directed in large degree toward open burning and disposal grounds and non-explosive chemical contamination. Up to this time, UXO in potential firing areas was not included within the realm of the potential cleanup, therefore, most UXO prone or suspected areas were not considered areas of concern. In 1998, the Army tentatively agreed to evaluate several options for assessing areas known or suspected to be contaminated with UXO. The USACE has proposed to use Sitestats/Gridstats which EPA believes is a very problematic analytical method (see 1b above). Other facilities that have ranges with similar issues include, but are not limited to: Jefferson Proving Ground, Lowry Bombing Range, Badlands Bombing Range, Fort Meade, Camp Bonneville, Fort Ord, Aberdeen Proving Ground, Tobyhanna Army Depot, NAF Adak, and Fort Ritchie.]

4. EPA is encouraged by DoD's recent shift to address ranges through a "risk management" strategy focusing on both range assessment and remediation for UXO and other constituents. DoD needs to continue to develop and ultimately implement this approach through the USACE and the Services. However, despite this recent change in strategy, EPA has noted at a number of ranges the USACE continues to apply statistical sampling and risk assessment methods which often lead to premature "informed risk management decisions." Since the proposed Range Rule process is heavily dependent upon accurate "informed risk management decision making," DoD needs to ensure that this revised strategy develops accurate information, reduces short-term risks, and sets the stage to achieve long-term risk reduction goals. The current approach utilized by the USACE generally does not address these goals. [For example, at Fort Ritchie, the Army had proposed to surface clear and provide contractor support in UXO areas that have been proposed by the LRA to include a residential area. Based in large degree upon the statistical sampling, the Army wanted to perform only a surface clearance, even though the DDESB standards recommend much more conservative clearance for residential land use. It is important to note that in many areas where UXO clearance is not performed to the frost line or sufficient depth, additional UXO is likely to surface via frost heaving or erosional processes (i.e., mortars have been found to surface on a golf course). These and other UXO-related issues require the

Army develop a long-term UXO remedial strategy for this area. Other ranges with similar circumstances include Savanna Army Depot, Lowry Bombing Range, Fort Meade, Nansmond Army Depot, Fort Ord, Jefferson Proving Ground, and Badlands Bombing Range.]

5. DoD is generally not applying the best available technologies to assess and remediate UXO. In most cases, there appears to be a standard approach to default to the traditional methods known as "mag and flag". Yet, according to the USACE and others, application of these methods often results in more expensive, slower, and less accurate UXO detections than other demonstrated technologies. DoD needs to begin using better technologies earlier to achieve the most protective level of UXO cleanup, while continuing to examine the capabilities, uncertainties, and acceptabilities of the various detection approaches. [For example, at Fort Ritchie only surface clearance is proposed for areas known to be contaminated with UXO that will be used for residential and commercial purposes. When asked what measures would be used during excavation, the Army indicated they would only have personnel on-site with a magnetometer. At Badlands Bombing Range, the artillery impact area was surveyed using mag and flag but this location would have been suitable for using multiple towed array sensor methods that have yielded more reliable results at other similar locations at Badlands.]
6. In those cases where UXO investigations at ranges (or UXO sites) have been performed, the general approach has been to limit investigation to known ranges/ UXO sites only. Investigations should not be limited to within the "fenceline," especially when information suggests that UXO problems are more extensive. [Although Aberdeen Proving Ground has agreed to perform additional clearance ¼ mile around the existing facility, no additional investigation is being performed off-site (e.g., especially in the adjacent rivers or in the Chesapeake Bay). Other sites with similar issues include the Badlands Bombing Range, Savanna Army Depot, Tooele Army Depot, Lowry Bombing Range, Jefferson Proving Ground, and NAF Adak.]

2. Non-Compliance with Regulatory Authorities

1. DDESB 6055.9 Standards for depth of clearance generally are not being followed. [For example, at Fort Ritchie a surface clearance is proposed for a residential area. DDESB 6055.9 Standards (chapter 12) specifies that default depths of clearance to 10 feet should be used unless an alternative is justified and approved by the DDESB based on detailed site-specific information. As no detailed investigations have taken place over the range areas at Fort Ritchie, a default clearance depth of 10 feet should be used (unless bedrock is shallower). Please note that EPA views chapter 12 as critical due to the nature of explosives safety issues. In addition, many other range situations have already been documented to have uncontrolled listed wastes (and/or hazardous substances) and may present an imminent and substantial endangerment to human health and the environment. Other ranges with similar problems include: Savanna Army Depot, Fort Meade,

Fort Ord, Badlands Bombing Range, Lowry Bombing Range, Umatilla Army Depot, Camp Bonneville, Jefferson Proving Ground, Nansemond Ordnance Depot, Tooele Army Depot, and NAF Adak.]

2. Current EPA environmental regulations, including, but not limited to, RCRA and CERCLA, are applicable, but generally are not being followed. [This is particularly relevant to the depth of clearance of UXO. Many UXO-contaminated areas at closed, transferred, or transferring military ranges are: 1) not being investigated, or 2) when discovered, are not being addressed consistent with human health, environmental, or explosives safety regulations. These types of situations have been noted at many ranges including: Savanna Army Depot, Fort Meade, Fort Ord, Badlands Bombing Range, Lowry Bombing Range, Umatilla Army Depot, Camp Bonneville, Jefferson Proving Ground, Nansemond Ordnance Depot, Tooele Army Depot, and NAF Adak. Other information pertinent to this issue is presented in 1(a) above, and 4(a) below.]

3. Communication, Coordination and Dissemination of Information

Efforts by the Services and the USACE to communicate the scope, nature, and extent of UXO response activities have not always been successful. In some cases, there has been little or no effort. Regulators and the public need to be better informed during all stages of the efforts to address military ranges. The over-reliance on time-critical response actions also tends to reduce coordination with the regulators and other non-DoD parties. [For example, the regulators and the public have been discouraged by the USACE lack of cooperation at the Black Hills Army Depot. Adequate information and answers concerning investigations and cleanup activities have not been provided to these parties. At Fort Wingate there has been little or no public involvement concerning UXO issues. At BRAC RAB meetings only cursory information is presented on the USACE activities. Neither the State, Tribes, or the general public have received sufficient documentation on the USACE UXO activities at Fort Wingate that has both BRAC and FUDS properties. Another example is with the proposed transfer of property at Fort McClellan. The Army has been in the process of negotiating a transfer of UXO contaminated property with the U.S. Fish and Wildlife Service (USFWS). It appears that State and Federal regulatory agencies have not been contacted to participate in these negotiations. Similar situations have been noted at the Badlands Bombing Range, Lowry Bombing Range, Jefferson Proving Ground, Fort Ord, and Fort Ritchie.]

4. Remedy Selection and Implementation

1. EPA believes some range UXO detection/clearance operations may not be appropriate for CERCLA removal nor RCRA emergency situations. To further complicate matters is the Service/USACE preference to implement "CERCLA-like" accelerated actions. Some of these actions may not be consistent with CERCLA and the NCP and generally result in less regulator and public oversight/involvement. Using time-critical/emergency responses as the sole response paradigm should not be a default approach for the Services/USACE, especially for range problems that are well beyond the scope of such actions. [For example, at Fort Ord clearance was conducted

for several years as a time-critical removal action. Similar circumstances are noted at Jefferson Proving Ground, Umatilla Army Depot, and Fort Meade.]

2. There is a general over-reliance on institutional controls as the principal remedy component or as the only remedy to ensure protectiveness. Where employed, the institutional controls may not be adequately defined, roles and responsibilities are left unclear and ultimately they may not prevent future incidents where UXO is encountered. The Services and the USACE are not always implementing adequate access controls (e.g., fencing, posting of guards, patrols, etc.) where needed. In addition, periodic inspections need to be performed at many locations where UXO has been identified, is suspected, or may have surfaced via erosion or frost heaving at previously cleared areas. [For example, at NAF Adak institutional controls are proposed for vast areas outside the town where UXO will generally not be cleared, nor has the area been adequately investigated despite DoD records indicating potentially extensive UXO contamination. This appears to be a problem because the recent reuse proposals to expand the town's uses are expected to lead to an increase in the population (primarily members of the Aleut Tribe, especially children). At Tobyhanna Army Depot, a 20,000 acre UXO area is now a State park where only signs were posted. The park was closed in 1997 when 53 unexploded 37 mm shells were found and a recent removal action has found significant additional UXO. Other examples of access problems have been noted at Camp Elliott (Tierrasanta), Camp Bonneville, Jefferson Proving Ground, Lowry Bombing Range, Badlands Bombing Range, Fort Ritchie, Fort Wingate, and Nansemond Army Depot.]
3. Effective regulatory and DoD oversight is an important aspect of remedy implementation. When it is not implemented, the risk of incidents increase. [For example, the UXO from the Fort Irwin cleanup was mistaken for clean scrap and transported to a scrap yard for recycling (in violation of RCRA – the UXO went to a non-permitted facility without manifest). An employee was killed when he attempted to cut live UXO with welding equipment. Other examples of where better oversight was needed include, Fort Ord, Jefferson Proving Ground, and Fort Meade where UXO contaminated areas were inappropriately slated for transfer.]

5. Transfer of UXO Contaminated Land

1. EPA believes DoD generally should retain ownership and/or control of UXO areas that are not yet assessed and/or cleaned up as determined by DoD, the appropriate regulatory agencies and the public (e.g., "permanently duded" impact areas; UXO burial sites; sites not yet scheduled to be remediated). Federal land management agencies generally want DoD to complete all environmental restoration prior to any transfer to them. Present land transfer practices by DoD indicate that UXO contaminated lands continue to be transferred. [At Fort McClellan the transfer of approximately 10,000 acres of UXO contaminated land has been proposed. The area has not been adequately assessed and UXO contamination not yet addressed. The

proposed transfer is to the USFWS who do not appear to have sufficient resources to address UXO contamination of this magnitude. At Jefferson Proving Ground, a portion of UXO contaminated property north of the firing line was proposed for transfer to the USFWS. The area was proposed to be used for recreational purposes, but it has not been thoroughly assessed and UXO not addressed. It has also been mentioned that the USFWS has since decided not to proceed with the transfer. At Nomans Land Island,

although the fed-to-fed transfer has already taken place, DoD has a continuing obligation to address UXO safety issues there, as does the USFWS (i.e., to secure the property against trespassers, per the transfer agreement). Although the area is planned to be used as a wildlife refuge, it is known to be frequented by boating enthusiasts, and UXO safety issues remain because storm events and other processes (freeze/thaw) will continue to expose UXO in areas where only surface clearance has been performed. At Fort Wingate, two closed test ranges containing UXO are slated for transfer to the DOI. The land may then be re-developed for residential, commercial, open space, and subsistence farming/ranching uses. Much of these lands are proposed to be transferred to the DOI. Another example is the UXO contaminated areas transferred to the State at the Tobyhanna Army Depot.]

2. In some cases, the Services and the USACE have performed only a cursory investigation (see # 1). Based upon limited information, property has been and is being transferred. Rather than sufficiently assessing sites and making the property safe for use or transfer, the DoD and the Services appear to be transferring the land and then waiting for others to identify problems for DoD response. [For example, DoD is contacted periodically about newly found UXO at a number of transferred sites. This has been noted at the Aberdeen Proving Ground, Raritan Arsenal, Morgan Depot, White Sands Missile Range, Lowry Bombing Range, Badlands Bombing Range, Fort Ritchie, Tobyhanna Army Depot, Fort Ord, Fort Meade (i.e., Tipton Air Field), Jefferson Proving Ground, Raritan Arsenal, Morgan Depot, and at EPA private sites such as the Cohen Property Site in Massachusetts. Although the EOD units have a good response record, their responses tend to be limited to the newly found UXO, with generally no further investigation performed to determine the nature and extent of any additional UXO. This EOD "house call" type follow-up cannot substitute for adequate investigations.]

The Wingspread Statement on the Precautionary Principle

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The release and use of toxic substances, the exploitation of resources, and physical alterations of the environment have had substantial unintended consequences affecting human health and the environment. Some of these concerns are high rates of learning deficiencies, asthma, cancer, birth defects and species extinctions; along with global climate change, stratospheric ozone depletion and worldwide contamination with toxic substances and nuclear materials.

We believe existing environmental regulations and other decisions, particularly those based on risk assessment, have failed to protect adequately human health and the environment - the larger system of which humans are but a part.

We believe there is compelling evidence that damage to humans and the worldwide environment is of such magnitude and seriousness that new principles for conducting human activities are necessary.

While we realize that human activities may involve hazards, people must proceed more carefully than has been the case in recent history. Corporations, government entities, organizations, communities, scientists and other individuals must adopt a precautionary approach to all human endeavors.

Therefore, it is necessary to implement the Precautionary Principle: When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically.

In this context the proponent of an activity, rather than the public, should bear the burden of proof.

The process of applying the Precautionary Principle must be open, informed and democratic and must include potentially affected parties. It must also involve an examination of the full range of alternatives, including no action.

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