

Fort Ord Community Advisory Group (FOCAG)

P.O. Box 696,
Seaside, CA 93955
Email: focagemail@yahoo.com
Website: www.fortordcag.org

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U.S. Army BRAC
Gail Youngblood
Environmental and Natural Resources
P.O. Box 5004
Monterey, Ca 93944-5004

California Assemblyman **Bill Monning**
U.S. Congressman **Sam Farr**
Fort Ord Reuse Authority (FORA) **Board of Directors**
City of Marina Mayor **Bruce Delgado and City Council members**
City of Seaside Mayor **Ralph Rubio and City Council members**
U.S. EPA, Region 9
Monterey Bay Unified **Air Pollution** Control District - Board of Directors
California Regional **Water Quality** Control Board - Board of Directors
California EPA Department of **Toxic Substance Control**
Monterey County Health Department-**Environmental Health Division**

RE: Former Fort Ord Pesticide Use and the effects on human health as dealt with by the cleanup effort. Community Right-To-Know

US EPA Definition of pesticide: www.epa.gov/pesticides/about/index.htm#what_pesticide
A pesticide is any substance or mixture of substances intended for: preventing, destroying, repelling, or mitigating any pest. "pests" include: insects, mice and other animals, unwanted plants (weeds), fungi, microorganisms such as bacteria and viruses, and pirons.

The Fort Ord SuperFund Cleanup has grossly ignored the danger from the wide range of toxic pesticides used for decades throughout former Fort Ord.

Despite clear evidence of long term widespread pesticide use, the Fort Ord Superfund Cleanup has failed to:

- 1) establish a basewide pesticide sampling protocol,
- 2) sample for all the pesticides known to have been used on base,
- 3) identify pesticides potentially used on base, and
- 4) analyze and determine exposure risks.

Thousands of acres have been transferred for recreational, residential and commercial use under this cleanup standard. To ignore past pesticide use at Fort Ord causes public health hazards. Allowing people to live in areas where these pesticides are found is a potentially deadly accident waiting to happen. Unfortunately, it will be uninformed mothers, infants, and children who will unknowingly be exposed to these contaminants who will suffer the most.

History of pesticide use:

For several decades, Fort Ord had a routine pesticide program. Pesticides were applied by air and ground to manage pests (rodents, insects, fungi, and vegetation) throughout Fort Ord. Pesticides were applied to training areas, training ranges, cantonment areas, golf courses, housing, schools, parks and food service areas.

While not fully known at the time, there are a wide range of serious health impacts from exposure to pesticides. Some of the pesticides at levels of a couple parts per billion can adversely affect humans, mammals and other living organisms. Fort Ord likely has a toxic brew of pesticide residuals that have never been quantified.

Intentionally Burning Fort Ord Creates Pesticide Laden Smoke:

Thousands of acres of training areas and ranges have been burned off over the years in the name of cleanup. In 2003 alone, 1500 acres of training ranges were burned, making hundreds of people sick. To our knowledge, pesticides have not been evaluated for any of the burns. The Fort Ord munitions cleanup intends to continue this practice for another 12 to 15 years.

In spite of the ARMY's refusal to help, we now know that pesticides, including DDT, were used for training area control of rodents, insects, weeds, and heavy brush. The use of pesticides at Fort Ord has been withheld from the public until very late in the cleanup. The Superfund program at former Fort Ord's failure includes:

- Failure to thoroughly investigate the use and fate of pesticides, herbicides, rodenticides, and fungicides.
- Failure to include meaningful public participation, inclusion in the Base Closure Team (BCT) or the Technical Review Committee (TRC) meetings.
- Failure to make vital documents available to the public in a timely manner.
- Failure to analyze vegetation uptake of pesticide before conducting burns.
- Failure to use sound scientific sampling methods. Statistical Sampling and Statistical Methodologies are relied upon to determine levels of, and risks from contaminants that are not uniformly distributed. Assumptions may be deadly.
- Failure by the regulatory agencies to recognize vital, clear information from early cleanup documents and require research on pesticide use at Fort Ord..
- Failure to require a uniform sampling model where pesticides would be looked for throughout the known pesticide use area, Fort Ord, wall to wall.

How can anyone morally allow this to continue?

Public Participation Failure:

The California EPA authorized Fort Ord Community Advisory Group (FOCAG) has repeatedly requested information regarding the uses and quantities of pesticides used at Fort Ord to no avail. This is a pattern with the Fort Ord Superfund project. As a result of the FOCAG's research, a very disturbing discovery has been made.

The Fort Ord adopted scientific rational to ignore pesticide contamination:

Quote: Basewide Background Soil Investigation draft 1992; BW-0289

“The goal of this investigation was to estimate the upper-limit threshold of background soil concentrations for pesticide and the 13 priority pollutant metals analyzed during the Fort Ord investigations”

“Pesticide residues were detected primarily in agricultural soils, in 10 of the 33 off base surface soil samples. However, only 1 out of 17 onbase background surface soil samples contained pesticide. This dissimilar detection frequency indicates that sample location (and land use) significantly influences background concentrations of pesticides. Furthermore, the low detection frequency onbase makes it difficult to develop background threshold vales for pesticides in onbase Fort Ord soils. The low frequency of detected pesticides suggests that onbase pesticide residue levels a relatively low compared to off base locations. **Until further site investigations indicate otherwise, pesticide threshold values are assumed to be no detect by EPA Test Method 8080 detection limits.**”

Fort Ord Superfund Guidance Document; pesticide sampling eliminated:

Quote: Basewide Background Soil Investigation final 1995; BW-1283E Basewide RI/FS

“Pesticide residues were detected, in 10 of the 33 offbase surface soil samples, **primarily in agricultural soils.** However, only 1 out of 17 onbase background surface soil samples contained pesticides. This dissimilar detection frequency indicates that sample location (and land use) significantly influenced background concentrations of pesticides. The low frequency of detected pesticides suggests that concentrations of pesticide residues onbase are relatively low compared to offbase locations. However, **the low detection frequency onbase precludes the estimation of background threshold values for pesticides in onbase Fort Ord soils.**” (no further investigation)

Finding:

The Fort Ord investigation of pesticides was halted based on a comparison with nearby agriculture fields with known high rates of pesticide application . They arbitrarily chose 8 organochlorine pesticides and **did not sample for any herbicides or rodenticides.** No one should have been surprised when they found more organochlorine pesticides in agriculture fields.

In using this cherry picking approach, the ARMY declared all other pesticides known and potentially used at Fort Ord were irrelevant and excluded from any future sampling. The FOCAG cannot find any documentation that included the public in the Scoping of the Basewide Background Soil Investigation or formulation of a sampling rationale for pesticides.

Question:

When will a public scoping meeting for a meaningful pesticide investigation begin?

48 Pesticides Known as used at Fort Ord:

Calcium Cyanide Gas, Mercury, DDT, DDD, DDE, 2,4-D, Malathion, Chlordane, Dieldrin, Warfarin, Diazinon, Baygon, Altosid SR-10, Tordon 101, Hyvar X, Sevin (Carbyrl Dust), 1080, Diphacinone, Chlorophacinone, Zinc Phosphide, Endrin, Heptachlor Epoxide, Gamma-BHC, Derzan-T, Derzvan, Methyl Bromide, Cyntrid 3-EC, Pyrethrum, Permaguard, Ficam W, Gophercide, Diphacin, Weed-Rhap LY-4P, Monuron, Ded-Weed Silvex LV, Simazine, Aertex, Paraquat CL, Banvel, Betasan, Trexsan, Amino Triazole, Amitrol-T, Diquat, Tok-E-25, Surflan, Enide, Metalde HTDE, Arochlor 1254. (References below, attachment 1)

Note: **2,4,D** is a primary chemical in Agent Orange and Agent Purple.

Several of these toxics are known to cause Cancer and Reproductive harm; they are suspected of a huge range of harm to humans and wildlife.

Pesticides Potentially used or tested at Fort Ord

We would like the soils tested for TCDD (“**Agent Orange**” or 2,3,7,8-tetrachloridebenzodioxin), 2,4,5,-T, and other **Dioxin** laden pesticides which may have been used or tested at Fort Ord.

The FOCAG believes it imperative that previous heavy pesticide uses at former Fort Ord be seriously investigated and cleaned up.

Sampling needs to be done and a plan established that involves meaningful public participation. The health and safety of current and future residents is at risk. The grading and the resulting dust are putting residents and neighbors at risk daily.

Please place the entirety of this letter in the Fort Ord Administrative Record.

With all due respect,

Fort Ord Community Advisory Group

Copy to: Fort Ord Environmental Justice Network

Attachments:

- 1) Former Fort Ord identified pesticides; Types and Health data: 7 pages
- 2) Pesticide types and uses; Excerpts from BW-0013 and BW-2427: 7 pages

Former Fort Ord Pesticide Use; Research Documents:

Available at Fort Ord Administrative Record; <http://fortordcleanup.com/adminrec/arsearch.asp>
enter record number, example: BW-0013

- 1) Fort Ord Installation Assessment 1983; BW-0013, pesticide types and uses
- 2) Fort Ord Base Closure Preliminary Assessment 1990; BW-2427, pesticide types and uses
- 3) Fort Ord Literature review and Base Inventory Report Vol I, 1991; RIFS BW-0136
- 4) Fort Ord Basewide Background Soil Investigation draft 1992; BW-0289
- 5) Fort Ord Basewide Background Soil Investigation draft final 1993; BW-0352
- 6) Fort Ord Basewide Background Soil Investigation final 1995; BW-1283E Basewide RI/FS
- 7) Fort Ord 2003 Burn ATSDR Health Consultation; OE-0522

Full Addresses of addressees --

Board of Directors
Fort Ord Reuse Authority (FORA)
Environmental Services
c/o Stan Cook
100 12th St, Building 2880
Marina, CA 93933

U.S. Congressman Sam Farr
c/o Salinas Office
100 West Alisal St
Salinas, CA 93901

California Assemblyman Bill Monning
c/o Monterey Office
99 Pacific St, Suite 555D
Monterey, CA 93940

Mayor Bruce Delgado
City Council members
City of Marina
c/o Marina City Hall
211 Hillcrest Ave
Marina, CA 93933

Mayor Ralph Rubio, and
City Council Members
City of Seaside
c/o Seaside City Hall
440 Harcourt Ave
Seaside, CA 93955

U.S. EPA, Region 9
c/o Judy Huang
75 Hawthorne St
San Francisco, CA 94105

California EPA
Department of Toxic Substance Control
c/o Roman Racca
8800 Cal Center Drive
Sacramento, CA 95826

Board of Directors
California Regional Water Quality Control Board
c/o Grant Himebaugh
895 Aerovista Place, Suite 101
San Luis Obispo, CA 93401

Board of Directors
Monterey Bay Unified Air
Pollution Control District
24580 Silver Cloud Court
Monterey, CA 93940

Director Allen J. Stroh
Monterey County Health Department-
Environmental Health Division Administration
1270 Natividad Road
Salinas, CA 93906

Attachment 1

Fort Ord identified pesticides; Types and Health data:

Note: Health data compiled from Scorecard database

Gamma-BHC (Lindane): CAS #: 58-89-9

Recognized: Carcinogen P65,

Suspected: Cardiovascular or Blood Toxicant EPA-HEN HAZMAP MALA RTECS, Developmental Toxicant ATSDR EPA-SARA, Endocrine Toxicant BKH JNHS KEIT WWF, Gastrointestinal or Liver Toxicant EPA-HEN RTECS, Immunotoxicant ATSDR EPA-HEN RTECS, Kidney Toxicant KLAA MERCK OEHHA-CREL, Neurotoxicant DAN EPA-HEN EVAN RTECS, Reproductive Toxicant EPA-SARA FRAZIER JANK, Respiratory Toxicant EPA-HEN RTECS, Skin or Sense Organ Toxicant HARV RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=58%2d89%2d9

Heptachlor Epoxide: CAS #: 1024-57-3

Recognized: Carcinogen P65,

Suspected: Endocrine Toxicant IL-EPA JNHS KEIT WWF

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1024-57-3

Dieldrin: CAS #:60-57-1

Recognized: Carcinogen P65,

Suspected: Cardiovascular or Blood Toxicant HAZMAP LADO RTECS, Endocrine Toxicant GUIL IL-EPA JNHS KEIT WWF, Gastrointestinal or Liver Toxicant ATSDR RTECS, Immunotoxicant RTECS, Kidney Toxicant MERCK, Neurotoxicant ATSDR DAN EVAN RTECS, Reproductive Toxicant JANK, Respiratory Toxicant RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=+60-57-1

Endrin: CAS #: 72-20-8

Recognized: Developmental Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant RTECS, Endocrine Toxicant IL-EPA JNHS, Gastrointestinal or Liver Toxicant RTECS, Kidney Toxicant MERCK RTECS, Neurotoxicant ATSDR DAN RTECS, Reproductive Toxicant JANK, Respiratory Toxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=72%2d20%2d8

4,4'-DDT: CAS #: 50-29-3

Recognized: Carcinogen P65, Developmental Toxicant P65, Reproductive Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant LADO MALA RTECS, Endocrine Toxicant BKH BRUC IL-EPA JNHS KEIT RTECS WWF, Gastrointestinal or Liver Toxicant ATSDR MALA RTECS, Immunotoxicant RTECS, Kidney Toxicant MERCK, Neurotoxicant DAN EVAN FELD RTECS, Respiratory Toxicant RTECS, Skin or Sense Organ Toxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=+50-29-3

4,4'-DDE: CAS #: 72-55-9
Recognized: Carcinogen P65,

Suspected: Endocrine Toxicant BRUC GUIL IL-EPA JNIHS KEIT WWF, Gastrointestinal or Liver Toxicant RTECS, Neurotoxicant EPA-HEN
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=72%2d55%2d9

4,4'-DDD: CAS #: 72-54-8
Recognized: Carcinogen P65,

Suspected: Endocrine Toxicant BRUC IL-EPA JNIHS KEIT, Neurotoxicant RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=72%2d54%2d8

Chlordane: CAS #: 57-74-9
Recognized: Carcinogen P65,

Suspected: Cardiovascular or Blood Toxicant EPA-HEN MALA, Developmental Toxicant ATSDR EPA-SARA, Endocrine Toxicant BKH IL-EPA JNIHS WWF, Gastrointestinal or Liver Toxicant ATSDR EPA-HEN RTECS, Kidney Toxicant MERCK, Neurotoxicant DAN EPA-HEN EPA-SARA RTECS, Reproductive Toxicant EPA-SARA, Respiratory Toxicant RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=57%2d74%2d9

Zinc phosphide: CAS# 1314-84-7

Suspected: Gastrointestinal or Liver Toxicant RTECS, Neurotoxicant RTECS, Respiratory Toxicant RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1314%2d84%2d7

Chlorophacinone: CAS# 3691-35-8

Suspected: Cardiovascular or Blood Toxicant RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=3691%2d35%2d8

Diphacinone: CAS# 82-66-6

No health data

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=82%2d66%2d6

Calcium cyanide gas: CAS# 592-01-8

No health data

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=592%2d01%2d8

1080 (Fluoroacetic Acid, Sodium Salt): CAS# 62-74-8

Recognized: Reproductive Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant RTECS, Neurotoxicant EPA-TRI HAZMAP RTECS, Respiratory Toxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=62%2d74%2d8

Sevin (carbyl dust): CAS# 63-25-2

Suspected: Carcinogen OPP-CAN, Cardiovascular or Blood Toxicant RTECS, Developmental Toxicant EPA-SARA JANK, Endocrine Toxicant JNHS KEIT WWF, Gastrointestinal or Liver Toxicant RTECS, Immunotoxicant HAZMAP, Musculoskeletal Toxicant EPA-HEN, Neurotoxicant DAN DPR-CIP EPA-HEN EPA-SARA MASL RTECS, Reproductive Toxicant EPA-SARA FRAZIER, Skin or Sense Organ Toxicant HAZMAP

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=63%2d25%2d2

Hyvar X (Bromacil): CAS# 314-40-9

Suspected: Carcinogen OPP-CAN, Endocrine Toxicant EPA-TRI

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=314%2d40%2d9

2,4-D: CAS# 94-75-7

Suspected: Carcinogen HAZMAP, Cardiovascular or Blood Toxicant RTECS, Developmental Toxicant EPA-SARA, Endocrine Toxicant IL-EPA JNHS KEIT, Gastrointestinal or Liver Toxicant EPA-HEN RTECS, Neurotoxicant EPA-HEN EVAN RTECS STAC, Reproductive Toxicant EPA-SARA FRAZIER HAZMAP JANK, Respiratory Toxicant RTECS, Skin or Sense Organ Toxicant EPA-HEN RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=94%2d75%2d7

Tordon 101 (Picloram): CAS# 1918-02-1

Suspected: Endocrine Toxicant RTECS, Gastrointestinal or Liver Toxicant EPA-TRI RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1918%2d02%2d1

Malathion: CAS# 121-75-5

Suspected: Cardiovascular or Blood Toxicant RTECS, Endocrine Toxicant BRUC JNHS KEIT WWF, Gastrointestinal or Liver Toxicant RTECS, Immunotoxicant HAZMAP, Neurotoxicant ATSDR DAN DPR-CIP EPA-TRI MASL RTECS, Reproductive Toxicant FRAZIER, Respiratory Toxicant ATSDR RTECS, Skin or Sense Organ Toxicant HAZMAP RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=121%2d75%2d5

Altosid SR-10 (Methoprene) CAS# 40596-69-8

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=40596%2d69%2d8

No health data

Mercury: CAS #: 7439-97-6

Recognized: Developmental Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant KLAA, Endocrine Toxicant IL-EPA KEIT WWF, Gastrointestinal or Liver Toxicant RTECS STAC, Immunotoxicant HAZMAP SNCI, Kidney Toxicant HAZMAP KLAA LAND MERCK STAC, Neurotoxicant ATSDR

DAN EPA-HEN EPA-SARA FELD, HAZMAP KLAA OEHHA-CREL RTECS STAC, Reproductive Toxicant EPA-SARA FRAZIER HAZMAP OEHHA-AREL, Respiratory Toxicant HAZMAP NEME, Skin or Sense Organ Toxicant HAZMAP KLAA RTECS
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=7439%2d97%2d6

Warfarin: CAS# 81-81-2

Recognized: Developmental Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant RTECS, Gastrointestinal or Liver Toxicant RTECS, Neurotoxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=81%2d81%2d2

Baygon (Propoxur): CAS# 114-26-1

Suspected: Carcinogen OPP-CAN P65-CAND, Cardiovascular or Blood Toxicant RTECS Neurotoxicant DPR-CIP EPA-HEN MASL RTECS, Reproductive Toxicant JANK

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=114%2d26%2d1

Diazinon: CAS# 333-41-5

Suspected: Cardiovascular or Blood Toxicant RTECS, Developmental Toxicant EPA-TRI JANK, Gastrointestinal or Liver Toxicant RTECS, Neurotoxicant ATSDR DAN DPR-CIP EPA-TRI MASL RTECS, Reproductive Toxicant FRAZIER, Skin or Sense Organ Toxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=333%2d41%2d5

Derzvan:

No data found

Methyl Bromide CAS #: 74-83-9

Recognized: Developmental Toxicant P65,

Suspected: Cardiovascular or Blood Toxicant KLAA RTECS, Gastrointestinal or Liver Toxicant ATSDR RTECS, Kidney Toxicant RTECS, Neurotoxicant ATSDR DAN EPA-HEN EPA-SARA HAZMAP KLAA OEHHA-AREL OEHHA-CREL RTECS STAC, Reproductive Toxicant FRAZIER, Respiratory Toxicant EPA-HEN HAZMAP OEHHA-CREL RTECS, Skin or Sense Organ Toxicant HAZMAP KLAA LOCK RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=74%2d83%2d9

Cyntroid 3-EC

No data found

Pyrethrum CAS #: 8003-34-7

Suspected: Carcinogen OPP-CAN, Gastrointestinal or Liver Toxicant RTECS,

Immunotoxicant HAZMAP, Respiratory Toxicant HAZMAP, Skin or Sense Organ Toxicant HAZMAP

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=8003%2d34%2d7

Permaguard

No data found

Ficam W (bendiocarb) CAS #: 22781-23-3

Suspected: Neurotoxicant DPR-CIP EPA-TRI

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=22781%2d23%2d3

Gophercide (Chlorophacinone) CAS #: 3691-35-8

PANNA bad actor, highly toxic

http://www.pesticideinfo.org/Summary_Chemical.jsp?Rec_Id=PC35308

Diphacin (Diphacinone) CAS #: 82-66-6

PANNA bad actor, highly toxic

http://www.pesticideinfo.org/Summary_Chemical.jsp?Rec_Id=PC35081

Weed-Rhap LY-4P (Methoxone) CAS #: 94-74-6

Suspected: Cardiovascular or Blood Toxicant RTECS, Gastrointestinal or Liver Toxicant EPA-TRI, Kidney Toxicant EPA-TRI, Neurotoxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=94%2d74%2d6

Monuron CAS #: 150-68-5

Suspected: Cardiovascular or Blood Toxicant HAZMAP, Gastrointestinal or Liver Toxicant RTECS, Respiratory Toxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=150%2d68%2d5

Ded-Weed Silvex LV (2,4,5-TP) CAS #: 93-72-1

Suspected: Carcinogen HAZMAP, Endocrine Toxicant IL-EPA JNHS KEIT, Neurotoxicant DAN, Reproductive Toxicant HAZMAP JANK

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=93%2d76%2d5

Simazine CAS #: 122-34-9

Suspected: Carcinogen OPP-CAN, Cardiovascular or Blood Toxicant RTECS, Endocrine Toxicant JNHS, Gastrointestinal or Liver Toxicant EPA-TRI, Kidney Toxicant EPA-TRI, Neurotoxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=122%2d34%2d9

Paraquat CL (Paraquat) CAS #: 1910-42-5

Suspected: Carcinogen IRIS, Cardiovascular or Blood Toxicant KLAA, Gastrointestinal or Liver Toxicant DOSS MALA RTECS ZIMM, Kidney Toxicant HAZMAP KLAA MERCK RTECS STAC, Neurotoxicant DAN RTECS, Reproductive Toxicant FRAZIER, Respiratory Toxicant EPA-TRI FOTH HAZMAP RTECS, Skin or Sense Organ Toxicant HAZMAP

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1910%2d42%2d5

Aertex (Atrazine) CAS #: 1912-24-9

Suspected: Carcinogen EPA-TRI NTP-BR OEHHA-TCD SCDM, Endocrine Toxicant BKH GUIL IL-EPA JNIHS KEIT WWF, Gastrointestinal or Liver Toxicant RTECS, Immunotoxicant EEC, Neurotoxicant DAN, Reproductive Toxicant ATSDR JANK, Skin or Sense Organ Toxicant EEC HAZMAP

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=1912%2d24%2d9

Banvel (DimethylamineI Dicamba) CAS #: 2300-66-5

Suspected: Developmental Toxicant EPA-TRI

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=2300%2d66%2d5

Betasan (Bensulide) CAS #: 741-58-2

Suspected: Neurotoxicant DPR-CIP

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=741%2d58%2d2

Trexsan

No data found

Amino Triazole (Amitrole) CAS #: 61-82-5

Recognized: Carcinogen P65

Suspected: Developmental Toxicant JANK, Endocrine Toxicant BRUC EPA-SDWA IL-EPA JNIHS KEIT RTECS WWF

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=61%2d82%2d5

Amitrol-T (Amitrole) CAS #: 61-82-5

Recognized: Carcinogen P65

Suspected: Developmental Toxicant JANK, Endocrine Toxicant BRUC EPA-SDWA IL-EPA JNIHS KEIT RTECS WWF

Diquat CAS #: 85-00-7

Suspected: Kidney Toxicant HAZMAP KLAA STAC, Neurotoxicant DAN, Skin or Sense Organ Toxicant LU

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=85%2d00%2d7

Tok E-25 (Nitrofen) CAS #: 1836-75-5

Recognized: Carcinogen P65

Suspected: Cardiovascular or Blood Toxicant RTECS, Developmental Toxicant EPA-SARA JANK, Endocrine Toxicant EPA-SDWA JNIHS KEIT WWF, Gastrointestinal or Liver Toxicant RTECS, Neurotoxicant EPA-SARA RTECS, Reproductive Toxicant EPA-SARA, Respiratory Toxicant RTECS

http://www.scorecard.org/chemical-profiles/product.tcl?reg_nr=00070706609&prod_name=TOK%20E-25

Surflan (Oryzalin) CAS #: 19044-88-3

Suspected: Carcinogen IRIS OPP-CAN, Cardiovascular or Blood Toxicant EPA-TRI,

Endocrine Toxicant JNHS, Gastrointestinal or Liver Toxicant EPA-TRI
http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=19044%2d88%2d3

Enide

No data found

Metalde HTDE (Metacetaldehyde) CAS #: 108-62-3

Suspected: Neurotoxicant RTECS

http://scorecard.org/chemical-profiles/summary.tcl?edf_substance_id=108%2d62%2d3

Arochlor 1254 CAS #: 11097-69-1

Recognized: Carcinogen P65-MC, Developmental Toxicant P65-MC

Suspected: Cardiovascular or Blood Toxicant RTECS, Endocrine Toxicant BKH,
Gastrointestinal or Liver Toxicant RTECS, Immunotoxicant ATSDR, Neurotoxicant
ATSDR, Reproductive Toxicant HAZMAP, Skin or Sense Organ Toxicant HAZMAP
RTECS

Attachment 2

Fort Ord Installation Assessment 1983; BW-0013

Pesticides

At the time of the team's visit, all pesticide (insecticide, herbicide, rodenticide) application was done by trained and certified post personnel from the Directorate of Engineering and Housing (DEH) Pest Control Office, which has the responsibility for FO and its subinstallations. However, herbicides are reportedly applied on the post golf course by golf course personnel, uncertified in pesticide application, but closely supervised by pest management personnel.

Pest control report DD Form 1532 is compiled monthly by the Pest Control Office and reviewed by the Preventive Medicine Activity (PVNTMED) as required by Army regulation 420-76. However, it was reported that in the past herbicides from the golf course were stored in an unapproved location, and usage was improperly reported on DD Form 1532. This has since been corrected.] IMPROPER HERB STORAGE

Pesticide, rodenticides, squirrel control at garrison and range areas

Current pesticide application consists primarily of various rodenticides in the garrison and range areas to control the ground squirrel population. Ground squirrels are an ideal host for fleas, including those infected with bubonic plague. The fleas live on these rodents and in their burrows and nesting locations. Starting at the lower food chain, these squirrels are subject to the carnivores and, if infected with the plague, can in turn eventually infect man via the flea itself or the infected animal. Additionally, squirrels are the leading cause of structural damage to manmade facilities onpost [Lettermen Army Institute of Research (LAIR), 1977].

Pesticide, range areas, extremely toxic applied aerially

Ground squirrel control is the major pest control operation and it is reported that contracts to alleviate this problem will be awarded in FY82. The Pest Control Office was trying to control the ground squirrel

population by maintaining them at low levels in the range areas and eradicating them in the cantonment and housing areas. Rodenticides (such as zinc phosphide) were baited in the range lands, and chlorophacinone and diphacinone (mild anticoagulants) were baited in the cantonment areas. Prior to February 1972, an extremely toxic rodenticide, 1080, an anticoagulant containing sodium fluoroacetate, was applied both aerially and as a bait. The use of this material (1080) was discontinued after the issuance of Executive Order 11643, titled: Environmental Safeguards on Activities for Animal Damage Control on Federal Lands (Sixth U.S. Army Medical Laboratory, 1974). However, it is still used in the surrounding county by the civilian population.

Squirrel control, poison, smoke bombs

In addition to anticoagulant poison baits, other methods of ground squirrel control were utilized, such as the use of calcium cyanide gas cartridges in the burrows and nests of squirrels located in the open areas. Another method reportedly used was having uncertified pest control summer employees locate nests, cover all exits but one, and drop smoke bombs in the remaining entrance.

Another method in the attempt to prevent possible outbreaks of bubonic plague was to eliminate the flea itself and not the host. This method is achieved through the application of sevin (carbyl dust) in and around the rodent nests. Squirrels found dead were reported to be buried on location to prevent possible secondary killing of animals likely to eat dead squirrels containing lethal quantities of poison. Other methods of control have been trapping and shooting. Despite these control programs, plague has broken out on occasion at FO and its subinstallations.

Pesticide application monthly food establishments

Pesticides are applied on a monthly schedule at food handling establishments as preventive maintenance against cockroaches. All other applications are done on an as-needed basis and include: spraying malathion at the landfill and latrines to control annoying flies and in muddy low areas to reduce mosquito breeding, and spraying herbicides

Herbicides nonselective weed killers, training areas

with nonselective and preemergent weed killers such as Hyvar X, 2,4-D, and Tordon 101 to control poison oak and thick brush in the training areas and dandelions on the golf course. It was reported that mosquito control at Mud Hen Lake and East Garrison Lake was handled on a regular basis by the Northern Salinas Valley Mosquito Abatement District through the use of malathion and Altosid SR-10, a growth regulator. Additionally, the Linda Vista Landscaping Co. is responsible for fertilizing trees, shrubs, and lawns.

Although FO has both a complete Spill Prevention Control and Countermeasure (SPCC) plan and an Installation Spill Contingency Plan (ISCP), the Fire Department does not maintain records of current quantities and types of pesticides being used by the pest controllers. In the future, the Fire Department, under the ISCP, will maintain inventories and locations of toxic and hazardous materials including pesticides.

Currently, all pesticides are stored in Bldg. 4912. The concrete building has an exhaust fan and is properly vented. The 1-room building is unbermed; has incompatible storage of rodenticides, insecticides, and herbicides within the same room; and does not have inventories of pesticides stored within posted as required by Army regulations (U.S. Army 1978) and Federal regulations (EPA, 1981e). Pesticides are inventoried quarterly, and records are kept on file with the post agronomist and Pest Control foreman. A list of these pesticides is included in App. D.

The mixing facility is located in Bldg. 4897, a concrete building subdivided into several maintenance activities. The pesticide mixing area is properly sealed from the rest of the workshop. It has a concrete floor and is properly vented. It is, however, unbermed and an open French drain to the sand under the foundation is located next to the mixing sink. This is not in compliance with Federal regulations (EPA, 1981e). Rinse water is recycled.

At present, there are neither a formally approved pest control standing operating procedure (SOP) nor an Installation Pest Management Program. Currently, a formal pest control SOP is being prepared by the post agronomist to update and standardize operations.

Expended pesticide containers are triple-rinsed and crushed for disposal at the landfill. Protective clothing is sent to the post laundry daily and washed separately from other clothing. There have never been any pesticide spills reported. A trash can full of sawdust absorbent is kept on hand in the event that a spill may have to be contained.

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3.5.5 PESTICIDE MIXING AND STORAGE AREAS

3.5.5.1 Description

Pesticides are currently stored and mixed at the pesticide shop facilities located in the Building 2076 complex at the former Main Garrison STP (operated by the DEH) and in Building 4109 at the golf course, as shown in Figures 3-2a and 3-2c, respectively (AREE 18). At the time of the site visit, DEH was in the process of moving the pesticide operations to the former STP location; therefore, operations at this new facility could not be assessed. Herbicides are also stored at the golf course building [R-1].

Former locations of pesticide mixing and/or storage areas include Buildings 4897, 4913, 142, and 2992, as shown on Figures 3-2d, 3-2e, 3-2f, and 3-2h. In addition, pesticides were reportedly stored in the past in the East Garrison at Building 142, as shown on Figure 3-2h. Most currently, all pesticides were stored in Building 4913, a concrete, unbermed, 1-room building where incompatible storage of pesticides, herbicides, and insecticides occurred in the past [R-22]. The pesticide mixing area was most recently located in Building 4897, a concrete and metal building subdivided into separate work and maintenance areas. This building has an unbermed concrete floor and there is an open french drain (to the soil below the building) located next to the sink used to mix pesticides.

Standard practices for pesticide mixing by DEH-supervised personnel [R-3, R-22] includes triple rinsing of used pesticide containers and recycling of rinse water. The empty, rinsed cans are disposed of offsite in a Class III landfill and in the past were disposed of at the onsite landfill. Types of pesticides used at Ord include Warfarin, lindane, chlordane, Sevin, Baygon, Diazinon, Derzvan, and malathion.

Building 2992 was utilized in the past to store rodenticides; use of these pest controls at Ord includes zinc phosphide, Sevin, and anticoagulants. Application of pesticides at Ord is discussed in Subsection 3.15.

3.5.5.2 Known and Suspected Releases

According to site reports [R-22], pesticide mixing operations at Ord have been well-maintained operations without obvious spillage. However, the potential exists for isolated spills to have occurred at any of the storage or mixing facilities. In addition, in the past triple-rinsed drained containers were disposed of in the onsite landfill. However, the potential environmental threat due to this disposal activity is low because of the rinsing process.

3.15.3 PESTICIDE USAGE

3.15.3.1 Description

Application of all pesticides, including insecticides, herbicides and rodenticides (AREE 61), is reportedly done by trained and certified post personnel from the DEH Pest Control Office. However, herbicides are reportedly applied on the post golf course by golf course personnel, who are uncertified in pesticide application but are closely supervised by pest management personnel.

Pest control report DD Form 1532 is compiled monthly by the Pest Control Office and reviewed by the Preventive Medicine Activity (PVNTMED), as required by Army regulation 420-76. However, it was reported that in the past herbicides from

Various rodenticides in the Garrison and range areas

the golf course were stored in an unapproved location, and usage was improperly reported on DD Form 1531. This has since been corrected.

Current pesticide application consists primarily of various rodenticides in the garrison and range areas to control the ground squirrel population. Ground squirrels are an ideal host for fleas, including those infected with bubonic plague. The fleas live on these rodents and in their burrows and nesting locations. Starting at the lower food chain, these squirrels are subject to the carnivores and, if infected with the plague, can in turn eventually infect man via the flea itself or the infected animal. In addition, squirrels are the leading cause of structural damage to manmade facilities onpost [R-3].

Ground squirrel control is the major pest control operation at Ord. The Pest Control Office was trying to control the ground squirrel population by maintaining them at low levels in the range areas and eradicating them in the cantonment and housing areas. Rodenticides (such as zinc phosphide) were baited in the range lands, and chlorophacinone and diphacinone (mild anticoagulants) were baited in the cantonment areas. Prior to February 1972, an extremely toxic rodenticide, 1080, a citric acid cycle inhibitor containing sodium fluoroacetate, was applied both aerially and as a bait. The use of 1080 was discontinued after the issuance of Executive Order 11643, entitled Environmental Safeguards on Activities for Animal Damage Control on Federal Lands [R-3].

In addition to anticoagulant poison baits, other methods of ground squirrel control were used, such as calcium cyanide gas cartridges in the burrows and nests of squirrels located in the open areas. Another method reportedly used was to have uncertified summer employees locate nests, cover all exits but one, and drop smoke bombs into the remaining entrance.

Herbicides in training areas to control poison oak and thick brush.

Another method in the attempt to prevent possible outbreaks of bubonic plague was to eliminate the flea itself and not the host. This consisted of applying sevin (carbaryl dust) in and around the rodent nests. Squirrels found dead were reported to be buried on location to prevent possible secondary killing of animals likely to eat dead squirrels containing lethal quantities of poison. Other methods of control have been trapping and shooting. Despite these control programs, plague has broken out on occasion at Ord and its subinstallations.

Pesticides are applied on a monthly schedule at food handling establishments as preventive maintenance against cockroaches. All other applications, which are done on an as-needed basis, include spraying malathion at the landfill and latrines to control annoying flies and in muddy low areas to reduce mosquito breeding, and spraying herbicides with nonselective and pre-emergent weed killers such as Hyvar X, 2,4-D, and Tordon 101 to control poison oak and thick brush in the training areas and dandelions on the golf course. It was reported that mosquito control at Mud Hen Lake and East Garrison Lake was handled on a regular basis by the Northern Salinas Valley Mosquito Abatement District through the use of malathion

and Altosid SR-10, a growth regulator. The Linda Vista Landscaping Company is responsible for fertilizing trees, shrubs, and lawns [R-3]. In addition, pesticides are and have been used periodically in housing areas on an as-needed basis. Interviews with the site personnel indicate that chlordane was used in the foundation areas of some of the older base housing units and that DERZAN-T has been used in new housing units for termite control since about 1975 [I-3, I-9].

A hearsay report [I-3] indicates that mercury compounds may have been applied to the golf course for control of fungus.

3.15.3.2 Known and Suspected Releases

Pesticides have been applied in many areas at Ord. In most cases, the quantity of pesticides applied in a given area has been minimal and does not constitute a concern for further evaluation. However, at the golf course, the possibility exists that herbicides may have been improperly stored or applied (in addition to the possible application of mercury compounds).