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ONLINE SEARCH RESULTS

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Date: Dec. 19, 1990

Topic: Marshall Islands Bibliography

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Set	Items	Description
1	173	ENEWETAK OR RONGELAP OR BIKINI OR RONGERIK OR KWAJALEIN OR AILINGINAE OR UTIRIK OR BIKAR OR TRUST()TERRITORY(1W)PACIFIC OR PACIFIC()PROVING()GROUND
2	136	S1/TI,DE
3	123	S2/ENG
4	58	S3 AND DT=REPORT

Record - 1

1106001 NSA-33-007300
Radiological and chemical studies of the ground water at Enewetak Atoll. 1. Sampling, field measurements, and analytical methods
Marsh, K.V.; Wong, K.M.; Holladay, G.; Noshkin, V.E.; Buddemeier, R.
California Univ., Livermore (USA). Lawrence Livermore Lab.; Hawaii Univ., Honolulu (USA)
Corp. Source Code: 9500007; 2952000
Publication Date: 26 Sep 1975 28 p.
Country of Publication: United States
Primary Report No.: UCRL--51913(Pt.1)
Journal Announcement: NSA33
Availability: Dep. NTIS $4.00.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts); ERA (Energy Research Abstracts)
Work Location: United States
Contract No.: W-7405-ENG-48
A research program to study the ground water on several of the islets in the Enewetak Atoll is being conducted jointly by Lawrence Livermore Laboratory and the University of Hawaii under the sponsorship of ERDA Division of Biology and Environmental Research. The purpose is to provide data characterizing the ground water for possible use by returning Marshallese and to investigate the hydrology and recycling of radionuclides in an atoll environment. This first of a series of reports describes the sampling locations, field operations, and methods of analysis. (auth)
Descriptors: *ENIWETOK--*RADIATION MONITORING; *GROUND WATER--*RADIOACTIVITY; HYDROLOGY; MEASURING METHODS; RADIOISOTOPES; RADIONUCLIDE MIGRATION; SAMPLING
Subject Codes (NSA): N44330* Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Water
Subject Codes (EDB): 520301* Environmental Sciences, Aquatic--Radioactive Materials Monitoring & Transport--Water

Record - 2

1075453 NSA-32-006458
Radiological resurvey of food, soil, air, and groundwater at Bikini Atoll, 1972

Lynch, O.D.T. Jr.; McCraw, T.F.; Nelson, V.A.; Moore, W.E.
USAEC Nevada Operations Office, Las Vegas; USAEC, Washington, D.C.; Washington Univ., Seattle (USA). Lab. of Radiation Ecology; National Environmental Research Center, Las Vegas, Nev. (USA)
Corp. Source Code: 6602000; 6549500; 6816000; 9500144
Publication Date: Feb 1975 33 p.
Country of Publication: United States
Primary Report No.: ERDA--34
Journal Announcement: NSA32
Availability: Dep. NTIS $4.00.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *ANTIMONY 125--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *BISMUTH 207--*RADIATION MONITORING; *CESIUM 137--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *EUROPIUM 155--*RADIATION MONITORING; *FOOD--*RADIATION MONITORING; *GROUND WATER--*RADIATION MONITORING; *IRON 55--*RADIATION MONITORING; *PLUTONIUM 238--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; *SOILS--*RADIATION MONITORING; *STRONTIUM 90--*RADIATION MONITORING; *SURFACE AIR--*RADIATION MONITORING; BIRDS; CRUSTACEANS; DAILY VARIATIONS; ENVIRONMENT; FISHES; PLANTS; RADIONUCLIDE KINETICS; RADIONUCLIDE MIGRATION; SAMPLING; SEAFOOD; SEA WATER; SEDIMENTS; TIDE
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44300 Environmental & Earth Sciences--Radioactivity Monitoring & Transport

Record - 3

1072586 NSA-32-003496
Laboratory experiments on the transfer dynamics of plutonium from marine sediments to sea water and to marine organisms (Donax denticulatus, Lucina pectinata)
Mo, T.; Lowman, F.G.
Puerto Rico Nuclear Center, Mayaguez
Corp. Source Code: 5337000
Publication Date: 1975 35 p.
Conference title: 4. national symposium on radioecology
Conference location: Corvallis, Oregon, USA
Conference date: 12 May 1975
Country of Publication: United States
Primary Report No.: CONF-750503--5
Journal Announcement: NSA32
Availability: Dep. NTIS $4.75.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: Puerto Rico
Descriptors: *ALGAE--*RADIONUCLIDE KINETICS; *MOLLUSCS--*RADIONUCLIDE KINETICS; *PLUTONIUM 239--*RADIOECOLOGICAL CONCENTRATION; *PLUTONIUM 240--*RADIOECOLOGICAL CONCENTRATION; *SEAWATER--*RADIONUCLIDE MIGRATION; *SEDIMENTS--*RADIONUCLIDE MIGRATION; BIKINI; OXYGEN; UPTAKE
Subject Codes (NSA): N44340* Environmental & Earth Sciences--Radioactivi

ty Monitoring & Transport--Ecosystems & Food Cycles

Record - 4

1056793 NSA-31-022632
Plutonium in aqueous systems (Content of $sup 239$Pu, $sup 240$Pu, and $sup 241$Am in Water, Sediments, and Biota at Bikini and Eniwetok Atolls)
Schell, W.R.; Watters, R.L.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology; USAEC Division of Biomedical and Environmental Research, Washington, D.C.
Corp. Source Code: 6816000; 9500233
Publication Date: 17 May 1974 26 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-11
Journal Announcement: NSA31
Availability: Dep. NTIS $4.50.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: AT(45-1)-2225
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; AQUATIC ECOSYSTEMS; COASTAL WATERS; DIFFUSION; INVERTEBRATES; PLANKTON; RADIOECOLOGICAL CONCENTRATION; RADIONUCLIDE KINETICS; RADIONUCLIDE MIGRATION; SEDIMENTS; VERTEBRATES
Subject Codes (NSA): N44330* Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Water; N44500 Environmental & Earth Sciences--Site Surveys

Record - 5

1056792 NSA-31-022631
Distribution of plutonium and americium in Bikini lagoon ($sup 239$Pu, $sup 240$Pu, and $sup 241$Am)
Nevissi, A.; Schell, W.R.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: 5 Mar 1974 32 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-7
Journal Announcement: NSA31
Availability: Dep. NTIS $4.75.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: AT(45-1)-2225
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *COASTAL WATERS--*RADIONUCLIDE MIGRATION; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; FLOW RATE; PARTICLE SIZE; PLANKTON; RADIOECOLOGICAL CONCENTRATION; RADIONUCLIDE KINETICS; SEAWATER; SEDIMENTS; VARIATIONS
Subject Codes (NSA): N44330* Environmental & Earth Sciences--Radioactivi

ty Monitoring & Transport--Water; N44500 Environmental & Earth Sciences--Site Surveys

Record - 6

1054014 NSA-31-019673
Distribution of alpha emitting radionuclides in sediments of Bikini Atoll lagoon (Distribution of nuclear weapon parent fissile materials in environment 16 years post-explosion)
Marshall, R.P.; Schell, W.R.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: 26 Jun 1974 53 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-12 and App.
Journal Announcement: NSA31
Availability: Dep. NTIS $5.75.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: AT(45-1)-2225
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *PLUTONIUM 238--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; *SEDIMENTS--*RADIOACTIVITY; *SOILS--*RADIOACTIVITY; BOREHOLES; COASTAL WATERS; CRATERS; ENVIRONMENT; ISOTOPE RATIO; NUCLEAR EXPLOSIONS; NUCLEAR WEAPONS; SAMPLING; SURFACE CONTAMINATION; TESTING; TIME DEPENDENCE
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44420 Environmental & Earth Sciences--Radiometric Techniques--Soil; N44430 Environmental & Earth Sciences--Radiometric Techniques--Water; N42500 Engineering--Nuclear Explosions

Record - 7

1054013 NSA-31-019672
Concentrations and physical-chemical states of radionuclides in Bikini Atoll Lagoon water
Schell, W.R.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: Jun 1974 50 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-10
Journal Announcement: NSA31
Availability: Dep. NTIS $5.50.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: AT(45-1)-2225
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *BISMUTH 207--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *EUROPIUM 155--*RADIATION MONITORING; *IRON 55--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION

MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; *SEAWATER--*RADIATION MONITORING; *URANIUM 238--*RADIATION MONITORING; AQUATIC ECOSYSTEMS; ENVIRONMENT; RADIOACTIVITY; RADIOMETRIC ANALYSIS; SAMPLE PREPARATION; SAMPLING; SEDIMENTS
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44430 Environmental & Earth Sciences--Radiometric Techniques--Water; N44340 Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Ecosystems & Food Cycles

Record - 8

1054012 NSA-31-019671
Polonium-210 and plutonium-239, 240 in biological samples of Bikini and Eniwetok Atoll waters
Nevissi, A.; Schell, W.R.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: Jun 1974 21 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-8
Journal Announcement: NSA31
Availability: Dep. NTIS $4.25.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: AT(45-1)-2225
Descriptors: *BIKINI--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; *POLONIUM 210--*RADIATION MONITORING; AQUATIC ECOSYSTEMS; ENVIRONMENT; FISHES; INVERTEBRATES; RADIOACTIVITY; RADIOMETRIC ANALYSIS; RADIONUCLIDE KINETICS; RADIONUCLIDE MIGRATION; SAMPLE PREPARATION; SAMPLING; SEAWATER; SEAWEEDS
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44340 Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Ecosystems & Food Cycles; N44430 Environmental & Earth Sciences--Radiometric Techniques--Water

Record - 9

1053559 NSA-31-019218
Rapid measurements of total alpha radioactivity in sediments of Bikini Atoll lagoon
Marshall, R.P.; Schell, W.R.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: 3 Jul 1974 25 p.
Country of Publication: United States
Primary Report No.: RLO--2225-T18-13
Journal Announcement: NSA31
Availability: Dep. NTIS $4.25.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States

Contract No.: AT(45-1)-2225
Descriptors: *ALPHA SOURCES--*RADIOMETRIC ANALYSIS; *SEDIMENTS--*RADIOMETRIC ANALYSIS; BIKINI; CHEMICAL ANALYSIS
Subject Codes (NSA): N40130* Chemistry--Analytical & Separations Chemistry--Radiometric & Radiochemical Procedures

Record - 10

1037920 NSA-31-003412
Levels of environmental radioactivity in Bikini Atoll (Survey 1967 through 1972)
McCraw, T.F.
USAEC, Washington, D.C.
Corp. Source Code: 6549500
Publication Date: [nd] 13 p.
Primary Report No.: WASH--1289
Journal Announcement: NSA31
Availability: Dep. NTIS $4.00.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Descriptors: *BIKINI--*RADIATION MONITORING; *CESIUM 137--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *HUMAN POPULATIONS--*RADIATION HAZARDS; DOSE RATES; ENVIRONMENT; RADIATION DOSES; RADIOACTIVITY; VARIATIONS
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys

Record - 11

1037891 NSA-31-003383
Transuranics at Pacific Atolls. I. Concentrations in the waters at Eniwetak and Bikini
Noshkin, V.E.; Wong, K.M.; Eagle, R.J.; Gatrousis, C.
California Univ., Livermore (USA). Lawrence Livermore Lab.
Corp. Source Code: 9500007
Publication Date: 26 Jun 1974 32 p.
Primary Report No.: UCRL--51612
Journal Announcement: NSA31
Availability: Dep. NTIS $4.00.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Contract No.: W-7405-ENG-48
Descriptors: *AMERICIUM 241--*RADIATION MONITORING; *BIKINI--*RADIATION MONITORING; *CESIUM 137--*RADIATION MONITORING; *COASTAL WATERS--*RADIONUCLIDE MIGRATION; *ENIWETOK--*RADIATION MONITORING; *NEPTUNIUM 237--*RADIATION MONITORING; *PLUTONIUM 238--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *PLUTONIUM 240--*RADIATION MONITORING; *PLUTONIUM 241--*RADIATION MONITORING; *STRONTIUM 90--*RADIATION MONITORING; AQUATIC ECOSYSTEMS; CHEMICAL STATE
Subject Codes (NSA): N44330* Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Water

Record - 12

1023964 NSA-30-024009
  Enewetak radiological survey (Radioactivity from $sup 239$Pu, $sup 137$Cs, $sup 60$Co, and $sup 90$Sr at various locations and soil depths)
  USAEC Nevada Operations Office, Las Vegas
  Corp. Source Code: 6602000
  Publication Date: Oct 1973 687 p.
  Primary Report No.: NVO--140(Vol.3)
  Journal Announcement: NSA30
  Availability: Nevada Operations Office.
  Document Type: Report
  Language: English
  Subfile: NSA (Nuclear Science Abstracts)
  Work Location: United States
  Descriptors: *CESIUM 137--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *STRONTIUM 90--*RADIATION MONITORING; AERIAL MONITORING; ANIMALS; COLOR; DATA COMPILATION; DEPTH; ENVIRONMENT; ISLANDS; PHOTOGRAPHY; PLANTS; RADIOACTIVITY; SAMPLING; SOILS
  Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44300 Environmental & Earth Sciences--Radioactivity Monitoring & Transport

Record - 13

1023963 NSA-30-024008
  Enewetak radiological survey (Radioactivity from $sup 239$Pu, $sup 90$Sr, $sup 137$Cs, and $sup 60$Co at various locations and soil depths)
  USAEC Nevada Operations Office, Las Vegas
  Corp. Source Code: 6602000
  Publication Date: Oct 1973 617 p.
  Primary Report No.: NVO--140(Vol.2)
  Journal Announcement: NSA30
  Availability: Nevada Operations Office.
  Document Type: Report
  Language: English
  Subfile: NSA (Nuclear Science Abstracts)
  Work Location: United States
  Descriptors: *CESIUM 137--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *PLUTONIUM 239--*RADIATION MONITORING; *STRONTIUM 90--*RADIATION MONITORING; AERIAL MONITORING; COLOR; DATA COMPILATION; DEPTH; ENVIRONMENT; ISLANDS; PHOTOGRAPHY; RADIOACTIVITY; SAMPLING; SOILS
  Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44300 Environmental & Earth Sciences--Radioactivity Monitoring & Transport

Record - 14

1023962 NSA-30-024007
  Enewetak radiological survey (Ecology and human diet in relation to reinhabitation health hazards)
  USAEC Nevada Operations Office, Las Vegas

Corp. Source Code: 6602000
Publication Date: Oct 1973 747 p.
Primary Report No.: NVO--140(Vol.1)
Journal Announcement: NSA30
Availability: Nevada Operations Office.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
Descriptors: *CESIUM 137--*RADIATION MONITORING; *COBALT 60--*RADIATION MONITORING; *ENIWETOK--*RADIATION MONITORING; *FALLOUT DEPOSITS--*VARIATIONS; *HUMAN POPULATIONS--*RADIATION DOSES; *PLUTONIUM 239--*RADIATION MONITORING; *STRONTIUM 90--*RADIATION MONITORING; AERIAL MONITORING; ANIMALS; BODY; ENVIRONMENT; EXTERNAL IRRADIATION; FOOD CHAINS; GAMMA SOURCES; HEALTH HAZARDS; INGESTION; INHALATION; INTERNAL IRRADIATION; ISLANDS; PLANTS; RADIOACTIVITY; RADIONUCLIDE KINETICS; RADIONUCLIDE MIGRATION; SAMPLING; SKELETON; SOILS; TERRESTRIAL ECOSYSTEMS; TIME DEPENDENCE
Subject Codes (NSA): N44500* Environmental & Earth Sciences--Site Surveys; N44340 Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Ecosystems & Food Cycles

Record - 15

848468 NSA-29-013005
Exposure rate reduction on Bikini Island due to concrete dwellings
McCraw, T.F.; Lynch, O.D.T. Jr.
USAEC Nevada Operations Office, Las Vegas. Radiological Operations Div.
Corp. Source Code: 9500450
Publication Date: Jun 1973 8 p.
Primary Report No.: WASH--1273
Journal Announcement: NSA29
Availability: NTIS $4.00.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: United States
During the May 1972 AEC sponsored resurvey of Bikini Atoll Measurements were made to determine the reduction of gamma exposure rates at dwelling sites due to the shielding effect of the concrete structures being erected for occupancy by the returning Bikini people. Exposure rates were measured at several points around and within each dwelling. Results showed that exposure rates present from radioactivity remaining post nuclear testing are reduced within the concrete dwellings by a significant amount. Upon completion of the housing construction effont, an exposure reduction factor of about 50% may apply. This is about what was expected provided materials of construction contained low levels of radioactivity. Even greater reduction can be expected when the housing area is covered with one to two inches of coral gravel as has been recommended. Depending on the occupancy time for residents of these houses, total exposure to external radiation can be expected to be reduced accordingly. External exposure rates measured ranged from 7 to 55 mu R/hr, with an arithmetic mean value of 20 mu R/hr. (CH)
Descriptors: *BIKINI--*RADIATION DOSES; *BUILDING MATERIALS--*RADIATION PROTECTION; *HUMAN POPULATIONS--*RADIATION DOSES; BUILDINGS; CONCRETES; DOSE RATES; EARTH CRUST; ENVIRONMENT; EXTERNAL IRRADIATION; FALLOUT

DEPOSITS; GAMMA SOURCES; NUCLEAR EXPLOSIONS; RADIOACTIVITY; SHIELDING MATERIALS; TIME DEPENDENCE
Subject Codes (NSA): N48510* Life Sciences--Radiation Effects on Animals--Man; N72400 Physics (Radiation & Shielding)--Shielding Calculations & Experiments

Record - 16

832904 NSA-28-029616
Long-lived radionuclides produced at Bikini and Eniwetok Atolls (I)
Schell, W.R.; Yang, A.I.C.
Washington Univ., Seattle (USA). Lab. of Radiation Ecology
Corp. Source Code: 6816000
Publication Date: 30 Apr 1973 29 p.
Primary Report No.: RLO--2225-T-18-3
Journal Announcement: NSA28
Availability: Dep. NTIS $3.50.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Work Location: USA
Descriptors: *ALUMINIUM 26--*RADIOMETRIC ANALYSIS; *AMERICIUM 241--*RADIOMETRIC ANALYSIS; *BERYLLIUM 10--*RADIOMETRIC ANALYSIS; *BIKINI--*FALLOUT; *CARBON 14--*RADIOMETRIC ANALYSIS; *ENIWETOK--*FALLOUT; *FALLOUT--*RADIOMETRIC ANALYSIS; *IRON 55--*RADIOMETRIC ANALYSIS; *MANGANESE 53--*RADIOMETRIC ANALYSIS; *PLUTONIUM 238--*RADIOMETRIC ANALYSIS; *PLUTONIUM 239--*RADIOMETRIC ANALYSIS; ABUNDANCE; CHEMICAL ANALYSIS; FISSION PRODUCTS; NUCLEAR EXPLOSIONS; QUANTITATIVE CHEMICAL ANALYSIS; SEDIMENTS; SEPARATION PROCESSES; SOILS; WATER
Descriptor Groups (Splits): ABUNDANCE
Subject Codes (NSA): N40130* Chemistry--Analytical & Separations Chemistry--Radiometric & Radiochemical Procedures

Record - 17

753996 NSA-26-041291
RADIOLOGICAL RESURVEY OF ANIMALS, SOILS, AND GROUNDWATER AT BIKINI ATOLL, 1969--1970.
Held, E.E.
Washington Univ., Seattle. Lab. of Radiation Ecology
Corp. Source Code: 8688100
Publication Date: 1971 44 p.
Primary Report No.: NVO--269-8(Rev.1)
Note: UNCL
Journal Announcement: NSA26
Availability: Dep. NTIS.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(26-1)-269.
Descriptors: ANTIMONY 125; BIKINI; BIRDS; BISMUTH 207; CESIUM 137; COBALT 60; CRUSTACEANS; FISHES; IRON 55; MARINE ECOSYSTEMS; MOLLUSCS; RADIONUCLIDE KINETICS; RADIONUCLIDE MIGRATION; SILVER 108; SOILS; STRONTIUM 90; TRITIUM; WATER; ZINC 65
Subject Headings/Modifiers: CESIUM ISOTOPES Cs-137/content of soils at

Bikini Atoll during 1969 and 1970

SOILS/radioisotope content of, at Bikini Atoll during 1969 and 1970

COBALT ISOTOPES Co-60/content of fish, lobsters, clams, and sea birds at Bikini Atoll during 1969 and 1970

STRONTIUM ISOTOPES Sr-90/content of fish and crabs at Bikini Atoll during 1969 and 1970

STRONTIUM ISOTOPES Sr-90/content of soils at Bikini Atoll during 1969 and 1970

ANTIMONY ISOTOPES Sb-125/content of soils at Bikini Atoll during 1969 and 1970

OSTEICHTHYES/radioisotope content of, at Bikini Atoll during 1969 and 1970, cesium-137, cobalt-60, and strontium-90

AVES/Numenius tahitiensis (curlew), cobalt-60 content of, at Bikini Atoll during 1969 and 1970

AVES/Arenaria interpres (turnstone), radioisotope content of, at Bikini Atoll during 1969 and 1970, cesium-137 and cobalt-60

AVES/Gygis alba (fairy tern), radioisotope content of, at Bikini Atoll during 1969 and 1970, cesium-137 and cobalt-60

AVES/Anous stolidus (noddy tern), radioisotope content of, at Bikini Atoll during 1969 and 1970, cesium-137 and cobalt-60

MOLLUSCA/Tridacna squamosa (giant clam), cobalt-60 content of, at Bikini Atoll during 1969 and 1970

CRUSTACEA/Panulirus sp. (spiny lobster), radioisotope content of, at Bikini Atoll during 1969 and 1970, cobalt-60 and silver-108m

BIKINI ATOLL/radioisotope content of animals, groundwater, and soils of, during 1969 and 1970, fallout

IRON ISOTOPES Fe-55/content of soils at Bikini Atoll during 1969 and 1970

COBALT ISOTOPES Co-60/content of soils at Bikini Atoll during 1969 and 1970

CESIUM ISOTOPES Cs-137/content of fish and sea birds at Bikini Atoll during 1969 and 1970

SILVER ISOTOPES Ag-108/content of metastable, in spiny lobsters at Bikini Atoll during 1969 and 1970

TRITIUM/content of groundwater at Bikini Atoll during 1969 and 1970

CRUSTACEA/Birgus latro (coconut crab), strontium-90 content of, at Bikini Atoll during 1969 and 1970

ZINC ISOTOPES Zn-65/content of soils at Bikini Atoll during 1969 and 1970
Subject Codes (NSA): N48720* Life Sciences--Nuclide Kinetics & Toxicology--Animals

Record - 18

748806 NSA-26-036099
STUDIES OF CONCENTRATIONS OF UNREPORTED LONG-LIVED RADIONUCLIDES IN BIOTA AND OCEAN SEDIMENTS AT BIKINI AND ENIWETOK ATOLLS. Annual Progress Report, 1971--1972.
Schell, W.R.
Washington Univ., Seattle. Lab. of Radiation Ecology
Corp. Source Code: 8688100
Publication Date: 1972 12 p.
Primary Report No.: RLO--2225-T-18-2
Note: UNCL
Journal Announcement: NSA26
Availability: Dep. NTIS.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-2225.
Descriptors: AQUATIC ECOSYSTEMS; BERYLLIUM 10; BIKINI; COSMIC RADIATION; DISTRIBUTION; ENIWETOK; FALLOUT; IRON 55; MEASURING METHODS; RADIOISOTOPES; SEAWATER; SEDIMENTS; TRACER TECHNIQUES
Subject Headings/Modifiers: SILTS/radioisotope content of, near Bikini and Eniwetok Atolls, measurement of long-lived

RADIOISOTOPES/content of long-lived, in marine environment near Bikini and Eniwetok Atolls

ORGANISMS/radioisotope content of marine, near Bikini and Eniwetok Atolls, measurement of long-lived

BIKINI ATOLL/radioisotope content in marine environment of, measurement of long-lived

ENIWETOK ATOLL/radioisotope content in marine environment of, measurement of long-lived
Subject Codes (NSA): N44430* Environmental & Earth Sciences--Radiometric Techniques--Water

Record - 19

727996 NSA-26-015212
REPORT OF THE RADIOLOGICAL CLEAN-UP OF BIKINI ATOLL.
Smith, A.E.; Moore, W.E.
Western Environmental Research Lab., Las Vegas, Nev.
Corp. Source Code: 8768000
Publication Date: 1972 45 p.
Primary Report No.: SWRHL--111-r
Note: UNCL
Journal Announcement: NSA26
Availability: Dep. NTIS.

Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptors: AQUATIC ECOSYSTEMS; BIKINI; DOSE RATES; ENVIRONMENT; FOOD CHAINS; INTEGRAL DOSES; MARSHALL ISLANDS; RADIATION DOSES; RADIATION MONITORING; RADIONUCLIDE MIGRATION; TERRESTRIAL ECOSYSTEMS; TIME DEPENDENCE
Subject Headings/Modifiers: ECOSYSTEMS/radiation monitoring of Bikini Atoll, before, during, and following 1969 cleanup

RADIATION/monitoring in ecosystems and environment of Bikini Atoll before, during, and following 1969 clean-up

ENVIRONMENT/radiation monitoring of Bikini Atoll, before, during, and following 1969 cleanup

BIKINI ATOLL/radiation monitoring of environment of, before, during, and following 1969 clean-up
Subject Codes (NSA): N44340* Environmental & Earth Sciences--Radioactivity Monitoring & Transport--Ecosystems & Food Cycles

Record - 20

717501 NSA-26-004714
FALLOUT RADIONUCLIDES IN PACIFIC OCEAN TUNA.
Held, E.E.
Washington Univ., Seattle. Lab. of Radiation Ecology
Corp. Source Code: 8688100
Publication Date: 1971 16 p.
Primary Report No.: NVO--269-13
Secondary Report No.: CONF-710501--36
Note: From 3. national symposium on radioecology; Oak Ridge, Tenn. (10 May 1971).
Note: UNCL
Journal Announcement: NSA26
Availability: Dep. NTIS.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(26-1)-269.
Descriptors: BIKINI; CESIUM 137; COBALT 60; FISH; IRON 55; JAPAN; LATITUDE EFFECT; PACIFIC OCEAN; TISSUES; TUNA FISH
Subject Headings/Modifiers: COBALT ISOTOPES Co-60/content in Pacific tuna, effects of latitude on

MEATS/seafood, radioisotope content of tuna from Pacific Ocean, cesium-137, cobalt-60, and iron-55

CESIUM ISOTOPES Cs-137/content in Pacific tuna, effects of latitude on

IRON ISOTOPES Fe-55/content in Pacific tuna, effects of latitude on

OSTEICHTHYES/Thunnus albacares (tuna), specific activities of cesium-137, cobalt-60, and iron-55 in tissues of, from Pacific in vicinity of Bikini and Japan

Subject Codes (NSA): N28210* Life Sciences--Ecology--Interrelation; N284
10 Life Sciences--Health Physics & Safety--Radioactive Contamination &
Decontamination

Record - 21

663503 NSA-25-010997
STUDIES OF THE NATURAL ALPHA-EMITTING RADIOISOTOPES IN MARINE ORGANISMS.
Annual Progress Report, 1970--1971.
Beasley, T.M.
Washington Univ., Seattle. Lab. of Radiation Ecology
Corp. Source Code: 8688100
Publication Date: 1970 46 p.
Primary Report No.: RLO--2225-T-14-1
Note: UNCL
Journal Announcement: NSA25
Availability: Dep. NTIS.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-2225.
Descriptors: ABUNDANCE; BLOOD; CRUSTACEANS; ECHINODERMS; FISH; INVERTEB
RATES; IRON 55; LEAD; LEAD 210; MAN; PACIFIC OCEAN; PLANKTON; POLONIUM 210;
PROTEINS; RADIOISOTOPES
Subject Headings/Modifiers: LEAD ISOTOPES Pb-210/content of benthic fish
and invertebrates, pelagic fish, and zooplankton of Pacific Ocean

LEAD/content of benthic fish and invertebrates, pelagic fish, and
zooplankton of Pacific Ocean

ECHINODERMATA/radioisotope content of sea cucumbers and sea urchins in
Pacific Ocean, lead-210 and polonium-210

CRUSTACEA/radioisotope content of copepods and crabs in Pacific Ocean,
lead-210 and polonium-210

IRON ISOTOPES Fe-55/content of blood of Rongelap Atoll residents

OSTEICHTHYES/radioisotope content of benthic and pelagic, from Pacific
Ocean, lead-210, polonium-210

PROTEINS/radioisotope content of concentrates of, from pelagic fish

POLONIUM ISOTOPES Po-211/content of benthic fish and invertebrates,
pelagic fish, and zooplankton of Pacific Ocean

PLANKTON/radioisotope content of, in Pacific Ocean, lead-210 and
polonium-210

.MAN/iron-55 content of blood of, in Rongelap Atoll
Subject Codes (NSA): N28210* Life Sciences--Ecology--Interrelation; N284
10 Life Sciences--Health Physics & Safety--Radioactive Contamination &
Decontamination

Record - 22

650231 NSA-24-050798
MEDICAL SURVEY OF THE PEOPLE OF RONGELAP AND UTIRIK ISLANDS THIRTEEN, FOURTEEN, AND FIFTEEN YEARS AFTER EXPOSURE TO FALLOUT RADIATION (MARCH 1967, MARCH 1968, AND MARCH 1969).
Conard, R.A.; Sutow, W.W.; Lowrey, A. and others)
Brookhaven National Lab., Upton, N. Y.
Corp. Source Code: 1401000
Primary Report No.: BNL--50220
Note: UNCL
Journal Announcement: NSA24
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptor Groups (Splits): CARCINOGENESIS--CARCINOMAS--GLANDS--INGESTION--INHALATION--IODINE ISOTOPES--MAN--RADIATION DOSES--THYROID--TIME--TUMORS

FALLOUT--MAN--MARSHALL ISLANDS--MEDICINE--POPULATIONS--RADIATION DOSES--RADIATION EFFECTS--TESTING--TIME
Subject Headings/Modifiers: POPULATIONS/medical survey of Marshall Island, 13, 14, and 15 years following exposure to fallout

IODINE ISOTOPES I-131/effects on human thyroid gland following exposure to fallout, carcinogenic

IODINE ISOTOPES I-132/effects on human thyroid gland following exposure to fallout, carcinogenic

MARSHALL ISLANDS/medical survey of population of, 13, 14, and 15 years following exposure to fallout

DISEASES, NEOPLASTIC/carcinomas, incidence in human thyroid glands, effects of exposure to fallout iodine radioisotopes on

DISEASES, PHYSIOLOGICAL/hypothyroidism, incidence in man in relation to exposure to fallout iodine radioisotopes

MAN/radioinduced thyroid neoplasms in, relation to exposure to fallout, iodine-131, iodine-132, iodine-133, and iodine-134 $beta$ and

FALLOUT/radioisotope content of, relation of, to thyroid carcinogenicity, iodine-131, iodine-132, iodine-133, and iodine-134

DISEASES, NEOPLASTIC/benign, incidence in human thyroid glands, effects of exposure to fallout iodine radioisotopes on

IODINE ISOTOPES I-134/effects on human thyroid gland following exposure to fallout, carcinogenic

IODINE ISOTOPES I-133/effects on human thyroid gland following exposure to fallout, carcinogenic
Subject Codes (NSA): N28220* Life Sciences--Ecology--Radiation Effects;

N28420 Life Sciences--Health Physics & Safety--Dosimetry & Monitoring; N2830 Life Sciences--Radiation Effects on Animals--Man

Record - 23

564929 NSA-23-017977
DISTRIBUTION OF RADIONUCLIDES IN THE ENVIRONMENT OF ENIWETOK AND BIKINI ATOLLS, AUGUST 1964.
Welander, A.D.
Washington Univ., Seattle. Coll. of Fisheries
Corp. Source Code: 8679200
Primary Report No.: CONF-670503--
Report No., Pages: CONF-670503--, pp 346-54
Note: UNCL
Journal Announcement: NSA23
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptors: ALGAE; ANIMALS; ANTIMONY 125; BIRDS; BISMUTH 207; CERIUM 144; COBALT 60; DEPOSITS; DISTRIBUTION; ENVIRONMENT; FISH; IRON 55; ISLANDS; MANGANESE 54; NUCLEAR EXPLOSIONS; PACIFIC OCEAN; PLANTS; PLUTONIUM 239; RADIOISOTOPES; RATS; RUTHENIUM 106; SEA; SEDIMENTS; SOILS; STRONTIUM 90; TESTING; TISSUES; WATER
Subject Headings/Modifiers: RUTHENIUM ISOTOPES Ru-106/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

STRONTIUM ISOTOPES Sr-90/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

CESIUM ISOTOPES Cs-137/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

ENIWETOK ATOLL/radioisotope content of environment at, in 1964

BISMUTH ISOTOPES Bi-207/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

CERIUM ISOTOPES Ce-144/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

PLUTONIUM ISOTOPES Pu-239/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

IRON ISOTOPES Fe-55/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

SILTS/radioisotope content of bottom, at Bikini and Eniwetok in 1964

SOILS/radioisotope content of, at Bikini and Eniwetok in 1964

GROUND WATERS/radioisotope content of, at Bikini and Eniwetok in 1964

PACIFIC OCEAN/radioisotope content of, at Bikini and Eniwetok in 1964

PLANKTON/radioisotope content of, at Bikini and Eniwetok in 1964

RATS/radioisotope content of, at Bikini and Eniwetok in 1964
OSTEICHTHYES/radioisotope content of, at Bikini and Eniwetok in 1964

AVES/radioisotope content of, at Bikini and Eniwetok in 1964

ANIMALS/radioisotope content of, at Bikini and Eniwetok in 1964

PLANTS/radioisotope content of terrestrial, at Bikini and Eniwetok in 1964

MANGANESE ISOTOPES Mn-54/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964
COBALT ISOTOPES Co-60/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

ANTIMONY ISOTOPES Sb-125/content of animals, bottom sediments, plants, and water at Bikini and Eniwetok in 1964

BIKINI ATOLL/radioisotope content of environment at, in 1964
Subject Codes (NSA): N28220* Life Sciences--Ecology--Radiation Effects

Record - 24

560625 NSA-23-013669
RADIOLOGICAL CHEMISTRY.
Battelle-Northwest, Richland, Wash. Pacific Northwest Lab.
Corp. Source Code: 1158000
Primary Report No.: BNWL--715(Pt.2)
Report No., Pages: BNWL--715(Pt.2), pp 1-149
Note: UNCL
Journal Announcement: NSA23
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptor Groups (Splits): ACTIVATION ANALYSIS--ANTIMONY--BROMINE--CHROMIUM--COBALT--DETERMINATION--GAMMA SPECTROMETERS--GOLD--IRON--LUNGS--MANMERCURY--MINING--NEUTRON BEAMS--PHOSPHORUS--POTASSIUM--RUBIDIUM--SCANDIUM--SELENIUM--SILVER--SODIUM--TISSUES--TRACE AMOUNTS--TUNGSTEN--URANIUM--ZINC

BARIUM 140--CERIUM 141--CERIUM 143--DETERMINATION--FISSION PRODUCTS--GAMMA SPECTROMETERS--IODINE 131--IODINE 132--IODINE 133--IODINE 135--LANTHANUM 140--MIXING--MOLYBDENUM 99--NEODYMIUM 147--NIOBIUM 95--NIOBIUM 97--PALLADIUM 109--PROMETHIUM 149--RHODIUM 105--RUTHENIUM 103--SAMARIUM 153--SEPARATION PROCESSES--SILVER 111--SILVER 112--TECHNETIUM 99--TELLURIUM 131--TELLURIUM 132--ZIRCONIUM 95

AMERICIUM--BIOLOGICAL MATERIALS--BIOLOGY--DETERMINATION--GAMMA SPECTROMETERS--IMPURITIES--LITHIUM--PLUTONIUM--SILICON

BARIUM 140--BERYLLIUM 7--BISMUTH 214--CESIUM 137--CHROMIUM 51--COBALT 57--COBALT 60--DETERMINATION--DISTRIBUTION--EUROPIUM 152--FISH--GAMMA SPECTROMETERS--IRON 59--MANGANESE 54--MERCURY 203--POTASSIUM 40--RADIUM 226--SALMON--SCANDIUM 46--SILVER 110--SODIUM 22--THALLIUM 208--TISSUES--YTTRIUM 88--ZINC 65

AMERICIUM 241--BIOLOGICAL MATERIALS--BIOLOGY--ELECTRODEPOSITION--HYDROFLUORIC ACID--IRON--PLUTONIUM 239--SEPARATION PROCESSES

ALPHA PARTICLES--BETA PARTICLES--COUNTERS--DETERMINATION--IRON--IRON 55--LEAD--PACIFIC OCEAN--PROPORTIONAL COUNTERS--SEA

BIOLOGICAL MATERIALS--BIOLOGY--DETERMINATION--LEAD--LEAD 210--SPECTROSCOPY

ANTIMONY--ATMOSPHERE--CADMIUM--DETERMINATION--POLAROGRAPHY--PRECIPITATION--TRACE AMOUNTS

ACTIVATION ANALYSIS--ANTIMONY--BROMINE--CESIUM--COBALT--DETERMINATION--FISH--GAMMA SPECTROMETERS--IRON--MERCURY--MUSCLES--NEUTRON BEAMS--POTASSIUM--RUBIDIUM--SALMON--SCANDIUM--SELENIUM--SILVER--SODIUM--TRACE AMOUNTS--ZINC

ACTIVATION ANALYSIS--ANTIMONY--BROMINE--CESIUM--CESIUM 137--CHROMIUM--COBALT--COBALT 60--COINCIDENCE METHODS--DETERMINATION--FISH--GAMMA SPECTROMETERS--IRON--LIVER--MERCURY--NEUTRON BEAMS--POTASSIUM--POTASSIUM 40--RUBIDIUM--SALMON--SCANDIUM--SELENIUM--SILVER--SILVER 110--SODIUM--TISSUES--TRACE AMOUNTS--ZINC--ZINC 65

ACTIVATION ANALYSIS--ANTIMONY--ANTIMONY 124--BROMINE--CESIUM--CESIUM 134--CHROMIUM--COBALT--COBALT 60--DETERMINATION--FISH--GAMMA SPECTROMETERS--IRON--MERCURY--MUSCLES--NEUTRON BEAMS--POTASSIUM--RUBIDIUM--SCANDIUM--SCANDIUM 46--SELENIUM--SILVER--SILVER 110--SODIUM--TISSUES--TRACE AMOUNTS--ZINC--ZINC 65

ACTIVATION ANALYSIS--ANTIMONY--BROMINE--CESIUM--COBALT--COPPER--DETERMINATION--ERRORS--GAMMA SPECTROMETERS--IRON--NEUTRON BEAMS--SCANDIUM--SHIELDING--SILVER--SODIUM--TISSUES--TRACE AMOUNTS--ZINC

ACTIVATION ANALYSIS--AEROSOLS--ANTIMONY--CESIUM--CHROMIUM--COBALT--DETERMINATION--FILTERS--IRON--LEVELS--NEUTRON BEAMS--SCANDIUM--SILVER--SODIUM--STRATOSPHERE--ZINC

ADSORPTION--ANTIMONY--CESIUM--COBALT--CONTAINERS--GLASS--INDIUM--IRON--POLYETHYLENES--PYREX--RUBIDIUM--SCANDIUM--SEA--SILVER--STRONTIUM--SURFACES--URANIUM--VESSELS--WATER--ZINC

ACTIVATION ANALYSIS--ALUMINUM--ANTIMONY--BARIUM--BROMINE--CERIUM--CESIUM--CHROMIUM--CLAYS--COBALT--DEPOSITS--DETERMINATION--EUROPIUM--GAMMA SPECTROMETERS--IRON--LANTHANUM--MANGANESE--NEUTRON BEAMS--POTASSIUM--SAMARIUM--SCANDIUM--SEA--SEDIMENTS--SODIUM--THORIUM--TRACE AMOUNTS--VANADIUM--YTTERBIUM--ZINC

ACTIVATION ANALYSIS--ANTIMONY--COBALT--DETERMINATION--GAMMA SPECTROMETERS--NEUTRON BEAMS--PACIFIC OCEAN--RUBIDIUM--SCANDIUM--SEA--STRONTIUM--TRACE AMOUNTS--URANIUM--WATER--ZINC

ABUNDANCE--ACTIVATION ANALYSIS--ANTIMONY--BERYLLIUM 7--CESIUM--CESIUM 137--COBALT--COBALT 60--DETERMINATION--ENVIRONMENT--FISH--GAMMA SPECTROMETERS--IRON--IRON 55--LEAD--LEAD 210--MANGANESE 54--NEUTRON BEAMS--PACIFIC OCEAN--POLONIUM 210--RADIUM 226--RUBIDIUM--RUTHENIUM 106--SCANDIUM--SEA--SILVER--STRONTIUM--THORIUM 228--TRACE AMOUNTS--URANIUM--WATER--ZINC--

ZINC 65

ANTIMONY--COBALT--COPPER--DEPOSITS--IRON--LANTHANUM--MANGANESE--PACIFIC OCEAN--SCANDIUM--SEA--TRACE AMOUNTS--WATER--ZINC

ABUNDANCE--ATLANTIC OCEAN--BERYLLIUM 7--PACIFIC OCEAN--SEA--WATER

ABUNDANCE--ESKIMOS--FALLOUT--FISH--IRON 55--MAN--PACIFIC OCEAN--POPULATIONS--SALMON--SEA

ABUNDANCE--ANTIMONY 125--BARIUM 140--BIKINI--BISMUTH 207--CERIUM 141--CERIUM 144--CESIUM 137--COBALT 60--EUROPIUM 155--IRON 55--ISLANDS--LEAD 210--MANGANESE 54--NIOBIUM 95--PACIFIC OCEAN--PRASEODYMIUM 144--RHODIUM 101--RHODIUM 102--RUTHENIUM 103--RUTHENIUM 106--SEA--SILT--SOILS--STRONTIUM 89--STRONTIUM 90--THALLIUM 208--ZIRCONIUM 95

AIR--DESIGN--FALLOUT--LABORATORY EQUIPMENT--OPERATION--TRANSPORT

ABUNDANCE--CESIUM 137--IRON 55--MAN--NORTH AMERICA--USA--WASHINGTON

BIOLOGICAL MATERIALS--BIOLOGY--ENVIRONMENT--PERFORMANCE--RADIATION DETECTORS--SEMICONDUCTORS
CERIUM 141--CERIUM 143--COLUMBIA RIVER--COOLANTS--DETERMINATION--DYSPROSIUM 165--ERBIUM 171--EUROPIUM 152--EUROPIUM 154--EUROPIUM 156--GADOLINIUM 159--GAMMA SPECTROMETERS--HOLMIUM 166--HYDROLOGY--LANTHANUM 140--NEODYMIUM 147--NORTH AMERICA--PRASEODYMIUM 142--REACTORS--RIVERS--SAMARIUM 153--SCANDIUM 46--SEPARATION PROCESSES--TERBIUM 160--USA--WASHINGTON--WATER--YTTERBIUM 169--YTTERBIUM 175--YTTRIUM 92--YTTRIUM 93
Subject Headings/Modifiers: HYDROFLUORIC ACID/effects on electrodeposition of americium-241 and plutonium-239 from ashed biological materials in presence of iron

CERIUM ISOTOPES Ce-143/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

EUROPIUM ISOTOPES Eu-152/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

EUROPIUM ISOTOPES Eu-156/determination in reactor effluent and river water by group separation and $gamma$ spectrometry
BIOLOGICAL MATERIALS/separation of americium-241 and plutonium-239 from, by electrodeposition in presence of iron, effects of hydrofluoric acid on

CERIUM ISOTOPES Ce-141/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

IRON/effects on electrodeposition of americium-241 and plutonium-239 from ashed biological materials, effects of hydrofluoric acid on

PRASEODYMIUM ISOTOPES Pr-142/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

SCANDIUM ISOTOPES Sc-46/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

SURFACE WATERS/analysis for rare earth radioisotopes by group separation and $gamma$ spectrometry

REACTOR COOLANTS/analysis of water, for rare earth radioisotopes by group separation and $gamma$ spectrometry

WATER/analysis of reactor effluent, for rare earth radioisotopes by group separation and $gamma$ spectrometry

COLUMBIA RIVER/analysis for rare earth radioisotopes by group separation and $gamma$ spectrometry

AMERICIUM/determination in ashed biological materials by lithium-activated silicon photon spectrometry

PLUTONIUM/determination in ashed biological materials by lithium-activated silicon photon spectrometry

BIOLOGICAL MATERIALS/analysis of ashed, for americium and plutonium by lithium-activated silicon photon spectrometry

BERYLLIUM ISOTOPES Be-7/distribution in salmon tissues, determination of, by $gamma$ spectrometry

SODIUM ISOTOPES Na-22/distribution in salmon tissues, determination of, by $gamma$ spectrometry

SAMARIUM ISOTOPES Sm-153/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

TERBIUM ISOTOPES Tb-160/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

YTTRIUM ISOTOPES Y-92/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

YTTRIUM ISOTOPES Y-93/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

YTTERBIUM ISOTOPES Yb-169/determination in reactor effluent and river water by group separation and $gamma$ spectrometry

Subject Codes (NSA): N20140* Chemistry--Analytical & Separations Chemistry

Record - 25

559033 NSA-23-012076

GAMMA DOSE RATES AT RONGELAP ATOLL, 1954--1963.

Held, E.E.
Washington Univ., Seattle. Lab. of Radiation Biology

Corp. Source Code: 8688000
Publication Date: 1965 16 p.
Primary Report No.: UWFL--91
Note: UNCL
Journal Announcement: NSA23

Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-1385.
Descriptors: DETERMINATION; DISTRIBUTION; FALLOUT; FISSION PRODUCTS; GAMMA RADIATION; ISLANDS; MARSHALL ISLANDS; NUCLEAR EXPLOSIONS; PACIFIC OCEAN; RADIATION DOSES; SEA; TIME; URANIUM 235; VARIATIONS
Subject Headings/Modifiers: NUCLEAR EXPLOSIONS/radiation dose from, on Rongelap Atoll, Marshall Islands during 1954 to 1963, fallout

MARSHALL ISLANDS/radiation dose from fallout on Rongelap Atoll, during 1954 to 1963, calculation of

GAMMA RADIATION/dose to human population of Rongelap Atoll, Marshall Islands during 1954 to 1963, fallout

GAMMA RADIATION/dose from uranium fission products on Rongelap Atoll, Marshall Islands during 1954 to 1963

RADIATION DOSE/predictions for Rongelap Atoll, Marshall Islands in relation to measurements during 1954 to 1963,

GAMMA RADIATION/dosimetry on Rongelap Atoll, Marshall Islands during 1954 to 1963, fallout
Subject Codes (NSA): N28420* Life Sciences--Health Physics & Safety--Dosimetry & Monitoring

Record - 26

556902 NSA-23-009944
BIKINI--ENIWETOK STUDIES, 1964. PART II. RADIOBIOLOGICAL STUDIES.
Welander, A.D.; Bonham, K.; Palumbo, R.F.; Gessel, S.P.; Lowman, F.G.; Jackson, W.B.; McClin, R.; Lewis, G.B.
Washington Univ., Seattle. Lab. of Radiation Biology
Corp. Source Code: 8688000
Publication Date: 1967 233 p.
Primary Report No.: UWFL--93(Pt.2)
Note: UNCL
Journal Announcement: NSA23
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-1385.
Descriptors: ANIMALS; BIKINI; DISTRIBUTION; ENIWETOK; ENVIRONMENT; FALLOUT; FISSION PRODUCTS; ISLANDS; METABOLISM; NUCLEAR EXPLOSIONS; PACIFIC OCEAN; PLANTS; RADIOISOTOPES; SEA; SOILS; TIME
Subject Headings/Modifiers: FISSION PRODUCTS/content of animals, plants, soils, and waters at Eniwetok Proving Grounds during 1964, survey of

ECOSYSTEMS/radioisotope content of, at Eniwetok Proving Grounds during 1964, survey of

ENIWETOK PROVING GROUNDS/radioisotope contamination of biota and

environment at, survey of fallout
Subject Codes (NSA): N28410* Life Sciences--Health Physics & Safety--Radioactive Contamination & Decontamination

Record - 27

556868 NSA-23-009909
BIKINI--ENIWETOK STUDIES, 1964. PART I. ECOLOGICAL OBSERVATIONS.
Welander, A.D.; Bonham, K.; Donaldson, L.R.; Palumbo, R.F.; Gessel, S.P.; Lowman, F.G.; Jackson, W.B.
Washington Univ., Seattle. Lab. of Radiation Biology
Corp. Source Code: 8688000
Publication Date: 1966 277 p.
Primary Report No.: UWFL--93(Pt.1)
Note: UNCL
Journal Announcement: NSA23
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-1385.
Descriptors: ANIMALS; BIKINI; CONTAMINATION; ENIWETOK; ENVIRONMENT; FALLOUT; ISLANDS; NUCLEAR EXPLOSIONS; PACIFIC OCEAN; PLANTS; RADIATION EFFECTS; SEA; SOILS; TIME
Subject Headings/Modifiers: BIKINI ATOLL/radioactivity levels on, effects of, on ecology, 1964 survey of fallout

ENIWETOK ATOLL/radioactivity levels on, effects of, on ecology, 1964 survey of fallout

ECOLOGY/radiation effects on, of Bikini and Eniwetok Atolls during 1964

ENIWETOK PROVING GROUNDS/radioactive contamination of biota and environment of, 1964 survey of cumulative
Subject Codes (NSA): N28220* Life Sciences--Ecology--Radiation Effects

Record - 28

556499 NSA-23-009540
ATOLL SOIL TYPES IN RELATION TO THE DISTRIBUTION OF FALLOUT RADIONUCLIDES.
Held, E.E.; Gessel, S.P.; Walker, R.B.
Washington Univ., Seattle. Lab. of Radiation Biology
Corp. Source Code: 8688000
Publication Date: 1965 37 p.
Primary Report No.: UWFL--92
Note: UNCL
Journal Announcement: NSA23
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Contract No.: AT(45-1)-1385.
Descriptors: ABSORPTION; ANTIMONY 125; CERIUM 144; CESIUM 137; COBALT 60; DISTRIBUTION; EROSION; EUROPIUM 155; FALLOUT; LAYERS; MIXING; MOTION; N

UCLEAR EXPLOSIONS; PRASEODYMIUM 144; RADIOACTIVITY; SAFETY; SOILS; STRONTIU
M 90; SURFACES; VARIATIONS; ZINC 65
Subject Headings/Modifiers: STRONTIUM ISOTOPES Sr-90/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

ANTIMONY ISOTOPES Sb-125/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

SOILS/radioisotope distribution in Rongelap Atoll, effects of soil age and organic content on

MARSHALL ISLANDS/radioisotope distribution in soils of Rongelap Atoll in, following detonation of thermonuclear device

COBALT ISOTOPES Co-60/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

PRASEODYMIUM ISOTOPES Pr-144/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

CESIUM ISOTOPES Cs-137/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

ZINC ISOTOPES Zn-65/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

EUROPIUM ISOTOPES Eu-153/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll

CERIUM ISOTOPES Ce-144/content and distribution in Rongelap Atoll soils following nuclear explosion on Bikini Atoll
Subject Codes (NSA): N22110* Environmental & Earth Sciences--Geology & Hydrology--Hydrology

Record - 29

553179 NSA-23-006217
EXTERNAL RADIATION LEVELS ON BIKINI ATOLL, MAY 1967.
Beck, H.L.; Bennett, B.G.; McCraw, T.F.
New York Operations Office (AEC), N. Y. Health and Safety Lab.
Corp. Source Code: 5873000
Publication Date: 1967 79 p.
Primary Report No.: HASL--190
Note: UNCL
Journal Announcement: NSA23
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptors: ANTIMONY 125; BIKINI; CESIUM 137; COBALT 60; ENVIRONMENT; GAMMA RADIATION; GAMMA SPECTROMETERS; GEIGER-MUELLER COUNTERS; ISLANDS; MON ITORING; PACIFIC OCEAN; RADIATION DOSES; RADIOACTIVITY; RADIOISOTOPES; RHOD IUM 102; RUTHENIUM 106; SAMPLING; SCINTILLATION COUNTERS; SEA; SOILS; STRON TIUM 90

Subject Headings/Modifiers: RUTHENIUM ISOTOPES Ru-106/content in Bikini Atoll soils, measurement of

RADIATION MONITORING/equipment and methods for environmental, of Bikini Atoll, April to May 1967

NUCLEAR EXPLOSIONS/effects on gamma radiation level of Bikini Atoll

RHODIUM ISOTOPES Rh-102/content in Bikini Atoll soils, measurement of

GAMMA SOURCES/activity in Bikini Atoll soils, equipment and methods for measurement of

COBALT ISOTOPES Co-60/content in Bikini Atoll soils, measurement of

STRONTIUM ISOTOPES Sr-90/content in Bikini Atoll soils, measurement of

SOILS/radioactivity of Bikini Atoll, measurements of gamma

CESIUM ISOTOPES Cs-137/content in Bikini Atoll soils, measurement of

BIKINI ATOLL/radiation monitoring of, equipment and methods for gamma, April to May 1967

ANTIMONY ISOTOPES Sb-125/content in Bikini Atoll soils, measurement of
Subject Codes (NSA): N22110* Environmental & Earth Sciences--Geology & Hydrology--Hydrology

Record - 30

526413 NSA-21-026470
MEDICAL SURVEY OF THE PEOPLE OF RONGELAP AND UTIRIK ISLANDS ELEVEN AND TWELVE YEARS AFTER EXPOSURE TO FALLOUT RADIATION (MARCH 1965 AND MARCH 1966).
Conard, R.A.; Meyer, L.M.; Sutow, W.W.
and others
Brookhaven National Lab., Upton, N. Y.
Corp. Source Code: 1401000
Publication Date: 1967 170 p.
Primary Report No.: BNL--50029
Note: UNCL
Journal Announcement: NSA21
Availability: Dep. CFSTI.
Document Type: Report
Language: English
Subfile: NSA (Nuclear Science Abstracts)
Descriptors: AGE ESTIMATION; BLOOD; CESIUM 137; CHROMOSOMES; COBALT 60; FALLOUT; GROWTH; HORMONES; IODINE 131; LEUCOCYTES; MAN; NUCLEAR EXPLOSIONS; RADIATION DOSES; STRONTIUM 90; THYROID; THYROXINE
Subject Codes (NSA): N28550* Life Sciences--Medicine--Blast & Thermal Effects

Record - 31

352879 NSA-20-007296

MEDICAL SURVEY OF THE PEOPLE OF RONGELAP ISLAND, ELEVEN YEARS AFTER EXPOSURE TO FALLOUT RADIATION (MARCH 1965)
Conard, R.A.; Meyer, L.M.; Sutow, W.W.; (and others)
Brookhaven National Lab., Upton, N.Y.
Publication Date: 1965 35 p.
Primary Report No.: BNL-9698
Journal Announcement: NSA20
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(30-2)-GEN-16
Subject Codes (NSA): HEALTH AND SAFETY

Record - 32

327408 NSA-19-029895
MEDICAL SURVEY OF THE PEOPLE OF RONGELAP AND UTIRIK ISLANDS NINE AND TEN YEARS AFTER EXPOSURE TO FALLOUT RADIATION (MARCH 1963 AND MARCH 1964)
Conard, R.A.; Meyer, L.M.; Sutow, W.W. et al
Brookhaven National Lab., Upton, N.Y.
Publication Date: May 1965 174 p.
Primary Report No.: BNL-908
Journal Announcement: NSA19
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(30-2)-GEN-16
Descriptors: ACCIDENTS; BODY; BONE MARROW; CONTAMINATION; FALLOUT; FISSION PRODUCTS; GAMMA SOURCES; GROWTH; INHIBITION; IRRADIATION; MAN; MARSHALL ISLANDS; NUCLEAR EXPLOSIONS; PACIFIC OCEAN; POPULATIONS; RADIATION DOSES; RADIATION INJURIES; TABLES; TESTING; THYROID
Subject Codes (NSA): BIOLOGY AND MEDICINE; Radiation Effects

Record - 33

306901 NSA-19-009363
THE SOILS OF RONGELAP ATOLL, MARSHALL ISLANDS (thesis)
Kenady, R.M.
Washington. Univ., Seattle
Publication Date: 1962 99 p.
Primary Report No.: TID-21432
Journal Announcement: NSA19
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)-1385
Descriptors: ENVIRONMENT; ISLANDS; MARSHALL ISLANDS; PACIFIC OCEAN; SOILS
Subject Codes (NSA): GEOLOGY AND MINERALOGY; General

Record - 34

306275 NSA-19-008737
CESIUM-137 AND STRONTIUM-90 RETENTION FOLLOWING AN ACUTE INGESTION OF RONGELAP FOOD

Hardy, E.P. Jr.; Rivera, J.; Conard, R.A.
New York Operations Office. Health and Safety Lab., AEC; Brookhaven National Lab., Upton, N.Y.
Publication Date: 1964 24 p.
Primary Report No.: BNL-8657
Secondary Report No.: CONF-765-7
Note: CONF-765-7
Journal Announcement: NSA19
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT-30-2-GEN-16
Descriptors: ACCIDENTS; BIOLOGY; BODY; CESIUM 137; CONTAMINATION; COUNTERS; DIET; FALLOUT; FECES; FISSION PRODUCTS; FOOD; HALF-LIFE; MAN; MARSHALL ISLANDS; MEASURED VALUES; MEDICINE; METABOLISM; PACIFIC OCEAN; PLANTS; POPULATIONS; QUANTITY RATIO; RADIOGRAPHY; RADIOISOTOPES; SAMPLING; SEA; STRONTIUM 90; URINE; USA
Subject Codes (NSA): BIOLOGY AND MEDICINE; Metabolism, Tissue Distribution, and Toxicology

Record - 35

235505 NSA-17-025473
MEDICAL SURVEY OF RONGELAP PEOPLE EIGHT YEARS AFTER EXPOSURE TO FALLOUT
Conrad, R.A.; Meyer, L.M.; Sutow, W.W.; Moloney, W.C.; Lowrey, A.; Hickin g, A.; Riklon, E.
Brookhaven National Lab., Upton, N.Y.
Publication Date: Jan. 1963 76 p.
Primary Report No.: BNL-780; BNL-T-296
Secondary Report No.: BNL-T-296
Journal Announcement: NSA17
Document Type: Report
Language: English
Contract No.: AT(30-2)-GEN-16
Results are presented of a medical survey of the people of Rongelap in the Marshall Islands, carried out in March 1962 at 8 years after accidental exposure to fallout from a high yield thermonuclear device during Castle Operation in the Pacific Proving Grounds in March 1954. Sixty-four inhabitants of Rongelap, 105 nautical miles from the detonation, received an estimated dose of 175 r of whole-body radiation, contamination of the skin sufficient to result in beta burns, and slight internal absorption of radioactive materials through inhalation and ingestion. Eighteen Rongelap people on a nearby island received an external dose of about 69 r, and 157 Marshallese on Utirik Island received an estimated dose of 14 r whole-body radiation. The fallout was not visible on this island and no skin effects developed. Findings are summarized of surveys made during the preceding 7 years. Findings are compared with those on comparison populations of Marshallese people. Data are presented from physical examinations, a cancer detection and leukemia survey, growth and development studies in children, ophthalmological examinations, studies on residual beta burns, a dental survey, studies of aging criteria, and estimation of body burden of Sr/sup 90/. Findings persisting in the exposed population include incomplete recovery of certain blood elements to levels found in the unexposed people, retardation of growth and development in some of the irradiated children, and pigmented changes at the sites of

radiation burns of the skin. (C.H.)
Descriptors: ABSORPTION; ACCIDENTS; ADSORPTION; AGE; BETA PARTICLES; BLOOD CELLS; BODY; BONES; CANCER; CONTAMINATION; DETECTION ; EYES; FALLOUT; FISSION PRODUCTS; GAMMA RADIATION; INSPECTION; IRRAD IATION; LEUKEMIA; LUNGS; MAN; MEDICINE; MONITORING; NUCLEAR EXPLOSIONS; PIGMENTS; POPULATIONS; RADIATION DOSES; RADIATION INJURIES; RECOVERY; SKIN; STOMACH; VARIATIONS
Subject Codes (NSA): HEALTH AND SAFETY

Record - 36

197835 NSA-16-021901
MEDICAL SURVEY OF RONGELAP PEOPLE SEVEN YEARS AFTER EXPOSURE TO FALLOUT
Conard, R.A.; MacDonald, H.E.; Meyer, L.M.; Cohn, S.; Sutow, W.W.; Karnof sky, D.; Jaffe, A.A.; Riklon, E.
Brookhaven National Lab., Upton, N.Y.
Publication Date: May 1962 93 p.
Primary Report No.: BNL-727
Journal Announcement: NSA16
Document Type: Report
Language: English
Contract No.: AT(30-2)-GEN-16
Results of a medical survey of the people of Rongelap in the Marshall Islands, carried out in March 1961, 7 years after the accident, are presented. A total of 267 people was examined, most of them on Rongelap Island and some at Kwajalein and Majuro Atolls. Physical examinations showed no acute illnesses present nor any diseases which could be directly associated with radiation effects. However, it was noted that several of the older people, particularly in the exposed group, were becoming quite feeble and helpless. Residual skin changes in areas previously showing lesions from fall-out were present with certainty in about 10 people. Dental examinations revealed no differences between the exposed and unexposed group. Examinations for the detection of such late effects of radiation as cancer and leukemia revealed no evidence of malignancies in any of the people, exposed or unexposed. Results of growth and development in children and hematological studies are also given. (P.C.H.)
Descriptors: ACCIDENTS; AGE; BLOOD; CANCER; ENVIRONMENT; FALLOUT; LEUKEMIA; MAN; MARSHALL ISLANDS; MEDICINE; POPULATIONS; RADIATION EFFECTS; SKIN
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 37

155651 NSA-15-012713
MEDICAL SURVEY OF RONGELAP PEOPLE FIVE AND SIX YEARS AFTER EXPOSURE TO FALLOUT (WITH AN ADDENDUM ON VEGETATION)
Conard, R.A.; Macdonald, H.E. et al.
Brookhaven National Lab., Upton, N.Y.
Publication Date: Sept. 1960 86 p.
Primary Report No.: BNL-609
Journal Announcement: NSA15
Document Type: Report
Language: English
Annual medical surveys of the people of Rongelap Island were carried out in March 1959 and March 1960, 5 and 6 years after their accidental exposure

to fall-out. During the 1959 survey 76 exposed adults (and their children) and 166 unexposed persons, who served as a comparison population, were examined. In addition, groups of children at nearby atolls were examined as controls for the growth and development studies on the exposed Rongelap children. In 1960 only the exposed people were examined. As a result of their exposure in 1954, many of the Rongelap people experienced early symptoms related to the gastrointestinal tract and skink. Later they developed a significant depression of their peripheral blood elements commensurate with the 175 and 69 r calculated dose of gamma radiation. Beta burns of the skin and spotty epilation also were found. Radiochemical analysis of urine samples showed that they had acquired a low-level body bunden of radionuclides. Certain othsr findings possibly related to radiation exposure included loss of weight in adults and a slight lag in growth and development of the children. No deaths occurred that could be related to their radiation exposure, and no specific therapy was given. The 5- and 6-year postexposure surveys were aimed primarily at evaluating the general medical status of the people in relation to that of the unexposed comparison population. Resuits are summanized from surveys on mortality rats; birth rate; physical examinations; growth and development studies; cardiovascular, ophthalmological, deatail, and hematological surveys; measurements of the various parameters usually associated with aging; and possible genetic effects. Body burdens of gamma -emitting fission products, such as Cs/sup 137/ and Zn/sup 65/, we re measured in a whole-body counter and checked by radiochemical analysis of urine specimens. Body bundens of Sr/sup 90/ were estimated from urinary excretion as determined by radiochemical analyses. This study of the internal contamination of the Marshallese provided information on the movement of Cs/sup 137/, Zn/sup 65/, and Sr/sup 90/ from the environme nt to man, on the rate of equilibration of these isotopes with the environment, and on the discrimination factors between food and man. Data are included on changes in the vegetution of Rongelap Atoll which may be due to radioactive fallout. Tabulated data are appended. 57 references. (C.H.)

Descriptors: BLOOD CESIUM 137 CONTAMINATION FALLOUT FISSION PRODUCTS FO OD GAMMA RADIATION GAMMA SOURCES INTESTINE MAN MEDICINE POPULATIONS QUALITA TIVE ANALYSIS RADIATION DETECTORS RADIATION EFFECTS SKIN STOMACH STRONTIUM 90 URINE ZINC 65; BETA PARTICLES BLOOD BLOOD VESSELS EYES FALLOUT GENETICS HEART LIFETIME MAN MEDICINE POPULATIONS QUALITATIVE ANALYSIS RADIATION INJURIES RADIOISOTOPES THERAPY URINE; ENVIRONMENT FALLOUT PLANTS RADIATION EFFECTS

Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 38

145871 NSA-15-002914

FURTHER CONTRIBUTIONS ON GROSS BETA RADIOACTIVITY OF BIOLOGICAL AND RELATED SAMPLES AT THE ENIWETOK PROVING GROUND, 1952-1958. SECTION I. PHYSICAL DECAY OF SAMPLES FROM ENIWETOK ATOLL IN 1952.SECTION II. FURTHER CONTRIBUTIONS ON GROSS BETA RADIOACTIVITY OF PLANKTON AND BOTTOM SAMPLES AT RONGELAP ATOLL, 1954-1958. SECTION III. FURTHER CONTRIBUTIONS ON GROSS BETA RADIOACTIVITY OF FI

Bonham, K.

Washington. Univ., Seattle. Lab. of Radiation Biology

Publication Date: Dec. 4, 1959 47 p.

Primary Report No.: UWFL-63

Journal Announcement: NSA15

Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
Descriptors: ALGAE; ANIMALS; BETA PARTICLES; BIOLOGY; BONES; CESIUM 137; FISH; KIDNEYS; LIVER; MUSCLES; PLANKTON; RADIOACTIVITY; RATS; SAMPLING; TISSUES
Subject Codes (NSA): HEALTH AND SAFETY

Record - 39

137714 NSA-14-021268
POTASSIUM AND CESIUM-137 IN BIRGUS LATRO (COCONUT CRAB) MUSCLE COLLECTED AT RONGELAP ATOLL
Chakravarti, D.; Held, E.E.
Washington. Univ., Seattle. Lab. of Radiation Biology
Publication Date: Jan. 15, 1960 14 p.
Primary Report No.: UWFL-64
Journal Announcement: NSA14
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
Radiocesium and stable potassium levels were determined in samples of muscle tissue of Birgus latro, the coconut crab, collected at Rongelap Atoll, Marshall Islands, during March and August 1958 and March 1959, and at Utirik Atoll in March 1959. Levels of cesium-137 ranged between 731 d/m/g dry weight at Kabelle Island, Rongelap Atoll, and 28 d/m/g dry weight at Utirik Island, Utirik Atoll. The average potassium value for all samples was 13.05 mg/g dry weight with a standard deviation of 3.66. No significant correlation between cesium-137 and potassium levels was found. There wse no significant difference in the average levels of cesium-137 in crabs collected at different times at the same island. (auth)
Descriptors: ANIMALS; CESIUM 137; MARSHALL ISLANDS; MUSCLES; PACIFIC OCEAN; POTASSIUM; QUANTITATIVE ANALYSIS; QUANTITY RATIO; SAMPLING; USA
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 40

137713 NSA-14-021267
STRONTIUM-90 AND GROSS BETA ACTIVITY IN THE FAT AND NON-FAT FRACTIONS OF COCONUT CRAB (Birgus latro) LIVER COLLECTED AT RONGELAP ATOLL DURING MARCH 1958
Chakravarti, D.; Eisler, R.
Washington. Univ., Seattle. Lab. of Radiation Biology
Publication Date: Mar. 1959 13 p.
Primary Report No.: UWFL-29
Journal Announcement: NSA14
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
The values for strontium-90 and gross beta activity in the fat and non-fat fractions from the livers of twelve coconut crabs (Birgus latro) collected at Rongelap Atoll during March 1958 are presented. Although fat

constituted an average of 47 percent by weight on a wet weight basis (74 percent on a dry weight basis), gross beta activity of the fat fraction amounted to less than 0.5 percent of the total activity on a wet weight basis. Fat content on a wet weight basis had a range of 31 percent to 65 percent. There is a linear relationship between strontium-90 activity and gross beta activity. Since the fat content of coconut crab liver is variable and the fat fraction contains practically no radioactivity, it is suggested that the radioactivity (and mineral content) of liver samples be compared on the basis of the non-fat solids. (auth)

Descriptors: ANIMALS; BETA PARTICLES; ISLANDS; LIVER; ORGANIC ACIDS; PACIFIC OCEAN; RADIOACTIVITY; STRONTIUM 90

Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 41

106484 NSA-13-013135

MEDICAL SURVEY OF RONGELAP PEOPLE, MARCH 1958, FOUR YEARS AFTER EXPOSURE TO FALLOUT

Conard, R.A.; Robertson, J.S.; Meyer, L.M.; Sutow, W.W.; Wolins, W.; Lowrey, A.; Urschel, H.C. Jr.; Barton, J.M.; Goldman, M.; Hechter, H.; Eicher, M.; Carver, R.K.; Potter, D.W.

Brookhaven National Lab., Upton, N.Y.

Publication Date: May 1959 38 p.

Primary Report No.: BNL-534

Journal Announcement: NSA13

Availability: NTIS

Document Type: Report

Language: English

Results are summarized from a medical survey carried out in March 1958 on inhabitants of the Rongelap Islands exposed to accidental fall-out radiation during Operation Castle in the spring of 1954. The habitation of these people on Rongelap Island affords the opportunity for a most valuable ecological radiation study on human beings. The various radionuclides present on the island can be traced from the soil through the food and into the human being, where the tissue and organ distributions, biological half-times, and excretion rates can be studied. No apparent acute or subacute effects were found at this time related to the gamma dose of 175 r received, with the possible exception of hemopoietic findings indicating a persisting lag in complete recovery of platelet levels of the peripheral blood. In the males these mean levels were 11 to 16% and in the females 9% below the corresponding mean levels of the comparison population. History and physical examinations revealed no clinical evidence of any illness or findings during the past year or at the time of the survey which could be related to whole-body exposure. Estimates of body burdens of radionuclides were determined by gamma spectroscopy and by radiochemical analyses of urine samples. These measurements showed an increase in the body burden of cesium-137, strontium-90, and zinc-65. Surveys were also made on the incidence of intestinal parasites, and on blood groups and anthropological background of the Marshallese. (For preceding period see BNL-501.) (C.H.)

Descriptor Groups (Splits): BLOOD--BLOOD FORMATION--BODY--DISTRIBUTION--FALLOUT--FOOD--GAMMA RADIATION--HALF-LIFE--ISLANDS--MAN--MEDICINE--METABOLISM--NUCLEAR EXPLOSIONS--PACIFIC OCEAN--PLATELETS--POPULATIONS--PROJECT CASTLE--QUANTITY RATIO--RADIATION DOSES--RADIATION EFFECTS--RADIOISOTOPES--SEX--SOILS--TISSUES--VARIATIONS

ANTIGENS--BIOLOGY--BLOOD--BLOOD GROUPS--BODY--CESIUM 137--GAMMA RADIATION--IMMUNITY--INTESTINE--MAN--MARSHALL ISLANDS--MEASURED VALUES--PARASITES--POPULATIONS--QUANTITATIVE ANALYSIS--QUANTITY RATIO--RADIOCHEMISTRY--RADIOISOTOPES--SPECTROSCOPY--STRONTIUM 90--URINE--VARIATIONS--ZINC 65
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 42

105102 NSA-13-011751
RADIOBIOLOGICAL RESURVEY OF BIKINI ATOLL DURING THE SUMMER OF 1947
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: 1947 62 p.
Primary Report No.: UWFL-7
Note: Decl. Feb. 16, 1956
Journal Announcement: NSA13
Availability: NTIS
Document Type: Report
Language: English
The 1947 studies were designed to determine the presenee or absence of radiation in the various marine organisms, the distribution of radioactive substance in the plants and animals from different geographical locations, and the amounts of radioactive substances in certain tissues and organs. Most of the organisms studied were fish or marine invertebrates. Some pertinent radioautographs are presented. (W.D. M.)
Descriptors: ANIMALS; BIKINI; DISTRIBUTION; FISH; MICROORGANISMS; MONITORING; PLANTS; QUANTITATIVE ANALYSIS; RADIATIONS; RADIOACTIVITY; RADIOBIOLOGY; RADIOGRAPHY; TISSUES
Subject Codes (NSA): HEALTH AND SAFETY

Record - 43

104426 NSA-13-011074
BIKINI RADIOBIOLOGICAL RESURVEY OF 1948
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: nd 51 p.
Primary Report No.: UWFL-16
Note: Decl. Mar. 5, 1957
Journal Announcement: NSA13
Availability: NTIS
Document Type: Report
Language: English
Contract No.: W-28-094-ENG-33
During the 18 days at Bikini samples of the faunal and floral systems were collected from the lagoon, the inner and outer reefs, and from the islands. A total of 1918 ashed samples werc prepared for determination of the contained radioactive materials. A survey was completed of the major islands to determine the amount of contamination with radioactive debris and drift material. Field counts were also made of the extent of contamination of the land masses, land plants and animals, etc., from the contamination of fission products found in the Lagoon. (W.D.M.)
Descriptors: ANIMALS; CONTAMINATION; FALLOUT; FISSION PRODUCTS; MONITORING; PLANTS; QUANTITATIVE ANALYSIS; RADIOACTIVITY; SOILS; TISSUES
Subject Codes (NSA): HEALTH AND SAFETY

Record - 44

104425 NSA-13-011073
CONCENTRATION OF ACTIVE MATERIALS BY HYDROIDS IN THE BIKINI LAGOON DURING THE SUMMER OF 1947
Donaldson, L.R.; Seymour, A.H.; Welander, A.D.; Bonham, K.
Washington. Univ., Seattle. Applied Fisheries Lab.
9 p.
Primary Report No.: UWFL-11
Note: Decl. Mar. 5, 1957
Journal Announcement: NSA13
Availability: NTIS
Document Type: Report
Language: English
Contract No.: W-28-094-ENG-33
The fouling growth on a boat frame that had been moored in Bikini Lagoon from July 15 to Aug. 28, 1947, was counted for activity. This material, composed mostly of a hydroid belonging to the family Plumularidae, had concentrated active materials exceeding the activity found in the water many times. (W.D.M.)
Descriptors: ENRICHMENT; MICROORGANISMS; QUANTITY RATIO; RADIOACTIVITY; WATER
Subject Codes (NSA): HEALTH AND SAFETY

Record - 45

096249 NSA-13-002882
THE OCCURRENCE OF ANTIMONY-125, EUROPIUM-155, IRON-55, AND OTHER RADIONUCLIDES IN RONGELAP ATOLL SOIL
Palumbo, R.F.; Lowman, F.G.
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: Apr. 7, 1958 27 p.
Primary Report No.: UWFL-56
Journal Announcement: NSA13
Availability: NTIs
Document Type: Report
Language: English
Contract No.: AT(45-1)540
BS> Soil samples from Rongelap Atoll were analyzed for radionuclide content. Using ion-exchange methods, a detailed study was made of a soil sample collected in a bird nesting area at Kabelle Island in July 1957. Two radioisotopes, antimony-125 and europium-155, not previously reported in samples from the Pacific Proving Ground were found and their identity was verified by radiochemical precipitation techniques. The radionuclides contributing most of the radioactivity were Ce/sup 144/-Pr/sup 144/ and Fe/sup 55/, a non-fission product. Other radionuclides present in much smaller amounts included Ru/sup 106/-Rh/sup 106/, Sr/sup 90/-Y/sup 90/, Cs/sup 137, Mn/sup 54/, Co/ sup 6 0/, Zr/sup 95/-Nb/sup 95/, Co/sup 57.(auth).
Descriptors: ANTIMONY 125; BIRDS; CERIUM 144; CESIUM 137; COBALT 57; CO BALT 60; EUROPIUM 155; FISSION PRODUCTS; ION EXCHANGE; IRON 55; MANGANESE 54; NIOBIUM 95; PRECIPITATION; RADIOACTIVITY; RADIOCHEMISTRY; RUTHENIUM 106; SOILS; STRONTIUM 90; YTTRIUM 90; ZIRCONIUM 95
Subject Codes (NSA): HEALTH AND SAFETY

Record - 46

096248 NSA-13-002881
RADIOBIOLOGICAL STUDIES OF THE FISH COLLECTED AT RONGELAP AND AILINGINAE ATOLLS JULY 1957
Welander, A.D.
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: Mar. 5, 1958 33 p.
Primary Report No.: UWFL-55
Journal Announcement: NSA13
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)540
Radiobiological analysis of the reef fishes of Rongelap and Ailinginae Atolls indicated that a recontamination of the area occurred in 1956. Gross levels of beta activity in muscle tissue ranged from 0.016 to 0.038 mu c/kg wet weight. The levels of radioactivity in bone and muscle tissues of fish collected during 1957 were about the same as the levels for similar tissues collected in 1955. Gamma spectra analysis and ion-exchange methods revealed the presence of Zn/sup 65/, Co/sup 57/, Co/sup 58/, Co/sup 60/, Mn/sup 54, and Fe/sup 55/. Radiostrontium was found only in small amounts (about 0.0014 mu c/kg wet weight) in the bone of fish from Kabelle Island, Rongelap Atoll. Approximately 40 per cent of the total radioactivity in the reef fishes was due to Zn/sup 65/, 28 per cent to cobalt, 26 per cent to Fe/sup 55/, and 6 per cent to other radionuclides. (auth)
Descriptors: BETA PARTICLES; BONES; COBALT 57; COBALT 58; COBALT 60; CONTAMINATION; FISH; GAMMA RADIATION; ION EXCHANGE; IRON 55; MANGANESE 54; MUSCLES; QUANTITY RATIO; RADIOACTIVITY; SPECTROMETERS; STRONTIUM 90; TISSUES; ZINC 65
Subject Codes (NSA): HEALTH AND SAFETY

Record - 47

088336 NSA-12-012913
MARCH 1957 MEDICAL SURVEY OF RONGELAP AND UTIRIK PEOPLE THREE YEARS AFTER EXPOSURE TO RADIOACTIVE FALLOUT
Conard, R.A.; Meyer, L.M.; Rall, J.E.; Lowery, A.; Bach, S.A.; Cannon, B.; Carter, E.L.; Eicher, M.; Hechter, H.
Brookhaven National Lab., Upton, N.Y.
Publication Date: June 1958 29 p.
Primary Report No.: BNL-501
Journal Announcement: NSA12
Availability: NTIS
Document Type: Report
Language: English
Marshallese people exposed to radioactive fall-out three years previously. Examinations were carried out on 82 people from Rongelap who had been exposed to the heaviest fall-out, and on a comparison population of unexposed Rongelap people matched for age and sex. The survey showed that all the irradiated Marshellese people were making satisfactory recovery from their radiation exposure. (C.H.)
Descriptors: AGE; ENVIRONMENT; FALLOUT; MAN; MEDICINE; POPULATIONS; RADIATION DOSES; RADIATION EFFECTS; RECOVERY; SEX; STATISTICS
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 48

085831 NSA-12-010397
THE OCCURRENCE AND DISTRIBUTION OF RADIOACTIVE NON-FISSION PRODUCTS IN PLANTS AND ANIMALS OF THE PACIFIC PROVING GROUND
Lowman, F.G.; Palumbo, R.F.; South, D.J.
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: June 12, 1957 67 p.
Primary Report No.: UWFL-51
Journal Announcement: NSA12
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
Radiochemical separations were made on selected samples of biological materials from the Pacific Proving Ground. The isotopes in the separated fractions were identified by their half lives, maximum beta energies, and gamma energies. In addition to radioactive fission products, the non-fission radioisotopes, p 57/, Co/sup 58/, Co/sup 60/, and Zn/sup 65/, were identified in some samples. The latter isotopes accounted for almost all of the radioactivity in the zoological samples of marine origin. (auth)
Descriptor Groups (Splits): ANIMALS--BETA DECAY--BIOLOGY--COBALT 58--COBALT 60--ENERGY--FISSION PRODUCTS--GAMMA RADIATION--HALF-LIFE--IRON 55--IRON 59--ISOTOPES--MANGANESE 54--PLANTS--QUALITATIVE ANALYSIS--QUANTITY RATIO--RADIATION CHEMISTRY--RADIOACTIVITY--SAMPLING--SEPARATION PROCESSES

SEA--ZINC 65
Subject Codes (NSA): CHEMISTRY

Record - 49

081315 NSA-12-005871
BIOLOGICAL CYCLES OF FISSION PRODUCTS IN AQUATIC SYSTEMS AS STUDIED AT THE PACIFIC ATOLLS OF BIKINI AND ENIWETOK
Donaldson, L.R.
Washington. Univ., Seattle
Publication Date: 1954? 8 p.
Primary Report No.: AECU-3412
Journal Announcement: NSA12
Availability: NTIS
Document Type: Report
Language: English
The ecology of the Pacific Atolls of Bikini and Eniwetok is described. Results are summarized from studies on the distribution of fission products in the biota. The contributions of these studies to a better understanding of life zones of coral atolls, the economy of the sea, and fundamental concepts of biological sciences are discussed. (C.H.)
Descriptors: BIOLOGY; DISTRIBUTION; ECONOMICS; ENVIRONMENT; FISSION PRODUCTS; SEA
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 50

079008 NSA-12-003550
SALT CONCENTRATION IN THE AIR AT BIKINI ATOLL (A PRELIMINARY STUDY)

Evans, E.C. III
Naval Radiological Defense Lab., San Francisco
Publication Date: May 15, 1957 52 p.
Primary Report No.: USNRDL-TR-166
Secondary Report No.: Project NS-088-001
Note: Project NS-088-001
Journal Announcement: NSA12
Document Type: Report
Language: English
This preliminary study conducted at the Bikini Atoll investigated the variation of salt concentration in the first 300 ft of atmosphere by collection on specially developed silver dichromate reagent films. For a 10-knot wind maximum concentration appeared to exist at 50 to 75 ft above Mean Low Water Springs, with the possibility of a second maximum somewhere above 300 ft. Preliminary sine-frequency counts showed a bimodal distribution of salt nuclei with maximum at 5 and 12 microns. (auth)
Descriptors: AIR; ATMOSPHERE; CHEMICAL REACTIONS; CHROMIUM OXIDES; FILMS; GRAIN SIZE; QUANTITY RATIO; SALTS; SAMPLING; SILVER COMPOUNDS
Subject Codes (NSA): CHEMISTRY

Record - 51

075522 NSA-12-000018
A RADIOLOGICAL STUDY OF RONGELAP ATOLL, MARSHALL ISLANDS, DURING 1954-1955
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: Aug. 15, 1955 75 p.
Primary Report No.: UWFL-42
Journal Announcement: NSA12
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)540
Descriptor Groups (Splits): ALGAE--ANIMALS--BIOLOGY--BIRDS--CONTAMINATION--DISTRIBUTION--ENVIRONMENT--FALLOUT--FISH--INVERTEBRATES--MEASURED VALUES--MICROORGANISMS--NUCLEAR EXPLOSIONS--PLANKTON--PLANTS--RADIOACTIVITY--RADIOGRAPHY--SAMPLING--SOILS--WATER

ALGAE--BIRDS--COCONUTS--ENVIRONMENT--FALLOUT--FISH--FOOD--FRUIT--LIVER--MAN--MARSHALL ISLANDS--MEAT--NUCLEAR EXPLOSIONS--POPULATIONS--RADIATION DOSES--ROOTS--TISSUES
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 52

070675 NSA-11-009192
RADIOBIOLOGICAL RESURVEY OF RONGELAP AND AILINGINAE ATOLLS, MARSHALL ISLANDS, OCTOBER-NOVEMBER 1955
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: Dec. 30, 1955 91 p.
Primary Report No.: UWFL-43
Journal Announcement: NSA11
Availability: NTIS
Document Type: Report
Language: English

Contract No.: AT(45-1)-540
Descriptors: ANIMALS; BONES; CESIUM 144; COCONUTS; CRABS; FISH; FRUIT; MARSHALL ISLANDS; PLANTS; RADIOACTIVITY; RADIOBIOLOGY; SALTS; SAMPLING; STRONTIUM 90MEEEEEEEEEEEE
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 53

067458 NSA-11-005965
SURVEY OF RADIOACTIVITY IN THE SEA NEAR BIKINI AND ENIWETOK ATOLLS JUNE 11-21, 1956
Donaldson, L.R.; Seymour, A.H.; Held, E.E.; Hines, N.O.; Lowman, F.G.; Olson, P.R.; Welander, A.D.
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: July 23, 1956 39 p.
Primary Report No.: UWFL-46
Note: Decl. Nov. 28, 1956
Journal Announcement: NSA11
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
Descriptors: BIKINI; ENIWETOK; FISH; MICROORGANISMS; MONITORING; PLANKTON; RADIOACTIVITY; SEA; TABLES; WATER
Subject Codes (NSA): PHYSICS

Record - 54

065747 NSA-11-004250
PROGRAM OF THE APPLIED FISHERIES LABORATORY, UNIVERSITY OF WASHINGTON, FOR THE 1956 TEST SERIES AT BIKINI AND ENIWETOK ATOLLS, MARSHALL ISLANDS
Washington. Univ., Seattle. Applied Fisheries Lab.
Publication Date: Feb. 7, 1956 27 p.
Primary Report No.: UWFL-45
Journal Announcement: NSA11
Availability: NTIS
Document Type: Report
Language: English
Contract No.: AT(45-1)-540
Descriptors: MARSHALL ISLANDS; MATERIALS TESTING; MONITORING; RADIOBIOLOGY FFF
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 55

029865 NSA-07-002461
A DESCRIPTION OF TUMORS ON IPOMOEA TUBA FROM THE A-BOMB TEST SITES ON ENIWETOK ATOLL APPENDIX TO RADIOBIOLOGICAL SURVEY OF BIKINI, ENIWETOK, AND LIKIEP ATOLLS, JULY-AUGUST 1949
Biddulph, S.F.; Biddulph, O.
Applied Fisheries Lab., Univ. of Wash.
Publication Date: 1952 24 p.
Primary Report No.: AECD-3446(app.); UWFL-23(app.)
Secondary Report No.: UWFL-23(app.)
Journal Announcement: NSA07
Document Type: Report

Language: English
Descriptors: BIKINI; CARCINOGENESIS; CONFIGURATION; DISTANCE; DISTRIBUTION; ENIWETOK; ENVIRONMENT; ISLANDS; NUCLEAR EXPLOSIONS; PLANTS; RADIATION EFFECTS; RADIOBIOLOGY; TESTING; TUMORS; USA
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 56

026617 NSA-06-005934
RADIOBIOLOGICAL SURVEY OF BIKINI, ENIWETOK, AND LIKIEP ATOLLS JULY - AUGUST 1949
Applied Fisheries Lab., Univ. of Wash.
Publication Date: July 12, 1950 146 p.
Primary Report No.: AECD-3446; UWFL-23
Secondary Report No.: UWFL-23
Note: Decl. Sept. 15, 1952
Journal Announcement: NSA06
Document Type: Report
Language: English
Descriptors: ALGAE; ALPHA DETECTION; ANIMALS; BETA DETECTION; BIKINI; CONTROL; DECOMPOSITION; ENIWETOK; FISH; GAMMA DETECTION; ISLANDS; MEASURED VALUES; MICROORGANISMS; MONITORING; PLANKTON; PLANTS; RADIATION DOSES; RADIOACTIVITY; RADIOBIOLOGY; SAMPLING; SEA; TISSUES; USA; VARIATIONS; WATER
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 57

016350 NSA-05-003007
THE HEMORRHAGIC SYNDROME OF ACUTE IONIZING RADIATION ILLNESS PRODUCED IN GOATS AND SWINE BY EXPOSURE TO THE ATOMIC BOMB AT BIKINI, 1946 Appendix No. 15 to the Final Report
Cronkite, E.P.
Naval Medical Research Inst., Bethesda
Publication Date: Oct. 7, 1948 16 p.
Primary Report No.: NP-1902
Journal Announcement: NSA05
Document Type: Report
Language: English
Descriptors: ANIMALS; BACTERIA; BIKINI; BLOOD CELLS; BLOOD VESSELS; BODY; CHEMICALS; COAGULATION; DYES; ENZYMES; GOATS; HEMORRHAGE; INFECTIONS; NUCLEAR EXPLOSIONS; PLATELETS; PROTEINS; QUANTITY RATIO; RADIATION SICKNESS; SENSITIVITY; SWINE; THROMBIN; THROMBOPLASTIN; TOLUIDINE BLUE; TOXICITY
Subject Codes (NSA): BIOLOGY AND MEDICINE

Record - 58

002828 NSA-02-000836
The Clinical Manifestations of Acute Radiation Illness Produced in Goats by Exposure to an Atomic Bomb, Test Able, Bikini, 1946, with Comments on Therapy. Report No. 10
Crankite, E.P.
Naval Medical Research Institute
Publication Date: Mar. 8, 1948 42 p.
Primary Report No.: NP-574
Journal Announcement: NSA02

Document Type: Report
Language: English
Descriptors: ANIMALS; ANTIBIOTICS; BIKINI; BLOOD PLASMA; GOATS; HEMORRHAGE; LEUCOCYTES; MEDICINE; NUCLEAR EXPLOSIONS; PENICILLIN; QUANTITY RATIO; RADIATION DOSES; RADIATION SICKNESS; THERAPY; TRANSFUSIONS; TRANSPLANTS
Subject Codes (NSA): RADIATION SICKNESS

5/7/1 (Item 1 from file: 103)
1964272 GRA-90:50909, EDB-90:167047
Title: Site Enforcement Tracking System (SETS): PRP listing by site for Trust Territories
Corporate Source: Environmental Protection Agency, Washington, DC (USA). Office of Waste Programs Enforcement
Date: 2 Aug 1990 9 p.
Report No.: PB-90-243445/XAB
Note: See also PB--90-243437. Also available in set of 6 reports PC E99/MF E99, PB--90-243387
Document Type: Report
Language: English
Journal Announcement: EDB9000
Availability: NTIS, PC A01/MF A01
Subfile: EPA (Energy Abstracts for Policy Analysis); GRA (Energy Research Abstracts); ETD (Energy Technology Data Exchange); GRA (NTIS NTS)
Distribution Code: (Report): 6 (Microfiche): 9
Country of Publication: United States
Work Location: United States
Abstract: When expending Superfund monies at a CERCLA (Comprehensive Environmental Response, Compensation and Liability Act) site, EPA must conduct a search to identify parties with potential financial responsibility for remediation of uncontrolled hazardous waste sites. EPA regional Superfund Waste Management Staff issue a notice letter to the potentially responsible party (PRP). Data from this notice letter is used to form the Site Enforcement Tracking System (SETS). The data includes PRP name and address, a company contact person, the date the notice was issued, and the related CERCLA site name and identification number. SETS was created to track PRP identification at both NPL (National Priority List) and non-NPL sites. SETS does not address the range of other administrative duties related to tracking the PRP. These lists (updated quarterly) represent EPA's preliminary findings on the identities of potentially responsible parties. Inclusion on these lists does not constitute a final determination concerning the liability of any party for the hazard or contamination at any CERCLA site. The site report is designed to provide PRP information linked by the associated site, which appears according to Trust Territories where the site is located.

5/7/2 (Item 2 from file: 103)
1964175 GRA-90:50013, EDB-90:166952
Title: Use of M163 overvoltage gap switches in the flight-termination systems on boosters launched from US Army Kwajalein Atoll (USAKA)
Author: Gallien, R.
Corporate Source: Army Strategic Defense Command, Huntsville, AL (USA)
Date: May 1990 84 p.
Report No.: AD-A-223866/5/XAB
Note: Original contains color plates: All DTIC and NTIS reproductions will be in black and white
Document Type: Report
Language: English
Journal Announcement: EDB9000
Availability: NTIS, PC A05/MF A01
Subfile: ERA (Energy Research Abstracts); GRA (NTIS NTS)
Distribution Code: (Report): 6 (Microfiche): 9

Country of Publication: United States
Work Location: United States
Abstract: This Environmental Assessment documents the results of an analysis of the potential for and the magnitude of impacts resulting from using Overvoltage Gap Switches containing Ni63 radioisotopes in the Flight Termination System of the Ground-Based Interceptor Boosters launched from the U.S. Army Kwajalein Atoll.

5/7/3 (Item 3 from file: 103)
1839391 GRA-90:50162, EDB-90:042155
Title: Kiernan reentry measurements system on Kwajalein atoll
Author: Roth, K.R.; Austin, M.E.; Freciani, D.J.; Knittel, G.H.; Mrstik, A.V.
Corporate Source: Massachusetts Inst. of Tech., Lexington, MA (USA). Lincoln Lab.
Date: 1989 30 p.
Report No.: AD-A-214150/5/XAB; TA-6340
Note: Pub. in Lincoln Laboratory Jnl., Vol. 2, No. 2, p. 7-44, 1989. Original contains color plates: All DTIC/NTIS reproductions will be in black and white
Document Type: Report
Language: English
Journal Announcement: EDB9000
Availability: NTIS, PC A03/MF A01
Subfile: ERA (Energy Research Abstracts); ETD (Energy Technology Data Exchange); GRA (NTIS NTS)
Distribution Code: (Report): 6 (Microfiche): 9
Country of Publication: United States
Work Location: United States
Abstract: The Kiernan Reentry Measurements System (KREMS), located on Kwajalein Atoll in the Pacific, is the United States' most sophisticated and important research and development radar site. Consisting of four one-of-a-kind instrumentation radars, KREMS has played a major role for the past 25 years in the collection of data associated with ICBM testing. Furthermore, it has served as an important space-surveillance facility that provides an early U.S. view of many Soviet and Chinese satellite launches. Finally, the system is slated to play a key role in Strategic Defense Initiative experiments.

5/7/4 (Item 4 from file: 103)
1839390 GRA-90:50151, EDB-90:042154
Title: Proposed actions at US Army Kwajalein atoll. Final environmental impact statement (FEIS)
Corporate Source: Army Strategic Defense Command, Huntsville, AL (USA)
Date: Oct 1989 196 p.
Report No.: AD-A-214139/8/XAB
Document Type: Report
Language: English
Journal Announcement: EDB9000
Availability: NTIS, PC A09/MF A02
Subfile: ERA (Energy Research Abstracts); ETD (Energy Technology Data Exchange); GRA (NTIS NTS)
Distribution Code: (Report): 6 (Microfiche): 9
Country of Publication: United States
Work Location: United States

Abstract: The purpose of the Proposed Action is to conduct tests and collect data in support of continuing research, development, and operational missions, operational space track missions, and Strategic Defense Initiative research, development, test, and evaluation activities. Three alternatives are considered in the Environmental Impact Statement (EIS). The No-Action Alternative includes the ongoing activities at USAKA. The Proposed Action includes installation and testing of SDI sensing/tracking equipment and interceptor missile systems. Four construction projects in support of base operations are also included. Finally, the EIS examines a Change of Duration Alternative that implements the Proposed Action over a longer period of time. The EIS examines the environmental impacts of each alternative. Where impacts were found to be potentially significant, mitigation measures are identified. Key topics addressed by the EIS include land and reef areas, water resources, air quality, noise, biological resources including endangered species, cultural resources, socioeconomics, transportation, utilities, electromagnetic radiation from radars, and range safety.

5/7/5 (Item 5 from file: 103)
1788369 GRA-89:80066, EDB-89:161752
Title: Draft environmental impact statement, Proposed actions at US Army Kwajalein Atoll
Corporate Source: Army Strategic Defense Command, Huntsville, AL (USA)
Date: Jun 1989 394 p.
Report No.: AD-A-209676/6/XSP
Note: Original contains color plates: All DTIC/NTIS reproductions will be in black and white
Document Type: Report
Language: English
Journal Announcement: 9008900
Availability: NTIS, PC A17/MF A01
Subfile: ERA (Energy Research Abstracts); ETI (Energy Technology Data Exchange); GRA (NTIS NTS)
Distribution Code: (Report): 5 (Microfiche): 9
Country of Publication: United States
Work Location: United States
Abstract: This report is the Draft Environmental Impact Statement (DEIS) for the proposed actions at the U.S. Army Kwajalein Atoll (USAKA). The proposed action would include continuation of current activities at USAKA and planned non-Strategic Defense Initiative (SDI) activities as well as proposed SDI activities. The U.S. Army Strategic Defense Command will conduct two public hearings as part of the environmental impact analysis process. The close of the public comment period on the DEIS is August 7, 1989. The comments received during the public hearings, as well as written comments received during the public-comment period, will be used to develop the final environmental impact statement which is scheduled to be published in October 1989.

5/7/6 (Item 6 from file: 103)
1771408 EDB-89:147999 TIC Accession No.: DE89017751
Title: Resuspension studies at Bikini Atoll Revision 1
Author: Shinn, J.H.; Homan, D.N.; Robison, W.L.
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: Aug 1989 27 p.
Report No.: UCID-18588-Rev.1

Contract No.: W-7405-ENG-48
Sponsoring Org.: DOE/DP
Document Type: Report
Language: English
Journal Announcement: EIS8900
Availability: NTIS, PC A03/MF A01 - OSTI: GPO Dep.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); TIC (Technical Information Center)
Distribution Code: (Report): 4 (Microfiche): 1
Country of Publication: United States
Work Location: United States
Abstract: The following experiments were conducted on Bikini Atoll to provide key parameters for an assessment of inhalation exposure from plutonium-contaminated dust aerosols: (1) a characterization of background (plutonium activity, dust, plutonium, sea spray, and organic aerosol concentrations), (2) a study of plutonium resuspension from a bare field, (3) a study of plutonium resuspension by traffic, and (4) a study of personal inhalation exposure. Studies similar to (1) and (2) have been previously performed at Enewetak Atoll. 9 refs., 5 figs., 8 tabs.

5/7/7 Item 7 from file: 103)
1688583 ERA-89:028656, EDB-89:064945
Title: State water-quality standards summary: Trust Territories. Final report
Corporate Source: Battelle, Arlington, VA (USA)
Date: 1988 11 p.
Report No.: PB-89-142111/XAB
Document Type: Report
Language: English
Journal Announcement: ETD8975
Availability: NTIS, PC A03/MF A01.
Subfile: ETD (Energy Technology Data Exchange); ERA (Energy Research Abstracts); GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: This report contains a summary of water-quality standards for Trust Territories. Included is information on use classification, water bodies, and other pertinent data.

5/7/8 (Item 8 from file: 103)
1662407 ERA-14:017157, EDB-89:038765 TIC Accession No.: DE89007683
Author: Robison, W.L.; Conrado, C.L.; Stuart, M.L.
Title: Radiological conditions at Bikini Atoll: Radionuclide concentrations in vegetation, soil, animals, cistern water, and ground water
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: 31 May 1988 246 p.
Report No.: UCRL-53940
Contract No.: W-7405-ENG-48
Note: Portions of this document are illegible in microfiche products
Document Type: Report
Language: English
Journal Announcement: ETD8900
Availability: NTIS, PC A11/MF A01 - OSTI; 1.
Subfile: ETD (Energy Technology Data Exchange); NTS (NTIS); ERA

(Energy Research Abstracts). TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: This report is intended as a resource document for the eventual cleanup of Bikini Atoll and contains a summary of the data for the concentrations of /sup 137/Cs, /sup 90/Sr, /sup 239 +240/Pu, and /sup 241/Am in vegetation through 1987 and in soil through 1985 for 14 islands at Bikini Atoll. The data for the main residence island, Bikini, and the most important island, Eneu, are extensive: these islands have been the subject of a continuing research and monitoring program since 1974. Data for radionuclide concentrations in ground water, cistern water, fish and other marine species, and pigs from Bikini and Eneu Islands are presented. Also included are general summaries of our resuspension and rainfall data from Bikini and Eneu Islands. The data for the other 12 islands are much more limited because samples were collected as part of a screening survey and the islands have not been part of a continuing research and monitoring program. Cesium-137 is the radionuclide that produces most of the estimated dose for returning residents, mostly through intake by terrestrial foods and secondly by direct external gamma exposure. Remedial measures for reducing the /sup 137/Cs uptake in vegetation are discussed. 47 refs., 38 figs., 131 tabs.

9/7/9 (Item 9 from file: 103)
1632813 GRA-89:50252, EIE-89:005165
Author: Henry, T.W.; Wardlaw, B.R.
Title: Pacific Enewetak Atoll Crater Exploration (PEACE) Program, Enewetak Atoll, Republic of the Marshall Islands. Part A. Analysis of borehole gravity surveys and other geologic and bathymetric studies in vicinity of Oak and Koa craters
Corporate Source: Geological Survey, Denver, CO (USA)
Date: 1987 39p p.
Report No.: AD-A-197314/8/XAB; -87-565
Note: See also Part 3, AD-A177 705. Includes envelope with 9 charts
Document Type: Report
Language: English
Journal Announcement: ETD8979
Availability: NTIS, PC A17/MF A01.
Subfile: ETD (Energy Technology Data Exchange); ERA (Energy Research Abstracts). GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: The Pacific Enewetak Atoll Crater Exploration (PEACE) Program was established to resolve a number of questions for the Department of Defense (DOD) about the geologic and material-properties parameters of two craters (KOA and OAK), formed by near-surface bursts of high-yield thermonuclear devices on the northern margin of Enewetak Atoll, Marshall Islands, in 1958. The multidisciplinary studies conducted by the USGS in collaboration with other organizations during 1984 through 1987 were part of a much larger research initiative by the DNA to better understand the dynamic properties of strategic-scale nuclear bursts and the relevance of the Pacific Proving Grounds (PPG) craters to issues of strategic basing and targeting of nuclear weapons. Major topics include: Borehole gravity; Palentologic evidence for mixing; Electron paramagnetic resonance studies; Bathymetric studies of OAK crater; Constraints on densification and piping for OAK; and Additional studies of geologic crater models.

5/7/10 (Item 10 from file: 103)
1524706 EDB-89:001256 TIC Accession No.: DE89000238
Author: Retagozak, A.F.
Title: Report of refurbishment of Utirik protovoltaic system
Corporate Source: National Aeronautics and Space Administration, Cleveland, OH (USA). Lewis Research Center
Date: 11 Oct 1988 30 p.
Report No.: DOE/ET/20485-T4
Contract No.: AI01-76ET20485
Note: Paper copy only, copy does not permit microfiche production
Document Type: Report
Language: English
Journal Announcement: ERA8900
Availability: NTIS, PC A03 - OSTI; 3.
Subfile: ERA (Energy Research Abstracts); ETD (Energy Technology Data Exchange); NTS (NTIS), TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: This report describes the repairs and modifications made to the Photovoltaic Power system installed on the island of Utirik in the Republic of the Marshall Islands in the Micronesia region of the Pacific.

5/7/11 (Item 11 from file: 103)
1583458 GRA-88:300e1, ERA-13:049477, EDB-88:156815
Author: Goetz, J.; Klemm, J.; Phillips, J.; Thomas, C.
Title: Analysis of radiation exposure - service personnel on Rongerik Atoll: Operation Castle - Shot Bravo. Technical report, 1E March 1903-18 June 1987
Corporate Source: Science Applications International Corp., McLean, VA (USA)
Date: 9 Jul 1987 49 p.
Report No.: AD-A-193520/4/XAB; SAIC-86/1609
Document Type: Report
Language: English
Journal Announcement: STD8809
Availability: NTIS, PC A03/MF A01.
Subfile: ETD (Energy Technology Data Exchange); ERA (Energy Research Abstracts), GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: External and internal doses are reconstructed for the 28 American servicemen stationed on Rongerik Atoll, Marshall Islands, who were exposed to fallout on 1-2 March 1954 from Shot Bravo of Operation CASTLE. External doses are determined from limited radiation survey and film-badge information. Internal-dose commitments are derived from urinalysis data. The magnitude of the calculated activity intake suggests the principal pathways. Reconstructed film-badge doses are approximately 40 rem, with adjustments from individual activity scenarios, as available. Internal dose commitments to the thyroid and large intestine (nearly all first-year dose) provide the only significant increments to the external dose. Total doses are approximately 230 rem to the thyroid, 115 rem to the lower large intestine, 85 rem to the upper large intestine, and about 40 to 50 rem to all other organs.

5/7/13 (Item 12 from file: 103)
1519878 ERA-13:031143, EDB-88:093161 TIC Accession No.: DE88900901
Author: Noshkin, V.E.; Wong, K.M.; Eagle, R.J.; Tamplin, T.A.; Trunk, J.A.
Title: Radionuclide concentrations in fish and invertebrates from Bikini Atoll
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: Jan 1988 55 p.
Report No.: UCRL-53846
Contract No.: W-7405-ENG-48
Document Type: Report; Numerical data
Language: English
Journal Announcement: NTS
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research Abstracts), TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: As in other global studies, /sup 137/Cs was found in the highest concentrations in edible flesh of all species of fish and in the lowest concentrations in the bone or liver. The mean concentration of /sup 137/Cs in muscle of reef fish from the southern part of the atoll is comparable to the global-fallout concentration measured in market samples of fish collected from Chicago, IL, USA, in 1982. Strontium-90 is associated generally with non-edible parts of fish, such as some of viscera. Twenty-five to fifty percent of the total body burden of /sup 90/Sr is accumulated in the muscle tissue; the remainder is distributed among the liver, skin, and viscera. The mean concentration of /sup 90/Sr in fish has been decreasing at a rate faster than radiological decay alone. Most striking is the range of /sup 207/Bi concentrations among different species of fish collected at the same time and place. Highest concentrations of /sup 207/Bi were consistently detected in the muscle and other tissues of goatfish and some of the pelagic lagoon fish. In other reef fish, such as mullet, surgeonfish, and parrotfish, /sup 207/Bi was usually below detection limits by gamma spectrometry. Over 70% of the whole-body activity of /sup 207/Bi in goatfish is associated with the muscle tissue, whereas less than 3% is found in the muscle of mullet and surgeonfish. Neither /sup 239 +240/Pu nor /sup 241/Am is accumulated significantly in the muscle tissue of any species of fish. Apparently, /sup 238/Pu is in a more readily available form for accumulation by fishes than /sup 239 +240/Pu. Based on a daily ingestion rate of 200 g of fish flesh, dose rates to individuals through the fish-food ingestion pathway are well below current Federal guidelines. 24 refs., 1 fig., 27 tabs

5/7/13 (Item 13 from file: 103)
1494888 EDB-88:068236 TIC Accession No.: DE87006111
Author: Devaney, D.M.; Reese, E.S.; Burch, B.L.; Helfrich, P. (eds.)
Title: The natural history of Enewetak Atoll: Volume 2, Biogeography and systematics
Corporate Source: Hawaii Univ., Honolulu (USA); USDOE Office of Scientific and Technical Information, Oak Ridge, TN
Date: 1987 346 p.
Report No.: DOE/EV/00703-T1-Vol.2
Contract No.: AC08-76EV00703
Note: Portions of this document are illegible in microfiche products. Original copy available until stock is exhausted

Document Type: Report
Language: English
Journal Announcement: ERA8804
Availability: NTIS, PC A15/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS). TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: The two volumes of The Natural History of Enewetak Atoll summarize research done at the Mid-Pacific Research Laboratory from 1954 to 1984 under the auspices of the Department of Energy. Volume 2 of The Natural History of Enewetak Atoll provides information on the taxonomy of animals and plants known to occur at Enewetak Atoll. The collections on which the checklists in each chapter are based are housed at the Bernice P. Bishop Museum in Honolulu and the US National Museum of Natural History, Smithsonian Institution, Washington, DC. In addition to the species checklists, each chapter in Volume 2 provides a succinct summary of the biota with respect to endemism, range extensions, and other features that set the Enewetak biota apart from those one might expect to find on equivalent Indo-Pacific islands. This compendium of taxonomic information for an atoll should prove of immense value to scientists interested in biogeography and evolutionary biology of island ecosystems for years to come. Individual chapters are processed separately for the data base.

5/7/14 (Item 14 from file: 103)
1494887 EDB-88:068835 TIC Accession No.: DE87006110
Author: Devaney, D.M.; Reese, E.S.; Burch, B.L.; Helfrich, P. (eds.)
Title: The natural history of Enewetak Atoll: Volume 1, The ecosystem: Environments, biotas, and processes
Corporate Source: Hawaii Univ., Honolulu (USA); USDOE Office of Scientific and Technical Information, Oak Ridge, TN
Date: 1987 237 p.
Report No.: DOE/EV/00703-T1-Vol.1
Contract No.: AC08-76EV00703
Note: Portions of this document are illegible in microfiche products. Original copy available until stock is exhausted
Document Type: Report
Language: English
Journal Announcement: ERA8804
Availability: NTIS, PC A11/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS). TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: The two volumes of The Natural History of Enewetak Atoll summarize research done at the Mid-Pacific Research Laboratory from 1954 to 1984 under the auspices of the Department of Energy. The history of the laboratory and the reasons for its support by the United States Department of Energy are described in Chapter 1 of Volume 1. Volume 1 provides a synthesis of the research carried out under the subject headings of the respective chapters. Certain of the chapters, e.g., those on geology, subtidal and intertidal environments and ecology, and those on reef processes and trophic relationships, summarize a great diversity of research carried out by many scientists for many years. In contrast, the chapters on meteorology and oceanography summarize research carried out

under one integrated program involving fewer scientists working over a shorter period. Individual chapters are processed separately for the data base.

5/7/15 (Item 15 from file: 103)
1452170 INIS-88:002487, EDB-88:035513 TIC Accession No.: DE87014940
Author: Forsberg, C.W.
Title: Use of a United States mid-Pacific Island territory for a Pacific Island Repository System (PIRS): Extended summary
Corporate Source: Oak Ridge National Lab., TN (USA)
Conference Title: Waste management '88: symposium on radioactive waste management
Conference Location: Tucson, AZ, USA Conference Date: 28 Feb 1988
Date: Aug 1987 16 p.
Report No.: CONF-880201-1-Summ.
Contract No.: AC05-84OR21400
Note: Portions of this document are illegible in microfiche products
Document Type: Report; Conference literature
Language: English
Journal Announcement: ERA8802
Availability: NTIS, PC A03/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); INIS (US Atomindex input); TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: The concept of using a mid-ocean island for a geologic high-level waste repository was investigated. The technical advantages include geographical isolation and near-infinite ocean dilution as a backup to repository geological waste isolation. The institutional advantages are reduced siting problems and the potential of creating an international waste repository. Establishment of international waste repository would allow cost sharing, aid US nonproliferation goals, and assure proper disposal of spent fuel from developing countries. The major uncertainties in this concept are rock conditions at waste disposal depths and costs. 13 refs., 2 tabs.

5/7/16 (Item 16 from file: 103)
1446749 gra-88:10284, EDB-88:020091
Author: Oleson, M.H.
Title: Operation Ivy, Pacific Proving Ground, November 1952. Project 7.1. Electromagnetic effects from nuclear explosions. Report to the scientific director
Corporate Source: Joint Task Force 132, Washington, DC (USA)
Date: 31 Jan 1958 35 p.
Report No.: AD-A-995500/6/XAB
Document Type: Report
Language: English
Journal Announcement: ERA3801
Availability: NTIS, PC A03/MF A01.
Subfile: ERA (Energy Research Abstracts). GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: None

5/7/17 (Item 17 from file: 103)

1421953 ERA-13:004390, EDB-87:180533 TIC Accession No.: DE88001382
Author: Shingleton, K.L.; Cate, J.L.; Trent, M.G.; Robison, W.L.
Title: Bikini Atoll ionizing radiation survey, May 1985-May 1986
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: 1 Oct 1987 35 p.
Report No.: UCRL-53795
Contract No.: W-7405-ENG-48
Document Type: Report
Language: English
Journal Announcement: NTS8712
Availability: NTIS, PC A05/MF A01.
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research Abstracts), TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: Between 1946 and 1958, the United States conducted 23 nuclear tests at the Bikini Atoll in the Marshall Islands, which resulted in extensive radioactive contamination of a number of islands in the atoll and prevented the timely resettlement of the native population. Although the external dose rates from beta and gamma radiation have been previously determined by aerial survey and a variety of ground measurement techniques, technical constraints limited the assessment of external beta dose rates that result from the /sup 137/Cs and /sup 90/Sr//sup 90 Y contamination on the islands. Now, because of the recent development of very thin thermoluminescent dosimeters (TLDs), the external beta dose rates can be measured. 13 refs., 7 figs., 5 tabs.

5/7/19 (Item 18 from file: 103)
1421859 ERA-87:90523, EPA-13:004258, EDB-87:180289
Title: Operation Redwing, OPS Plan 1-56, Volume 2
Corporate Source: Joint Task Force Seven, Washington, DC (USA)
Date: 19 Feb 1987 376 p.
Report No.: AD-A-995479/3/XAB
Note: Extracted version of report dated 15 February 1956; Availability: Microfiche copies only
Document Type: Report
Language: English
Journal Announcement: EDB8711
Availability: NTISMF A01.
Subfile: ERA (Energy Research Abstracts), ERA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: None

5/7/19 (Item 19 from file: 103)
1383639 EDB-87:142213
Author: Thomas, C.; Goetz, J.; Klemm, J.
Title: Analysis of radiation exposure for personnel on the residence islands of Enewetak Atoll after Operation Greenhouse, 1951-1952. Technical report, 3 December 85-20 April 1987
Corporate Source: Science Applications International Corp., McLean, VA (USA)
Date: 20 Apr 1987 31 p.
Report No.: AD-A-181506/7/XAB; SAIC-85/1935
Document Type: Report

Language: English
Journal Announcement: ERA8709
Availability: NTIS, PC A03/MF A01.
Subfile: ERA (Energy Research Abstracts). GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: The radiological environments and reconstructed for the residence islands of Enewetak Atoll following the roll-up phase of Operation GREENHOUSE in May 1951. The residence islands received fallout during Operation GREENHOUSE (April/May 1951) as a result of Shots, DOG, EASY, and ITEM. From the reconstructed radiological environments and assumed personnel activity scenarios, equivalent personnel film badge doses are calculated, by month, from June 1951 to June 1952. For a individual assigned to Enewetak Atoll during this period, a mean dose of 1.5-2.0 rem would have been accrued, depending on the residence island to which he was assigned.

5/7/20 (Item 20 from file: 103)
13e3850 EDB-87:119432 TIC Accession No.: DE87011905
Author: Noshkin, V.E.; Wong, K.M.; Eagle, R.J.; Jokela, T.A.; Brunk, J.A.
Title: Concentrations of radionuclides in fish collected from Bikini Atoll between 1977 and 1984
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: Jul 1986 62 p.
Report No.: UCID-20754
Contract No.: W-7405-ENG-48
Note: Portions of this document are illegible in microfiche products. Original copy available until stock is exhausted
Document Type: Report; Numerical data
Language: English
Journal Announcement: ERA8708
Availability: NTIS, PC A04/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); INIS (US Atomindex input). TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: This report summarizes all available data on the concentrations of radionuclides in fish from Bikini Atoll between 1977 and 1984. As found in other global studies, /sup 137/Cs is most highly accumulated in edible flesh of all species of fish, the lowest fractions are found in the bone or liver. The mean concentration of /sup 137/Cs in muscle of reef fish from the southern part of the atoll is comparable to the global fallout concentration measured in market samples of fish collected from Chicago, Illinois, in 1982. /sup 90/Sr is generally associated with non-edible parts of fish, such as bone or viscera. Twenty-five to fifty percent of the total body burden of /sup 60/Co is accumulated in the muscle tissue; the remainder is distributed among the liver, skin, and viscera. The mean concentration of /sup 60/Co in fish has been decreasing at a rate faster than radiological decay alone. Most striking is the range of /sup 207/Bi concentrations among different species of fish collected at the same time and place. Highest concentrations of /sup 207/Bi were consistently detected in the muscle (and other tissues) of goatfish and some of the pelagic lagoon fish. In other reef fish, such as mullet, surgeonfish, and parrotfish, /sup 207/Bi was usually below detection limits by gamma

spectrometry. Over 70% of the whole-body activity of /sup 207/Bi in goatfish is associated with the muscle tissue, whereas less than 5% is found in the muscle of mullet and surgeonfish. Neither /sup 239 +240/Pu nor /sup 241/Am is significantly accumulated in the muscle tissue of any species of fish. Apparently, /sup 238/Pu is in a more readily available form for accumulation by fishes than /sup 239 +240/Pu. Based on a daily ingestion rate of 200 g of fish flesh, dose rates to individuals through the fish-food ingestion pathway are well below current Federal guidelines.

5/7/21 (Item 21 from file: 103)
1352305 ERA-12:035353, EDB-87:110886
Author: Smith, O.P.; Chu, Y.H.
Title: Preliminary design of a landfill and revetment on Bikini Island, Republic of the Marshall Islands. Final report
Corporate Source: Coastal Engineering Research Center, Vicksburg, MS (USA)
Date: Feb 1987 59 p.
Report No.: AD-A-173304/2/XAB; CERC-87-5
Document Type: Report
Language: English
Journal Announcement: EDB8707
Availability: NTIS, PC A04/MF A01.
Subfile: ERA (Energy Research Abstracts); GRA (NTIS NTB)
Country of Publication: United States
Work Location: United States
Abstract: Topsoil on Bikini Island, located 2,500 miles southwest of Hawaii at 113 deg 35 min N, 165 deg 25 min E, was contaminated by radioactive fallout from nuclear weapons tests in the late 1940's and early 1950's. The uptake of this radioactive fallout, primarily cesium-137 in plants, has prevented resettlement of the island by the native population. One alternative solution proposed by the congressionally appointed Bikini Atoll Rehabilitation Committee involves removal of the contaminated topsoil and placement of the excavated material as a landfill on the 2,500-ft-wide reef flat adjacent to the eastern (windward) shore of the island. This paper explores that alternative by first developing an extremal wave climatology offshore of Bikini Island from 31 years (1959-1979) of typhoon data published by the Joint Typhoon Warning Center on Guam. Deepwater wave conditions just offshore of the reef are estimated and transformed to the point of breaking at the edge of the reef. Storm surge is estimated based on these same parameters. Wave setup on the reef flat is estimated based on the simulated breaking conditions. Given an estimate of the elevated water level across the reef caused by storm surge and wave setup, depth limitations and fractional decay are estimated to define wave conditions at the toe of the proposed revetment. A rubble-mound revetment design stable in these conditions, armored by coral limestone quarried from the reef flat, is then formulated and corresponding material quantities estimated.

5/7/22 (Item 22 from file: 103)
1338931 ERA-12:031630, EDB-87:097510
Author: Henry, T.W.; Wardlaw, B.R.
Title: Pacific Enewetak Atoll Crater Exploration (PEACE) Program, Enewetak Atoll, Republic of the Marshall Islands. Part 3. Stratigraphic analysis and other geologic and geophysical studies in vicinity of Koa and Oak craters
Corporate Source: Geological Survey, Denver, CO (USA)

Date: 1986 418 p.
Report No.: AD-A-177705/1/XAB; -86-535
Note: See also Part 1, AD-A176-634
Document Type: Report
Language: English
Journal Announcement: EDB8706
Availability: NTIS, PC A18/MF A01.
Subfile: ERA (Energy Research Abstracts)
Country of Publication: United States
Work Location: United States
Abstract: The purpose of the PEACE Program credible, multidisciplinary set of geologic, material-properties data in order to identify features for two high-yield nuclear craters a dynamic processes that initially formed these modified them. These data are essential to th better understand the survivability of strate event of a nuclear attack. Subjects include: Framework; Sr-Isotope Framework; Mineralogy; Residues; Downhole Geophysical Logs; Borehole Reference Surveys; Benthic Samples; Additiona Radiation Chemistry ; Additional Sea-Floor Ob Interpretation.

5/7/23 (Item 23 from file: 103)
1330585 EDB-87:089161
Author: Henry, T.W.; Wardlaw, B.R.; Shi J.I.
Title: Pacific Enewetak Atoll Crater Enewetak Atoll, Repulic of the Marshall operations and descriptions of boreholes in v
Corporate Source: Geological Survey, Denver
Date: 1986 836 p.
Report No.: AD-A-176634/4/XAB
Document Type: Report
Language: English
Journal Announcement: ERAE705
Availability: NTIS, PC A99/MF E04.
Subfile: ERA (Energy Research Abstracts)
Country of Publication: United States
Work Location: United States
Abstract: From mid-1984 through mid-1985, t Survey engaged in an investigation of two cra near-surface nuclear bursts at Enewetak Atoll OAK, resulted from 1.4- and 8.9-megaton, near the northern perimeter of the Enewetak lagoon respectively. At that time, Enewetak was a pa Grounds (PPG). OAK and KOA are among the only craters available for studies of cratering pr effects. The objects of this program were: (1 dimensions, morphology, and structures; (2) t material-properties, shock-metamorphic, and o and (3) to gain a better understanding of bot excavational crater and that altered that ini form. These data from the Enewetak craters ar

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geophysical, and
crater dimensions and
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craters and that subsequently
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physical Stratigraphic
Organic Content; Drainable
gravity Surveys; Seismic
Paleontologic Studies;
servations; Crater

co, B.; Major, R.P.; Tracey,

Exploration (PEACE) program,
Islands. Part 1. Drilling
icinity of KOA and CAK craters
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ters formed from high-yield,
. The craters studied, KOA and
-surface bursts detonated near
on May 12 and June 28, 1958,
rt of the Pacific Proving
high-yield nuclear explosion
ocesses and crater-related
to identify major crater
provide a data base for
ther types of related studies;
the process that formed the
tial feature to its present
e needed for verification of

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cratering prediction models (code validation), which is important to the analysis of survivability of various strategic defense systems.

5/7/24 (Item 24 from file: 103)
1346714 ERA-12:005151, EDB-87:005258
Author: Clarkson, P.
Title: Headquarters Joint Task Force Seven. Operation plan number 3-53
Corporate Source: Joint Task Force Seven, Washington, DC (USA)
Date: 10 Feb 1954 124 p.
Report No.: AD-A-995446/8/XAB
Note: Includes change no. 1
Document Type: Report
Language: English
Journal Announcement: EDB8611
Availability: NTIS, PC A06/MF A01.
Subfile: ERA (Energy Research Abstracts). GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: This operation plan covers the period of operations from the time major elements of the joint task force are deployed in the forward area until the completion of on-site operations. It was published for planning purposes only, always subject to periodic revision and refinement as more detailed information became available. ENIWETOK-BIKINI Danger Area, as the term is used in this plan, is that area encompassing ENIWETOK and BIKINI ATOLLS and bounded by the meridians 160 deg 35' - 166 deg 10' east longitude, and by the parallels 10 deg 15' - 12 deg 45' north latitude (an area of 150 by 330 miles).

5/7/25 (Item 25 from file: 103)
1246615 ERA-12:005061, EDB-87:005159
Title: Operation Crossroads. Chronological history of the activities of the Director of Ship Material Joint Task Force One aboard the USS Teclaimer (ARS42) during Test Baker. Report for 24-31 July 1946
Corporate Source: Joint Task Force One, Washington, DC (USA)
Date: 31 Jul 1946 17 p.
Report No.: AD-473988/4/XAB; XRD-188
Document Type: Report
Language: English
Journal Announcement: EDB8611
Availability: NTIS, PC A02/MF A01.
Subfile: ERA (Energy Research Abstracts). GRA (NTIS NTS)
Country of Publication: United States
Work Location: United States
Abstract: None

5/7/26 (Item 26 from file: 103)
1127307 EDB-86:081912 TIC Accession No.: DE86008167
Author: James, R.A.
Title: Estimate of radiation dose to thyroids of the Rongelap children following the Bravo event
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: 15 Dec 1964 10 p.
Report No.: UCRL-12273
Contract No.: W-7405-ENG-48
Note: Portions of this document are illegible in microfiche products

Document Type: Report
Language: English
Journal Announcement: ERA8605
Availability: NTIS, PC A02/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS). TIC (Technical Information Center)
Country of Publication: United States
Work Location: United States
Abstract: An estimate is made of the radiation dose to the thyroids of Rongelap children following the Bravo event of March 1, 1954. The available experimental data are used to estimate the dose under two alternate assumptions of mode of intake: (1) all of the intake was by inhalation, and (2) all of the intake was by oral ingestion. It is concluded that the most probable dose to the thyroid of a 3- to 4-year-old girl is in the range 700 to 1400 rad.

5/7/27 (Item 27 from file: 103)
1062231 ERA-11:007879, EDB-86:011700 TIC Accession No.: DE86003149
Title: Pacific Enewetak Atoll cratering exploration completion report (PEACE Program - Pacific-Enewetak Atoll Cratering Exploration)
Corporate Source: Holmes and Narver, Inc., Las Vegas, NV (USA). Energy Support Div.
Date: Sep 1985 53 p.
Report No.: NVO-294
Contract No.: AC08-76NV00020
Note: Portions of this document are illegible in microfiche products. Original copy available until stock is exhausted
Document Type: Report
Language: English
Journal Announcement: NTS8601
Availability: NTIS, PC A04/MF A01; 1.
Subfile: NTS (NTIS); ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: The primary objectives of this seaborne drilling operation were to obtain sufficient quantities of continuous, high quality carbonate core/samples, an integrated suite of geophysical logs, and other sub-sea floor data from within and adjacent to the KOA and OAK craters. This information is vital to refinement of previous interpretation and model studies detailing the dynamics of crater formation and to confirm residual postshot changes of the underlying formations. Specifically, the information obtained will provide an accurate understanding of the original dimensions of the transient craters and through precise analysis of material property samples will lead to an understanding of the response behavior of the lagoon sediments beneath the craters. All program objectives were accomplished. A total of 32 precisely positioned exploratory holes were completed in KOA and OAK craters from a drill ship in water depths of 30 to 200 ft. (Reference Appendix I for summary drilling curves of each borehole.)

5/7/28 (Item 28 from file: 103)
1029464 ERA-10:052369, EDB-85:167156 TIC Accession No.: TI86900025
Author: van der Brug, O.
Title: Water resources of the Yap Islands
Corporate Source: Geological Survey, Honolulu, HI (USA)

Date: 1983 202 p.
Report No.: USGS/WRI-82-357
Document Type: Report
Language: English
Journal Announcement: EDB8511
Availability: US Geological Survey, Box 25425, Lakewood, CO 80225.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: The Yap Islands consist of four major islands, Yap, Gagil-Tamil, Maap, and Rumung. Of these, Yap Island has more than half the total land area, most of the population, and almost all of the economic development. The islands of Maap and Rumung together compose only 15% of the land area and population. Average annual rainfall over the Yap Islands amounts to 122 inches. Rainfall-runoff comparisons indicate that about half of the annual rainfall runs off to the ocean on Yap Island and Gagil-Tamil. Streams on Gagil-Tamil are perennial but streams on Yap Island are dry an average of 3 months per year due to geologic differences. Analyses of water samples from 25 sources show the good quality and the chemical similarity of surface and ground water. This report summarizes the hydrologic data collected and provides interpretations that can be used by the planning and public works officials of Yap to make decisions concerning development and management of their water resources. 33 refs., 35 figs., 31 tabs.

5/7/29 (Item 29 from file: 103)
979524 EIB-85:117217 TIC Accession No.: DE85014695
Author: Lessard, E.T.; Miltenberger, R.P.; Conrad, R.A.; Musolino, S.V.; Naidu, J.R.; Moorthy, A.; Schopfer, C.J.
Title: Thyroid absorbed dose for people at Rongelap, Utirik, and Sifo on March 1, 1954
Corporate Source: Brookhaven National Lab., Upton, NY (USA)
Date: Mar 1985 84 p.
Report No.: BNL-51882
Contract No.: AC02-76CH00016
Document Type: Report
Language: English
Journal Announcement: ERA8308
Availability: NTIS, PC A05/MF A01.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); INS (IAEA Atomindex input).
Country of Publication: United States
Work Location: United States
Abstract: A study was undertaken to reexamine thyroid absorbed dose estimates for people accidentally exposed to fallout at Rongelap, Sifo, and Utirik Islands from the Pacific weapon test known as Operation Castle BRAVO. The study included: (1) reevaluation of radiochemical analysis, to relate results from pooled urine to intake, retention, and excretion functions; (2) analysis of neutron-irradiation studies of archival soil samples, to estimate areal activities of the iodine isotopes; (3) analysis of source term, weather data, and meteorological functions used in predicting atmospheric diffusion and fallout deposition, to estimate airborne concentrations of the iodine isotopes; and (4) reevaluation of radioactive fallout, which contaminated a Japanese fishing vessel in the vicinity of Rongelap Island on March 1, 1954, to determine fallout components. The conclusions of the acute exposure study were that the

population mean thyroid absorbed doses were 21 gray (2100 rad) at Rongelap, 5.7 gray (570 rad) at Sifo, and 2.8 gray (280 rad) at Utirik. The overall thyroid cancer risk we estimated was in agreement with results published on the Japanese exposed at Nagasaki and Hiroshima. We now postulate that the major route for intake of fallout was by direct ingestion of food prepared and consumed outdoors. 66 refs., 13 figs., 25 tabs.

5/7/30 (Item 30 from file: 103)
969242 EDB-85:106934 TIC Accession No.: DE85013516
Author: Robinette, C.D.; Jablon, S.; Preston, T.L.
Title: Studies of participants in nuclear tests. Final report, 1 September 1978-31 October 1984
Corporate Source: National Research Council, Washington, DC (USA)
Date: May 1985 102 p.
Report No.: DOE/EV/01577-1
Contract No.: AI08-78EV01577
Note: Portions of this document are illegible in microfiche products
Document Type: Report
Language: English
Journal Announcement: ERAB507
Availability: NTIS, PC A06/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); INS (US Atomindex input).
Country of Publication: United States
Work Location: United States
Abstract: A study of mortality, by cause of death, was done on a cohort of 46,186 participants in one or more of five test series. The series studied were UPSHOT-KNOTHOLE (1953) and PLUMBBOB (1957) at the Nevada Test Site, and GREENHOUSE (1951), CASTLE (1954), and REDWING (1956) which were conducted at the Pacific Proving Ground at Enewetak and Bikini. The participants were traced individually by the use of Veterans Administration records. For the participants in each series, the number of deaths attributed to particular causes was compared with the number expected to occur at US cause- and age-specific mortality rates. A total of 5113 deaths from all causes was ascertained; this was 11.1% of the number of participants. The number was, however, only 93.5% of the number expected at US mortality rates. Mortality from leukemia among the 3554 participants at SMOKY - 10 deaths below age 35 - were 2.5 times the expected number. When the leukemia deaths are compared to other deaths in all six data sets, the differences among the series are not significant. No cancer other than leukemia was ascertained to have occurred in significant excess among SMOKY participants and the number of deaths from other cancers (67) was less than the number expected at population rates (83.8). The total body of evidence cannot convincingly either affirm or deny that the higher than statistically expected incidence of leukemia among SMOKY participants (or of prostate cancer among REDWING participants) is the result of radiation exposure incident to the tests. 19 refs., 27 tabs.

5/7/31 (Item 31 from file: 103)
959263 EDB-85:096954
Title: Operation Crossroads. Atomic bomb tests Able and Baker conducted at Bikini Atoll, Marshall Islands on 1 July 1946 and 25 July 1946. Volume 3. Appendix v: pictorial review. History of Director of Ship Material report
Corporate Source: Joint Task Force One, Washington, DC (USA)

Date: 1946 114 p.
Report No.: AD-A73910/8/XAB; YRD-191
Note: See also Volume 1, AD-A73 909
Document Type: Report
Language: English
Journal Announcement: ERA8505
Availability: NTIS, PC A06/MF A01.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: None

5/7/32 (Item 32 from file: 103)
959262 EDB-85:096953
Title: Operation Crossroads. Atomic bomb tests Able and Baker conducted at Bikini Atoll, Marshall Islands on 1 July 1946 and 25 July 1946. Volume 1. History of Director of Ship Material report
Corporate Source: Joint Task Force One, Washington, DC (USA)
Date: 1946 156 p.
Report No.: AD-A73909/0/XAB; BRD-189
Note: See also Volume 3, AD-A73 910
Document Type: Report
Language: English
Journal Announcement: ERA8505
Availability: NTIS, PC A08/MF A01.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: The purpose of this history is to provide a general, nontechnical introduction to the voluminous technical reports evolving from Operation Crossroads. There are many reasons for such a history but it is enough to say here that any assessment of results in a large test operation must take into account in some manner how the results were obtained. The history, therefore, provides a chronological account of the effort, extending over a period of eight months, which the groups under the Director of Ship Material, as well as some other closely related groups, put forth to obtain the results that lie behind the technical reports.

5/7/33 (Item 33 from file: 103)
942256 ERA-10:026048, EDB-85:079945 TIC Accession No.: DE85007975
Author: Burton, D.E.; Swift, R.P.; Glenn, H.D.; Bryan, J.B.
Title: Blast induced subsidence in the craters of nuclear tests over coral
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Conference Title: 26. U.S. symposium on rock mechanics
Conference Location: Rapid City, SD, USA Conference Date: 26 Jun 1985
Date: Feb 1985 9 p.
Report No.: UCRL-91639; CONF-850671-4
Contract No.: W-7405-ENG-48
Document Type: Report; Conference literature
Language: English
Journal Announcement: NTS8506
Availability: NTIS, PC A02/MF A01.
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research Abstracts).

Country of Publication: United States
Work Location: United States
Abstract: The craters from high-yield nuclear tests at the Pacific Proving Grounds are very broad and shallow in comparison with the bowl-shaped craters formed in continental rock at the Nevada Test Site and elsewhere. Attempts to account for the differences quantitatively have been generally unsatisfactory. We have for the first time successfully modeled the Koa Event, a representative coral-atoll test. On the basis of plausible assumptions about the geology and about the constitutive relations for coral, we have shown that the size and shape of the Koa crater can be accounted for by subsidence and liquefaction phenomena. If future studies confirm these assumptions, it will mean that some scaling formulas based on data from the Pacific will have to be revised to avoid overestimating weapons effects in continental geology. 9 refs., 5 figs.

5/7/34 (Item 34 from file: 103)
468091 EDB-85:048823
Author: Bruton, H.C.
Title: Operation Castle. Joint Task Force Seven, Commander Task Group 7.3. Extracted version. Final report, January-May 1954
Corporate Source: Kaman Tempo, Santa Barbara, CA (USA)
Date: 15 Dec 1982 375 p.
Report No.: AD-A-995202/8/XAB
Note: Extracted version of report dated 1954
Document Type: Report
Language: English
Journal Announcement: ERA8504
Availability: NTIS, PC A16/MF A01.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: None

5/7/35 (Item 35 from file: 103)
425288 ERA-10:011223, EDB-85:032015 TIC Accession No.: DE85005419
Author: Brewbaker, J.L.; MacDicken, K.G. (eds.)
Title: Biomass energy options for the American Territories of the Pacific
Corporate Source: Hawaii Univ., Honolulu (USA)
Date: Nov 1982 79 p.
Report No.: DOE/SF/11647-T1
Contract No.: AT03-82SF11647
Note: Portions are illegible in microfiche products
Document Type: Report
Language: English
Journal Announcement: NTS8502
Availability: NTIS, PC A05/MF A01; 1.
Subfile: NTS (NTIS); ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: The term American Territories of the Pacific was used in this report as a general descriptor for the American Territories of Guam, American Samoa and the Trust Territories of the Pacific Islands (TTPI). These islands represent an especially challerging opportunity to develop small to medium scale biomass energy options. They depend on imported petroleum for nearly all of their energy needs. Its high cost, the lack of

available and appropriate technologies, insular climatic conditions, and projected energy requirements urge emphasis on biomass options in this region. Successful biomass options must be designed with consideration of site specific factors such as: periodic storms (about every decade) with winds of up to 320 kph (200 mph) and regular, annual storms with wind speeds in excess of 110 kph (80 mph); the critical lack of technically skilled labor; high construction costs and logistics problems; and difficult terrain and often nutrient depleted soils. The biomass energy resources of the American Territories of the Pacific have not been thoroughly studied. Thus, the choice of feedstock species, projections of yield, and costs per unit of harvested biomass cannot be made confidently. As a result, the costs to consumers of delivered energy are especially prone to inaccuracy. It is apparent nonetheless that biomass is an abundant, highly productive, and versatile renewable energy resource in Pacific Islands, and that its practical application must be preceded by adequate research and demonstration. Some specific recommendations are included. 34 references, 7 figures, 12 tables.

5/7/36 (Item 36 from file: 103)
279273 ERA-09:025078, EDB-84:076433 TIC Accession No.: DE84010920
Author: Noshkin, V.E.; Wong, K.M.; Jokela, T.A.; Brunk, J.L.; Eagle, R.J.
Title: Plutonium and americium behavior in coral atoll environments
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Date: 1 Feb 1984 46 p.
Report No.: UCID-19997
Contract No.: W-7405-ENG-48
Document Type: Report; Numerical data
Language: English
Journal Announcement: INS8405
Availability: NTIS, PC A03/MF A01.
Subfile: ING (US Atomindex Input); NTS (NTIS); ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: Inventories of /sup 239 +240/Pu and /sup 241/Am greatly in excess of global fallout levels persist in the benthic environments of Bikini and Enewetak Atolls. Quantities of /sup 239 +240/Pu and lesser amounts of /sup 241/Am are continuously mobilizing from these sedimentary reservoirs. The amount of /sup 239 +240/Pu mobilized to solution at any time represents 0.08 to 0.09% of the sediment inventories to a depth of 16 cm. The mobilized /sup 239 +240/Pu has solute-like characteristics and different valence states coexist in solution - the largest fraction of the soluble plutonium is in an oxidized form (+V,VI). The adsorption of plutonium to sediments is not completely reversible because of changes that occur in the relative amounts of the mixed oxidation states in solution with time. Further, any characteristics of /sup 239 +240/Pu described at one location may not necessarily be relevant in describing its behavior elsewhere following mobilization and migration. The relative amounts of /sup 241/Am to /sup 239 +240/Pu in the sedimentary deposits at Enewetak and Bikini may be altered in future years because of mobilization and radiological decay. Mobilization of /sup 239 +240/Pu is not a process unique to these atolls, and quantities in solution derived from sedimentary deposits can be found at other global sites. These studies in the equatorial Pacific have significance in assessing the long-term behavior of

the transuranics in any marine environment. 22 references, 1 figure, 13 tables.

5/7/37 (Item 37 from file: 103)
147780 EDB-83:147746
Title: Evaluation of Enewetak radioactivity containment. Final report
Corporate Source: National Research Council, Washington, DC (USA). Committee on Evaluation of Enewetak Radioactivity Containment
Date: Mar 1982 53 p.
Report No.: PB-83-204263
Document Type: Report
Language: English
Journal Announcement: ERA8307
Availability: NTIS, PC A04/MF A01.
Subfile: ERA (Energy Research Abstracts); INIS (US Atomindex input).
Country of Publication: United States
Work Location: United States
Abstract: Between 1948 and 1958 the Enewetak Atoll in the Marshall Islands was the site of 43 nuclear explosions, part of the government's nuclear testing program. Responding to the demands of the Enewetak people, the government in 1972 decided to rehabilitate the atoll. In the cleanup process, radiologically contaminated soil and debris from many of the atoll's islands were placed in a massive, domed concrete containment structure built over one of the bomb craters on Runit Island. In order to provide the people of Enewetak and the Marshallese Government with an objective assessment of the containment structure's safety, the Defense Nuclear Agency asked the Advisory Board on the Built Environment of the National Research Council to study the matter. The committee appointed to conduct the study concentrated on two issues: (1) the potential hazard of transuranics being transported to the surrounding environment from the structure, and (2) the possible sequence of events that would affect the structure's physical integrity, and the radioactive hazards that would result from breachment of the dome.

5/7/38 (Item 38 from file: 103)
125094 EDB-83:125107
Title: Kwajalein missile range, Kwajalein, Marshall Islands range reference atmosphere 0-70 km altitude
Corporate Source: Range Commanders Council, White Sands Missile Range, NM (USA). Meteorological Group
Date: 1982 185 p.
Report No.: AD-A-123424/4
Document Type: Report; Numerical data
Language: English
Journal Announcement: ERA8304
Availability: NTIS, PC A09/MF A01.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: Atmospheric parameters are essential to the research and development of missiles and aerospace vehicles. The need for realistic atmospheric models derived in a consistent manner for each of the several major test ranges was recognized in the early 1960's. An atmospheric model which is derived from statistical data for a particular geographical location is referred to as a reference atmosphere. This committee, Task

105-1, establishes RRAs Range Reference Atmospheres for the several ranges as provided by the RCC Range Commander's Council. An RRA is a model of the Earth's atmosphere over a geographical location of interest for use by DOD and other U.S. Government range users. The RRA is used to provide planning data for evaluating environmental constraints for the particular configurations of environment-sensitive systems and components being developed or undergoing tests. Using the best available upper atmosphere data base to include rawinsonde, rocketsonde and possibly other high-altitude data sources for the range location, the task is to establish a model of certain statistics for wind and thermodynamic quantities derived in a uniform manner and published in a standardized format.

5/7/39 (Item 39 from file: 103)
093547 EPA-09:003437, ERA-08:031515, EDB-83:093557 TIC Accession No.: DE83005225
Author: McCord, T.B.; Bathen, K.H.; Boesgaard, H.; Fenale, F.P.; McCord, C.S.; Scudder, R.J.; Weeks, D.D.; Yuen, J.W.L.
Title: Suitability of salt-gradient solar ponds for electrical power generation in the US Trust Territory of the Pacific Islands, Guam, and American Samoa
Corporate Source: SERI, Inc., Honolulu, HI (USA)
Date: Nov 1982 185 p.
Report No.: DOE/SF/11645-T1
Contract No.: AC03-82SF11645
Note: Portions are illegible in microfiche products
Document Type: Report
Language: English
Journal Announcement: NTS8305
Availability: NTIS, PC A09/MF A01; 1.
Subfiles: NTS (NTIS); ERA (Energy Research Abstracts); EPA (Energy Abstracts for Policy Analysis).
Country of Publication: United States
Work Location: United States
Abstract: The procedures and findings of a study to assess the suitability of salt-gradient solar ponds for base-load (firm) electricity generation in the US Trust Territory of the Pacific Islands (TTPI), Guam and American Samoa are described. The general conclusion is that solar pond power plants (SPPPs) are viable both technically and economically for some applications, possibly including atolls. The most practical immediate application would be to small and intermediate power users such as villages and airports. It is recommended that (1) at least one small SPPP be built immediately on a dry land site such as for the main village on Peleliu, Palau, (considered in this report) or at other identified feasible sites, and (2) that a design study be conducted to adapt the technology to atoll sites. This study was carried out by first reviewing all available literature on solar ponds and the regions concerned. All the regions in question were visited. Several sites were selected for specific study and SPPP conceptual designs were developed for these sites. These sites are (1) North Peleliu, Palau, with (2) Peleliu airport as an auxiliary site, (3) Aimeliik, Palau, and (4) atoll environments. Cultural, political, environmental and legal considerations were given equal weight with technical and economic factors, and locally resident persons were used as interpreters and liaisons. There exists strong support in the government and the community to develop these proposed site-specific SPPPs and land is available. Power needs were defined, construction and operation costs were

calculated and performance was predicted for the site-specific designs. The results of the Palau site-specific studies were generalized to other areas and environments in the TTPI, Guam and American Samoa. An economic analysis of the SPPF conceptual design developed for Palau was made using the discounted cash flow method.

5/7/40 (Item 40 from file: 103)
069480 ERA-08:024295, EDB-83:069487 TIC Accession No.: DE83007247
Author: Noshkin, V.E.; Wong, K.M.; Jokela, T.A.; Brunk, J.L.; Eagle, R.J.
Title: Comparative behavior of plutonium and americium in the equatorial Pacific
Corporate Source: Lawrence Livermore National Lab., CA (USA)
Conference Title: 4. international ocean disposal symposium
Conference Location: Devon, UK Conference Date: 11 Apr 1983
Date: 1983 46 p.
Report No.: UCRL-88812; CONF-830424-1
Contract No.: W-7405-ENG-48
Document Type: Report; Conference literature
Language: English
Journal Announcement: NTS8304
Availability: NTIS, PC A03/MF A01.
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: Inventories of /sup 239 +240/Pu and /sup 241/Am greatly in excess of global fallout levels persist in the benthic environments of Bikini and Enewetak Atolls. The amount of /sup 239 +240/Pu mobilized to solution at the atolls can be predicted from a distribution coefficient K/sub d/ of 2.3 x 10/sup 5/ and the mean sediment concentrations. The mobilized /sup 239 +240/Pu has solute-like characteristics and different valence states coexist in solution - the largest fraction of the soluble plutonium is in an oxidized form (+V,VI). The adsorption of plutonium to sediments is not completely reversible because of changes that occur in the relative amounts of the mixed oxidation states in solution with time. Characteristics of /sup 239 +240/Pu described at one location may not necessarily describe its behavior elsewhere. The relative amounts of /sup 241/Am to /sup 239 +240/Pu may be altered in future years because of mobilization and radiological decay.

5/7/41 (Item 41 from file: 103)
051673 ERA-08:018573, EDB-83:051678
Author: Martin, E.J.; Rowland, R.H.
Title: Castle series, 1954. Technical report
Corporate Source: Kaman Tempo, Santa Barbara, CA (USA)
Date: 1 Apr 1982 530 p.
Report No.: AD-A-117574/4
Document Type: Report
Language: English
Journal Announcement: EDB8211
Availability: NTIS, PC A23/MF A01.
Subfile: ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States

Abstract: CASTLE was an atmospheric nuclear weapons test series held in the Marshall Islands at Enewetak and Bikini atolls in 1954. This is a report of DOD personel in CASTLE with an emphasis on operations and radiological safety.

5/7/42 (Item 42 from file: 103)
042046 ERA-09:001883, EDB-83:042050 TIC Accession No.: DE83005492
Title: Territorial energy assessment. Final report
Corporate Source: Department of Energy, San Francisco, CA (USA). San Francisco Operations Office; USDOE Savannah River Operations Office, Aiken, SC
Date: Dec 1982 379 p.
Report No.: DOE/CP-0005/1
Note: Portions are illegible in microfiche product. Original copy available until stock is exhausted
Document Type: Report
Language: English
Journal Announcement: ERA8302
Availability: NTIS, PC A17/MF A01; 1.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); EPA (Energy Abstracts for Policy Analysis).
Country of Publication: United States
Work Location: United States
Abstract: This assessment is concerned with energy planning for the governments of the American territories of Guam and American Samoa, and of the four nations that are now emerging from the United Nations Trust Territory of the Pacific Islands: the Commonwealth of the Northern Mariana Islands, the Republic of the Marshall Islands, the Republic of Palau, and the Federated States of Micronesia. This study was directed by the United States Congress under Public Law 96-597, and carried out by the United States Department of Energy in cooperation with the respective island governments. This report addressed the current and future energy needs of the island governments and considers the feasibility of employing alternate sources of energy, especially indigenous renewable energy resources, to reduce depencence on petroleum-based fuels.

5/7/43 (Item 43 from file: 103)
035757 ERA-08:013013, CXS-83:000240, EDB-83:035760 TIC Accession No.: DE83004468
Author: Bliss, W. (comp.)
Title: Enewetak fact book (a resume of pre-cleanup information)
Corporate Source: Department of Energy, Las Vegas, NV (USA). Nevada Operations Office
Date: Sep 1982 219 p.
Report No.: NVO-214
Note: Portions of document are illegible
Document Type: Report
Language: English
Journal Announcement: NTS8302
Availability: NTIS, PC A10/MF A01.
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: The book contains a group of short treatises on the precleanup

condition of the islands in Enewetak Atoll. Their purpose was to provide brief guidance to the radiological history and radiological condition of the islands for use in cleanup of the atoll. (ACR)

5/7/44 (Item 44 from file: 103)
028105 EDB-83:028105 TIC Accession No.: DE82015865
Author: Konn, H.I.; Drever, N.A.
Title: Radiation-induced risk of resettling Bikini atoll. Final report, November 7, 1981-May 29, 1982
Corporate Source: Epidemiology Resources, Inc., Chestnut Hill, MA (USA)
Date: 1982 56 p.
Report No.: DOE/EP/12040-T1
Contract No.: AC01-82EP12040
Note: Portions of document are illegible
Document Type: Report
Language: English
Journal Announcement: ERA3301
Availability: NTIS, PC A04/MF A01.
Subfile: ERA (Energy Research Abstracts); NTS (NTIS); INS (US Atomindex input).
Country of Publication: United States
Work Location: United States
Abstract: The Department of Energy (DOE) has concluded that the Bikini atoll is unsafe for resettlement. In response to the Bikinians' request for an independent review, we have examined the following DOE findings: (a) radionuclide contamination of Eneu and Bikini Islands, (b) radiation dosage to those who might resettle the islands, and (c) risks to the health of such settlers. We are in practical agreement with the DOE estimates Resettlement of either island in 1982 would lead to a range of annual or 30-year cumulative doses that exceed the Federal Radiation Council (FRC) guides for the general population, but not those for occupation exposure. By 2013 resettlement of Eneu probably would be permissible. The principal source of radiation dose is local food, especially coconut, owing to contamination of the soil by cesium-137. A precise estimate of dose is impossible. The availability of imported foods would lessen local food consumption, but not sufficiently to meet the FRC guides for the general population. The 30-year cumulative index dose is 61 (25-122) rem for Bikini, and about 8 (3-16) rem for Eneu.

5/7/45 (Item 45 from file: 103)
018479 ERA-08:008317, CXS-82:000619, EDB-83:018480 TIC Accession No.: DE83003674
Author: Friesen, B. (ed.)
Title: Enewetak radiological support project. Final report
Corporate Source: USDOE Nevada Operations Office, Las Vegas; Holmes and Narver, Inc., Orange, CA (USA)
Date: Sep 1982 669 p.
Report No.: NVO-213
Note: Portions of document are illegible. Printed copy available until stock is exhausted. Includes 8 sheets of 48 + 24x reduction microfiche
Document Type: Report
Language: English
Journal Announcement: NTS8301
Availability: NTIS, PC E19/MF $5.50.
Subfile: NTS (NTIS); INS (US Atomindex input); ERA (Energy Research

Abstracts).
Country of Publication: United States
Work Location: United States
Abstract: From 1972 through 1980, the Department of Energy acted in an advisory role to the Defense Nuclear Agency during planning for and execution of the cleanup of Enewetak Atoll. The Nevada Operations Office of the Department of Energy was responsible for the radiological characterization of the atoll and for certification of radiological condition of each island upon completion of the project. In-situ measurements of gamma rays emitted by americium-241 were utilized along with wet chemistry separation of plutonium from soil samples to identify and delineate surface areas requiring removal of soil. Military forces removed over 100,000 cubic yards of soil from the surface of five islands and deposited this material in a crater remaining from the nuclear testing period. Subsurface soil was excavated and removed from several locations where measurements indicated the presence of radionuclides above predetermined criteria. The methodologies of data acquisition, analysis and interpretation are described and detailed results are provided in text, figures and microfiche. The final radiological condition of each of 43 islets is reported.