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TO FILES

REPORT OF BRIEFING ON ENIWETOK SURVEY, JULY 14-21, 1971, PREPARATORY TO MICRO ATOLL EXPERIMENT.

Mr. Hendricks, NV, stated on July 23, 1971, that part of the monitoring group from NV and WERL, who had accompanied the Air Force Survey group (who were to determine the requirements for clean-up for the experiment), had returned to Las Vegas and had reported on the radiological situation on some of the islands in the Eniwetok Atoll.

Mr. Charles Costa, WERL, stated that the island of Yvonne (formerly Runit and site of CACTUS (surface shot during HARTDACK PHASE I, 5/5/58), LACROSS, surface shot during RED WING) and FIG (not announced one point safety shot) had been surveyed. The monitors found one area on the ocean side of the island that was about 65 feet long, slightly buried, that gave a reading of 3,000 alpha counts per minute (wet soil). There was an area facing the ocean and washed by the tides, that was not covered, thus there could very well be come of the alpha radioactivity, presumably plutonium, that was being slowly eroded by the wave action. There were also a few places on the surface where the alpha activity was detected.

There were pieces of metal that read 35 mR/hr on contact, but

this was also in vegetation because the same reading was observed with U.S. ATOMIC ENERGY COMMISSION and without the window open. On the perimeter of the CACTUS crater

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BY: MARY DEFFENSAUGH DOENN-823

the reading was 0.6 mR/hr at 3 feet above the surface. On the lip of the crater (above the crater in the throw-out portion) the value was up to 1 mR/hr at 3 feet.

The island of Janet (formerly Engebi, site of ITEX and EASY on Operation GREENHOUSE, 1951, and X-RAY on Operation SANDSTONE, 1948), there were no areas of high readings, but pieces of coral were observed to read 10 mR/hr on contact. Janet is the first island to be used for the HE experiment (MICRO ATOLL EXPERIMENT).

The clean-up plan calls for moving into the area about August 25, 1971, and start clearing away the brush in early September. There will be a few small HE calibration shots during the 3rd week of September, then continue with the clean-up. The next phase of clean-up in preparation for the experiment will be scraping the coral overburden down to the water surface on the island, where in most places this is 6 1/2 to 8 feet below the present surface. If there is any top soil this will be separated and pulled to one side. The coral sand will be pulled over to the lagoon side to enlarge the island. The area on the west end of the island is contaminated with beryllium and is posted. The area will not be disturbed during this experiment.

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It is possible that there will be more than one HE Experiment but the one planned for Janet will be completed and the results evaluated before others are undertaken.

It should be noted that the island of Yvonne (Runit) where the alpha contamination was observed, is a recreational area used by personnel of the Kentron Co. (Army contractors) and the Coast Guard. There have been no warning signs at the area of plutonium contamination, however, signs are to be posted to Keep Off, but no reason given for the sign.

The individual who is responsible for the project is:

Mr. Robert W. Henny, Consultant
Air Force Weapons Laboratory
Kirtland Air Force Base
Albuquerque, New Mexico
505-247-1711, Ext. 3271

Finally, the plan calls for the HE experiment to be conducted on July 4, 1972.

It will probably be necessary to issue an Environmental Statement on the experiment but the decision on procedure to be used has not been made.

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TRIP REPORT JULY 19,-24, 1971

A. Monday, July 19th, 1971.

A Conference was held with Mr. Donald Hendricks, Director, Radiological Operations Division, NV, and attended by Mr. T. F. McCraw, OS, Hq.. Items of interest to all concerned were discussed.

1. Isotopes Incorporated-Westwood, New Jersey, is an ARPA Contractor that is investigating the general background level for krypton, xenon, tritium (tritiated water) tritiated methane. Samples collected at 500 cc/minute until 2.5 cubic meters are collected. Stations have been established in Las Vegas (for establishing background for the area) in Mercury and at B J Y (Mid Test Site). No results of analyses were available.
2. A site selection team to Eniwetok for Micro Atoll Experiment (HE, DOD) was accompanied by Mr. Lynch, IV, and Mr. Costa, WERL, so as to collect samples and monitor the environment. A separate report is being submitted to cover this portion of the conference.
3. The Radiological Support Division furnishes a Radiological Consultant for all major activities involving radiation and/or radioactive contamination. These include:
 - a. One man at NTS, full time. This assignment rotates for one week periods. All health physics staff participate except Mr. Hendricks and Mr. Whitman.

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b. One man at Management Operations Center. This is an arrangement for Manager, NV, and Hq., TOC on Conference phone connection 30 minutes prior to all nuclear tests. The conference continues for 30 minutes to 2 hours after detonation.

c. One man, full time, at Hattiesburg, Mississippi, through clean-up. Possibly as long as 4 to 6 months. (Mr. Bruce Church).

d. One man available for Rulison and Gasbuggy although this is not continuous.

e. One man available for periodic trips to Anchitka, prior to full operational period, then full time assignment through Cannikin.

These are examples of the present, time consuming assignments. Some of these will be closed-out by year-end.

4. During a discussion of environmental conditions at Hattiesburg, Mr. Hendricks stated that he felt there should be some relief from the stringent clean-up criteria issued recently by Hq. The swamp area near the experiment hole and the area used for overflow of radioactive materials from downhole is contaminated, for the most part, with antimony-125 as the principal beta emitter. At the time the criteria were established this information was not available. However, since it is not available it is planned to request a change in the clean-up criteria, possibly by a factor of 10.

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There are other problems in connection with the Antimony. For example, the Mississippi Rad-Health Officers were briefed, and the analytical data was requested. Some of the debris is classified.

5. There are several (as many as ten or more) law suits or complaints being investigated that could result in law suits alleging that radiation was the cause of their health problem. The Radiological Support Division is consultant to the legal counsel in each instance.

6. The function for appraisal of Contractors involved in the use of radiation sources and similar activities (REECO, H²N, Eberline, and others), was removed from the Radiological Operations Division and assigned to the Office of Safety approximately, 1 1/2 years ago. This function has been recently (about 3 weeks ago) returned to Radiological Operations Division. Also Waste Management has been returned to Rad. Ops. Div.

The meeting with Mr. Hendricks was completed at the NTS on Tuesday morning when Mr. McCraw, Mr. Vallario, Mr. Bootman (NV), Mr. Hendricks and I visited locations on the NTS of interest to OS. The details of observations made during this period will be presented in the appraisal report on NV by Mr. Vallario. Briefly,

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two areas of tunnel water effluent were visited and problems in connection with the effluent were discussed.

There are 2 areas of successive overflow ponds, about 30-50 feet in diameter, 15-25 feet deep, in a down-hill orientation such that overflow as necessary is accomplished. By the time water gets to the lower pond most of the water has evaporated. The water contains tritium and other radionuclides. A summary of the content of the ponds will be attached to Mr. Vallario's report. Suffice it to say that the problem lies in the fact that flash floods in the area may wash some of the contaminated water toward Yucca Flats. Its final place of deposition after such an overflow is not known. A request for cost prediction to pipe the outflow to an area down-hill for better containment has been made.

The newly constructed Decon Area (building) was briefly visited. Some changes are being made but the building is used as required (decontamination for things up to very heavy equipment).

The conference and field visit were enlightening and very worthwhile.

B. Test Readiness Briefing- 1:30-4:00 p.m.-July 20, 1971.

A test readiness briefing for Apodaca, divided into 3 parts

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(CEP, device, weather) was attended by Mr. McCraw and myself. The information given to the CEP at the Panel's final meeting before execution of the test, was presented to the Test Manager's Panel and the Scientific Advisor. It was ascertained that all conditions for assignment of Category I by the Panel had been met, that there was no deviation and that the test was ready..

The Device Review was given. This information had been given to the CEP but was not part of the Pre-test CEP review. There were no problems.

During the weather briefing, i.e., predictions of weather conditions on NTS at event time, it was indicated that the Gate 200 would be closed at H+7 hours and only event-related personnel would be authorized in the forward area. This action was slightly different from earlier plans because the direction and speed of the winds were such that if there was a Pike-like vesting a large portion of the NTS would be contaminated. The reporting time for all work personnel was established for 9:00 a.m., and the test time was 6:30 a.m.

The test was normal and no untoward problems were apparent.

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C. Conference with Assistant Manager for Operations.

Mr. Roger Ray, has recently been appointed to the position of Assistant Manager for Operations. Although many items for which he will be responsible were discussed in general, only a few are presented here.

1. It has been directed that all types and kinds of information generated for each test is to be assembled into one file, even though this may mean duplication in some instances.
2. The problems of the Micro Atoll experiment on Eniwetok were discussed. Mr. Ray feels that the AEC should be involved in the experimental preparation phase of the Operations but did not elaborate because no information was available on the extent of contamination.

D. AD HOC Committee Plutonium Study.

I attended the afternoon session, 1st day, of the Ad Hoc Committee on Plutonium. A report of the discussions and presentations are not included in this report.

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E. Meeting of CEP, July 22 and 23, 1971.

The agenda for this meeting was confidential, thus a copy is not available at this time. Items discussed included:

Cannikin - for Categorization.

Yerba - for Categorization.

Diamond Mine - Post Shot Information.

Campier - Post Shot Information.

Lagoon - for Information. not.

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