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March 2, 1965

John R. Horan, Director
Health and Safety Division

726922

TRIP REPORT

HS:JRH

189 Review by DBM on February 26, 196

Attendance: Headquarters

Mr. John Whitnah, Program Coordinator
Dr. Dave Bruner, Assistant Director for Medical and Health Research
Dr. Allan Lough, Assistant Director for Radiological Physics
Dr. Nat Barr, Chief, Radiological Physics and Instrumentation Branch
Dr. Bill Burr, Chief, Medical Research Branch
Dr. Roger McClellan, Medical Research Branch
Mr. Al Klement, Acting Chief, Fallout Studies Branch
Mr. Noble Simpson, Assistant Chief, Program Coordination Branch

Idaho Operations Office

Mr. Jack Kaufmann
Mr. A. C. Worley
Mr. J. R. Horan

This was by far the most intensive review of ID 189's by the Division of Biology and Medicine. It was quite evident that the 189's had received a very thorough review prior to our two hour meeting. There was keen interest, candid discussion and constructive criticism of the 189's as proposed. It was quite evident that DBM is taking a greater interest in the work and the potential at NRTS. It is also obvious that a need exists for a higher degree of cummunication than has been exercised in the past. It is most important that several members of DBM spend time in visiting the NRTS. This is particularly true of Dr. Bruner and Dr. Barr. There is also an urgent need for more frequent visits to DBM by the program people within the Health and Safety Division.

Addressees:
W. L. Ginkel
R. V. Batie
C. W. Sill
G. L. Voelz, M.D.
JGordon Willes

The comments on the specific 189's are as follows:

1. Toxicity of Radio Elements - 06 01 02 00

Dr. Bruner was quite complimentary on the caliber of work that is being done under this project, and I predict that it will receive full support. However, a number of constructive suggestions were made to improve the 189. Basically, it was quite evident that the 189 implies rather than states what and how we intend to do our work. Once again I detected the sensitivity of Dr. Bruner by his questioning for anything related to human experimentation. It was evident that he wanted a statement for the record that our whole body studies involved individuals who are accidentally exposed to inhalation exposures while in the course of their normal work.

Specific comments on various items of the 189's are as follows:

Item 15 - This item was entirely too general. The purpose needs to be spelled out more specifically as to what we are going to do as well as what we have been doing. Articles which have been published as a result of this endeavor should also be mentioned specifically. In this regard, I believe it would be quite valuable to identify all publications by sequential numbers to tie them in directly with the project and indicate that this is the third, fourth or fifth article or report that has been published as a result of this project.

Item 16 - Not specific enough - more interested in relationship to DBM needs rather than space program and cosmology.

Item 17, page 4, - More development is required to define the need for this program activity. They are interested only in the research phase of the study and will have no interest nor will they support any operational activity. The utility of analytical procedures for different isotopes such as Co^{60}, Fe^{59}, Pb^{210}, Bi^{210} should also be better defined.

Item 18 - There was no knowledge of the ETR plutonium incident data nor even of the incident itself. This deficiency is one we must correct at our first opportunity. They are interested in studies of insoluble plutonium in the lung and Dr. Lough recommended that we contact Dr. Wright Langham since he had expressed the interest to become more active in this area of research within the past year. His thinking and research findings should be incorporated into our project.

More explanation was requested for the increase of $10,000 between 1965 and 1966. The explanation I gave was that this was just a general scale up of the whole scope of the operation -- more inhalation incidents, more people involved, more samples to be analyzed.

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2. Controlled Radioiodine Test (CRRT) - 06 05 03 00

Dr. Allan Lough began his comments by saying that undoubtedly he was biased in his position concerning this project. It was obvious that there was almost a 180 degree difference of opinion between the Assistant Director and the Branch Chief, Mr. Al Klement, who is responsible for the activity. Dr. Lough strongly believes that the hazards from radioiodine are now well enough known and there should be no further research on this phase of the program. In fact, we know the behavior of iodine on plants and the resulting route of exposure to man. This is mainly because of the recent report, UCRL 12388, by Stanley R. Thompson, which was issued on January 29, 1965 on Fallout of Iodine-131 on Plants. The position of DBM is that regardless of the form of the iodine going into the cow the results for man would be the same. To back this up, they use the Hanford and Windscale data which basically gave the same results.

Mr. Al Klement was not very well prepared for the discussions because he had just received the 189 and Clyde Hawley's letter concerning the Convair Test on the previous day. As far as the fuel element test by Convair, the comment was "this was a nice but not a necessary test". The dollars were particularly high for a one shot test. It was not believed that $40,000 worth of information could be obtained from a single test.

Some other comments were that the pathway of exposure from cow to man was the best known, that the need for meteorological data possibly could provide justification for performing the test but ID have very little to gain by exposing the animals to the vegetation. There seemed to be general opposition to the approach of a unified experiment to determine all of the unknowns at one time. They seemed to be much more interested in experimenting piecemeal and obtaining one or two bits of information from any particular test.

Ethyl iodide had been used on earlier tests and was found to be very stable over the course of the entire experiment; however, methyl iodide information is not available but they saw no reason why it should act any differently since the behavior of iodine on plants was basically uniform. DBM is willing to support the project on the basis of their original interest; namely, to wrap up the iodine story in a three year period. They would, therefore, intend to continue support at the same level through 1967 with a wrap up expected at that time. Additional experimentation on slightly different situations were not considered to be worthwhile. As of this time, they do not have any follow-up program in mind that they would suggest for use of the farm. In particular, they would not have interest in Cesium 137 or Strontium 90 studies of a similar nature.

3. Particle Sizing Proposal of Phillips Petroleum Company - 06 05 03 00

The initial statement was that there was little enthusiasm for this project and that it was too general. After some discussion, when I emphasized that this was research versus routine sampling, there seemed to be more enthusiasm. They were particularly concerned over the time delay in obtaining a sample in the air after an accidental release. From their approach, which I agreed with, the particle sampling must be taken at the time that the man is exposed. Five minutes or thirty minutes later the aerosol may be entirely different.

This is an extremely complicated field. This is one of the facets which bothers DBM. They would like the project to be spelled out better - in more details with objectives, limitations and the boundaries under which the work would be performed. They want to be certain that this is not a duplication of effort being performed by others. In the end, Dr. Lough suggested one approach that they would be interested in; namely, if small samplers, battery powered, could be operated continuously on high risk individuals to obtain the desired information in the event of an inhalation exposure incident.

4. Chemical Toxicity - 06 02 00 00

This proposal is satisfactory as presented

5. Personal Dosimetry - 06 06 01 00

The comment was that this is a worthy project and a well prepared 189. They recommended that it come in as is; however, they desire to have a centralized area perform all Headquarters' work in dosimetry rather than have many small projects distributed across the country. Upon query as to whether this meant they were interested in tying this in with the standards laboratory, I was told that that was one possibility.

6. Instrumentation for Determining Insoluble Plutonium - 06 06 02 00

It was recommended that this project come in as is. DBM is particularly interested in the proportional counter approach.

7. Two Ion Exchange Proposals by PPCo. which had originally been submitted to the Division of Research. It was suggested that Dr. Van Dyken in Research be the one to contact for discussions. DBM had planned on doing this but did not have the opportunity. First of all, they complained that the price was high. Mr. Worley explained this was because of NRTS overhead being charged against the contractor's project.

To DBM this proposal involves the use of a unique chemical approach which is not of particular interest in analytical research. However, if a biological need and use could be identified, they would recommend the 189 be resubmitted, otherwise, it should not be returned. During this discussion, Allan Lough mentioned he was contracting approximately $70,000 a year to Julius Nielson at Hanford to test analytical procedures for Licensing and Regulation.

Follow-up Action

Based on the above comments, the 189's will be revised and resubmitted to Headquarters by April 1, 1965.

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