

UNITED STATES GOVERNMENT

Memorandum

Files

DATE: APR 26 1968

FROM : Robert Handler, Materials Inspection Original signed by
and Enforcement Branch R. Handler

Division of Compliance

SUBJECT: U.S. RADIUM CORPORATION, MORRISTOWN, NEW JERSEY, LICENSE NOS.
37-30-2 AND -7

On April 11, 1968, Messrs. R. C. Sorensen, and C. W. Wallhausen, President and Vice President, respectively, of U.S. Radium Corporation (USRC) visited our Bethesda office to discuss U.S. Radium's licensed program in light of the many and recurrent items of noncompliance and safety problems found in past inspections of the company. Messrs. Sorensen and Wallhausen were accompanied by Dr. J. S. Krohmer who is a consultant to the company. A request that such a meeting be held was made in a notice of violation which we sent to USRC on April 1, 1968. The following persons met with Messrs. Sorensen and Wallhausen and Dr. Krohmer during their visit:

Robert E. Brinkman, DML
Cecil R. Buchanan, DML
Larry D. Denton, CO
Robert H. Engelken, CO
Lawrence D. Low, CO
John A. McBride, DML
Jack R. Roeder, CO
Lester R. Rogers, RPS
Gen W. Roy, CO
Robert Handler, CO

The first part of the meeting related mainly to discussions about USRC's americium facility. Wallhausen stated that the company has been taking breathing zone samples on a continuous basis of personnel working in the americium facility. Wallhausen also stated that the samples have been averaging considerably less than MPC. In reply to a question as to which limit U.S. Radium was applying to the samples, Krohmer stated that he was using the soluble limit for americium 241 in 10 CFR 20 which is the most restrictive. Wallhausen indicated that all the people working in the americium facility wore respirators eight hours a day even though the company realized that it could not take credit for the use of such equipment. Krohmer said that he feels that the company has made considerable progress in correcting its americium problem as evidenced by the results of airborne surveys for americium.



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A copy of those results was passed around the table for everyone's examination. Krohmer went on to state that all data relating to the company's survey program for americium is meaningful and will show that the company has made significant progress with respect to its americium operation. Wallhausen stated, in response to a question, that a whole body count was performed last week on all personnel working in the americium facility, but that the results have not as yet been received.

Wallhausen said that he had some comments to make relative to the decontamination levels presently contained in their license. He stated that the levels as presently contained therein are much too low and that he would like some relief. Wallhausen was informed that he could send in a license application requesting less restrictive limits than those now contained in the license. Wallhausen was asked what the company plans to do with respect to controlling contamination of its facilities. Wallhausen stated that while the company is still technically in violation of its license with respect to contamination limits, the main reason for such noncompliance is the fact that a 2% geometry has arbitrarily been applied to the instrument used for evaluating the contamination. Wallhausen was informed that the company should calibrate the instrument and establish the correct geometry. Krohmer concurred with this suggestion.

Some discussions then centered on the new facilities to be constructed in Morristown, New Jersey. Wallhausen said that the new building hopefully will be in operation about November of this year. Krohmer stated that this new facility will have room and stack monitors which will be equipped with alarms. Krohmer stated that the polonium facility will be identical to the americium facility. Sorensen indicated that no radium is to be processed or handled in either the old or the new facility. Sorensen went on to state that a new facility is to be built at Bloomsburg, Pennsylvania, for the application of tritium to watch hands and dials and that the company will come up with a new set of procedures relative to this operation. Krohmer stated that the company obtained a solid state multichannel analyzer which is on hand and will soon be put in use at the old facility. This equipment will eventually be moved to the new facility as soon as operations begin there. Krohmer stated that an attempt is being made by the company to obtain qualified health physics personnel and streamline its present health physics staff.

Wallhausen asked a question as to how tritium effluents to unrestricted areas are averaged under present AEC regulations. Wallhausen was informed of the three options available to him under the regulations, i.e., meeting the MPC as the effluents leave the stacks, evaluating the effluents at the boundary of the restricted area, or requesting an exception from the regulations. Krohmer indicated that present measurements taken where tritium leaves the stacks at the gas-fill facility indicate that the company is still exceeding AEC limits. Wallhausen was informed that this is something that cannot continue and that the problem will have to be rectified shortly. Krohmer said that he would probably develop a procedure to show compliance with 10 CFR 20.106 whereby the company will measure radioactive material at the point where it leaves the restricted area. A discussion followed concerning the difficulty USRC may have establishing a restricted area other than the roof boundary. Wallhausen said that they may fence in the entire Bloomsburg site. Krohmer said that all exhaust stacks are now being monitored and that the two stacks located at the gas-fill facility are equipped with water impingers. He indicated that the largest quantities of tritium are released from these two stacks. It was pointed out that our notice of violation required a specific reply on the steps the company will take to assure that the airborne concentrations of tritium released to unrestricted areas from the various laboratories do not exceed AEC limits. Krohmer was informed that the information provided in the reply on this point should be sufficiently detailed to enable us to determine the adequacy of the company's survey program. Krohmer agreed and went on to say that the new liquid scintillation chamber purchased by the company would be used to count all urine, water and wipe samples generated as a result of the tritium operation. He stated that he has taken many air samples confirming that employees are not being exposed to high concentrations of tritium. Krohmer then gave a brief dissertation on the company's philosophy for controlling tritium hazards. In this respect, he remarked that now and in the future, the company will monitor all stacks and rooms utilized for tritium operations and that the monitors used will be equipped with alarms. He indicated that bioassays will be conducted continuously and that contamination will be controlled.

A question was raised about waste disposal at the company's new facility in New Jersey. Wallhausen confirmed that the new facility will not have any sanitary sewerage system for a period of several months and that ordinary wastes will be disposed of via septic

tanks on a temporary basis. Wallhausen stated that radioactive wastes will be saved and trucked to a sewage disposal plant. He thought that a sanitary sewerage system would be in operation by the end of the year, but that he could not guarantee it. Wallhausen said that he had discussed this with the New Jersey Health Department and had obtained approval.

Mr. Low then informed the three representatives of U.S. Radium Corporation that the company's past compliance history has not been satisfactory. He stated that he wished to convey to them the regulatory staff's concern with respect to company's repeated violations of AEC's Rules and Regulations. Low said that the AEC could not tolerate further infractions of AEC Rules and Regulations. It was explained to the company that the AEC plans to conduct an inspection of the U.S. Radium Corporation in the very near future and, if the facts indicate that the company was still in noncompliance, some additional formal enforcement action may very well be appropriate. Wallhausen said that steps have been and will be taken by the company to achieve compliance with AEC Rules and Regulations and extensive plans and procedures are now being promulgated to stay in compliance.

It was repeated to Krohmer that we wanted a complete and adequate response to our notice. Krohmer stated that he would endeavor to prepare such a reply but that he will need additional time. The company was informed that it should send in a request in this regard. Krohmer said he had in mind an extension of about two weeks and that he would file an appropriate request. The meeting was then concluded.

cc: CO:HQ
CO:I
L. D. Low, CO
R. H. Engelken, CO
J. A. McBride, DML
L. R. Rogers, RPS
L. D. Denton, CO