

ML:IB:JMS

SEP 20 1966

F & M Scientific  
Division of Hewlett-Packard  
Route 41 and Starr Road  
Doverdale, Pennsylvania 19311

Attention: Mr. J. Peters

Gentlemen:

Reference is made to your letter of July 20, 1966, pertaining to your Model 2-6195 gas chromatography detector cell and requesting that Drawing 2-6195 be withheld from inspection by the public.

A finding has been made that inspection of the drawing by the public would adversely affect the interests of the F & M Scientific Division of Hewlett-Packard by granting competitors access to details of the device described therein. Further, it has been determined that inspection of the drawing by the public is not required in the public interest.

Accordingly, you are hereby advised that in addition to those drawings being withheld pursuant to our letter of August 20, 1963, Drawing 2-6195 submitted with your letter of July 20, 1966, signed by Mr. J. Peters will be withheld from inspection by the public pursuant to Paragraph 2.790(b) of the Commission's "Rules of Practice", 10 CFR 2. Withholding from inspection by the public shall not, however, affect the right, if any, of persons properly and directly concerned to inspect the drawing.

Sincerely yours,

Original Signed by  
J. A. McBride

J. A. McBride, Director  
Division of Materials Licensing

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PDR RC \* PDR  
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bec: Isotopes Branch Standard Distribution  
REC Reading File  
Compliance, Region I  
J. A. McBride

SEALED SOURCE FILE

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TELEPHONE CALL TO THE  
F & M SCIENTIFIC CORP.

Mr. Peters of F & M was called August 18, 1966, concerning his letters of July 20 and August 3, 1966, with respect to F & M's new detector cell Model 2-6195 which is to contain Nickel 63.

The following information was requested of Mr. Peters:

1. Clarification of the dimensions of the various oven subassemblies including the detector cell.

Mr. Peters stated that the cell-heat sink-insulation package which constitutes the oven assembly is very similar to the assembly used with the gas chromatography systems utilizing tritium with the exception that it is generally of smaller dimensions.

He was also reminded that he had not furnished a scale for cell drawing 2-6195. He indicated that this drawing is approximately to scale, however, it is drawn to a scale showing the cell approximately twice its actual size.

2. Clarification of the control point for the temperature controller to be used with the nickel cell.

Mr. Peters stated that the control point will be 360°C.

3. Clarification of the ability of the labels to be associated with the nickel cell to withstand high temperatures.

Mr. Peters stated that, of course, the outside of the oven assembly which bears the label will not reach 360°C but will reach something like 200°C. He further stated that tests had been run on the labels at 200°C and that some fading was experienced but that the labels did maintain their legibility. He was informed that he could request an exemption from the label color requirements for each of his customers if he feels that color fading may result in their being in noncompliance with the color requirements of 10 CFR 20.

4. Specification of a system model-cell model correlation.

F & M has furnished such a correlation system for their tritium cells. This enables us to determine and license the proper cell model number when customers furnish system model numbers only.

Mr. Peters stated that there was such a correlation but that he did not have it readily available and may find it necessary to furnish this at a later date.



5. Clarification of the materials and instructions to be furnished as F & M's leak test kit.

It was pointed out to Mr. Peters that we have several fragments of information indicating what will be furnished to their customers in order to enable them to obtain their own contamination samples for analysis by F & M. He was requested to put this information in a single package to include the materials to be furnished in the kit, the step-by-step instructions for obtaining the samples and sending them to F & M, and the form of the report to be furnished to the customer by F & M including the manner of reporting the results of the sample analysis. Mr. Peters was reminded that for record keeping purposes the customer must maintain the results of leak tests in units of microcuries.

6. Clarification of the nature of the operating and maintenance manual to be furnished with the 2-6195 cell.

Mr. Peters was asked if the format for the nickel cell manual would vary substantially from the manuals previously furnished for the tritium cells. He indicated that the format for the manuals would be virtually identical with only changes necessary to differentiate between the temperature limits used with nickel versus those used with tritium, the hazards associated with nickel versus those associated with tritium, etc.

He was informed that if he could describe the manual to be furnished with the nickel cell or, if not a manual, the instruction sheet that may be furnished with a cell that goes to a customer who is not purchasing a complete system for which he would get a complete operating and maintenance manual, we could consider the matter of his description without the necessity of waiting for the complete manual to be reviewed.

Mr. Peters stated that he would furnish the information requested above in Items 1, 2, 5, and 6 in the near future.

Jack M. Bell  
August 19, 1966

TELEPHONE CALL TO  
F & M SCIENTIFIC CORP.

Mr. J. Peters of F & M was called July 23 with respect to his letter with enclosures dated July 20, 1966, concerning F & M's cell 2-6195 which is to use Nickel 63. The following information was requested of F & M:

1. Dimensions for the cell. The submitted drawings do not include dimensions nor are they scaled.
2. Correlation of the materials of construction with the part numbers shown on Drawing 2-6195.
3. The basis for F & M's apparent intentions to operate the cell at temperatures up to 400°C.

Mr. Peters stated that their test information actually only covered temperatures up to 360°C. He was informed that the test information we had from U. S. Radium included sustained operation at temperatures up to 3000°C.

4. A facsimile of the instructions to be included in the operating and maintenance manual for the 2-6195 covering (a) cleaning of the cell and (b) temperature limitations.

It was pointed out to Mr. Peters that the very few precautionary statements in his proposed instructions seem to assume a knowledge on the part of the customer of the hazards associated with the use of tritium and that it would probably be better to start from scratch with statements concerning the hazards associated with the use of Nickel 63.

Mr. Peters was reminded of the pending application we have from American Cyanamid and the need for the requested information from F & M as a basis for licensing American Cyanamid. He was informed that if it is not possible to get a finished instruction manual to us in the form to be supplied to American Cyanamid for the 2-6195, he should write us a letter committing F & M Scientific to furnishing specific written and/or verbal instructions directly to American Cyanamid for the safe and effective use of the 2-6195 in an F & M gas chromatography system.

Jack M. Bell  
7-26-66



TELEPHONE CALL TO  
F & M SCIENTIFIC CORP.

Mr. Peters was called July 18 concerning the use of Nickel 63 in F & M detector cells and, more specifically, American Cyanamid Company's Application 78010, as a followup to our telephone conversation with Mr. Peters on June 13.

Mr. Peters was reminded of his commitment to contact American Cyanamid in order that they be made aware of the reason for the apparent inaction with respect to their application. Mr. Peters expressed surprise at this and stated that he did not recall making such a promise to us (although he requested American Cyanamid's mailing address including the name of the specific person to be contacted) but would be glad to do this immediately (today). It was pointed out to Mr. Peters that if he preferred, we would write American Cyanamid pointing out that ~~they~~ <sup>we</sup> were delaying action on their application pending receipt of necessary design information from F & M. He declined the offer. Mr. Peters was asked when he thought the information would be forthcoming on F & M's Nickel 63 cell. He stated that he had the information prepared in rough draft and should have it ~~and should have it~~ off to us within a few days, perhaps by tomorrow.

Mr. Peters seemed to be greatly confused with respect to our leak test requirements for Nickel 63 in detector cells. He was of the impression that we would require disassembly of each cell with a smear to be taken of the Nickel 63 foil itself for leak test purposes. It was pointed out to him that this was not the nature of our requirement at all and that we would be willing to consider any reasonable proposal for taking a contamination sample at a point remote from the cell as long as any cell contamination could be reasonably expected to accumulate at the point if the foil should slough-off Nickel 63. *He indicated that F&M would propose a kit arrangement for their customers.*

Mr. Peters wished to know what a reasonable upper cell temperature limit was. He was told that we had not determined any but that the maximum foil temperature should be consistent with his test information on the foil. He indicated that he had test information for foil temperatures up to 360°C and would propose operation up to this temperature to his customers. He indicated that the gas chromatography device will include an automatic temperature limiter (thermostatic switch).

Our general requirements with respect to <sup>in labeling</sup> ~~posting~~ byproduct material security, drawings, etc., were covered again with Mr. Peters at his request. He indicated that he would not submit drawings of a proprietary nature.

Jack M. Bell  
7-18-66