

**U.S. Office of Personnel Management  
Office of Merit Systems Oversight and Effectiveness  
Classification Appeals and FLSA Programs**

Chicago Oversight Division  
230 South Dearborn Street, DPN 30-6  
Chicago, Illinois 60604

**Classification Appeal Decision  
Under Section 5112 of Title 5, United States Code**

**Appellant:** [Appellant's name]

**Representative:** [Appellant's Representative's name]

**Agency Classification:** Physical Science Technician  
GS-1311-9

**Organization:** U.S. Department of Agriculture  
Forest Service  
[Name of Installation]  
[City, State]

**OPM decision:** **Physical Science Technician**  
**GS-1311-6**

**OPM decision number:** C- 1311-06-01

\_\_\_\_\_  
/s/

Frederick J. Boland  
Classification Appeals Officer

\_\_\_\_\_  
8/30/99

Date

As provided in section 511.612 of title 5, Code of Federal Regulations, this decision constitutes a certificate that is mandatory and binding on all administrative, certifying, payroll, disbursing, and accounting officials of the government. The agency is responsible for reviewing its classification decisions for identical, similar, or related positions to ensure consistency with this decision. There is no right of further appeal. This decision is subject to discretionary review only under conditions and time limits specified in the Introduction to the Position Classification Standards, appendix 4, section G (address provided in appendix 4, section H).

Since this decision lowers the grade of the appealed position, it is to be effective no later than the beginning of the sixth pay period after the date of this decision, as permitted by 5 CFR 511.702. The servicing personnel office must submit a compliance report containing the corrected position description and a Standard Form 50 showing the personnel action taken. The report must be submitted within 30 days from the effective date of the personnel action.

The personnel office must also determine if the appellant is entitled to grade or pay retention, or both, under 5 U.S.C. 5362 and 5363 and 5 CFR 536. If the appellant is entitled to grade retention, the two-year retention period begins on the date this decision is implemented.

### **Decision sent to:**

[appellant's name and address]

[name and address of appellant's representative]

Ms. Donna Beecher  
 Director  
 Office of Human Resources Management  
 U.S. Department of Agriculture  
 J.L. Whitten Building, Room 316W  
 1400 Independence Avenue SW  
 Washington, DC 20250

[name and address of appellant's servicing personnel office]

## INTRODUCTION

The appellant contests his agency's decision classifying his position, number L-8120, as Physical Science Technician, GS-1311-9. The position is located in the Department of Agriculture, Forest Service, [Name of Installation], [City, State]. He believes his position description accurately reflects his duties but feels the work deserves higher credit under Element 2, Complexity, of the classification standard.

## POSITION INFORMATION

The appellant is one of nine employees in the [Name of] Unit, [Name of Department], [Name of Installation]. The [Name of Unit] is directed by a Supervisory Research General Engineer, GM-14, and includes three Research General Engineers, GS-12 through 15, one General Engineer, GS-12, two Research Forest Products Technologists, GS-12 and GS-14, and the appellant. Its mission is to develop non-destructive evaluation technologies, engineering design criteria, and drying systems that promote underutilized materials and help conserve forest resources.

The [Name of Unit] has five kilns for its wood drying research. These consist of one brick kiln and two aluminum kilns that are manually operated and steam heated; one stainless steel kiln that is computer controlled and has electric heat; and one solar kiln, currently in storage. The [Name of Unit] also has six conditioning rooms used to equilibrate wood specimens to a target moisture content and three electrically heated ovens for completely drying specimens.

The appellant supports wood drying researchers within the [Name of Unit] and sometimes other scientists at the [Name of Installation] but outside of the [Name of Unit] by operating the kilns, preparing wood specimens for drying, and measuring the effects of various drying approaches. According to his position description, he:

- operates and maintains kilns at the desired temperature and humidity conditions by setting and checking steam valves, condensate return lines, steam traps, wet-bulb and dry-bulb temperatures, and fans;
- coordinates the breakdown of logs into lumber and oversees the cutting and sizing of wood specimens for experimental drying;
- analyzes the quality of dried lumber or wood products to determine effects of experimental drying techniques; noting cracking, checking, warping, etc., as they occur;
- compiles, summarizes, and analyzes experimental data manually or by computer and submits summaries to scientists verbally, in table form, or in digital format;
- assists scientists on development of drying-related technologies and offers advice to determine techniques to be used to meet research scientists' requirements during drying;

- makes recommendations for changes in procedures and equipment and conducts special tests such as permeability tests.

The appellant estimates that he devotes most of his work time (about 40 and 25 percent respectively) to the first two areas itemized above and the remainder of his time to the other areas. However, based upon a review of specific work examples, we found the position description overstates the appellant's duties and responsibilities in some areas, particularly relating to the complexity of work operations, data analysis, and report writing. These discrepancies are noted in the grade analysis section of this decision. Accordingly, our transmittal letter requests that the agency correct the position description where it is inconsistent with our findings.

## **ANALYSIS AND FINDINGS**

### **Series and Title Determination**

The appellant's duties fall within the definition of work included in the Physical Science Technician, GS-1311, series. This series includes positions that involve non-professional technical work in the physical sciences but are not specifically included in other series in the Physical Sciences Group. Positions in this series, like the appellant's, require knowledge of the principles and techniques of physical science, but do not require competence equivalent to that represented by the completion of a full 4-year college curriculum leading to a bachelor's degree in physical science.

The prescribed title for non-supervisory GS-1311 positions at the GS-5 level and above is *Physical Science Technician*.

### **Grade Determination**

The *Physical Science Technician, GS-1311, Series* classification standard, dated April 1967, contains grade-level criteria expressed in two elements: *Responsibility* and *Complexity*. The various combinations of the two elements are converted to grade levels by use of a conversion chart provided in the standard. To be assigned a credit level, the element criteria must be substantially met and only those point values that appear in the standard may be used.

Work demanding less than a substantial (at least 25 percent) amount of time is not considered in classifying a position. Similarly, acting, temporary, and other responsibilities that are not regular and continuing are not considered in classifying positions. (Temporary assignments of sufficient duration, though, are sometimes recognized in accordance with agency discretion by temporary promotion if higher graded duties are involved, by formal detail, or by performance recognition.)

### **Element 1 - Responsibility**

*This element (Levels I to V) includes the kind and degree of supervision over the work that is performed, the extent of the employee's authority to accomplish the assignments, and the nature of available instructions and guides.*

Like Level IV technicians, the appellant functions with a considerable amount of independence because of his extended experience drying a wide variety of wood specimens and troubleshooting drying related defects and problems, such as checking, cracking, cupping, honeycombing, and staining.

Unlike Level V technicians, the appellant does not, among other things, exercise unusual autonomy, e.g., by critically examining the suitability of existing drying methods and techniques to new research projects. The appellant does little comparable to Level V technicians who search literature for methods and techniques that might be adapted to their own projects, e.g., like technicians in an optics laboratory evaluating manufacturing methods who search publications for vacuum coating procedures suitable for large mirrors.

Level V work, unlike the appellant's, often serves as precedent for subsequent studies, e.g., as when laboratory technicians develop techniques for preparing and mounting specimens for electron microscope examination or devise special fixtures for the same. In contrast, the appellant utilizes established drying methods and techniques or varies drying approaches based upon the researcher's specifications rather than his own initiative. His knowledge of kiln operation and control and his ability to recognize critical physical changes in drying samples facilitate his unit's research and his assignments are important to the proper conduct of its work, but they do not entail the greater responsibilities found at Level V.

We credit Level IV for this factor.

## **Element 2 - Complexity**

*This element (Degrees A to F) covers the nature and variety of work and the knowledges, skill, and judgment required to adequately perform the duties of the position.*

To meet Degree F of this element, work must demand an intensive knowledge of the underlying theoretical concepts, skill in planning complex operations, and the ability to write reports relating the results obtained and the analysis performed.

In claiming Degree F credit, the appellant states, among other things:

...Degree F requires that the technician report on the parts of the project for which he is responsible. Again, this is consistent with my PD:  
 "Compiles and summarizes experimental data manually or by computer and submits summaries to scientists, verbally, in table form, or in digital format."  
 "Analyzes results of tests by plotting data in graphical form and performing necessary calculations to obtain data in proper format."  
 "Scientists use [incumbent's] preliminary computations of data in their subsequent analyses and preparation of reports for publication. The incumbent may be acknowledged in publications for his work or may be included as a coauthor of publications for work in which he has had significant contributions."

Our request for specific work examples of the appellant's written products revealed his assignments pose few analytical demands. The examples he submitted show that although he provides data on the results of his testing to researchers, his submissions seldom require writing

an analytical description of these results. Instead, they typically include data in chart or table form showing various columns (e.g., tree number, ring count, number of samples, and moisture content) and brief paragraphs explaining the procedures followed in the study. The data the appellant provides are incorporated into the research report as the project leader deems appropriate. Although some of the older research reports recognize the appellant by name for his assistance in the studies, they typically do so not for his written analyses, but for properly carrying out established procedures and techniques and for collecting data important to the studies.

The appellant's submissions are similar to the list of findings and statistical data Degree C technicians collect. Like Degree C technicians, he collects data from his observations and passes them along in table or chart form. Unlike Degree D technicians that analyze, interpret, and note discrepancies in their data, little qualitative or quantitative interpretation and analysis is demanded of the appellant in his submissions. Though occasional assignments in the past may have required significant analysis, they are uncharacteristic of his regular and recurring work.

Regarding complexity of his operations being similar to Degree F, the appellant states:

**1 "Technical complexity at this degree is extremely involved."** The position meets this criterion.

Examples from the PD:

"... the incumbent must apply many aspect of wood drying technology and be able to integrate and plan the operation of a wide variety of complex equipment to obtain accurate and meaningful test results."

"... performing service or custom drying or portions of experimental drying techniques, independent decisions must be made based on experience and knowledge gained from operation of the equipment

..."

"... assists research scientists in the development of new methods and equipment

... Since many of these situations lack precedent, the technician must apply knowledge of the equipment ... to assure that the ultimate goal of the research scientist is met."

Degree F work involves complex operations, such as those associated with sophisticated laboratory equipment, and demands ingenuity in devising practical technical solutions. For example, Degree F technicians in research labs might design a cryostat for conducting experiments at extremely low temperatures, recommend design changes to increase overall efficiency of the device, take readings and measurements from resistance bridges, potentiometers, manometers, and other devices used in low temperature studies to ensure that all critical specifications are met, and then use mechanical, optical, and radiological techniques to align the experimental target in the cryostat with an accelerator beam.

In contrast, the appellant utilizes less demanding and more easily setup equipment. For example, he uses saws, micrometers, and scales for the precision cutting, measurement, and weighing of wood specimens. The experiments he supports do not require him to design devices or equipment for special tasks, as at Degree F. Nor do they require him to develop procedures or techniques for the more effective utilization of complex equipment, as is characteristic of Degree E. Like Degree D, though, his careful preparation of wood specimens and assessment of drying results demand delicate and exacting steps in the proper orientation, cutting, drying, and weighing of specimens.

In likening the ingenuity demands of his work to Degree F, the appellant quotes his position description and states:

**3 "The continuing need for ingenuity and originality is an inherent factor in the job requirements."** The PD addresses this:

"Manufacturers' manuals and the Dry Kiln Operator's Manual are available ...; however, in practice they have been found to be only a source of general information. ... Based on these [research scientist's] guidelines, the incumbent independently adjusts kiln operations to meet the research scientist's goal. Adjustments, times, equipment, evaluation of dried materials, etc. are often based on the incumbent's experience."

"Since many of these situations lack precedent, the technician must apply knowledge of the equipment and material being tested to assure that the ultimate goal of the research scientist is met." . . .

In response to our request for examples where established drying methods and techniques were inadequate, the appellant was unable to cite any such situations. He mentioned one project approximately ten years ago where he assisted a scientist in trying to accelerate drying time by raising the initial kiln temperature. These were studies of non-bacterial infection where the wood was dried at 20-30 degrees above the normal schedule. The alteration in schedule reflects a departure from the norm that the researcher, rather than the appellant initiated. The methods and techniques the appellant employs are well established for the various wood species. He chooses from among them, as at Degree C, based upon the task at hand, his position description notwithstanding.

He similarly bases his claim to other aspects of Degree F upon his position description's wording, rather than specific work examples. He states:

**4 "Skill requirements are high and include the need for extensive knowledge of the equipment utilized and the procedures employed, as well as a need for ability to write reports relative to results obtained and analyzed."** The PD also satisfies this criterion, as the incumbent must have many skills and possess a wide range of knowledge:

"Knowledge of... all kilns ... includes knowledge of the kiln's mechanical operation and electrical requirements ..."

"... fundamentals of drying and related processes."

"Knowledge of wood species characteristics ... and influence of these on drying."

"... understanding of the interrelationships among the drying rates of wood, moisture gradients, and air velocity and temperatures."

"Knowledge of drying-related defects in lumber... is needed so incumbent can detect aberrations during drying ..."

"Knowledge of permeability tests ... includes familiarity with certain wood related features, such as anatomy and porosity, as well as ... the measurements of flow rates and differential pressures ..."

"Oral or written reports or data in tabulated or digital form are provided to the research scientist covering all phases and results of the project in which the incumbent was involved."

"The incumbent maintains communication with the scientist providing reports of procedures used along with a preliminary analysis of data and other written reports, as appropriate."

**5 "This degree [F] differs from Degree E in that the technician must apply intensive knowledge of the specific theoretical concepts which underly the work and skill in planning complex operations."** The above excerpts from the PD, and the PD in its entirety, indicate this higher level of knowledge and complexity. Also:

"Sometimes it is necessary for the incumbent to independently interpret or interpolate existing data to meet the research scientist's goal."

"... requires subjective decisions based on knowledge of drying-related defects and species characteristics. These decisions later develop into precedents for extensions or variations of a large research project."

"This knowledge includes an understanding of the interrelationships among the drying rates of wood, moisture gradients, and air velocity and temperature."

"... must apply many aspects of wood drying technology and be able to integrate and plan the operation of a wide variety of complex equipment to obtain accurate and meaningful test results."

The appellant quotes his position description, but could provide no examples of his personally performed work actually meeting the level of knowledge and complexity portrayed in that document. In response to our request for supporting work examples, he stated that he is not involved in planning complex operations. Although he must be knowledgeable of a variety of wood species to choose the correct drying schedule, the schedules are published and well precedented. He is not called upon, as required at Degree F, to provide original solutions to technical problems nor does he apply intensive knowledge of the specific theoretical concepts which underlie the work by investigating deficiencies to determine their causal factors and ways to prevent their recurrence.

The appellant provided information concerning a recent three month work period that is void of the higher level assignments claimed in the position description. During this time, he prepared three different types of specimens. He cut the specimens with a band saw and used a joiner and planer to cut the samples to precise dimensions and specific ring orientations. He coded and recorded all samples from their origin to the final sample. He selected the appropriate kiln samples, stacked, adjusted, and baffled for uniform air flow and velocity, and monitored the kiln to ensure the material dried to the required moisture content. Such work, when coupled with the observations and data collection demands placed upon the appellant, is similar in complexity to that of Level C technicians who set up and operate high voltage X-ray machines and spectrographs to determine the various physical properties of alloys. Like the appellant, they perform a range of tests, choosing from the appropriate procedures. They keep accurate records and gather and consolidate data for definitive review and analysis by their supervisor or professionals conducting metallurgical evaluations.

The appellant's work must meet all aspects of an element to receive its credit level. His work matches Degree C complexity in most respects, exceeding it in few. Hence we credit Degree C for this element.

The combination of Level IV and Degree C equates to GS-6 according to the grade determination chart on page 16 of the GS-1311 standard.

## **Decision**

This position is properly classified as Physical Science Technician, GS-1311-6.