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*Public Service
Labour Relations Act*

Before the Public Service
Labour Relations Board

BETWEEN

INTERNATIONAL BROTHERHOOD OF ELECTRICAL WORKERS, LOCAL 2228

Applicant

and

TREASURY BOARD

Respondent

and

PUBLIC SERVICE ALLIANCE OF CANADA

Respondent

Indexed as

*International Brotherhood of Electrical Workers, Local 2228 v. Treasury Board and
Public Service Alliance of Canada*

In the matter of an application, under section 58 of the *Public Service Labour Relations Act*, for a determination of membership of an employee in a bargaining unit

REASONS FOR DECISION

Before: Dan R. Quigley, Board Member

For the Applicant: James L. Shields, counsel

For the Treasury Board: Christine Diguier, counsel

For the Public Service Alliance of Canada: Susan O'Reilly

Heard at Ottawa, Ontario,
December 1 to 3, 2009.

REASONS FOR DECISION

I. Application before the Board

[1] On February 6, 2009, the International Brotherhood of Electrical Workers, Local 2228 ("the IBEW-2228" or "the applicant"), filed an application under section 58 of the *Public Service Labour Relations Act* ("the *PSLRA*") seeking a determination that the electromagnetic technologist position (position number HXHCR-2428) within the Department of Health ("the department") at Ottawa, Ontario, now part of the Technical Service Group (TSG), is more properly included in the Electronics Group (EL), for which the IBEW-2228 is the certified bargaining agent.

[2] On April 9, 2009, the Public Service Alliance of Canada (PSAC) requested intervenor status. On May 4, 2009, the PSAC clarified its intent to request party status. On May 4, 2007, the Chairperson of the Public Service Labour Relations Board ("the Board") granted the request.

[3] On October 19, 2009, the IBEW-2228 requested permission from the Board to view the work being performed in the position that is the subject of this application.

[4] On November 6, 2009, I issued an order granting representatives of the IBEW-2228 and the PSAC access to the department's premises on November 18, 2009 to inspect and view the work being performed.

[5] At the outset of the hearing, the IBEW-2228 submitted that, on February 13, 2009, it had also filed an application under section 58 of the *PSLRA* concerning an electronic technologist position (position number HPHE-966). The department stated that position number HPHE-966 has yet to be classified and that, thus, the hearing should be limited to position number HXHCR-2428. Position number HPHE-966 should be held in abeyance pending a decision from the Board.

[6] The IBEW-2228 agreed to withdraw its application for position number HPHE-966 (PSLRB File No. 547-02-10) and as such, the file was closed.

[7] Both the department and the PSAC opposed the present application.

[8] The applicant submitted four exhibits and relied on one witness to support its case. The department submitted five exhibits and called two witnesses. The PSAC submitted one exhibit and called no witnesses.

II. Summary of the evidence

A. For the IBEW-2228

[9] In its application, the IBEW-2228 submits that the work performed by the incumbent, Eric Lemay, in the subject position involves duties that have traditionally placed and that continue to place that position within the “EL group” and not within the “TS group.”

[10] Dr. Philémon Paquette holds both honours and masters degrees in Economics and a Ph.D. for his dissertation entitled, “The Optimal Allocation of Human Resources.” Dr. Paquette is the current Director of the Association of Classification and Organization Consultants.

[11] Dr. Paquette stated that, on November 18, 2009, along with representatives from the department and the PSAC, he met the incumbent in an on-site visit to his work site. The purpose of the on-site visit was to question Mr. Lemay about his duties as an electromagnetic technologist. Mr. Paquette stated that his observations and Mr. Lemay’s replies to questions revealed that he works with radio frequencies (RF), maintains electronic equipment and fabricates electronic circuits designed by engineers and biologists employed by the department. Dr. Paquette stated the following about Mr. Lemay’s work site: “It was an electronic laboratory for all intensive [sic] purposes.”

[12] Dr. Paquette stated that the basis for making an appointment to the public service is that the position must be allocated to the appropriate occupational group, in accordance with the appropriate legislative and policy references found in the *Public Service Employment Act*, S.C. 2003, c. 22, the *Financial Administration Act*, R.S.C. 1985, c. F-11, and the Public Service Commission’s *Appointment Policy*. In allocating a position to an occupational group, the primary purpose of the position and the primary purpose of the work must be determined, and then the position is allocated based on the best fit to a specific occupational group. Dr. Paquette stated that methodology was confirmed in *Canadian Federal Pilots Association v. Treasury Board*, 2008 PSLRB 42.

[13] The Treasury Board’s *Guidelines on work description writing* define a work description as follows: “... a document approved by the respective manager that describes the work requirements of a position or a job. A work description contains all

the information needed to evaluate the work using the appropriate classification standard.”

[14] Dr. Paquette stated that, to assess both the primary purpose of the subject position and the allocation to the appropriate occupational group, it is appropriate to first review the inclusions and exclusions of the occupational group to which the position has been allocated. In this case, the Engineering and Scientific Support Group (EG group), which falls within the Technical Services Group, and then to review the inclusions and exclusions of the occupational group to which it is asserted that the position should be allocated (the EL group).

[15] Dr. Paquette referred to the EG group definition found within the TS group and the EL group definitions. The definitions, inclusions and exclusions of the EL and the TS groups read as follows:

...

Electronics Group Definition

The Electronics Group comprises positions that are primarily involved in the application of electronics technology to the design, construction, installation, inspection, maintenance and repair of electronic and associated equipment, systems and facilities and the development and enforcement of regulations and standards governing the use of such equipment.

Inclusions

Notwithstanding the generality of the foregoing, for greater certainty, it includes positions that have, as their primary purpose, responsibility for one or more of the following activities:

- 1. the inspection, certification and licensing of telecommunications, radio communications and broadcasting equipment installations;*
- 2. the examination and certification of radio operators and related personnel;*
- 3. the development and enforcement of international and domestic radio regulations, agreements and equipment standards, and the examination of related applications and technical briefs for radio and television stations;*

4. the detection, investigation and suppression of radio and television interference;
5. the design, construction, installation, testing, inspection, maintenance, repair or modification of electronic equipment, systems or facilities, including the preparation of related standards;
6. the conduct of experimental, investigative or research and development projects in the field of electronics, under the leadership of an engineer or a scientist;
7. the planning and delivery of a quality assurance program for electronic systems and equipment;
8. the development, direction and conduct of training in the above activities; and
9. the leadership of any of the above activities.

Exclusions

Positions excluded from the Electronics Group are those whose primary purpose is included in the definition of any other group or those in which one or more of the following activities is of primary importance:

1. the operation of electronic equipment for the purpose of monitoring radio aids to navigation;
2. the use of manual and trade skills in the manufacture, fabrication and assembly of equipment;
3. the electrical and electronics work performed as part of the repair, modification and refitting of naval vessels and their equipment; and
4. the testing or inspection of electronic equipment to ensure fair measurement.

...

Technical Services Group Definition

The Technical Services Group comprises positions that are primarily involved in the performance, inspection and leadership of skilled technical activities.

Inclusions

Notwithstanding the generality of the foregoing, for greater certainty, it includes positions that have, as their primary

purpose, responsibility for one or more of the following activities:

- 1. the planning, design and making of maps, charts, drawings, illustrations and art work;*
- 2. the design of three-dimensional exhibits or displays within a predetermined budget and pre-selected theme;*
- 3. the conduct of analytical, experimental or investigative activities in the natural, physical and applied sciences; the preparation, inspection, measurement and analysis of biological, chemical and physical substances and materials; the design, construction, modification and assessment of technical systems and equipment or the calibration, maintenance and operation of instruments and apparatus used for these purposes; and the observation, calculation, recording and the interpretation, presentation and reporting of results of tests or analyses, including:*
 - (a) the performance of activities involving the application of the principles, methods, and techniques of engineering technology and a practical knowledge of the construction, application, properties, operation and limitations of engineering or surveying systems, processes, structures, buildings or materials, and machines or devices;*
 - (b) the planning of approaches, the development or selection and application of methods and techniques, including computer software, to conduct analytical, experimental or investigative activities; the evaluation and interpretation of results; and the preparation of technical reports;*
 - (c) the observation and recording of events and the analysis of information relating to such fields as meteorology, hydrography, or oceanography and the presentation of the results of such studies; and the provision of data and information relating to meteorology;*
 - (d) the monitoring and investigating of environmental hazards or the provision of advice on those issues impacting upon compliance with public health legislation; and*
 - (e) the design, development or application of tests, procedures and techniques in support of the diagnosis,*

treatment and prevention of human and animal diseases and physical conditions;

4. the application of statutes, regulations and standards affecting agricultural, fishery and forestry products;
5. the capture and development of images involving the operation and use of cameras, accessories and photographic processing and reproduction equipment;
6. the operation of television cameras and video recording systems and equipment;
7. the inspection and evaluation of quality assurance systems, processes, equipment, products, materials and associated components including electronic equipment used in trade measurement; the development, recommendation or enforcement of statutes, regulations, standards, specifications or quality assurance policies, procedures and techniques; and the investigation of accidents, defects and/or disputes;
8. the construction and repair of prostheses and orthoses;
9. the writing of standards, specifications, procedures or manuals related to the above activities;
10. the performance of other technical functions not included above; and
11. the planning, development and conduct of training in, or the leadership of, any of the above activities.

Exclusions

Positions excluded from the Technical Services Group are those whose primary purpose is included in the definition of any other group or those in which one or more of the following activities is of primary importance:

1. the planning, conduct or evaluation of control, mapping or charting surveys, and the planning or conduct of legal surveys of real property;
2. the planning, design, construction or maintenance of physical or chemical processes, systems, structures or equipment; and the development or application of engineering standards or procedures;
3. the performance of manual tasks such as cleaning laboratory equipment, assisting in morgue and

autopsy tasks, and the care and feeding of laboratory animals;

- 4. the performance of administrative activities such as program, human resources or financial management and planning that do not require the application of principles outlined in the inclusions; and the administrative management of buildings, grounds and associated facilities;*
- 5. the conduct of experimental, investigative or research and development work in the field of electronics;*
- 6. the leadership of activities related to maintenance and repair functions not requiring knowledge identified in the inclusions;*
- 7. the operation of duplicating or reproduction machines, motion picture projection machines and accessories and process cameras in support of an offset printing or duplicating process;*
- 8. the planning, development, installation and maintenance of information technology and processing systems to manage, administer or support government programs and activities; and*
- 9. the application of electronics technology to the design, construction, installation, inspection, maintenance and repair of electronic and associated equipment, systems and facilities and the development and enforcement of regulations and standards governing the use of such equipment.*

Also excluded are positions in which experience as an aircraft pilot and a valid pilot's licence are mandatory.

...

[16] Dr. Paquette stated that paragraph 9 of the EG group exclusions excludes that group from performing the work that he observed Mr. Lemay performing during his on-site visit. The EL group's primary purpose is applying electronics technology, as found in the inclusions of the EL group, specifically at paragraphs 5 to 7.

[17] Dr. Paquette explained that, to withstand scrutiny when allocating a position to an occupational group, two tests are used. The first is to determine the primary focus of the work, and the second is to examine the qualifications required of the individual applying for or filling the position.

[18] In determining the primary purpose of a work description, Dr. Paquette stated that the first step is to examine the job title, the second is to examine the required client service results and the final step is to examine the key activities.

[19] The work description for an electromagnetic technologist under the heading of client service results and key activities (Exhibit G-3, Tab D) reads as follows:

...

Client Service Results/Résultats axes sur le service à la clientèle

Management of existing and development of new scientific electronic instrumentation, robotic equipment and computers for scientists (electrical engineers and biologists) in the Electromagnetics Division.

Assists division scientists in studying exposure levels and effects of non-ionizing electromagnetic radiation and humans in collaboration with other Departments, Agencies and Universities both locally and internationally.

Public communication in both official languages dealing with human exposure to electromagnetic fields and energy and associated safety codes and regulations.

Key activities/Activités principales

Manages ongoing laboratory operation

Assist both electrical engineering and biological scientists in the design and development of new scientific instrumentation and laboratory equipment,

Repair, modification and calibration of existing scientific instrumentation, scientific computer systems, instrument controllers and robotic systems

Development and programming of specialized data acquisition systems, scientific instruments and robotic controllers

Assist scientists in the specification, purchasing and installation of scientific instruments, scientific computer systems, instrument controllers and robotic systems.

Assist scientists in scientific field work and data gathering, data analysis and presentation

Composing and editing responses, primarily in French, to public enquiries concerning exposure to electromagnetic fields and energy.

Prepare and deliver presentations to the public and expert audiences, primarily in French, on the subject of exposure to electromagnetic fields and energy.

Oversees the maintenance of up-to-date information on electronic circuit design, computer-aided design, PCB fabrication, scientific instrumentation and scientific computers.

Oversees the specification and purchasing of general lab supplies, parts, tools and other necessities.

Oversees building issues as they affect the laboratory operation (eg. fumehoods and other building infrastructure interruptions and repairs).

Assists in the training and supervision of new technical staff and students.

...

[Sic throughout]

[20] Dr. Paquette referred to and explained (Exhibit G-3, pages 21 to 25) the tests for allocation and his conclusions, which read as follows:

...

A. Tests for Allocation:

- 1) *As indicated above the allocation of a position to an occupational group is determined by the primary purpose of the position. This is, many positions today (and in the past) were blends of work that might belong to different occupations. Consequently, what has to be determined is the primary purpose of the position, and that is what will determine to which group the position is allocated.*
- 2) *There are two tests that can be used, one is the primary focus of the work, and the other is the focus of the qualifications sought of individuals to fill the position. Together, these two decisions will tend to provide an allocation decision that will stand up to scrutiny.*
- 3) **Qualifications:** *In a previous report (October 22, 2008), (Appendix "B") a review of the poster for*

staffing this position (as HPHE-966) led to the conclusion that based on qualifications, the position appeared to be an EL rather than an EG.

- 4) **Primary Purpose:** Determining the primary purpose of a work description is based on an examination of the title as a first step, the Client Service Results of a work description as a second step, then of the key activities as a second step, with supporting evidence drawn from the rest of the work description.

a) **Title:** The title of the position as shown on the Work Description is that of **Technologist**, yet in the attached organization chart, the title of this position is that of **Electronic Technologist** and then **Electromagnetic Technologist** I am not sure what a generic "technologist" might be, but if the position is actually an "electronic or electromagnetic technologist" that would suggest EL rather than EG.

b) **Client Service Results:** The work description has a three part Client Service Result statement, i.e.

i) As stated in the work description:

(1) Management of existing and development of new scientific electronic instrumentation, robotic equipment and computers for scientists (electrical engineers and biologists) in the Electromagnetics Division

(2) Assists Division scientists in studying exposure levels and effects of non-ionizing electromagnetic gradiation and humans in collaboration with other Departments, agencies and universities both locally and internationally.

(3) Public communication in both official languages dealing with human exposure to electromagnetic fields and energy and associated safety codes and regulations.

ii) These are three distinct roles,

(1) the first of which is consistent with the EL Group,

(2) the second is unclear as to what constitutes "assisting" and therefore does not provide direction on whether EL or EG is the proper allocation, and

- (3) the third is inconsistent with the work of either an EL or an EG, albeit consistent with the work of a RES or a BI.
- (4) On balance, this is a more an EL than an EG to which the classification officer has allocated the position.
- c) **Key Activities:** The key issue is: what is the "primary" focus of the work of this position. There are a total of twelve (12) Key Activities stated in the work description, taking them one at a time the primary focus of the work should become apparent:
 - i) **"Manages ongoing laboratory operation"** - this is an odd key activity since
 - (1) the "management" of the laboratory presumably comes under the RES 3 (HXHCR-182) designated as "Head/Responsible".
 - (2) It is also odd in that there is no case of an EG 4 or 5 responsible for managing a facility other than BM 10 a weather station manager, who is the senior EG at the weather station with no MT present, whereas in this instance this position supports a team of three RES-03's, one TI-06, and two BI-03's.
 - (3) It is also odd in that quite out of character for an EG of this level, under skills is required "knowledge of standard work unit operations, including procurement, laboratory standard operating procedures and hazardous waste disposal in order to organize the day-to-day operations of a research program" - does this mean this level position is managing the operations of a research program carried out by subordinate RES's, BI's and TI's?
 - (4) Some explanation of what constitutes the "management role" of this position should have been obtained.
 - (5) Based on an on site visit to the laboratory in question on November 18th, the manager explained that this 'key activity' only meant that the incumbent keeps the electronic equipment operational, orders supplies, and carries out administrative work as required to relieve the scientists of this work. More so, he stated that this was more akin to "other related duties" than to a key duty of the position

- ii) **“Assist both electrical engineering and biological scientists in the design and development of new scientific instrumentation and laboratory equipment”** - this is consistent with the work of an EL, inclusion statement 5
- iii) **“Repair, modification and calibration of existing scientific instrumentation, scientific computer systems, instrument controllers and robotic systems”** - again this is consistent with the work of an EL, inclusion statement 5, and thus excluded for the EG;
- iv) **“Development and programming of specialized data acquisition system, scientific instrument, and robotic controllers”** - is consistent with the work of an EL either under inclusion statement 5 or 6, and hence excluded from the EG,
- v) **“Assists scientists in the specification, purchasing and installation of scientific instruments, scientific computer systems, instrument controllers and robotic systems”** - limited procurement can be done by either EL's or EG's, what is not clear is what is the “assistance” being provided - the EL requires specialized training in electronic technology, whereas the EG is a secondary school diploma; given the knowledge requirements under skills while knowing what assistance is being provided could be useful, there is a strong case for allocation to EL;
- vi) **“Assist scientists in scientific field work and data gathering, data analysis, and presentation”** - again the key is what is the assistance, after all this is electromagnetic, and field research in electromagnetics if in the field of electronics would be consistent with inclusion statement 6 of the EL standard, and at the same time would be excluded from the EG Group according to EG Standard exclusion statements 5 and 9, so again the allocation would have to be to the EL Group;
- vii) **“Composing and editing responses, primarily in French, to public enquiries concerning exposure to electromagnetics fields and energy”** - this is an unusual key activity for either an EL or an EG given

- (1) *the breadth of the responses suggested a breadth that would seem more appropriate for a professional position rather than either the EL or the EG and would appear to be beyond the scope of the skills required for the position*
 - (2) *that the position HXHCR-966 and HXHCR-2428 both have language profiles of English only;*
 - (3) *that the Benchmark used to rate HXHCR 2428 on November 17, 2007 is significantly narrower in scope than this position;*
 - (4) *Questioning the manager on what this work was, the manager indicated that neither he nor his other scientist colleagues had any capability in French, so when a response in French is required, since the incumbent is fluent in French, he is asked to do this work. It is not really part of his job, but something he can do because of his personal skill set.*
- viii) ***“Prepare and deliver presentations to the public and expert audiences, primarily in French on the subject of exposure to electromagnetic fields and energy” -***
- (1) *this again is beyond the scope of the EG benchmark positions, and given the skills requirements of an EL if this were to be required of an EL or an EG position, it would seem the EL would be more qualified - at least at the levels being discussed;*
 - (2) *Questioning the manager on what this work was, the manager indicated that neither he nor his other scientist colleagues had any capability in where a presentation has to be made in French, since the incumbent is fluent in French, he is asked to do this work. It is not really part of his job, but something he can do because of his personal skill set.*
- ix) ***Oversees the maintenance of up-to-date information on electronic circuit design, computer-aided design, PCB fabrication, scientific instrumentation and scientific computers” -*** *this is consistent with inclusion statements 5, 6 and 9 of the EL standard, and in fact is consistent with exclusion statements 6, 8 and 9 of the EG Classification Standard - and hence is excluded from the EG and included in the EL Group;*

- x) **“Oversees the specification and purchasing of general lab supplies, parts, tools, and other necessities”** – this is procurement which is a subset of financial management, and as such is not specific to either the EL or to the EG groups, except that if this were the primary focus of the work, according to exclusion statement 4 of the EG Classification standard it would be excluded from the EG Group; In fact of course, as was discovered during the onsite on November 18th, this is essentially reflecting the fact that the incumbent is asked to handle all the ordering of equipment and supplies for the lab as an administrative component of the job which is not inconsistent with the EL Group.
- xi) **“Oversees building issues as they affect the laboratory operation (eg. Fumehoods and other building infrastructure interruptions and repairs)”** – this key activity if not a primary focus is “other duties” and is not an EL function, but at the same time is not likely an EG function either given that it would seem to fall under exclusion statement 2 of the EG Classification Standard; As was discovered during the onsite visit on November 18th, this was work related to restoring the operation of the lab after a fire some years ago in which all members of the lab were engaged, and is not really a significant part of the current work of the position.
- xii) **“Assists in the Training and Supervision of new technical staff and students”** – training of this type is common to any number of groups, including both the EL and the EG.

d) Suggested Allocation based on Key Activities:

- (1) Six of twelve key activities clearly signal the position is an EL (i.e. KA's 2, 3, 4, 5,6 and 9);
- (2) Two of the twelve key activities signal the position is an EG (i.e. 3 and 4)
- (3) In five key activities, i.e. KA's 1, 7,8,10, and 11, the work described is beyond the normal scope of either the EL or the EG but based on the onsite discoveries constitute essentially what was formerly called “other related duties” and are not key activities in the sense of the 2004 TBS Guidelines on Work Description Writing.

- (4) Exclusion statements under the EG Standard exclude allocation of the work described under five key activities (KA's 5, 6, 9, 10, and 11) to an EG position*
- (5) One activity, KA 12 (training) can be done by either ELs or EGs, so it does not assist in allocation.*
- (6) One would have to conclude that examination of the key activities demonstrates work that has as its primary focus the application of electronic technology to electronic equipment in a lab, and consequently the position should be allocated to the EL group and not to the EG Group.*

e) Other Supporting Evidence:

- i) A review of skills, which has fifteen (15) bullets finds seven (7), including the first six specific to EL work, to EL positions.*
 - ii) Many of the others are questionable, as seemingly beyond the scope of work of either an EL or an EG*
 - iii) During the onsite visit of November 18th when the lab manager was asked why he sought someone with an electronic technologist academic training, he said because the work required that background. Such a requirement would imply the work of an EL is involved.*
 - iv) Again during the onsite visit, virtually all of the work described by the incumbent, all the projects described, were projects involving the design and construction under an engineer of electronic measuring instruments or testing instruments to measure radio frequency or electromagnetic radio frequencies being emitted and their potential health hazards to those exposed to them. This is the work of an EL*
 - v) The allocation of the position to the EL Group would be a more logical conclusion based on the evidence than the current allocation to the EG Group.*
- 5) *The Allocation Decision with respect to HXHCR 2428:*** Looking at the classification evaluation of November 14, 2007, there was no consideration as to whether any other group would have been appropriate, yet we have in the Memo from the

Director to the classification officer, dated April 10, 2007, that the Director had considered whether the subject position should be an EL-05 rather than an EG-04. Why did not the classification officer look at the question of allocation to the EL rather than the EG? There is no evidence to explain this deficiency.

CONCLUSION:

After a review of this work description the following conclusions can be drawn: there is ample evidence that this position should be allocated to the EL Group is the application of knowledge of electronic technology as defined in the EL group is the primary purpose of this position. As such, under Section 58 of the PSLRA, Health Canada's position or positions HXHCR 2428 and HXHCR 966 should be ordered to be allocated to the EL Group.

...

[Sic throughout]

[Emphasis in the original]

[21] Dr. Paquette referred to and explained pages 30 to 33 of Appendix B of Exhibit G-3, which details the requirements of the position (essential qualifications), and his conclusion reads as follows:

...

1. The requirements of the position(essential qualifications)

Applicants must clearly demonstrate on their application that they meet all the following essential criteria and are within the area of selection. Failure to do so may result in the rejection of you application

- a. Graduation with a diploma from a recognized community college or equivalent in electronic or electrical engineering technology.*
- b. Experience in conducting radio frequency (RF) and low frequency electronic measurement using such equipment as network and spectrum analyzers and RF dosimetry probes.*
- c. Experience in fabricating and testing RF and low frequency electronic circuitry, antennae, and robotic system fixtures.*

- d. Experience in metal-working techniques such as milling, lathing, welding, brazing and soldering
 - e. Experience with the use of mechanical drawing (AutoCAD) software.
2. **Operational requirements of the position (asset qualifications)**
- a. Willingness and ability to travel domestically and internationally on occasion
 - b. Willingness and ability to work outside regular business hours for laboratory research and field surveys.

...

i. Qualifications

- 3. Given that we are working with posters for the subject position, the first test to determine if a proper allocation was made is to look at the qualifications sought of candidates.
- 4. The minimum qualifications as published by TBS OCHRO for an EL and for an EG are the following:

Electronics (EL) Group Qualification Standard

Education

The minimum standard is:

- a secondary school diploma; AND
- completion of an acceptable training program in electronics technology or the employer-approved alternative.

The Employer approved alternative is as follows:

an acceptable combination of education, training and/or experience.

NOTE:

Normally, an acceptable training program in electronics technology involves the completion of two to three years of post-secondary study in this subject.

Engineering and Scientific Support (EG) Qualification Standard

Education

The minimum standard is:

- a secondary school diploma or employer-approved alternatives (see Section 2, Part 1, Education); and,*

For Meteorological Technician entry-level positions:

- successful completion of an Environment Canada-approved Meteorological Technician training program.*
- 5. As can be seen, the essential qualifications asked for in the poster are consistent with the minimum qualifications for an EL, and in fact exceed those for an EG.*
 - 6. The asset qualifications as defined under operational requirements could equally apply to either the EL or EG.*
 - 7. Based on the title of the positions being staffed, and the qualifications sought of candidates for the subject position, it would seem that an EL was being staffed, not an EG. Consequently, based on qualifications of individuals to carry out this work, it would appear that there has been a mis-allocation of position to the TC (EG) Group that should have been allocated to the EL.*

ii. The Work

- 8. No definitive advice can be given with respect to the work to be carried out, however, from the poster a number of points can be inferred about the work and its allocation. Looking at the experience sought to qualify for the subject positions we can see a close relationship to the work of the EL.*
 - a. Experience in conducting radio frequency (RF) and low frequency electronic measurement using such equipment as network and spectrum analyzers and RF dosimetry probes. - presumably this could be done for "the detection, investigation and suppression of radio and television interference" , or under "the planning and delivery of a quality assurance program for electronic systems and equipment" - work included in the EL Group*
 - b. Experience in fabricating and testing RF and low frequency electronic circuitry, antennae, and robotic*

system fixture's - presumably this could be done for "the design, construction, installation, testing, inspection, maintenance, repair or modification of electronic equipment, systems or facilities", "the detection, investigation and suppression of radio and television interference", or under "the planning and delivery of a quality assurance program for electronic systems and equipment" - all work included in the EL Group

- c. Experience in metal-working techniques such as milling, lathing, welding, brazing and soldering- presumably this could be done for the purposes of "the design, construction, installation, testing, inspection, maintenance, repair or modification of electronic equipment, systems or facilities", - work included in the EL Group
 - d. Experience with the use of mechanical drawing (AutoCAD) software- presumably this could be done for the purposes of "the design . . . of electronic equipment, systems or facilities" - work included in the EL Group
9. We also know that under the **Engineering & Scientific Support (EG) Classification Standard** work is allocated to this group if it meets the group definition as published by TBS OCHRO, which states that the following work is excluded from the EG Group

Positions excluded from the Technical Services Group are those whose primary purpose is included in the definition of any other group or those in which one or more of the following activities is of primary importance: . . .

- 9. the application of electronics technology to the design, construction, installation, inspection, maintenance and repair of electronic and associated equipment, systems and facilities and the development and enforcement of regulations and standards governing the use of such equipment.

Conclusion

- 10. Given the title of the position is "Electronic Technologist", the education is consistent with that of the EL Group, the experience sought is consistent with work allocated to the

EL Group and with work excluded from the EG Group, the position being staffed should be allocated to the EL Group. The allocation to the TC(EG) Group is a misallocation and should be challenged under Section 58 of the PSLRA.

[Sic throughout]

[Emphasis in the original]

[22] In cross-examination, counsel for the department asked the witness, Dr. Paquette, to provide an overview of the on-site visit. The witness stated that he met with Mr. Lemay for approximately one hour and that they discussed his day-to-day work activities. According to the witness, Mr. Lemay stated that he worked on a research project involving cell phones and the RFs and on other research projects, with the RFs being the common thread.

[23] The witness stated that the laboratory resembled other electronic laboratories he has visited, since robotics devices, electronic measuring instruments and electronic components were all present. Mr. Lemay conveyed to him that he managed, developed, modified, repaired and refurbished electronic equipment and circuitry. Mr. Lemay also advised him that, although he works in other locations, the work that he performs at those locations could be described as secondary to his normal duties.

[24] Counsel for the department referred the witness to the required Client Service Results listed in the job description (Exhibit G-3, page 21) and asked him to explain the observations that he made during the on-site visit and his discussion with Mr. Lemay and how they related to the EL group definition. The witness stated that Mr. Lemay manages, modifies and starts up the electronic equipment found in the electromagnetic laboratory, such as robotic controllers, electronic circuitry, and other small components and antennas, which is found within the inclusions of the EL group definition.

[25] The witness also stated that Mr. Lemay's normal duties include assisting electrical engineers and scientists in designing and developing new scientific instrumentation and laboratory equipment. Mr. Lemay also repairs, modifies and calibrates robotic controllers, computers and equipment used in scientific research. The witness also stated that those duties are found in Mr. Lemay's work description under "Key Activities" as well as within the inclusions specified in the EL group definition.

[26] The witness agreed with the PSAC representative that Mr. Lemay's work description included a mix of several duties, including purchasing, being cognizant of the biological and health effects of non-ionizing electromagnetic radiation, and writing research reports, which is found in the EG group definition.

[27] In reply, counsel for the applicant asked the witness if there was any significance to the order of the bullet points found in the skills portion of the work description. The witness responded that the skills requirements are listed in descending order of importance. He stated that the first six bullets are qualifications for the EL group. In other words, the primary focus and the predominate collection of knowledge is found within the EL group definition in descending order of importance.

B. For the respondents

[28] Robert Bradley is Director of the department's Consumer and Clinical Radiation Protection Bureau. He is responsible for the safety and the safe use of radiation emitting devices, federal workplace radiation safety, and advising the public, stakeholders and other regulatory bodies on issues of radiation protection.

[29] Mr. Bradley is also responsible for the Electromagnetics Division, which researches antennas, takes passive microwave measurements, handles the RFs, and covers RF dosimetry as applied to wireless communications and electromagnetic fields (EMF) and their alleged wide-ranging effects on humans.

[30] Mr. Bradley testified that Mr. Lemay's role is to research, purchase and install a number of off-the-shelf commercial instruments, computers and robotic systems. In addition, as necessary, he designs, fabricates and installs mechanical objects in support of experimental structures or other devices.

[31] In cross-examination, the PSAC representative entered a Health Canada bulletin (Exhibit A-1), which describes the purpose of the Electromagnetics Division. The witness, Mr. Bradley, was asked if it was an accurate description of the division's essence. He responded in the affirmative. The bulletin reads as follows:

The Electromagnetics Division aims to reduce radiation risks from electric and magnetic fields (EMFs) in Canada. As part of Health Canada, the Electromagnetics Division

- develops guidelines for the protection of the general public and workers from exposure to EMFs*

- *conducts research in the assessment of EMF exposure levels in residential and workplace environments*
- *conducts laboratory studies and monitors external research on the biological effects of EMFs*
- *sets regulations for the safe use of microwave ovens and enforces their compliance*
- *advises government departments and agencies, industry, and the general public on exposure to EMFs*

In Canada, devices that emit radiofrequency fields (RF) are regulated by Industry Canada [sic] These include cellular phones, cellular phone antennas (base stations), radio and TV transmitters, and radars. Industry Canada conducts compliance assessments on these devices to ensure that they operate in accordance with a radiofrequency exposure standard known as Health Canada's Safety Code 6. For more information regarding standards and regulations for these devices, visit Industry Canada's Official Publications on Spectrum Management and Telecommunications.

Health Canada has also been taking part in the International EMF Project, coordinated by the World Health Organization (WHO). The goals of this project are to verify reported biological effects from exposure to electromagnetic fields (EMF) and to characterize any associated health risks to humans.

To make an inquiry regarding EMFs and health, contact the Consumer and Clinical Radiation Protection Bureau directly.

[32] Artnarong Thansandote, the next witness, is a research scientist and is the chief of the Electromagnetics Division. His role is to initiate and provide technical oversight about the reduction of health risks caused by the EMFs. He stated that his work activities break broadly into the following two initiatives: exposure assessment and studies about the biological effects of exposure.

[33] The witness explained that the field of electromagnetics involves the generation, propagation and application of electromagnetic energy. For example, cell phones and other electronic circuitry and components take data as an input, convert it into electronic signals and then add the signals to an RF carrier. The RF emitted from an antenna is referred to as electromagnetic energy.

[34] The witness continued, stating that the Electromagnetics Division focuses not on cell phones but on the energy that they emit. The energy absorbed by users may or

may not cause health concerns. The focus of the Electromagnetics Division's experiments is determining the health concerns to users of the technology, if any. He concluded by stating that "the use of electronics technology is only one of the tools needed for the study to proceed."

[35] Counsel for the department asked the witness to describe Mr. Lemay's role in the cell phone study. The witness stated that the study involves laboratory animals (mice) placed in an exposure chamber (a cylindrical waveguide made from aluminium pipe), which is inserted into a plastic cage. Electromagnetic energy is directed into the waveguide to determine how much energy the mouse can absorb. Mr. Lemay's role is to modify the aluminium pipe as necessary, to assist with measuring the energy absorbed by the mouse and to determine the characterization of the RF propagation within the waveguide. In other words, Mr. Lemay's role is to set up the chamber for the animal study. He also requires knowledge of electromagnetic energy and measurement techniques, along with mechanical skills. Mr. Lemay also develops software to control measuring the temperature within the exposure system. The temperature within the exposure system is maintained at 37 degrees centigrade. Mr. Lemay's role is to characterize the exposure and determine how much energy was absorbed by using an electromagnetic probe to map the distribution of electromagnetic energy. The biologist needs that information to determine the exposure of the mouse's cells. The objective is to determine whether electromagnetic energy causes DNA damage.

[36] Counsel for the department asked the witness to explain the electronic skills that Mr. Lemay needs for his duties. The witness stated that Mr. Lemay measures temperatures in the study and applies his computer skills and his knowledge of electromagnetic energy. He stated that, for other projects, Mr. Lemay develops in-house measuring instruments, such as a device to measure electromagnetic energy from cell-phone towers. Mr. Lemay also improves research scientists' designs of devices not commercially available that are used to detect low-level electromagnetic emissions from cell-phone antennas. The witness stated that Mr. Lemay, in terms of technical skills, requires electronics and electromagnetics skills and that, significantly, he requires mechanical skills. In terms of the skills required for performing Mr. Lemay's duties, electronics skills are required but are not the dominant required skill.

[37] The witness also stated that Mr. Lemay performs regulatory activities related to developing exposure guidelines and the limits of human exposure to EMFs.

[38] When counsel for the department referred him to the essential qualifications found in the poster (Exhibit G-3, Tab G), the witness agreed that a candidate must have graduated from a community college or the equivalent with a diploma and must have an understanding of electronics.

[39] In cross-examination, the PSAC representative asked the witness for an approximate percentage of Mr. Lemay's time that is spent fabricating and modifying equipment, taking RF measurements for different projects, using his computer skills, etc. The witness stated that Mr. Lemay's different project duties vary, and, thus, he could not provide an accurate approximation. He stated that, for example, on one project Mr. Lemay uses significant mechanical skills, drives to different cell towers and answers emailed questions from the public about cell-phone health issues.

[40] The PSAC representative also asked the witness to describe a relevant organizational chart (Exhibit G-3, Tab F). The witness stated that he is responsible for two research scientists, a general biologist, two radiation biologists and an electrical engineer in the Electromagnetics Division. He stated that Mr. Lemay assists the group and that he is part of the engineering staff. He assists by developing, fabricating and modifying equipment designed by the biologists to assist them in studying the biological effects of their particular studies. Mr. Lemay also assists the research scientists in developing measuring instruments.

[41] The PSAC representative asked the witness what, in terms of experience, is fundamentally essential for Mr. Lemay to perform his duties. The witness stated that conducting RF and low-frequency electronic measurements is the most essential activity. The witness also stated that one of Mr. Lemay's primary skills is calibrating instruments used to validate the results of studies conducted by research scientists and biologists. In conclusion, the witness stated it is important to note that RF equipment is not electronics as no integrated circuitry or transistors are involved.

[42] In cross-examination, counsel for the applicant asked the witness to describe the project on which Mr. Lemay was working on the day of the on-site visit (November 18, 2009). The witness stated that Mr. Lemay was working on a waveguide exposure chamber (an aluminium pipe) and that RF circuitry was attached to a number of

chambers. Inside the chambers, a passive RF controller was used to feed the RF into the waveguide. The witness was then asked whether that was the application of electronics technology. The witness responded in the negative since an RF along with electronics controlled the operation and since Mr. Lemay's responsibility is not to control the operation but to certify that the RF is constant within the wave guide by ensuring that the calibration is set to the procedures that the scientists wish to study.

[43] The witness was asked if Mr. Lemay fabricates in-house equipment used in measuring or calibrating the RFs. The witness stated that the research scientists design and develop prototypes and that Mr. Lemay's role is to assist with the electronic calibration or mechanical aspects, in all or in part, depending on the project. Mr. Lemay's role is to develop computer simulations of prototypes for approval; only then are devices fabricated.

[44] Counsel for the applicant asked the witness if Mr. Lemay performs any experimental work in the field of electronics. The witness stated that Mr. Lemay had done so but only before he joined the Electromagnetics Division. However, he stated that Mr. Lemay applies electronics technology as part of his duties but as only a relatively small part of his overall duties.

[45] When counsel for the applicant referred the witness to Exhibit G-3, Tab D, (the work description) specifically under the heading of "Skill," the witness was asked whether Mr. Lemay, in the performance of his job duties, would possess or apply the listed knowledge criteria. The witness replied that of the first seven bullets found under "Skill," only bullets 1, 2 and 6 were relevant and that bullets 3, 4, 5 and 7 were not.

[46] The parties referred to the following jurisprudence: *Professional Institute of the Public Service of Canada v. Treasury Board and Public Service Alliance of Canada*, 2001 PSSRB 68; *International Brotherhood of Electrical Workers, Local 2228 v. Treasury Board and Public Service Alliance of Canada*, 2001 PSSRB 71; *International Brotherhood of Electrical Workers, Local 2228 v. Treasury Board, Public Service Alliance of Canada and Professional Institute of the Public Service of Canada*, 2001 PSSRB 121; *Canadian Federal Pilots Association. v. Treasury Board*, 2008 PSLRB 42; and *International Brotherhood of Electrical Workers, Local 2228 v. Treasury Board*, 2005 PSLRB 155.

III. Summary of the arguments

A. For the IBEW-2228

[47] Counsel for the applicant stated that the work description (Exhibit G-3, Tab D) requires that the incumbent possess a diploma or the equivalent in electronic or electrical engineering. In addition, the incumbent must have experience applying electronics technology.

[48] Counsel for the applicant submitted that, to determine the primary or core activities of a job, the required client service results, key activities and skills to be applied to the job must be examined. He argued that the first six bullets found under "Skill" (Exhibit G-3, Tab D) form the basis of the knowledge of an electronic technologist.

[49] Counsel for the applicant argued that Mr. Paquette's rationale for the key activities found in the work description (Exhibit G-3, pages 22 to 24) demonstrates that the work is consistent with that of a position classified in the EL group as delineated in the EL group definition, particularly inclusion statements 5 and 6.

[50] Counsel for the applicant then referred to the Client Service Results section of the work description (Exhibit G-3, Tab E) and argued that the management and development of new scientific electronic instrumentation, robotic equipment and computers falls clearly within the inclusion in the EL group definition and in the exclusions of the TS group definition.

[51] Counsel for the applicant argued that skill statements found in the work description demonstrate that the primary functions of the job apply electronics technology.

[52] In conclusion, counsel for the applicant stated that the position falls within the EL group definition and not the TS group definition.

B. For the respondents

[53] Counsel for the department argued that I must compare the primary duties as stated in the EL group and the TS group definitions. She also stated that I must determine the pith and substance of the function of the job or the core duties that Mr. Lemay performs.

[54] Counsel for the department also argued that Mr. Lemay's primary duties are not in the electronic field but involve providing services to research scientists and biologists. She also argued that the burden of proof was with the IBEW-2228 to provide sufficient evidence that Mr. Lemay's primary duties are within the EL group definition. Mr. Paquette's desk audit and opinions are of little assistance as he did not have a clear understanding of Mr. Lemay's range of services provided to the research scientists and biologists in the Electromagnetics Division.

[55] Counsel for the department submitted that, although Mr. Lemay performs some electronics duties, they are not the *raison d'être* of the work assigned to him. Mr. Lemay's primary duties are to perform technical services, including mechanical engineering, measuring EMF frequency and calibrating instruments.

[56] The PSAC representative argued that the IBEW-2228 did not meet the burden of proof that Mr. Lemay's position was improperly allocated to the TS group.

[57] The PSAC representative also argued that Mr. Lemay does not design electronic equipment and that the research scientists or engineers design that equipment. Mr. Lemay may assist in the design but only under their direction.

[58] In closing, the PSAC representative noted that electronics is only a minor, and not the primary, component of the position in question.

C. Reply

[59] In reply, counsel for the applicant stated that the group definitions and the inclusions and exclusions, whether for the EL group or the TS group, have meaning. As such, one must ensure that the intent of the group definitions that were created are strictly adhered to, if not, they are without meaning.

[60] Counsel for the applicant argued that the primary function of Mr. Lemay's duties is found in the EL group inclusions, specifically bullets 5 and 6. Mr. Lemay's basic work duties are designing, constructing, installing, testing, maintaining, repairing or modifying electronic equipment.

IV. Reasons

[61] This application was filed under section 58 of the *PSLRA*, which reads as follows:

58. On application by the employer or the employee organization affected, the Board must determine every question that arises as to whether any employee or class of employees is included in a bargaining unit determined by the Board to constitute a unit appropriate for collective bargaining, or is included in any other unit.

[62] The question to be determined is as follows: are the duties and responsibilities of this position classified as an electromagnetic technologist more appropriately aligned with the EL group definition as asserted by the applicant, or are they better aligned with the TS group definition, as contended by the respondents.

[63] In making my determination in this application, I must examine the duties that the incumbent actually performs and compare those duties with the duties set out in the EL group and the TS group definitions. My determination is based on whether the primary duties performed by the incumbent fall within the duties of the EL group or the TS group definition.

[64] I note that none of the parties called Mr. Lemay to testify. As such, I must assess the viva voce evidence of the parties, who claim to know the duties that he performs, along with the documentary evidence that they adduced.

[65] In the PSAC's cross-examination of Dr. Paquette it was agreed that Mr. Lemay's duties included duties which are found in the EG definition (purchasing, health effects of radiation, writing research reports). However, I note that the evidence adduced at this hearing also disclosed that Mr. Lemay's duties may be a mix of both the EL and EG group definitions.

[66] Mr. Bradley, while the Director of the branch, is not an expert in classification. In fact, all that his evidence provided was a very generic description of Mr. Lemay's duties. Mr. Bradley did not explain how the duties of the position fit into the classification scheme. Although Mr. Thansandote explained Mr. Lemay's job duties, in more detail, again, I find that he made no link between his testimony and the classification system in his evidence.

[67] Dr. Paquette testified that one must look at the primary purpose of the position, and as such, one needs to look at two things: first, the purpose of the work and second, the qualifications required for the position. In terms of looking at the purpose

of the work, Dr. Paquette stated that there are three factors to look at, the title of the position, the Client service results and the Key activities.

[68] Dr. Paquette, in reviewing the primary purpose of the work, began with the title of the position and found that it belonged in the EL group because it mentions the word electronic or electromagnetic. Although he did not explain why the mere use of such a word would lead to an EL conclusion over an EG one, I find the reason to be obvious.

[69] In Dr. Paquette's review of the Client service results, he stated that the job description revealed three roles. The first role is EL (management and development of scientific electronic equipment), the second could be either EL or EG ("assists" division scientists in studying exposure levels) and the third which is not consistent with either the EL or EG group (public communication in both official languages).

[70] I am in agreement with Dr. Paquette that the first role in the client service results is best aligned with the EL group.

[71] With regards to the second role found within the clients service results, I note that as a subject matter expert, Dr. Paquette should have given his expert opinion on how the word "assists" as it relates to division scientists in studying exposure levels belongs in the EL group and not the EG group. However, neither the department nor the PSAC representative provided evidence to convince me that that particular Client service result allocation was properly within the EG group. As such, I assume that that particular client service result could be consistent with either group.

[72] I also agree with Dr. Paquette that the third role found under client service result is not consistent with the EL or EG group.

[73] Dr. Paquette in his review of the Key activities found that six of the twelve Key activities are clearly EL, two are EG and the others are beyond the scope of either EL or EG. He also noted that five of the first six Key activities noted in the job description focus on the application of electronic technology. The department agreed during the hearing that the Client service results and Key activities notated in the job description are in order of importance to the primary duties.

[74] Dr. Paquette finally reviewed the essential qualifications for the position and the uncontested evidence is that the position's educational requirements demand that a

candidate must have graduated from a community college or the equivalent with a diploma in electronics, which are above the qualifications normally required of an EG.

[75] I find that Dr. Paquette's approach in determining the "best fit" was in accordance with the classification system, and normally accepted practices. I have determined that the duties in the job description that are clearly EG duties are not the primary duties of the position and that the duties which are clearly EG in nature are only peripheral ones. I also found Dr. Paquette's evidence to be logical, well-reasoned and carefully referenced to the classification system and as such, after a thorough review of the evidence and the testimonies of the witness, I have concluded that the respondent has improperly allocated the electromagnetic technologist position, HXHCR-2428, to the TS group.

[76] Therefore, the application by the IBEW to allocate position HXHCR-2428 to the EL group is allowed.

[77] For all of the above reasons, the Board makes the following order:

(The Order appears on the next page)

V. Order

[78] The application submitted by the IBEW-2228 is upheld, and the respondent will immediately allocate the electromagnetic technologist position HXHCR-2428 to the EL group.

October 15, 2010.

**Dan R. Quigley,
Board Member**

