TASMANIAN INDUSTRIAL COMMISSION

Industrial Relations Act 1984
s29(1) application for a hearing

Walters
(T13714 of 2011)

and

Minister administering the State Service Act 2000 / Department of Primary Industries, Parks, Water and Environment

COMMISSIONER JP MCALPINE HOBART, 15 March 2012

Industrial dispute – unfair dismissal – dismissal found to not be unfair - application dismissed

REASONS FOR DECISION

[1] On 4 October 2010 Debbie Anne Walters (the applicant) applied to the President, pursuant to Section 29(1A) of the Industrial Relations Act 1984 (the Act), for a hearing before a Commissioner in respect of an industrial dispute with the Minister administering the State Service Act 2000/ Department of Primary Industries, Parks, Water and Environment (the respondent) arising out of the termination of her employment.

[2] The applicant had worked at the Mount Pleasant Laboratory since 1984. From 1996 until her dismissal she was employed as a microbiologist. A minor part of her duties during this time was to conduct tests for legionella; a water borne pathogenic bacterium. The presence of legionella is notifiable to the public health authorities. If undetected and untreated legionella organisms can pose a significant health risk.

[3] The respondent alleged that between January 2007 and the end of July 2008 a number of water samples received for testing were not processed, yet the requisite reports were generated and that uniformly all the test results were reported as negative. Businesses who offer their samples for test to the laboratory do so with the expectation that they will use the results to confirm or modify their legionella suppression management programs.

[4] The respondent relies on the assertion that there were insufficient testing chemicals used or available during the time in question for the required number of tests to have been conducted properly. From this, the respondent alleged that the applicant had issued reports to clients without having conducted the tests.

[5] The respondent also alleged that the testing method followed by the applicant was inappropriate and did not adhere to the relevant Australian Standard for such testing, possibly resulting in false determinations.

[6] Overall the respondent alleged 7 breaches of the State Service Code of Conduct (SSCC). In his letter to the applicant of 29 September 2008[1] the Secretary of the Department of Primary Industries and Water (the Secretary) cited 4 allegations and

[1] Exhibit R1

suspended the applicant in anticipation of an investigation. An investigation under Commissioner's Direction #5 (CD5) was conducted where a further 3 allegations of breaching the SSCC were made against the applicant. The applicant was dismissed by way of a letter[2] on 30 September 2009, however the dismissal was challenged and expert advice sought with respect to usage requirements for agar and supplements. Ms Agnes Tan a Senior Scientist for the University of Melbourne was engaged and delivered her report in April 2010. The applicant's employment was finally terminated on 8 September 2010[3].

The allegations were as follows:

1) *In contravention of s9(1) of the State Service Act 2000 (SSA) the applicant did not behave with honesty and integrity by generating 8 reports containing incorrect dates and fraudulent test results pertaining to water sample tests.*

2) *In contravention of s9(2) of the SSA she acted without care or diligence by failing to conduct tests on twenty nine water samples received between 21 August and 5 September by 26 September 2008.*

3) *In contravention of s9(10) of the SSA she provided false and misleading information emanating from reports she had written citing results from tests she had not conducted.*

4) *In contravention of s9(13) of the SSA she did not uphold the State Service Principles, specifically s7(1)(a) by failing to perform her function in an ethical and professional manner.*

5) *In contravention of s9(1) of the SSA she did not behave honestly and with integrity in that between January 2007 and September 2008 she prepared and issued reports with incorrect dates and potentially fraudulent test results after failing to conduct proper tests on water samples.*

6) *In contravention of s9(10) of the SSA she knowingly provided false or misleading information in that between January 2007 and September 2008 she prepared and issued reports with incorrect dates and potentially fraudulent test results after failing to conduct proper tests on water samples.*

7) *In contravention of s9(13) of the SSA she did not uphold the State Service Principles, specifically s7(1)(a) by failing to perform her function in an ethical and professional manner in that between January 2007 and September 2008 she prepared and issued reports with incorrect dates and potentially fraudulent test results after failing to conduct proper tests on water samples.*

[7] The applicant has no argument with the process or conduct of the CD5 investigation[4]. She disagrees with the conclusions. She alleges unfair dismissal and seeks reinstatement.

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[2] Exhibit R8
[3] Exhibit R16
[4] Transcript p10, L30

BACKGROUND

[8] There are 4 principal disputes over the applicant's conduct which led to the allegations of SSCC breaches; the inadequacy of the legionella testing method she used, the availability of test chemicals to have completed the number of samples allegedly tested, the absence of appropriate paperwork verifying procedures had been followed in preparing the media and the absence of support paperwork for the tests she had allegedly conducted for which she had issued reports to clients in September 2008.

[9] On 11 August 2011 at the Mt Pleasant Laboratory, Prospect the Commission and both parties witnessed the applicant perform the preparation of media and the testing of water samples for legionella from a supplied master batch following her usual, but disputed, method. Simultaneously Mr James Mark Lentern, Deputy Manager of the Diagnostics Services Laboratory at Mount Pleasant, conducted tests for legionella from the same master batch of water using the Australian Standards method.

[10] The following week, on 18 August 2011 the same parties witnessed the outcome of the tests from the two different methods. Both procedures had generated legionella cultures from the water samples, but of visually different characteristics.

[11] The applicant was not directly supervised in the day to day functioning of the laboratory. Nominally she had a supervisor but was left much to her own devices. She had the assistance of a technical officer, but both worked separately on different aspects of the water microbiology testing. When on duty at the laboratory the applicant was the only one to conduct legionella testing and the only one to make up the media for those tests, she said[5].

[12] When the applicant was absent from work her manager was responsible for legionella testing and reporting. In the timeframe considered in this matter Mr Lentern was her manager. He gave evidence that he recalled only ever doing one legionella test in his time at the laboratory, which was in early 2007. The test happened to give a positive result for legionella. Mr Lentern's role, although supervisory, was ostensibly involved in routine administrative matters.

[13] On 8 September 2008 a meeting was convened by Mr Lentern with the applicant pursuant to a number of complaints which had surfaced about her performance[6]. Mr Stephen Pyecroft, Laboratory Manager was also present at the meeting. The complaints which were raised ranged from her management style to the aforementioned matters regarding testing. It should be noted that most of the complaints had been submitted to the Human Resources (HR) department and not to Mr Pyecroft or Mr Lentern directly. The conclusion reached by Mr Lentern and Mr Pyecroft at the time, without having conducted any investigation, was that most of the *"accusations"*[7] could not be substantiated.

[14] On the day after this meeting Mr Lentern received further, stronger allegations by email from the HR department, but still felt there was no substance to them[8]. He said that he did not discuss the second email with the applicant, but when she went on leave he *"took it upon himself to have a bit of a look round"*[9].

[15] He said he located a large number of water samples in the laboratory which, he assessed, had not been tested[10]. He said there was no evidence that any testing had

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[5] Transcript p21, L25
[6] Exhibit R25
[7] Transcript p77, L5
[8] Transcript p77,L15
[9] Transcript p77, L25
[10] Transcript p77, L25

been carried out on those samples, nor results recorded. Other samples appeared to have been discarded, untested. Mr Lentern in discussion with Mr Pyecroft sought direction from the then General Manager Alex Schaap on how to progress the matter. It was decided at that point to recommend the applicant be suspended until a full investigation could be conducted. The applicant was suspended when she returned from leave on 29 September 2008.

[16] Mr Lentern said that although the laboratory is now accredited for legionella testing, business has fallen away mainly due to the aftermath of the issues surrounding the instant matters. He gave an example of lost business where a long-time client who had continually received negative results on samples the applicant had tested suddenly found himself with positive results[11]. He said the client argued that he could no longer rely on the results from the laboratory and subsequently took his business elsewhere.

THE TEST METHOD

[17] The medium used to test for legionella organisms is made up of a CYE Agar base added to which are supplements: BCYE, which supports the growth of legionella organisms and the antibiotic inhibitors BMPA and MWY which supress the growth of other competing organisms. The medium is dispensed into petri dishes, known as plates, which are then inoculated with samples of the water under test. Subsequently the plates are incubated for 7 days to promote the growth, in the form of a culture, of any legionella present. At 4 days the samples are viewed to gauge the progress of any growth. At 7 days the presence of legionella culture is either established or not.

[18] Simply put, the medium is required to provide an environment which promotes the growth of legionella cultures while suppressing other organisms which might impinge on the growth of such cultures. The eventual outcome is a visual evaluation of the extent of any legionella culture growth or confirmation that none exist.

[19] CYE agar base was normally purchased, already formulated, from Oxoid Ltd for use in testing for legionella. However the basic elements of the formulation namely activated charcoal, yeast extract and agar are common laboratory chemicals and could be used to make up the base if required. CYE agar is exclusive to legionella testing. Agar, in general, is a polymer providing a solid base upon which to grow cultures.

[20] It is normal for those conducting laboratory testing to follow a specific "medium method" which details the procedures, chemicals and method to be adopted for making up the media. Normally the medium method is based on the relevant Australian Standard (AS), in this case AS3896. The Australian Standard methods for testing are developed from the outcome of extensive experimentation. The resulting method developed is the empirical procedure to be followed which gives proven optimum results for any particular test.

[21] In the instant matter the applicant asserted her testing procedure for legionella was based on the method she was originally instructed to follow. Her procedure, the respondent alleged, differed materially from the recognised standard procedure, Media Method 62 (MM62).

[22] Although the applicant was in fact the author of MM62 which is based on the method prescribed in AS3896, she chose not to adhere to it. There was some argument around the currency of the particular AS and MM62 specifications applicable during the time in question. Although Ms Tan and Mr Lentern cited the 2008 versions of these

[11] Transcript p82, L25

documents in their reports and deliberations, it was established that there had been no material changes to either from the versions current during the time in question.

[23] The applicant's media method utilised 95 millilitres (ml) of CYE Base, 20ml of growth supplement (BCYE) and 10ml of inhibitor supplement (MWY) or (BMPA) giving a total volume of 125ml of medium. The medium is dispensed at volumes of 7.5ml onto plates making 16 charged plates with some media left.

[24] The Australian Standard method of the medium preparation differs somewhat to that of the applicant. The Australian Standard requires; 90ml of CYE Base, 10ml of growth supplement and 2ml of the inhibitor supplement giving a total volume of 102ml. This resulting medium is dispensed in 15ml volumes onto the plates making approximately 7 charged plates. Although AS3896 is not specific about the volume of agar to be dispensed on a plate for legionella, AS4276, which is the guide for general water microbiology testing, specifies a volume of 15ml, Mr Lentern said[12]. Ms Tan in her evidence concurred with Mr Lentern in that 15 to 20ml is normally dispensed onto plates for water biology testing[13].

[25] Ms Tan also said that the Australian Standard methods of testing are expected to be applied to all water microbiology testing[14].

[26] The subsequent water sample inoculation process and the incubation procedures are the same for both testing methods, and not in dispute.

[27] The observations from the test conducted before the Commission showed both media preparations supported legionella culture growth for the particular samples tested. To the untrained eye the difference appeared to be that the plates prepared by the applicant showed much less culture definition than those prepared by Mr Lentern. The applicant argued that her method was adequate to achieve the desired outcome, being to detect legionella where it exists in a sample.

[28] The respondent argued on a number of fronts that the applicant's method was not adequate. The volume of medium dispensed to the plates did not give sufficient depth to utilise the full potency of the supplements. It was argued that the active ingredients of the supplements may well be exhausted prior to the completion of the incubation process thus giving a false result. The medium prepared by the applicant was also approximately 25% greater by volume resulting in a dilution of the active ingredients, again possibly resulting in poorer culture growth and masking of legionella by other more virulent cultures.

[29] Ms Tan, in her evidence, concurred with Mr Lentern's assessment of the potentially deleterious impact of the applicant's method on the growth and identification of legionella[15]. She argued that the legionella present in cooling tower systems, for example, would be stressed and was not robust. The consequence of this was that cultures may not grow or grow well in an environment which was less than optimal. She said the applicant's test method was not an optimal environment within which to grow legionella cultures[16].

[30] The argument was presented by the applicant that her method was adequate because she proved it each time by conducting a quality control step in the procedure. Mr

[12] Transcript p84, L40
[13] Transcript p152, L45
[14] Transcript p153,L15
[15] Transcript p154, L5
[16] Transcript p154, Ls10-40

Lentern rejected this by arguing that the quality control test is conducted to grow pure culture and not under the influence of contaminates[17]. Further that the quality control proves the media can support legionella growth but it does not show that it can inhibit other bacteria or optimise the growth of the culture.

[31] Responding to a question from the Commission Mr Lentern said that no one was aware that the applicant was not adhering to the AS procedure[18]., the Media Preparation sheets (MPS) for the period in question all show the *"method"* to be MM62 and all were approved by the applicant. Mr Lenton further said that he was surprised at the suggestion one would *"pour a 7.5ml plate"*[19] as against the standard 10 to 15mls.

[32] To gain accreditation from the National Association of Testing Authorities (NATA) the laboratory had to successfully conduct proficiency tests on samples supplied by the authority on three consecutive occasions. Proficiency tests are carried out on samples whose characteristics are known to the accrediting authority. The expectation being the testing laboratory would get the same results as the authority. During the applicant's tenure as the water biologist the laboratory failed to achieve accreditation. Since her suspension in 2008 the laboratory has subsequently achieved and maintained NATA accreditation.

[33] Ms Tan said there is no absolute requirement for a laboratory to follow the AS but in the case of legionella, most laboratories would use the AS[20]. Should a laboratory choose to follow its own procedures the method they use must be validated. There was no evidence educed to indicate that the applicant's test method had been validated.

VOLUMES

[34] The disagreement between the parties as to the availability of the appropriate volume of chemicals to carry out the required number of tests is centred on the period from the beginning of January 2007, being when the latest CYE agar container was opened, until the end of July 2008, when the applicant ceased conducting tests for legionella[21]. The number of tests which were actually required is also in dispute. Both parties agree that each sample tested requires 5 plates to be prepared, 3 MWY and 2 BMPA. Also each batch of media required a plate to confirm sterility and one as a positive control[22].

[35] The applicant asserted that the container of CYE agar base was often not in its normal storage location and as a consequence she resorted to making up the agar from the base chemicals to save herself time searching for the container[23]. She did concede[24] that generally orders from the supplier Oxoid were delivered promptly, and if in stock, delivered the following day.

[36] CYE agar is exclusively used in legionella testing, the applicant was the only staff member to conduct such tests and was responsible for purchasing the various components to conduct the tests. No proposition was offered as to why anyone other than the applicant would handle the agar.

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[17] Transcript p85, L10
[18] Transcript p133, L25 & Exhibit R21,
[19] Transcript p133,L30
[20] Transcript p159, L20
[21] Transcript p28, L20
[22] Transcript p39, L35
[23] Transcript p17, L10
[24] Transcript p61, L25

[37] Both Ms Tan and Mr Lentern dismissed the applicant's contention that she made up agar from its components when she could not locate the container. Both arguing the time factor involved in preparing the agar from its components would be onerous; particularly given that the applicant asserted she made up the media each time batches of samples were tested. Also, that the increased possibility of error in the formulation each time the base is made up as well as the need for extra quality control procedures makes regular preparation of agar in this manner impractical. In practice such preparation would only be used as a stop-gap measure given that orders for the agar would probably be delivered the following day. Further it was argued that the charcoal available at the time was out of date since 2001[25]. Mr Lenton said that the essential toxin absorbing characteristics of the charcoal may well be compromised if out of date[26].

[38] The expectation of the service was that samples would be processed within 24 hours other than those presenting on Fridays. Water testing did not normally occur over weekends. However this time frame was not an imperative nor strictly adhered to in practice.

[39] The applicant asserted that given the cost of supplements she would use supplements which had gone beyond their expiry date. She argued that the quality manual she wrote allowed for such a situation, provided the media passed all quality control requirements[27].

[40] Ms Tan in her report at pg4, item (5)[28] made the observation that the applicant had discarded expired supplements in September 2008 and promptly reordered more. She drew the conclusion that she thought it unlikely that the applicant would use out of date supplements if in-date supplements were at hand. She cited the applicant's own evidence at p88 of the Cummings' report in that the applicant asserted she discarded out of date supplements and would re-order in advance of use-by date.

[41] Although there was capacity to use out of date chemicals both Mr Lentern and Ms Tan expressed concerns at regular use of such material. They both argued that the "potency" of chemicals diminish through time, particularly if the container has been opened and the material exposed to air and moisture. They argued that the diminution of the effective ingredients could not be predicted accurately and it follows that the effect on test outcomes could not be compensated for.

[42] It was however conceded that the use of date expired chemicals is not uncommon. Mr Lentern also conceded that the laboratory does not have a policy or guidelines for the use of out of date chemicals.

[43] He said no record is kept of vials of supplements discarded when they are out of date. However he said if the quality control (QC) sheets are available the usage of CYE base, BCYE, MWY and BMPA can be easily tracked.

[44] Evidence was given, by the applicant, that there were two containers of CYE agar base in the laboratory, the second of which was opened on 5 January 2007[29]. The applicant argued that both containers were being used simultaneously in 2007[30]. This

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[25] Transcript p37, L15
[26] Transcript p85, L45
[27] Transcript p21, L4
[28] Exhibit R12
[29] Transcript p36, L10
[30] Transcript p37, L20

was challenged by the evidence of Ms Steel[31]. The applicant said the "old" container of CYE, which had been in use since 2005, had about 300 grams (g) remaining in 2007[32].

[45] Mr Lentern asserted[33] that for the 20 months in question the most recently opened agar container, batch #345727, had been in use exclusively. During that time approximately 70g had been used, of which 30 to 40g had been used after the end of July 2008 concluding that between 30 and 40g had been used during the 20 months[34]. The QC sheets available for the period show only the use of batch #345727[35].

[46] He conducted a review of the "day books" soon after Mrs Walters was suspended[36]. The day book is the register where samples which arrive to be tested are logged. He estimated that several hundred samples had been received during the time in question which would have required more than a 500g container of CYE agar to process, yet, only between 30 and 40g had been used.

[47] After the applicant had been suspended it was alleged 6 boxes of 10 vials of BCYE supplement and 1 box of BMPA supplement containing 8 vials were found in her room, in a box, under her desk and somewhat concealed. She denied storing so much and argued that there were only "two or three" boxes of BCYE in her room [37]. She said the supplements she kept were not "concealed" in a box as they were allegedly discovered, but loose on top of a box under her desk. She argued that extra vials of supplements must have been placed in her room by someone else.

[48] Mr Lentern produced a chart of supplements purchased from 2004 through to late 2008[38]. The chart shows vials of supplements BCYE, BMPA and MWY progressively purchased, those used against tests allegedly carried out and those vials remaining. He said that by June of 2006 all the BCYE and BMPA supplements were past their use by dates by approximately five months. He said it was a fair assumption that one would not purchase a new batch of supplements if there were significant quantities of supplement available from a previous consignment still within the use by date[39].

[49] From his examination of the day books Mr Lentern calculated the volumes of each of the supplements required to conduct the required number of tests using the applicant's formulations[40]. His chart[41], shows that the laboratory would have run out of the three supplements during 2007. The chart took into account all the purchases and the usage against tests allegedly carried out. He believed he had demonstrated that there were not sufficient supplements available to conduct the required tests. He said[42]:

> *" … there's just no way we could have done that amount of testing using those amount of vials."*

[50] He also made the point that in his calculations he had not included the volume of media required to conduct the QC verification or any proficiency testing.

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[31] Transcript p213, L1-10
[32] Transcript p13, L40
[33] Transcript p88, L10
[34] Transcript p91, L5
[35] Exhibit R21
[36] Transcript p194, L5
[37] Transcript p64, L3
[38] Exhibit R29
[39] Transcript p92, L25
[40] Transcript p93, L10
[41] Exhibit R33
[42] Transcript p96, l5

[51] During cross examination Mr Lentern acknowledged that he could not say that on any specific day there was supplement available for use or not. He argued that his method of calculation took into account the usage for each day testing was conducted and it showed overall that there were insufficient supplements available to meet the need. He said had he adopted the procedure required in MM62, his calculations would show that for the same number of tests more than double the amount of supplements would have been required[43].

[52] Ms Tan in her report outlined the assumptions and observations she made while performing her own calculations of usage as illustrated in the various tables incorporated in her report. She argued[44], that the applicant calculated the usage of media as if all the samples had been tested on the same day. Laboratory technicians Steel and Wilkes also used the same assumptions in their calculations. She said this did not take into account the wastage incurred when making up plates as required when samples presented. She pointed out that the applicant had asserted she made the media up for immediate use as the samples became available[45]. She also noted that the estimate provided by the applicant did not cater for the need to produce plates for QC.

[53] She asserted her findings were based on the most optimistic outcome for the applicant in that she used the lowest number of possible tests, 468, and the greatest yield of 16.6 plates per batch giving the most conservative usage.

[54] She illustrates in attachment #1 of her report that, based on the applicant's estimate of 468 samples, 355g of CYE agar base would have been required. If QC had been performed on the base batches 405g of CYE agar base would have been required. She asserted that the CYE agar base available was too low by 280g to meet the testing requirements.

[55] Another contributing factor towards the usage of media was participation in proficiency testing. She suggested there would have been at least 4 rounds of proficiency testing conducted requiring a minimum of 30g of CYE agar base over the period. She noted that the applicant had asserted she prepared more than the required number of plates for these tests compounding the requirement for CYE agar base. However in the absence of corresponding paperwork Ms Tan was unable to be definitive about the actual number of proficiency tests conducted or the volume of media which should have been used.

[56] She argued[46] that the calculations performed during the investigation where considerably lower than she would have deemed necessary. She said that the MWY requirements would have been 53% higher than shown and the BMPA requirements 60% more than shown.

PURCHASES

[57] The applicant relied, in part, on the existence of a "double" consignment of chemicals as part of her argument that there were sufficient chemicals available to conduct the required tests.

[58] Mr Lentern provided a printout of supplements purchased for the period 18 January 2005 until 2 October 2008[47]. He said that the purchasing record corresponds to

[43] Transcript p120, L20
[44] Exhibit R12 at pg2
[45] Exhibit R27 p85
[46] Transcript p160, L30
[47] Exhibit R19

the financial system records of the same period. He also submitted a summary of purchases supplied by Oxoid[48] breaking down the purchases into each type of supplement.

[59] He said there was no evidence in any of the records to support the applicant's assertion that there had been a double order of supplements received over the life of these records. He said the order to which she referred was approximately $1500 in value, unusually large, and would have been immediately queried[49]. Indeed he asserted he had spoken with the person who was responsible for ordering supplies at that time (page 54, L15), Mr Geoff Goodsell, whom we were told had no recollection of a double order being received[50]. This statement was not challenged.

PAPERWORK

[60] The allegation was made that the applicant had not completed the paperwork required for the tests that she had allegedly conducted. At the time of the applicant's suspension Mr Lentern acknowledged that initially he did not conduct an investigation into irregularities with the worksheets or the MPS.

[61] The applicant described the preparation of the requisite paperwork; the technical officer would generate a work sheet for each of the samples to be tested with a unique identifier for each group of samples. Accompanying the worksheet would be the quality control sheet referred to as the MPS for the media used giving such details as weights, volumes, dates of preparation and a record of any process applied to the media, such as autoclaving. The document would be signed and dated at each juncture by the person conducting the process. The applicant was responsible for approving the quality of the media used by verifying the information on the MPS and endorsing it with her signature[51].

[62] It was also the applicant's responsibility to complete the cycle of paperwork once the final outcome of the particular test was known by noting the result and signing and dating the document. The paperwork was then placed in a drawer in the water microbiology laboratory for filing. The applicant was responsible for generating and issuing the report to the client of the test results. The paperwork was stored in unlocked filing cabinets, accessible to any of the laboratory staff.

[63] Mr Lentern said[52] that it was probably around late 2008 or early 2009 when the Water Microbiology Laboratory's filing cabinet was searched for documentation pertaining to other water testing which had been requested by NATA. It should be noted that the documentation sought by NATA was not related to legionella testing. He said worksheets had been located in the filing cabinet carrying laboratory numbers identifying water samples for legionella testing and for which reports had been sent to clients. The worksheets bore no test or media data on them[53].

[64] He said that when the sheets for the time under review were retrieved, there were only 6 or 7 occasions where evidence could be found that media had been prepared[54]. He said he would have expected to find more than one hundred QC sheets for the period[55]. It should be noted that out of the 6 MPSs in exhibit R21, 2 were issued in

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[48] Exhibit R28
[49] Transcript p90, L 20
[50] Transcript p90, L30
[51] Transcript p18, L45
[52] Transcript p127, L5
[53] Transcript p98, L20
[54] Transcript p79, L45 & Exhibit R21
[55] Transcript p80, L35

September 2008, after the applicant, on her own evidence, ceased conducting sample testing.

[65] Mr Lentern said that there were no QC sheets found for 2007 or 2008 which recorded that the old batch of CYE agar had been used to make up any media during that time[56]. The paperwork located showed that only CYE agar from batch #345727 had been used.

[66] He said when he and the staff looked for the outstanding documentation they made a point of identifying each piece of paper they came across both in recognised filing areas as well as papers and documents found randomly located[57]. He was convinced they had located all the documentation which was retrievable related to legionella for the period in question.

REPORTS

[67] It was alleged that the applicant had issued reports to customers for tests she had not conducted. A complaint was raised that the applicant had issued *"a whole pile"*[58] of reports on the morning of 8 September 2008. Mr Lentern searched the computer system[59] and discovered that indeed a large number of reports had been written on 8 September. He said the samples relevant to each report had been discarded and that the paperwork supporting the tests could not be found. Given that there was a proven and effective paperwork system in place, this was a matter for concern, he said[60]. His only explanation was that the relevant paperwork had not been generated.

[68] The actual samples allegedly reported upon were all received during July and August, some as early as the 15th of July, but mostly in the latter part of August[61]. One must take it from his answer that samples addressed in the reports would have arrived for testing up to just before 8 September. He argued[62] that there had been little time for the applicant to have carried out the number of tests because she had been off work for *"a lot of the time"*[63].

[69] The applicant's own evidence[64] was that between 23 and 25 July she was on sick leave. On 7 August she participated in a NATA audit. On 8 and 11 August she took half days off. From 12 until 22 August inclusive she was on sick leave. From 26 until 28 August inclusive she attended a seminar. She took half of 29 August, 1 September and 2 September off sick. On 3 September she attended first aid training. Both 4 and 5 September she was off work sick and returned to work on Monday 8 September.

[70] In effect, of the 26 working days from 1 August until Friday 5 September the applicant was available to conduct sample testing for 5 full days and 4 half days. Again in her own evidence[65] she said she had not conducted any tests on water samples after 30 July 2008, but did conduct some proficiency testing[66].

[71] Mr Lentern asserted that there appeared to be reports issued coinciding with samples received from January 2007 until the end of July 2008. However he said he was

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[56] Transcript p88,L30
[57] Transcript p126, L30
[58] Transcript p page 78, L25
[59] Transcript p78, L30
[60] Transcript p80, L35
[61] Transcript p105, L10-15
[62] Transcript p78, L40
[63] Transcript p78, L25
[64] Transcript p5,L30
[65] Transcript p28, L20
[66] Transcript p28, L20

concerned because there had been no confirmation tests done during that period which indicated that there was no positive legionella growth detected. This, he said, was unusual, given that since the applicant's suspension there have been a number of positive results from the same range of customers.

AUDITS

[72] Mr Barns put the proposition that NATA could have conducted a review of the relevant legionella paperwork while undertaking other audits and that the absence of any criticism inferred that the applicant's paperwork management was acceptable. He, in his cross examination, put it to Mr Lentern that review of the legionella paperwork was not specifically excluded from the NATA audit of August 2008 and could have in fact been carried out. Mr Lentern responded that it would be very unusual for this to happen particularly since the laboratory was not accredited for testing for legionella. Also, he said that such a review would have been an extension to the scope of the audit which was not considered[67]. Ms Tan's evidence supported Mr Lentern's views.

[73] Mr Lentern said at the time in question he was not given the results of that particular audit because he was not responsible for the water microbiology section. He said the results would probably have gone to Mr Pyecroft the then Laboratory Manager and to the laboratory NATA representative.

[74] He said that since the applicant's suspension the laboratory has conducted several proficiency tests for legionella accreditation and not failed one[68].

FINDINGS

[75] This matter relies on somewhat detailed technical evidence and deductions based on assumptions built from experience. The matter also goes to the credibility of the witnesses' evidence. I found the evidence of both Ms Tan and Mr Lentern to be logical, credible and without any suggestion of prejudice against the applicant. The evidence of both Ms Wilkes and Ms Steel I found to be open and honest.

[76] I found Ms Walters' evidence to be less credible than that of the other witnesses in a number of areas, the details of which I will expand upon in my reasoning below.

[77] I turn to the testing method adopted by the applicant. The applicant had interfaced with NATA on many occasions during her career and was a NATA signatory for water testing other than legionella[69]. She had been involved in many audits and a number of proficiency testing exercises. It is reasonable to expect, as a professional microbiologist, she understood the importance of conducting tests on samples following the method prescribed in the laboratory's MM 62. Particularly when those tests are to identify the presence of organisms which could have major health implications and as such reportable to the health authorities.

[78] The applicant was the author of MM 62, a procedure aligned with AS3896 and to which those who made up media in the laboratory were presumed to follow. She obviously knew the relevance and importance of using a method which had been validated. One must ask the question why she did not apply this method knowing it to be the proven method. She asserted she was following the method originally shown to her. This indeed may be fact, but I do not accept that it justifies in any way her not following MM 62.

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[67] Transcript p146, L30
[68] Transcript p133, L40
[69] Transcript p3, L25

[79] Mr Barns[70] asserted that the method used by the applicant had been accepted by NATA. There is no evidence to this effect and given the evidence of Ms Tan, a senior NATA auditor and chair of the Legionella Methodology Committee, was critical of the applicant's method I find it highly unlikely that NATA had accepted the procedure.

[80] The applicant's assertion that her method was acceptable because she conducted QC tests on the media was shown to lack technical rigour by contrary evidence. The impact of diluted media and "*very thin*"[71] plates clearly had the potential to give false negative results as to the presence of legionella. The growth of colonies of contaminant organisms would be less impacted upon by reduced volume of inhibitors and that *"stressed"*[72] legionella cultures would have less favourable conditions in which to develop. In summary, the results could reasonably expect to be influenced by flourishing unwanted organisms and muted or suppressed legionella cultures.

[81] Mr Barns asserted that during the time in question out of four hundred and sixty eight legionella tests only 3 were positive and these were not conducted by the applicant[73]. It is a telling fact against the method the applicant used, that she failed on a number of occasions to successfully conclude three successive proficiency tests required for NATA accreditation. Equally damning is the fact that since her suspension the laboratory has attained, and maintains accreditation based on successful proficiency testing utilising MM62.

[82] I note the applicant asserted[74] that legionella was *"not a common organism"* because the clients treat their water systems to prevent it. Her statement in my view compounds her culpability. It could not be lost on her that clients depend on the results of the tests she performed to calculate the dosage of legionella supressing chemicals used to treat the water at their facilities. It follows if clients are given false negative results, and dose chemicals accordingly, there is a very real danger of the development of legionella in their water systems.

[83] The batch of quality control sheets presented[75] all show the Method Code as "62", which is blatantly false. The applicant gave evidence that she approved all the media preparation, quality control sheets. It is quite clear that should these sheets be audited or perused by a manager it would be incorrectly assumed, as it has turned out, that the approved method of media preparation had been used. I cannot say whether the applicant wilfully allowed the incorrect method to be entered and approved or whether it reflects a lack of diligence in the execution of her duties.

[84] Regardless of how effective her method may have been, the results obtained would not carry the same credibility as tests conducted using a validated method. On the effectiveness of the applicant's method of testing, I am convinced by the evidence of Mr Lentern and Ms Tan that the method was less than optimal and had the very real potential to compromise the results.

[85] In my view the applicant put the integrity of every test she conducted in jeopardy by failing to adopt the procedure prescribed in MM62.

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[70] Transcript p3, L30
[71] Transcript p84, L20
[72] Transcript p143, L40
[73] Transcript p4, L5
[74] Transcript p17, L35
[75] Exhibit R21

[86] As a post script to this issue, detection of the applicant's test method may have occurred sooner had the laboratory interrogated the reasons behind the repeated failure to successfully conduct proficiency tests.

[87] I turn to the main argument presented by the respondent that there were insufficient volumes of both supplements and CYE agar available during the time in question for the identified number of tests to have been conducted. Of some concern was the variation in the numbers of tests required over the period as calculated by different people, however I am convinced that the number most favourable to the applicant has been used in the decisive calculations, being 468.

[88] The applicant argued that she had used two different CYE agar batches during the time in question, the new batch #345727 opened on 5 January 2007 and the remnants of the previous container containing some 300g. The MPSs for the period show that only batch #345727 was used to make up media. This is a significant fact given that every batch of media prepared must have a corresponding MPS identifying the specific CYE agar used. There is no evidence that another batch of agar was used.

[89] She further argued that she made up agar from its base components. Her reasoning being that when she could not find the container of ready-made CYE agar she sought not to waste time searching so she made up the agar herself. In my view this proposition fails in a number of aspects. CYE agar is exclusively used for legionella testing, the applicant was the person responsible for making up the media[76] and the container was always kept on the same shelf in the laboratory. Assuming the container had been misplaced it is unlikely it would have been removed from the particular room in which it was normally kept, simply because it was not used anywhere else in the laboratory complex. Further the supplier Oxoid could supply the agar within a day or so, it being a common product.

[90] One must ask why the agar not being immediately on hand was an issue for the applicant. Although there was a desire to have legionella tests conducted within 24 hours of a sample arriving this was clearly not an imperative[77] as can be seen from the lag time between delivery of samples and the subsequent tests and reports as well as customer complaints[78]. Indeed the applicant herself conceded she regularly received complaints from customers about overdue reports. There is no evidence of any pressure being exerted on the applicant to conduct tests expeditiously.

[91] The applicant also argued that she made up her own agar because she was conscious of the cost of the purchased product. There was no evidence educed to suggest that the water testing laboratory was in any way cost constrained.

[92] Further, from the evidence of both Mr Lentern and Ms Tan, the process of making up agar from its components is laborious and impractical and would only be done as an exception. I accept their proposition. Ms Tan also made the observation that there was no evidence of CYE agar being made up from its components on any of the available MPSs.

[93] In my view the applicant has failed to demonstrate that she utilised CYE agar she made up herself in any significant amount during the period in question. It follows that her assertion that she utilised such agar to augment the volume of purchased agar is not sustainable.

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[76] Transcript p12, L5 p21, L25 p32, L18-20 & 40
[77] Transcript p50, L15
[78] Transcript p50, L40

[94] I turn to the purchasing records presented. The applicant asserted that during the time in question a double order of supplements had been delivered, one assumes by mistake. This, she asserted, went some way to providing sufficient supplements to conduct the number of tests identified. There is clearly no evidence in the records of either the laboratory or the supply company to show such an order was delivered. For want of evidence I cannot accept the applicant's assertion.

[95] Not being convinced that the applicant did indeed access the aforementioned two alternative sources of CYE agar or the additional supplements, I turn now to the overall availability of agar and supplements to conduct the required testing. Both Ms Tan and Mr Lentern calculated the amount of CYE agar and BCYE, BMPA and MWY supplements required over the period in question.

[96] Ms Tan in her report[79] outlined her method of calculation utilising the media method adopted by the applicant and for the number of tests agreed to by the applicant. Ms Tan showed that the applicant's calculations for agar did not take into account the two plates required for QC per media batch nor the agar used in proficiency testing. In her table 1.6 she sets out her calculations showing that 405g of agar would have been required, excluding the requirements for proficiency testing, to carry out the 468 tests, some 280g more than was shown to be used by the applicant.

[97] The calculations were based on preparing the media for all the samples at once. This would obviously not be the case in practice, indeed the applicant asserted she made up media as the samples were received and this would imply more wastage of media made up but not used. At attachment 3 of her report[80] Ms Tan calculated the media needed over a typical period if made up as required. Her results show that compared with the calculations carried out during the CD5 investigation 60% more BMPA and 53% more MWY supplements would be required. In other words significantly more supplements than was available.

[98] She conceded that there may have been sufficient supplements had there been out of date batches available and used by the applicant. However, she cited the applicant's own evidence that she discarded out of date supplements (see the applicant's answer to Q48 of the Cummings Report)[81]Also in the applicant's answer to Q22 of the same report she asserted that media was not ordered when it runs out, but sufficient was kept in stock in case of a surge in demand.

[99] Mr Lentern's depiction of the usage of supplements[82] combined with the bar chart[83] of supplement purchase and usage is convincing in showing there were times when there simply was insufficient supplements available. Ms Steel in her evidence[84] asserted that on 12 September she and Mr Lentern came upon a number of legionella supplements in the water microbiology refrigerator, this was not challenged. Although disputed, the evidence was that a quantity of unused supplements were located in the applicant's office after her suspension. Although the location may be disputed the existence of the supplements cannot as they are physically exhibits R26.

[100] The applicant's answer to Q48 was that she discarded a number of out of date supplements in September 2008. Now added to these are the supplements found in the refrigerator and the others located in the office which indicates that even fewer supplements were available for use during the time in question than was estimated.

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[79] Exhibit R12
[80] Exhibit R12
[81] Exhibit R27.
[82] Exhibit R33
[83] Exhibit R29
[84] Transcript p216, L5-30

Indeed Ms Tan's calculations do not take into account the residual supplements located or discarded from September 2008 onwards[85] In my view it has been unambiguously demonstrated that there were insufficient supplements available to conduct the tests required.

[101] I turn to the matter of the applicant generating an abnormally large number of legionella reports on 8 September 2008, 9 in all. From Mr Lentern's review of the computer files he generated a report showing when the various tests had been conducted for the reports sent out on 8 September[86]. The report reveals that the testing had been conducted on 11, 18, 22, 25 and 29 August. This evidence was not challenged. From the applicant's own evidence on 11 August she took a half day off, yet 4 tests were conducted that day; from 12 until 22 August inclusive she was on sick leave, during which time 3 tests were conducted; on 29 August she took another half day off when another test was conducted.

[102] There were no supporting worksheets or MPSs located for the samples tested. Given that a proven paper management system existed, their absence is suspicious. The applicant's own evidence was that she had not conducted any testing beyond the end of July 2008. The only conclusion to be drawn is that those reports generated on 8 September were based on fictitious test results. A fiction created by the applicant.

[103] I turn now to the alleged breaches of the SSCC. Allegations #s 1,3,4,5,6,and 7 are all based on the applicant's activities either between January 2007 and September 2008 or on 8 September 2008.

[104] Allegations #1 and #5 cite the applicant's failure to comply with s9(1) of the SSA in that during two specific periods of time she did not behave with *"honesty and integrity".* Allegations 3# and #6 cite the applicant's failure to comply with s9(10) of the SSA in that during two specific periods of time she knowingly provided false or misleading information. Allegations #4 and #7 cite the applicant's failure to comply with s9(13) of the SSA in that during two specific periods of time she did not perform her duties in an *"ethical and professional manner".*

[105] It has been shown that the applicant could not have conducted the number of tests required from January 2007 through to July 2008 for want of CYE agar and supplements. In asserting falsely that she had indeed conducted these tests in my opinion she did not behave with *"honesty and integrity".* Similarly when issuing the reports on 8 September where she clearly could not have and did not conduct the testing, she did not behave with *"honesty and integrity".*

[106] Given that the applicant could not have conducted all the testing for which she produced results, it follows that all or some of these results were false and misleading. In providing clients with reports based on fictitious test results in my view the applicant *"knowingly provided false and misleading information".*

[107] In relaying false results to clients who depended upon them to take preventative actions against the development of legionella the applicant in my view did not perform her duties in an *"ethical"* manner. Similarly, in knowingly using an unverified procedure to make up media and approving MPSs falsely showing that method used was MM62, the applicant did not perform her duties in an *"ethical" or "professional"* manner.

[108] Allegation #2 asserts the applicant did not act with *"due care and diligence"* by failing to process 27 water samples received from 21 August to 5 September 2008, in

[85] Exhibit R12 p14 items 4 and 5
[86] Exhibit R31

breach of s9(2) of SSCC. The undisputed evidence was that the applicant was off sick from 12 to 22 August inclusive, 26 to 28 August she attended a seminar, she took half days off on 29 August and 1 and 2 September, on 3 August she attended a training session on 4 and 5 September she was off sick.

[109] The allegation is quite clear with reference to the samples that *"… as at 26 September 2008, you had not yet tested"*. It is obvious she was unlikely to have conducted much testing during August and into September because of the time she had had off work. While she was not at work, these samples could have been processed by Mr Lentern, if he was aware of their existence.

[110] The allegation is limited to failing to process water samples, not within any other context. It is clear she did not process the samples. However, given her extensive unchallenged absences from work over the period I fail to see how this could be a failure to act without *"due care and diligence", in this specific instance.*

[111] I turn now to the sanctions imposed by the Secretary. Failure to properly conduct legionella testing, particularly over such an extended period was a significant abrogation of the applicant's responsibility. The applicant's actions in falsifying legionella test results could have had catastrophic health implications. Failure to detect legionella may well have had serious business implications for the clients, who depended on her professional acumen. Indeed we have been told the laboratory's business has suffered because of her actions. She commanded a position of trust in which she failed. In my view the Secretary had no other option but to terminate her employment. The applicant Debbie Anne Walters was not unfairly dismissed, I so find.

[112] Accordingly, the application is dismissed.

J P McAlpine
Commissioner

Appearances:
Mr G Barns and Mr Kovacic for the applicant
Mr P Turner and Ms Teresa Banman for the respondent

Date and Place of Hearing:
2011
November 8
November 9
November 10

Hobart